

NATIONAL INSTITUTE OF SECURITIES MARKETS

Functional Requirements of NFLAT Software (Version: 3)

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1. Introduction

The NFLAT is a test conducted to measure the level of financial literacy among school students. Through this test NCFE aims to encourage school students to obtain basic financial skills which are essential for their financial wellbeing in society.

Targeted towards school students of class VI, VII, VII, IX and X, NCFE-NFLAT would assess their knowledge on topics such as Money, Savings, Banking, Budgeting, Insurance, Investment, Retirement planning, etc. The test is conducted online across the country, both in English and Hindi.

2. NFLAT Workflow

The proposed application will support the following NFLAT test administration methods:

2.1 NFLAT Test Administration Type 1 (Tests conducted at Schools)

- a. The schools will register for the Test. In order to complete the registration, an activation link on the registered email ID will be sent. The sample email is attached in <u>Annexure 1</u>.
- a. Once the user clicks on the activation link, an email with the School ID and Password will be triggered on their registered email ID. A sample of the email is attached in Annexure 4.
- b. After the successful registration, schools will register the students for the test.
- c. Once the registration of the students is done, school will select slots for the students.
- d. Using the registration number and password, the student will login and write the test.
- e. During the registration, the school will be asked to furnish key information about the IT infrastructure.
- f. If the school doesn't have IT infrastructure to conduct test, they will adopt the approach mentioned in Section 2.2 or 2.3.
- g. After the test, certificates will be distributed either by post or email to the schools. A sample of certificates is attached in <u>Annexure 3</u> and <u>Annexure 3.1</u>.

2.2 NFLAT Test Administration Type 2 (Test conducted at Test Centre)

- a. The schools will register for the Test. In order to complete the registration, an activation link on the registered email ID will be sent. The sample email is attached in Annexure 1.
- b. Once the user clicks on the activation link, an email with the School ID and Password will be triggered on their registered email ID. A sample of the email is attached in Annexure 4.
- c. After the successful registration, schools will register the students for the test.
- d. The available test centres will be displayed.
- e. Schools can login and select test centre.
- f. Once the test centre is selected, school will select slots for the students.
- g. At the test centre, Invigilator will verify the identity of the student through document verification and mark them as "Verified" on the system. (Refer Section 4.4 for details).

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- Using the registration number and password, the student will login and write the test.
- i. After the test, certificates will be distributed either by post or email to the schools. A sample of certificates is attached in Annexure 3 and Annexure 3.1.

2.3 NFLAT Test Administration Type 3 (Paper and Pen Based Test)

- a. The schools will register for the Test. In order to complete the registration, an activation link on the registered email ID will be sent. The sample email is attached in Annexure 1.
- Once the user clicks on the activation link, an email with the School ID and Password will be triggered on their registered email ID. A sample of the email is attached in Annexure 4.
- After the successful registration, schools will register the students for the test.
- Once the registration of the students is done, NISM back office will generate the OMR sheets for all the registered students. Only one question paper for all registered students will be generated for a window period.
- The question paper and OMR sheets will be sent to the schools by either post or email. e.
- f. Students will write exam on OMR Sheet.
- The schools will either send the OMR sheets to the NISM for evaluation or they will correct/evaluate the OMR sheets and send the scores to the NISM.
- The NISM back office will scan and upload OMR sheets in the system or upload the scores sent h. by the schools to the NISM.
- After the test, certificates will be distributed either by post or email to the schools. A sample of i. certificates is attached in Annexure 3 and Annexure 3.1.

OR

- Schools will send school details and students details to NISM for registration. This will be in a. physical form.
- NISM back office will register the schools for the test. b.
- After the successful registration of the schools, NISM will register the students for the test.
- Once the registration of the students is done, NISM back office will generate the OMR sheets for all the registered students. Only one question paper for all registered students will be generated.
- The question paper and OMR sheets will be sent to the schools by either post or email.
- f. Students will write exam on OMR sheets.
- The schools will either send the OMR sheets to the NISM for evaluation or they will correct/evaluate the OMR sheets and send the scores to the NISM.
- h. The NISM back office will scan and upload OMR sheets in the system or upload the scores.
- After the test, certificates will be distributed either by post or email to the schools. A sample of i. certificates is attached in Annexure 3 and Annexure 3.1.

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2.4 NFLAT Test Administration Type 4 (Students register directly and appear for Test at Test Centre)

- a. The students will register directly for the Test. In order to complete the registration, an activation link on the registered email ID will be sent. The sample email is attached in Annexure 1.
- b. Once the student clicks on the activation link, an email with the registration number and Password will be triggered on their registered email ID. A sample of the email is attached in Annexure 4.
- c. After registration, the student can login using registration number and password and select the test centre.
- d. The next step would be to select a slot at the chosen test centre.
- e. Using the registration number and password, the student will login and write the test.
- f. After the test, certificates will be distributed by email to the students. A sample of certificates is attached in Annexure 3 and Annexure 3.1

3. NFLAT Home Page

The first screen would be a login page for the registered users to access the NFLAT application. The proposed url for this screen is ncfenflat.ac.in. The registered user will enter username and password to login. For new users, there would be two links:

a. Schools Click here for Registration

There would be a registration form for the schools who are not registered yet. See Section 4.1 for further details.

b. Students Click here for Direct Registration

There would be a registration form for the students who are willing to register for the test directly. See Section 4.2.3 for further details.

Once the registration is done successfully, the user has to login to access the functionality of the system. The functionality structure of the proposed application is as follows:

a. Schools willing to conduct the test in its own premises

In this case, the following tabs would be made available on the school's dashboard:

- My School Profile
- Students Registration
- View Student Details
- View/Edit Registration
- Test Slot Selection
- Test at School

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- Slot Reschedule
- Download Certificates

b. Schools willing to conduct the test in Test Centres

In this case, the following tabs would be made available on the school's dashboard:

- My School Profile
- Students Registration
- View Student Details
- View/Edit Registration
- Test at Test Centres
- Download Admit Cards
- Slot Reschedule (Optional)
- Download Certificates

c. Directly Registered Students

In this case, the following tabs would be made available on the student's dashboard:

- My Profile
- View/Edit Registration
- Select Test Centre
- Download Admit Cards
- Download Certificate

d. Back Office

In this case, the following tabs would be made available on the back office dashboard:

- My Profile
- Test Attributes
- SMS Template
- Email Template
- Notification Service
- Test Centre Attributes
- Slot Master for Schools
- NFLAT Year Declaration
- Registration Time Frame Management
- Examination Time Frame Management
- State, Region, District Master
- Identity Verification at Test Centre
- Question Bank
- Generation of Question paper
- Generation of OMR Sheets

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- Print and Email Question Paper
- Print and email OMR Sheets
- Capturing OMR Sheets
- Generation and Issuance of Certificate
- Email/Print Certificates
- Offline Registration of Schools
- Offline Registration of Students
- View/Edit Registration Details
- Excel Export
- Messaging Service
- Reports
- User Administration

The details of the above mentioned functionality are presented in the subsequent sections of this document.

4. Functionality Description

4.1 Registration of Schools

Registration of schools is required to allow NISM to communicate with schools at different stages of the entire NFLAT Test Administration process. The proposed application shall support two different ways of registering schools viz. "Online Registration of Schools" and "Offline Registration of Schools". The following sections describe the two registration methods:

Online registration of schools will be adopted for NFLAT Test Administration Type 1, Type 2 and Type 3 (if the school has atleast one computer with internet connectivity) whereas Offline registration of schools will be adopted for NFLAT Test Administration Type 3 (where schools have absolutely no IT infrastructure and also no IT facilities are available in the vicinity of the school).

4.1.1 Online Registration of Schools

The proposed application will provide an online form for registration of schools seeking the following information:

- a. State/Union Territory (Mandatory). It will be a drop down list.
- b. District (Mandatory). It will be a drop down list.
- c. School Name (Mandatory)
- d. Board (Mandatory)
- e. Address (Mandatory)
- f. Pin code (Mandatory)
- g. School Land Line Number (Mandatory)
- h. School Email ID (Mandatory): An activation link will be sent on this email-ID. Once the user clicks on the link, an email will be triggered to the user along with the login credentials (username and password).

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- i. Name of the Principal(Mandatory)
- j. Principal Mobile Number (Mandatory)
- k. Verify Mobile Number: Here user will be prompted to click on "Verify" button. Soon after that a verification code will be sent to the mobile number and user will be asked to capture the verification code before proceeding to the rest of the items mentioned below.
- 1. Principal email ID (Mandatory):
- m. Name of the In-charge / Contact Person(Mandatory)
- n. In-charge Mobile Number (Mandatory)
- o. In-charge Email ID (Mandatory)
- p. Are you willing to conduct the test in your school? (Radio Button Yes/No) If the response to this question is "No", system should prompt the user to submit the form with the above mentioned information else the user will be asked to provide the following details of the IT infrastructure available at the school:

IT Infrastructure Details

- a. Total number of working computers with internet connectivity that can be used for the test.
- b. Internet connectivity speed (Dropdown Box)
- c. Name of the IT In-charge
- d. Mobile Number of IT In-charge
- e. Email ID of IT In-charge

After the above information is provided, the user will submit the form. The registration will be completed only after the user clicks on the activation link. The School ID will be generated soon after activation.

Once the school has registered, the authorized user can login using the login credentials emailed to him/her. The school dashboard will be available to the authorized user soon after successful login. See Section 4.7 for details of school dashboard.

Note: - Security code (Captcha) will be shown at the end of the registration form before submission.

- System will point out that all computers must have internet explorer version 6 and above.
- A sample of the registration form is attached in Annexure 6.

School ID Generation

School ID will be generated in pre-defined structure which is the combination of characters and numbers. Codes of the State and region will be used to generate the school ID. The school code is a unique code to identify a particular school at all India level. This will be a unique 10-character alphanumeric identifier as follows:

REGION

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1st Character:	{North = N South = S East = E West = W Central = C}
2nd & 3rd Characters:	STATE or UNION TERRITORY
4th & 5th Characters:	DISTRICT
6th - 10th Characters:	SCHOOL (Numeric Code between 00001 to 99999) To be generated by the Registration system. The codes are in serial number for entire India starting from 00001 for the 1st school that registers to 99999 for the last school that registers.

A sample of the codes is attached in **Annexure 2**.

4.1.2 Offline Registration of Schools

A physical form containing the following information shall be sent to schools which do not have any IT infrastructure at the school or at any nearby place.

- a. State/Union Territory (Mandatory). It will be a drop down list.
- b. District (Mandatory). It will be a drop down list.
- c. School Name (Mandatory)
- d. Board (Mandatory)
- e. Address(Mandatory)
- f. Pin code(Mandatory)
- g. School Land Line Number(Mandatory)
- h. School Email ID(Mandatory)
- Name of the Principal(Mandatory) i.
- Principal Mobile Number (Mandatory)
- k. Principal email ID (Mandatory
- Name of the In-charge / Contact Person(Mandatory)
- m. In-charge Mobile Number (Mandatory)
- In-charge Email ID (Mandatory)

The school will be registered by NFLAT coordinator at NISM using the Back Office module (see Section 4.8). The School ID will be generated soon after successful registration and the school ID format is same as mentioned in Section 4.1.1.

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4.2 Registration of the Students

Once the registration of the school is done, the students will be registered. The proposed application will support three different methods of registration of students viz. (a) "Online Registration of Students", (b) "Offline Registration of Students" (c) "Students registering themselves directly".

4.2.1 Online Registration of Students

Schools can login and avail this facility on their dashboard. Students can be registered either by filling in an online form or by uploading students data in excel format (for bulk registration). A sample of the same is attached in Annexure 9.

4.2.1.1 Online Form

The application will provide an online form asking for following details of a student. All fields are Mandatory.

- a. School Name (It will be displayed by the system once the school login)
- b. NFLAT Type (Mandatory and it will be dropdown list). The dropdown list will be NFLAT Jr., NFLAT and NFLAT Adv. etc.
- c. Standard(Mandatory)
- d. Student Name(Mandatory)
- e. Gender (Radio Buttons for Male/Female)
- f. Date of Birth (Year will be in the range of 1992 to 2008) (Mandatory)
- g. Aadhar Card Number (Optional)
- h. Is the student differently abled? (Yes/No) (Mandatory)
- i. Parent Name(Mandatory)
- Mobile No of Student / Parent(Mandatory)
- k. Email ID of Student / Parent (Mandatory)

The above form will be filled in for each student and submitted.

4.2.1.2 Student Registration in Bulk

The system will provide a facility to upload an excel file containing student details. A sample excel file is given for reference under Annexure 10. A demo video to create an excel file will also be made available. The format of the data must be matched with the headers. If the data is incorrect, an email containing the details of all mismatched fields would be sent to the registered email ID. A sample email is provided in Annexure 5. Every time the excel file is uploaded, all correct records will be uploaded and the incorrect records will be rejected. Necessary corrections have to be made in the excel sheet and re-uploaded. During each re-upload, the system will skip all correct records that were uploaded in the earlier iteration.

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4.2.2 Offline Registration of Students

The schools will fill in a registration form for each student and send the physical forms to NISM. The NFLAT coordinator at NISM will capture the data in the system. The home page of NFLAT coordinator will have a tab for registration of students. Under this tab, the NFLAT coordinator will have a facility to either fill in an online form for each student or upload an excel file containing student details.

4.2.2.1 Online form for Student Registration

System will display a list of all registered schools for the current NFLAT year. The NFLAT coordinator will select the required school. A student registration form will be displayed seeking the following information. All fields are Mandatory.

- a. School Name (It will be displayed by the system once the school login)
- b. NFLAT Type (Mandatory and it will be dropdown list). The dropdown list will be NFLAT Jr., NFLAT and NFLAT Adv. etc.
- c. Standard(Mandatory)
- d. Student Name(Mandatory)
- e. Gender (Radio Buttons for Male/Female)
- f. Date of Birth (Year will be in the range of 1992 to 2008) (Mandatory)
- g. Is the student differently abled? (Yes/No) (Mandatory)
- h. Parent Name(Mandatory)
- i. Mobile No of Student / Parent(Mandatory)
- j. Email ID of Student / Parent (Mandatory

After filling the above information, the same will be submitted for each student.

4.2.2.2 Student Registration in Bulk

The NFLAT coordinator can upload an excel sheet containing the above mentioned information for each student. If the data is incorrect, the system will display details of all mismatched fields for correction. Every time the excel file is uploaded, all correct records will be uploaded and the incorrect records will be rejected. Necessary corrections have to be made in the excel sheet and re-uploaded. See Annexure 5 and Annexure 10. During each re-upload, the system will skip all correct records that were uploaded in the earlier iteration.

4.2.3 Students Registering Directly

The detailed workflow is provided in Section 2.4. A facility would be available for the Students to register directly. Students can register by providing the following information:

- a. School Name (Mandatory)
- b. District (drop down list) (Mandatory)
- c. State/Union Territory (drop down list) (Mandatory)

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- d. Board (drop down list) (Mandatory) (If "Others" is chosen from the drop down list then board name will be asked.)
- e. Address of the School (Mandatory)
- f. Pin Code of the School (Mandatory)
- g. School's Contact Telephone Number (Mandatory)
- h. School Email Id (non-mandatory)
- i. Name of the Principal/Head Master (Mandatory)
- j. Principal/Head Master Mobile Number (non-mandatory)
- k. NFLAT Type (drop down list) (Mandatory)
- 1. Standard (Mandatory)
- m. Student Name (Mandatory)
- n. Gender (Mandatory)
- o. Date of Birth (Mandatory)
- p. Is the student differently abled? (Mandatory)
- q. If differently abled, described deformity (a Text Box).
- r. Parent Name (Mandatory)
- s. Mobile Number of Student/Parent (Mandatory) (A verification code will be sent on the mobile number and the student will be asked to enter the same.)
- t. Email-Id of Student/Parent (Mandatory) (An activation link will be sent on the email ID.)
- u. Address of the Student (Mandatory)

Registration record will be activated only after the student clicks on activation link emailed him/her.

4.3 Enrollment for Examination

The application will provide a facility for schools to enroll registered students for examination at designated test centres or in their own school. The directly registered students can choose a test centre and enroll themselves for examination.

4.3.1 Enrollment of Students for Examination at Schools

Schools can enroll registered students to appear for online test in the school itself. This will be allowed only in cases where schools have declared that they have IT infrastructure. The school logs in and clicks on the "Test at School" tab available on the school dashboard. This tab will be disabled for those schools which do not have IT infrastructure. The following details will be asked:

- a. NFLAT Type (Dropdown-list) (Mandatory)
- b. Standard (Dropdown-list) (Optional)

All registered students of the given standard in the current NFLAT year who haven't yet appeared in the specified NFLAT test will be displayed. A calendar will be displayed for the selection of date. Once the date is selected, a dropdown list to select the time slots will be displayed. The slots for which all seats are booked will not appear for selection. A facility to select all students, a group of students and individual student would also be given. A sample interface is attached in Annexure 11

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and <u>Annexure 12</u> for the reference. The system will also provide a facility to reschedule students. See Section 4.7.9 for further details.

An email will be sent to the registered email ID of the school providing the Names of all enrolled students along with their respective exam date, time slot, registration number and password. The password will be the date of birth. The email will also state that the students will have to login using their registration number as login ID and date of birth as password.

An SMS will be sent to each student on the registered mobile number indicating exam date, time slot, registration number and password.

4.3.2 Enrollment of Students for Examination at Test Centres

a. For Schools

Those schools which do not have IT infrastructure can opt for test centres to enroll their students for examination. The school logs in and clicks on the "Test at Test Centre" tab available on school's dashboard. This tab will be disabled for those schools which have IT infrastructure. The user will be prompted to provide the following:

- State (Dropdown-list) (Mandatory)
- District (Dropdown-list) (Optional)

A list of test centres in the given state and district will be displayed for selection. The list should appear with radio buttons and vertical/horizontal scrolling facility. A sample screen is provided in Annexure 16, Annexure 16.1 and Annexure 16.2.

The user will be prompted to provide the following as a next step:

- NFLAT Type (Mandatory)
- Standard (Optional)

All registered students of the given standard in the current NFLAT year who haven't yet appeared in the specified NFLAT test will be displayed. A calendar will be displayed for the selection of date. The calendar will show only the operating dates of the test centers. See Section 4.8.5 on Test Centre Attributes for further details. Once the date is selected, a dropdown list to select the time slots will be displayed. The slots for which all seats are booked will not appear for selection. A facility to select all students, a group of students and individual student would also be given. A sample interface is attached in Annexure 11 and Annexure 12 for the reference. The system will also provide a facility to reschedule students. See Section 4.7.9 for further details.

The system will generate admit card for each student after enrollment and the same will be emailed to the student on the registered email ID of the parent. Also it will be made available on the school's dashboard. The email sent to the student will also state that he/she will have to use registration number as user ID and the date of birth as the password to login and write the test.

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An email will also be sent to the registered email ID of the school providing the Names of all enrolled students along with their respective exam date, time slot, test centre, registration number and password. The password will be the date of birth. The email will also state that the students will have to login using their registration number as login ID and date of birth as password.

b. For Directly Registered Students

The student logs in and clicks on the "Select Test Centre" tab available on student's dashboard (See Section 4.6.3). The following details will be asked:

- State (Dropdown-list) (Mandatory)
- District (Dropdown-list) (Optional)

The list of test centers will appear with radio buttons and vertical/horizontal scrolling facility. A calendar will be displayed for the selection of date. The calendar will show only the operating dates of the chose test center (See Section 4.8.5 on Test Centre Attributes for further details.). Once the date is selected, a dropdown list to select the time slot will be displayed. The slots for which all seats are booked will not appear for selection.

The system will generate admit card for the student after enrollment and the same will be emailed to the student on the registered email ID of the parent. The email will also state that the student will have to login using his/her registration number as login ID and date of birth as password.

4.4 Invigilation

The identity of students who opted for writing examination at the test centre will be verified by the invigilator. The invigilator will be prompted to select the test centre. He/She will have the facility to get the list of all students who are scheduled for examination on the day at the test centre or to list them based on the first letter of the name. The following details of each student will be displayed:

- a. Registration Number
- b. Name
- c. Date of Birth
- d. School Name
- Standard
- Date and Slot of Exam

The invigilator will verify the identity of the student by comparing the registration information from the system with the identity documents (Aadhar Card, Passport, School ID Card etc.) presented by the student and mark them as "verified" on the system.

A student will be able to login for test only after the invigilator marks the student's identity as "Verified". The system should also keep a record of invigilator's ID, date and time of invigilation.

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4.5 Take a Test

4.5.1 For Online Test (For Test Administration Type 1, Type 2 and Type 4)

- a. This will be available to the student soon after he/she logs in. The student will login using registration number and password.
- b. The login time must be matched with the allotted slot of the student. If the student logs in within the allotted slot, the exam begins else the system should not allow the student to login and display a suitable error message.
- c. A screen would be displayed with the instructions for the test. Content of this page will come from the master file (Refer Section 4.8.1 on Test Attributes).
- d. The question paper will be displayed on the screen in multiple screen pages having single question on each screen page.
- e. The student can flip back and forth across the screen pages by using "Previous" and "Next" buttons.
- f. The score will be displayed soon after the examination is submitted provided the score display switch is enabled. The facility to set this switch on or off will be available under "Test Attributes" tab on the back office dashboard.
- g. System should keep track of the time during the online test as per the set duration.
- h. Students should be able to see the count of attempted and not attempted questions on the screen all the time.
- The system should maintain a flag regarding the following:
 - Examination taken in the school or
 - Examination taken in the test centre or
 - Paper and Pen based examination written or
 - Examination taken in the test centre through direct registration
- j. The proposed system should deploy appropriate mechanism (like caching of question paper on the local machine or any other technique) to minimize the use of the internet connectivity for back and forth information requests between the client and server.
- k. The question paper must be in encrypted format while transferring over the web. Once the question paper is downloaded on the system, it would have the feature to decrypt the whole question paper.
- * This system must ensure that once the test gets over, downloaded question paper which could be in the primary memory/cache or somewhere else must be removed from the system.

4.5.2 For Paper/Pen Test

a. The back office NFLAT coordinator will declare window period for paper and pen based test and select the registered schools that have opted for paper and pen based examination. See Section 4.8.9 on "Examination Time Frame Management" for more details.

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- b. The NISM Back office will generate OMR Sheets and question paper for all registered students for Pen/Paper examination to be conducted during a particular window period of the current NFLAT year.
- c. The system should allow generation of OMR Sheets and question paper only during the test window period.
- d. The students will write the examination on OMR Sheets. The details of the school and students will be printed on the OMR Sheets. The functionality of question paper and OMR Sheet generation is covered under Section 4.8.13 and 4.8.14 on Back office functionality.

4.6 Dashboard for Directly Registered Students

The following tabs will be made available to the directly registered students:

4.6.1 My Profile

"My Profile" tab contains the information about the student as provided in the registration form. Also there would be a "Notice Board" where required messages can be broadcast.

4.6.2 View/Edit Profile

In this module, a facility would be available for the student to edit his/her profile. All the details filled by the student at the time of registration would be visible on the screen. Student can update only the following details:

- a. Name of the Principal/Head Master (Mandatory)
- b. Principal/Head Master Mobile Number (non-mandatory)
- c. Parent Name (Mandatory)
- d. Address of the Student (Mandatory)

User can update and save the details during the current NFLAT year and until the time his/her certificate is not generated.

4.6.3 Select Test Centre

A tab namely "Select Test Centre" would be made available on the students' dashboard. Once the student clicks on "Select Test Centre" tab, he/she will be prompted to select state, and district. Then the test centers of the chosen state and district will be displayed for selection. The student will select the test center and will be asked to select a suitable test date from the calendar displayed on the screen. The calendar will show only the operating dates of the test centers. Once the student selects a suitable date, a drop-down list to select the time slot will be displayed. The slots for which all seats are booked will not appear for selection.

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4.6.4 Download Admit Cards

The student will login using the username and password. A tab named as "Download Admit Card" would be available on the dashboard for the student. The student can download admit card. The admit card will contain following information:

- a. Registration Number
- b. School ID
- c. Name of the School
- d. Name of the Student
- e. Date of Birth
- f. Standard
- g. NFLAT Type
- h. Allotted Test Center, Date and Time

4.6.5 Download Certificate

Directly registered student can download his/her certificate by clicking on the "Download Certificate" tab available on his/her dashboard.

4.7 Dashboard for School

Once the school logs in, school dashboard will be displayed as given in <u>Annexure 8</u> with the following information:

4.7.1 My School Profile

The "My School Profile" contains the information about the school as provided in the school registration form. It also contains the count of the Students registered for each type of NFLAT test for the current NFLAT year from the school. After the registration details, there would be a "Notice Board" where required messages can be broadcast. A sample of the "My School Profile" is attached in Annexure 8.

4.7.2 Student Registration

The "Student Registration" tab will allow the schools to register their students during the registration window period. There would be two separate links for registration form and bulk upload. The school can either opt for filling students registration form or bulk upload to register their students. See more details in Section 4.2.

4.7.3 View Student Details

List of all registered students of a given NFLAT type can be displayed using this feature. The following details will be displayed:

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- a. Registration Number
- b. Student Name
- c. Date of Birth
- d. Standard
- e. Parent Name
- f. Parent Mobile Number
- g. Email ID of Parent
- h. Differently abled?

4.7.4 View /Edit Registration

The details of school can also be updated using this tab. Once the user clicks on this tab, the details of school will be displayed. The Back office NFLAT coordinator can change the following details of the school:

- a. School Land Line Number(Mandatory)
- b. Name of the Principal(Mandatory)
- c. Principal Mobile Number (Mandatory)
- d. Name of the In-charge / Contact Person(Mandatory)
- e. In-charge Mobile Number (Mandatory)
- f. In-charge Email ID (Mandatory)

User can update the above mentioned details of the school during the current NFLAT year and until the time certificates for students are not generated.

4.7.5 Test Slot Selection

Schools will login and use this tab on their dashboard to select the test slots that are convenient for the school to conduct examination in the school. The test slots will be created by NFLAT coordinator using the back office functionality. The "Test Slot Selection" tab will be enabled only after registration window is closed.

4.7.6 Test at School

Schools that are willing to conduct the test in the school itself will get this tab on their dashboard soon after they login. This will allow the schools to select the date and time slots for the registered students for the test. See Section 4.3.1 for details.

4.7.7 Test at Test Centres

The schools which do not have IT infrastructure to conduct the test in the school itself will get this tab in their dashboard soon after they login. This will allow the schools to select the test centres, date and time slots for the registered students to give the test. See Section 4.3.2 for details.

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4.7.8 Download Admit Cards

The school will login using the username and password. A tab named as "Download Admit Card" would be available on the dashboard of the school. The user can download admit card for all students as well as for selected students. The admin cards will be available on the dashboard only when the school has chosen to enroll their students for examination at a test center and not in their school.

The admit card will contain following information:

- a. Registration Number
- b. School ID
- c. Name of the School
- d. Name of the Student
- e. Date of Birth
- f. Standard
- g. NFLAT Type
- h. Allotted Test Center, Date and Time

4.7.9 Slot Reschedule

An option to reschedule the examination slots allotted to the registered students would be available on school dashboard when students are appearing for online examination at school itself. However when a school choses to enroll their students for examination at the chosen test centre, rescheduling of slots will be possible only when the back office NFLAT coordinator enables it.

The user interface for "Slot Rescheduling" will be as follows:

- a. User will be asked to provide the period (from and to dates).
- b. NFLAT Type
- c. System will display all students registered for the given NFLAT type and the given period. This list will not include the students who have already appeared in the test in the current NFLAT year.
- d. A facility to select an individual Student or a group of Student or all the Students from the displayed list will be provided. See <u>Annexure 19</u> and <u>Annexure 19.1</u>.

4.7.10 Download Certificates

- a. Schools would have the facility to view and print certificates pertaining to the current NFLAT year.
- b. If an individual student is selected, the option to view or to print the certificate would be given.
- If multiple students are selected, the certificates can only be printed.

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4.8 Back Office Functionality

- a. This is a back office module for NISM. Users with appropriate access privileges shall be able to access this module.
- b. The following sections describe the functionality of all features available on the back office dashboard:

4.8.1 Test Attributes

The super user will be able to set a few parameters regarding NFLAT Test. The interface will be as follows:

- a. The super user will first select the type of test from a drop down list (i.e. NFLAT Jr., NFLAT, NFLAT Adv. etc.)
- b. The following characteristics of the selected test will be set by the super user.
 - Standards/Classes covered by the chosen test
 - Total Number of questions in the chosen test
 - Number of "Easy" questions
 - Number of "Moderate" questions
 - Number of "Difficult" questions
 - Duration of the test in minutes (For Normal Students)
 - Duration of the test in minutes (For Differently abled Students)
 - Cut off Percentile for Merit (Normal Students)
 - Cut off Percentile for Merit (Differently abled Students)
 - Test Paper Instructions
 - OMR Sheet Instructions
 - Score Display Switch (Enable/Disable)

There should be a facility to add/delete/edit current attributes. System should validate that the sum of easy, moderate and difficult questions must be equal to the total number of questions and in case of mismatch ask the user to change the number of questions of each difficulty level accordingly.

4.8.2 SMS Templates

SMS will be sent on the registered mobile number of parents and the school. There would be certain inputs which must be passed to the system. The list of inputs is given below:

- a. Conditions: Alert for a particular event such as registration, result declaration etc. The conditions to trigger SMS are given below:
 - On confirmation of registration of the school to the school
 - Message to Students with registration number after successful registration
 - Message to Students with registration number, password, date, time and venue after allocation of slots and any rescheduling thereafter. The password for every student will be

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date of birth of the student i.e. if the date of birth of a student is 6 June 1991, the password would be 06061991.

- Reminder to Students one day before the test (SMS)
- Message to schools regarding availability of hall tickets
- Message to schools regarding test window period
- b. Subject: a short summary of content in the body of message.
- c. Mail Format: The message which will be sent to the users.
- d. Parameters: Certain parameters are required for the body of the message such as "Test Name", "Test Date", and "Test Slot" etc.

A sample is attached in <u>Annexure 13</u> for the reference.

4.8.3 E-mail Templates

E-mail will be sent on the registered E-mail ID of parents and the school. There would be certain inputs which must be passed to the system. The list of inputs is given below:

- a. Conditions: Alert for a particular event such as registration, result declaration etc. The conditions to trigger e-mail are given below:
 - On confirmation of registration of the school to the registered email ID of the school.
 - Message to registered email ID of the school with a list providing names, registration numbers and passwords of registered students after allocation of slots
 - List of registered students to the school
 - Message to schools regarding availability of Admit Cards
 - Message to schools regarding test window period
- b. Subject: a short summary of content in the body of e-mail.
- c. Mail Format: The message which will be sent to the users.
- d. Parameters: Certain parameters are required for the body of the E-mail such as "Test Name", "Test Date", and "Test Slot" etc.

A sample is attached in <u>Annexure 14</u> and <u>Annexure 15</u> for the reference.

4.8.4 Notification Service

The back office NFLAT coordinator will have the facility to send notifications to the dashboards of registered schools or directly registered students. The user interface for this service shall have the following features:

- a. The user will be prompted to type the text of required notification (It will be a text box).
- b. The next item would be selection of destination dashboard. This will be a drop down list of dashboards (i.e. School dashboard, student dashboard etc.).
- c. The user interface will also provide facility to capture multiple notification texts destined to different dashboards.

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4.8.5 Test Center Attributes

The super user will be able to set the following attributes of a test center.

- Name of the test center
- Address line 1
- Address line 2
- State
- District
- Pincode
- No. of seats in the test center
- Slots of the day
- Operating dates (The calendar will show only the chosen window period for selection of dates.) The system will automatically generate a test centre code. The structure of the test centre code is as follows:

1st Character:	REGION {North = N South = S East = E West = W Central = C}
2nd & 3rd Characters:	STATE or UNION TERRITORY
4th & 5th Characters:	DISTRICT
6th - 8th Characters:	Test Centre (Numeric Code between 001 to 999) To be generated by the system. The codes are in serial number for entire India starting from 001 for the 1st school that registers to 999 for the last school that registers.

4.8.6 Slot Master for Schools

- a. NFLAT coordinator shall select schools based on the following fields:
 - Region
 - State
 - District

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- b. All registered schools of the given region/state/district which have IT infrastructure will be displayed.
- c. A facility will be provided to create required number of slots for each school. The same slots will be created for all chosen schools. A slot will be defined in terms of start and end time in hours and minutes.

4.8.7 NFLAT Year Declaration

The NFLAT coordinator has to declare NFLAT year prior to opening a Registration or Examination window. The system will prompt the user to provide the following:

- a. Start date of NFLAT year
- b. End date of NFLAT year

4.8.8 Registration Time Frame Management

This module will provide the super-user a facility to open and close the exam window for a specific time period. The user will be asked to provide the following information to the system:

- a. State
- b. District

A list of all the schools with the specified criteria will be displayed. The user will have to select the schools to open the registration window for. Once the selection is done, the user will be prompted to select the window period. After the confirmation of the user, registration window will be opened for the specified time period.

4.8.9 Examination Time Frame Management

This module will provide the super user a facility to declare the test window periods, the type of test to be held during the given window period and the schools chosen for the specified test window period. The key features of the interface are as follows:

- a. The user will be asked to provide test window period (from and to date).
- b. Types of NFLAT Tests to be conducted during the given period. This will be provided as a dropdown list with checkbox.
- List of all schools registered for the current NFLAT year during the registration window period will be displayed.
- d. User should be able to select a group of schools or all schools.
- e. After selecting the schools, user will confirm and then an email will be sent to each of the selected schools informing them about the test window period.

4.8.10 State, Region, District Master

An interface shall be provided to super user for the following:

a. To create "state" master (State Code and State Name).

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- b. To create "District" master (User will select a state and then add all districts of the state. For each district the district Code and district Name will be captured).
- c. To create "Region" master (Region Code and Region Name).
- d. To map each region to concerned states.

4.8.11 Identity Verification at Test Centre

A module for the invigilators to verify the identity of the students will be given. The invigilator will be prompted to provide the following details:

- a. NFLAT Type
- b. Test Center (Drop down list)

Once all the details are entered by the invigilator, a list of all the students who are scheduled for the exam for the day will be displayed on the screen. The following details of each student will be displayed on the screen:

- a. School Name
- b. Name of the Student
- c. Date of Birth
- d. NFLAT Type

The invigilator will verify the identity of a student using the available documents (Aadhar Card etc.) and mark him/her on the system as "Verified". The student will be able to login only after the verification is done by the invigilator on the system.

4.8.12 Question Bank

- The system will deliver question paper to each student picking the specified number of questions from the question bank based on a random algorithm.
- The guestion bank will have the following format.

SI No.	Question Text	Option A	Option B	Option C	Option D	Answer Key	Difficulty Level	Marks / Score	Negative Marks
1		It helps prioritise spending needs	It helps reduce tax	It helps increase income	It helps choose better investments	Α	Easy	1	-0.25
1	बजिटिंग करने का मुख्य लाभ है 	खर्चों की आवश्यकताओं की प्राथमिकता तय करने में यह सहायता करता है	यह कर घटाने में सहायता करता है	यह आय बढ़ाने में सहायता करता है	यह बेहतर निवेशों के चयन में सहायता करता है	А	Easy	1	-0.25
2	Which of the following will be considered as an expense ?	Dividend received from investment in stocks	Rent received from investment in house property	Salary income	Telephone bill paid	D	Easy	1	-0.25
2	निम्नलिखित में से किसे एक खर्च माना जाएगा ?	शेयरों में निवेश से प्राप्त लाभांश	आवासीय संपत्ति में निवेश से प्राप्त किराया	वेतन आय	अदा किया गया टेलीफोन बिल	D	Easy	1	-0.25
3	What is the other name for health insurance?	Mediclaim	Critical illness rider	Disability insurance	Accident insurance	Α	Easy	1	-0.25
3	स्वास्थ्य बीमा का दूसरा नाम क्या है ?	मेडिक्ले म	गंभीर बीमारी राइडर	नि:शक्तता बीमा	दुर्घटना बीमा	Α	Easy	1	-0.25
4	General rise in prices of goods is known as	Return on investment	Demand-supply	Inflation	Exchange rate change	С	Easy	1	-0.25
4	वस्तुओं की कीमतों में साधारण वृद्धि को कहते हैं	निवेश पर आय	मांग-आपूर्ति	मुद्रास्फीति	विनिमय दर परिवर्तन	С	Easy	1	-0.25
5	Which instrument can you use to withdraw money from your bank	Cheque	Passbook	Account statement	Fixed deposit certificate	А	Easy	1	-0.25

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- In addition to the above, NFLAT type will also be mentioned for each question.
- Standard will also be an attribute of each question. A question may be associated with multiple standards.
- Each question will be displayed on the screen in both the languages i.e. English and Hindi.
- There will be a facility to upload questions in the excel format (as mentioned above) into the question bank. A sample for reference is given in Annexure 17.

4.8.13 Generation of Question Paper

This facility will be used to generate question paper for schools who opt for paper and pen based examination.

- a. The user will be asked to provide the following details:
 - Region/Zone (East, West, North, South, North-East)
 - State
 - District
 - NFLAT Type
- b. The system will display all those schools meeting the above criteria and where at least one student has registered for the test and the school does not have IT infrastructure.
- c. The user will have to select schools to generate question paper. A facility to select single, multiple and all schools would be given.
- d. User will be prompted to click on "Generate Question Paper" to generate question papers for selected schools.
- e. System will display message confirming generation of question paper with question paper code.
- f. The system will generate the question paper by picking the questions from the question bank for the given NFLAT type at random. The system must take care of the attributes of the question paper as mentioned in Section 4.8.1 and 4.8.12 for the given NFLAT type while picking the questions at random.
- g. System will generate a different question paper for each school in a declared window period.
- h. Once a question paper is generated for a window period, it cannot be re-generated.

4.8.14 Generation of OMR Sheets

The back office NFLAT coordinator can generate OMR sheets for all students of chosen schools.

- a. To generate OMR sheets, the user will be prompted to provide the following:
 - Region/Zone (East, West, North, South, North-East)
 - State
 - District
 - NFLAT Type
- b. The system will display all those schools that meet the above criteria and for which question papers are generated.

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- c. The user will have to select schools for which OMR sheets have to be generated. A facility to select single, multiple and all schools would be given.
- d. OMR Sheets for all students will be generated for the selected schools.

4.8.15 Print and Email Question Paper

- The back office NFLAT coordinator logs in and clicks on the "Print and e-mail Question Paper" tab. The following details will be asked:
 - NFLAT Type (Dropdown-list) (Mandatory)
- b. A facility will be provided to print the question paper for selected NFLAT type.
- c. A facility will also be provided to email the question paper. All registered schools for the current NFLAT year which do not have IT infrastructure will be displayed. The super-user or NFLAT coordinator will select schools. Once the schools are selected from the list, the user will have provision to email question paper to the schools.

4.8.16 Print and e-mail OMR Sheets

- a. The back office NFLAT coordinator logs in and clicks on the "Print and e-mail OMR Sheets" tab. The following details will be asked:
 - NFLAT Type (Dropdown-list) (Mandatory)
 - Standard (Dropdown-list) (Optional)
- b. All registered schools for the current NFLAT year which do not have IT infrastructure will be displayed.
- c. The super-user or NFLAT coordinator will select schools. A facility will be provided to select all schools or a group of schools or a single school from the list.
- d. Once the schools are selected from the list, the user will have provision to email OMR sheets to the schools or print the same.
- e. The following details would be printed on the OMR Sheets. During gap analysis exercise, NISM may propose a few changes in these details.
 - School ID
 - School Name
 - Student Registration Number
 - Student Name
 - Standard
 - NFLAT Type
 - Instructions (on the back side of the OMR Sheet)
- f. A facility will also be provided to print OMR sheets of selected students of a particular school or all students of selected schools. An option to resend OMR sheets would also be provided to the super-users and NFLAT coordinators.

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4.8.17 Capturing OMR sheets

The schools will send the OMR sheets in physical format to the NISM. At NISM, these OMR sheets will be captured into the system using an OMR scanner. The captured details will be populated into the database. The key aspects of this capturing process are as follows:

- a. Key data items (e.g. School ID, Student Registration Number etc.) from the header information on the OMR sheets along with the answers will be scanned and stored in the same relevant tables of the database where the answers of an online test written by a student are stored.
- b. However, a relevant flag must be stored in the database in appropriate tables to differentiate answer sheets of an offline exam from an online exam.
- An image of the entire OMR sheet should also be stored in the database.

4.8.18 Generation and Issuance of Certificates

The certificates will be generated for all appeared students in the test. Certificates can either be printed or emailed.

- Certificate generation facility would be available to the NFLAT Coordinator only. The generated certificates can also be emailed to the selected students.
- Each certificate must be generated with a unique code. The structure of the code is as follows: b.

NFLAT Year Count	Type of Certificate	/	School Registration Number	/	Running Serial Number
Examples: 1P/CCTVS00001/0057, 3M/BCTVS00257/2137					

Where:

NFLAT Year Count	This is a count maintained by the system for each NFLAT year. This count will			
	be incremented automatically by the system as soon as a new NFLAT year is			
	declared.			
Type of Certificate	This will be a single alphabet code as mentioned below.			
	M → Merit			
	P → Participation			
School Registration Number	This will be the 10 characters registration number of the school as mentioned			
	earlier.			
Running Serial Number	This will be a unique number for each certificate. System will maintain it as a			
	count of running serial number. This count will be incremented by 1 each time			
	a certificate is generated and the same will be included in the certificate code.			

NISM team will discuss the above structure with the selected bidder during gap analysis phase and may ask for some changes if required.

- For certificate generation, the user will be asked for the details which are given below:
 - Region/Zone (East, West, North, South, North-East)(Mandatory)
 - State (Mandatory)
 - District
 - NFLAT Type
 - NFLAT Window Period
- The list of schools from where at least one student has appeared for the test during the exam window period will be displayed on the screen.

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- e. The user will have to select the schools for certificate generation. A facility to select single, multiple and all schools would be given.
- f. Certificates will be generated for the selected schools.
- g. The students for whom certificates are already generated will also appear in the list with gray color.
- h. Once the certificates are generated, they can be printed or emailed using "Email/Print Certificates" tab available on the back office dashboard (See Section 4.8.19).
- i. Certificates will be emailed to students' registered email-ids.
- j. Once the certificates are generated, they would be uploaded on the dashboard of the school. The certificates of the current NFLAT year will only be available on the dashboard of the school. If the student has directly registered (Test Administration Type 4) then certificate will also be available on the student's dashboard.
- k. All the details on the template of the certificate must be in editable format.
- 1. A facility to export required details of students in excel format would be provided. This will be required to get these certificates printed by a third party.

4.8.19 Email/Print Certificates

A tab namely "Email /Print certificates" would be available on the dashboard of the user. The user will be prompted to provide the following:

- a. State
- b. District
- c. NFLAT Type
- d. Exam Window Period

A list of all the schools from where atleast a single student has appeared for the test will be displayed. The user can:

- Select all schools and email and print certificates for all appeared students.
- Select multiple schools and email and print certificates for all students of selected schools.
- Select individual school and email and print certificate either for all students or only for selected students of that particular school.

Email and Print function shall be provided as two separate buttons.

4.8.20 Offline Registration of Schools

The duly filled physical registration forms will be received from schools. The registration form will have following details:

- a. State/Union Territory (Mandatory). It will be a drop down list.
- b. District (Mandatory). It will be a drop down list.
- c. School Name (Mandatory)
- d. Board (Mandatory)
- e. Address(Mandatory)
- f. Pin code(Mandatory)

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- g. School Land Line Number
- h. School Email ID
- i. Name of the Principal
- j. Principal Mobile Number (Mandatory)
- k. Principal email ID
- 1. Name of the In-charge / Contact Person (Mandatory)
- m. In-charge Mobile Number (Mandatory)
- n. In-charge Email ID

An online form will be provided to the NFLAT coordinator to capture the above information. System will maintain a flag to differentiate between schools registered offline by the back office and those that are registered online by the schools themselves. Also these schools registered offline will be flagged internally as schools having no IT infrastructure.

4.8.21 Offline Registration of Students

- a. A list of all schools registered offline will be displayed. The following details about each school will be displayed:
 - Registration Number of the School
 - Name of the School
 - Total Count of Registered Students for all types of NFLAT Tests
- b. The user can select only one school at a time.
- c. After selecting a school, the following options will be available:
 - Capture Student's Details
 - Upload Excel File
- d. If the user decides to upload excel file containing students details then the excel file must be in the format as mentioned in Annexure 10. If the data is incorrect, the system will display details of all mismatched fields for correction and no data from excel file will be uploaded. Necessary corrections have to be made in the excel sheet and re-uploaded. See Annexure 5.

4.8.22 View/Edit Registration Details

- a. Back office will have the facility to view and edit details of the schools and students.
- b. If the user wants to edit/view the details of school, the school will be selected from the list displayed based on the following filters:
 - Region
 - State
 - District
- c. The registered details of the school will be displayed. All fields should be editable.
- d. If the user wants to edit/view details of a registered student, the student will be searched based on student registration number or student name.
- e. All details of the student will be displayed and shall be editable except registration number.

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4.8.23 Excel Export

This functionality will be provided on the dashboard of back office user. The NFLAT coordinator can login and use this tab to export data pertaining to schools and students in excel format.

- The system will prompt the user for the following:
 - Key Entity (School/Student) (It will be a drop down list with the two entries).
 - Region/State/District
 - NFLAT Type
- b. If "School" is chosen as key entity, all information pertaining to schools of the chosen region/state/district will be exported in excel format. NFLAT Type will not be asked when the key entity is "School".
- c. If "Student" is chosen as key entity, all information pertaining to students of the chosen region/state/district will be exported in excel format.

4.8.24 Messaging Service

This facility will allow back office user to send notification messages to selected schools. The system will prompt the user to provide the following:

- Region/State/District
- Test Administration Type (Drop down list)
- a. System will display list of schools based on the above mentioned criteria. User can select all schools or some specific schools from the list.
- b. System will display email and SMS as radio button options for the user to select.
- c. System will prompt the user to type the notification message. If SMS was chosen in the previous step, the text box limit shall be 200 characters.
- d. System will email or SMS the message upon confirmation.

4.8.25 Reports

a. For Back office Users

A detailed report would be available for the back office users so that they can do a comprehensive analysis. The back office user would be able to generate the following reports:

- List of all registered schools with their registration details. Filter conditions will be Region/State/District.
- List of all registered students along with their school name and ID. Filter conditions will be Region/State/District/School.
- List of all registered schools. Filter conditions will be Region/State/District
- List of all registered students. Filter conditions will be Region/State/District.
- List of schools that have completed the registration but not registered a single student yet. Filter conditions will be Region/State/District.
- List of all students for whom slots are allotted (either in the school or at the test centre) school ID. Filter conditions will along with their name and be Region/State/District/School.

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- List of all students for whom slots are not allotted yet (either in the school or at the test centre) along with their school name and ID. Filter conditions will be Region/State/District/School.
- List of all test centers with filled and vacant slots. Filter conditions will be Region/State/District.
- List of all students with their username and password for single/multiple schools. Filter conditions will be Region/State/District/Schools.
- List of all the students who have rescheduled their slots along with their school name and ID. Filter conditions will be Region/State/District/Schools.
- List of all students having score more than cut off percentile with their school name and ID. Filter conditions will be Region/State/District/Schools.
- Score of all students with their school name and ID. Filter conditions will be Region/State/District.
- List of the schools for which certificates are already generated. Filter conditions will be Region/State/District.
- List of the schools for which certificates are not generated yet. Filter conditions will be Region/State/District.
- Merit list of students. Filter conditions will be Region/State/District/Schools/Registration Number of Student.

b. For Schools

A detailed report would be available for the school In-charge .The school In-charge would be able to generate the following reports:

- List of all registered students from the same school. Filter conditions will be NFLAT type/Standard.
- List of all registered students with their time slots. Filter conditions will be NFLAT type/Standard.
- List of all registered students for whom time slots are not selected yet. Filter conditions will be NFLAT type/Standard.
- List of all registered students for whom time slots are rescheduled. Filter conditions will be NFLAT type/Standard
- List of all registered students with their score. Filter conditions will be NFLAT type/Standard

4.9 User Administration

This module is for creation of user accounts and role assignment. This module can be accessed only by super-user. The functionality of this module is as follows:

4.9.1 User account creation

Following information will be captured to create a user account:

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- a. Name of the User
- b. Valid email-id of the User
- c. Role
- d. Mobile Number

The email id of the user shall be the login id. An email will be sent to the user with user id and default password. The password will be generated by the system as per the password policy of NISM. Passwords must be stored in encrypted form. The user must be prompted to change the password on first login. The interface must allow assignment of multiple roles to a user. The details of various roles are provided in <u>Annexure 20</u>. The first user shall be created directly in the database with "Administrator" role.

4.9.2 Disable user accounts

The interface for super-user to disable user accounts shall be as follows:

- a. All user accounts shall be displayed (with details such as name of the user, login-id, and role).
- b. Facility to select one or multiple user accounts shall be provided.
- c. The super-user will click on disable button to disable selected accounts.
- d. A flag will be maintained for each user account and this flag will be set to either "Active (when an account is created)" or "Disabled (when an account is disabled)".
- e. Whenever a user logs in, the status of the flag will be checked and access to the system will be provided only when the status is active.

System will generate a default password for each user. An email will be triggered to the created user along with the credentials to login the system. User will be prompted to change the default password on the first login. A super-user would have the access rights to the Role Assignment module. This user can Create and disable the users having different roles. Change password facility would also be provided to the super-user and NFLAT Coordinators. See Annexure 20 for the reference.

4.10 Roles

The system will have following user roles:

#	Role	Role Description					
1.	Administrator	User Administration, Back Office Functionality, Change					
		Password					
2.	Super user	Back Office Functionality, Change Password					
3.	NFLAT Coordinator	Back Office Functionality, Change Password					
4.	School In-charge	School registration, Student registration, View Registered					
		Students details, View/Edit Registration, Enrollment of Students					
		for Examination , Download Admit Card, Slot Reschedule,					
		Download Certificate					
5.	Student	Take a test, Direct Registration, View/Edit Profile, Download					
		Admit Card, Download Certificate					

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6.	Invigilator	Invigilation at Test Centre

5. Non-Functional Requirements

The system would be a web based system. There must be certain parameters which would be responsible for the performance of the system.

5.1 Performance and Stress Testing

The key transactions of the system must meet the following performance criteria:

#	Key Transactions	Response Time		
1.	Registration of Schools			
	Concurrent loading of registration forms by end users	150 forms/millisecond		
	Concurrent Submission of registration forms	100 forms/millisecond		
2	Registration of Students (through Schools)			
	Concurrent loading of student registration forms by end	150 forms/millisecond		
	users			
	Concurrent Submission of student registration forms	100 forms/millisecond		
	Concurrent uploading of Excel sheets with each sheet	150 Excel Files/millisecond		
	having 400 records			
3	Slot Allocation	Concurrent uploading of 150		
		Lists of students/milliseconds.		
		Average length of the list		
		being 150.		
		Concurrent allocation of		
		20,000 slots/millisecond		
4	Online Test			
	Concurrent user login	200 Concurrent user		
		logins/millisecond		
	Concurrent Test Sessions (comprising of instruction page	200 Test Sessions/millisecond		
	and other pages with questions)	200 Test Sessions, minisecond		
	Concurrent Submission of Online Examination	200 Submissions/millisecond		
	Response time for Back and Forth movement between	10 milliseconds		
	questions			
5	Reports			
	Concurrent Downloading of items like admin cards,	100 Download items/milli-		
	certificates etc. by schools and students.	second		
	Minimum and Maximum Processing time for back office	5 milliseconds (Minimum), 10		
	reports	seconds (Maximum)		

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5.2 Bandwidth Utilization

The system should be developed in such a way that bandwidth utilization during test must be bare minimum. A group of fifty students should be able to write examination simultaneously using a 512 Kbps internet link.

5.3 Browser Compatibility

The application must be compatible with the following browsers on the client machines:

- a. Internet Explorer 6.0 and above.
- b. Google Chrome
- c. Mozilla Firefox

5.4 Audit Trail

System should maintain audit trail of the following transactions:

- a. Changes in school registration records
- b. Changes in student registration records
- c. Changes in enrollment data
- d. Changes in the following master data using back office functionality:
 - Test Attributes
 - Slot Reschedule
 - Question Bank Data

NISM will discuss in details about the above mentioned transactions with the selected bidder to build appropriate audit trail mechanism within the system.

5.5 Data Archival

The selected bidder shall propose a suitable data archival mechanism and implement the same in the system. This is to ensure consistent system performance with the passage of time as the data volume increases.

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Annexure 1

NCFE-NFLAT 2015-16 Activation

NFLAT Notification <ncfe.nflat@nism.ac.in> Reply-To: ncfe.nflat@nism.ac.in To: chopraabhay@gmail.com Tue, Sep 1, 2015 at 6:17 AM

Dear ABHAY ABHAY ABHAY,

In order to complete your registration .An activation link is sent on your registration school email ID. Click on the link to complete school registration process.

Click here

After activation, School ID & password would be sent on the registered email ID.

Regards,

NCFE-NFLAT 2015-16

This is an auto generated Mail please do not reply.

For any assistance call: - 080 - 65604488/89 or write to us at nflat@nism.ac.in

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Annexure 2 Codes for the State and Region

1	Region	State/ Union Territory	STATE CODE	Districts	DIST CODE
2	South			Adilabad	EQ
3				Hyderabad	EV
4				Karimnagar	EW
5				Khammam	EX
6		Telengana	TL	Mahbubnagar	FA
7		reiengana	"-	Medak	FB
8				Nalgonda	FC
9				Rangareddy	FF
10				Warangal	FK
11				Nizamabad	FD
12				Anantapur	ER
13				Chittoor	ES
14				East Godavari	ET
15				Guntur	EU
16				Krishna	EY
17				Kurnool	EZ
18		Andhra Pradesh	AP	Prakasam	FE
19				Sri Potti Sriramulu Nellore	FG
20				Srikakulam	FH
21				Visakhapatnam	FI
22				Vizianagaram	FJ
23				West Godavari	FL
24				Y.S.R.	FM

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Functional Requirements of NFLAT Software

Annexure 3 **Certificate Format**



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Annexure 3.1



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Registration completion for NCFE-NFLAT 2015-16

NFLAT Notification <ncfe.nflat@nism.ac.in> Reply-To: ncfe.nflat@nism.ac.in To: chopraabhay@gmail.com

Dear ABHAY ABHAY,

You have successfully activated your NCFE-NFLAT 2015-16 school registration. Your registration details are as follows.

School ID : EBRLX10003 Password : 8ESMP59F

Wishing You All the Best. NCFE-NFLAT 2015-16

This is an auto generated Mail please do not reply For any assistance call: - 080 - 65604488/89 or write to us at nflat@nism.ac.in



Error for the bulk upload of NFLAT

NFLAT Notification <ncfe.nflat@nism.ac.in> Reply-To: ncfe.nflat@nism.ac.in To: chopraabhay@gmail.com Sun, Aug 30, 2015 at 6:37 PM

Dear ABHAY PUBLIC SCHOOL,

Total records uploaded: 10

Successfully uploaded: 0

Not uploaded due to errors: 10

Error Description: Invalid data format

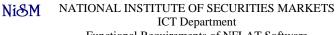
Row Number: 2

Data uploaded: YASHIKA SONKER|Male|1/6/1999|10th|English|8817718163|virendrason

ker9@gmail.com|LOAKESH SINGH Affected Column: Date of Birth

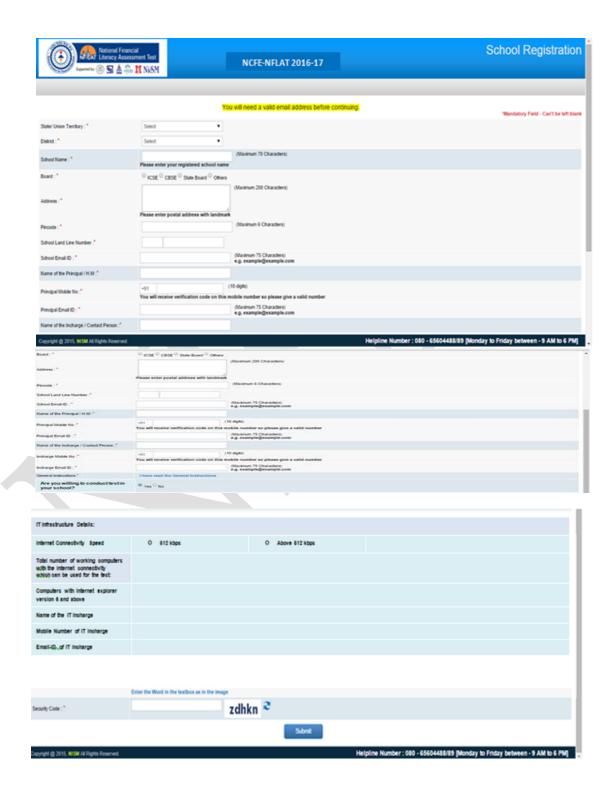
Error Type: Invalid date or format | Date of birth Year should between 1995 to 2005

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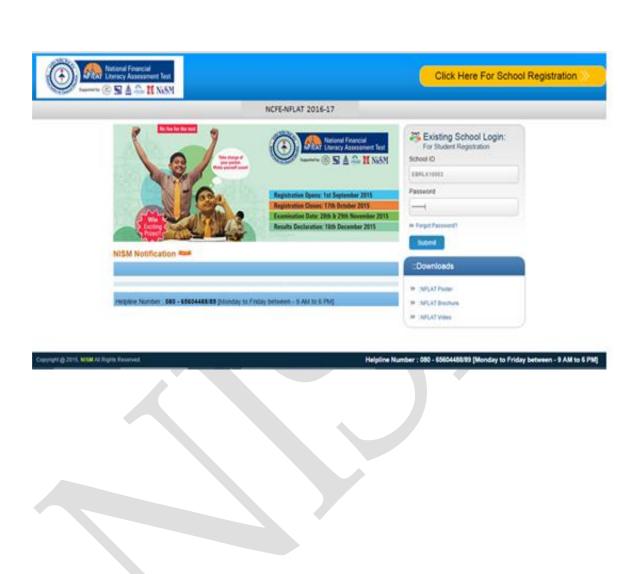
Functional Requirements of NFLAT Software

Annexure 6 School Registration Page



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Annexure 7 School Login Page



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- another requirements of the East Section and

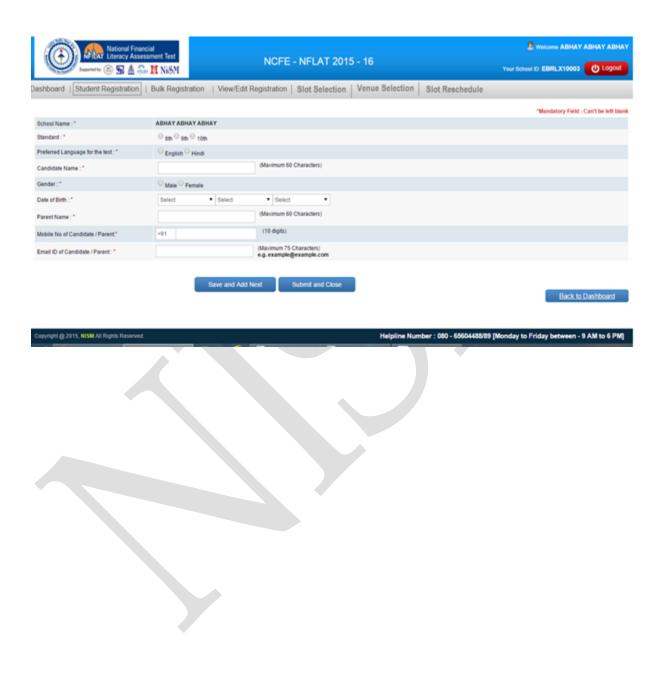
Annexure 8 School Dashboard





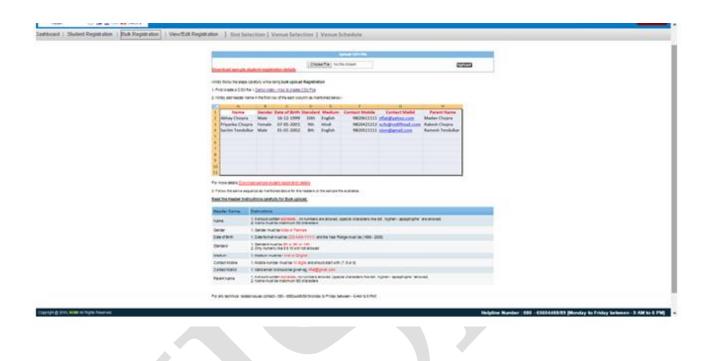
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Annexure 9 Student's Registration



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Annexure 10 Bulk Students Registration



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Annexure 11 Slot Date Selection





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NATIONAL INSTITUTE OF SECURITIES MARKETS ICT Department

Functional Requirements of NFLAT Software

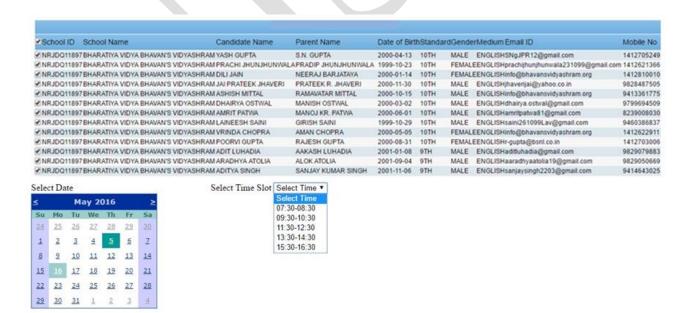
Annexure 12

Slot time selection (for Individual Student)

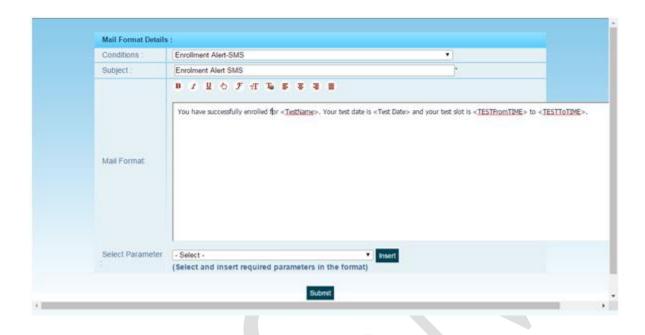


Copyright Q 2010, WIM At Rights Reserved. Heliptine Number : 080 - 65404468.99 (Monday to Friday between - 9 AM to 6 PM)

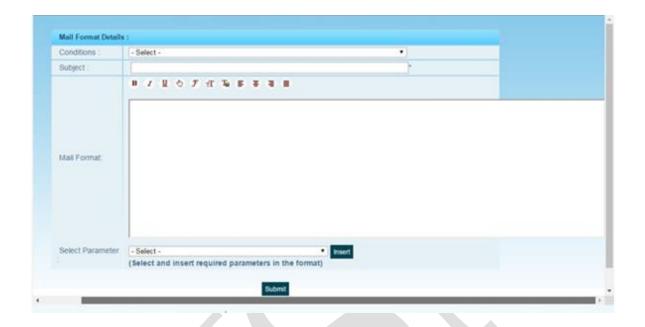
Slot Selection for All Students



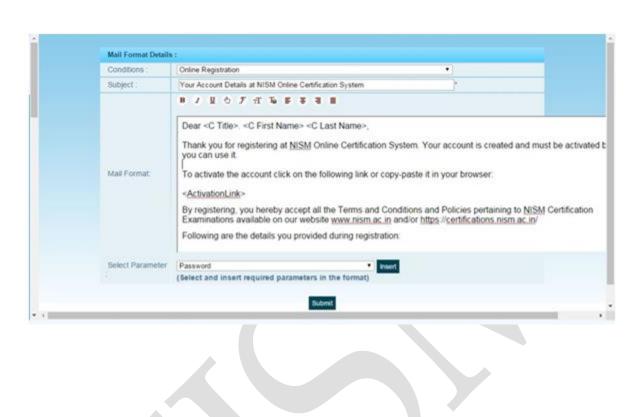
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Select State



Select District Select District ▼



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Annexure 16.1

Select State Rajasthan ▼ Select District Select District ▼

Select District Ajmer

Banswara

Bharatpur

Bhilwara

Chittorgarh

Dausa

Jhalawar



Annexure 16.2

Select State Rajasthan ▼	Select District	Ajmer	•
--------------------------	-----------------	-------	---

Select Test Center

- National Institute of Securities Markets, NISM Bhawan, Plot: 82, Sector 17, Ajmer, Rajasthan 313001
- Delhi Public School, NISM Bhawan, Plot: 82, Sector 17, Ajmer, Rajasthan 313001
- Aryan Sr. Sec School, NISM Bhawan, Plot: 82, Sector 17, Ajmer, Rajasthan 313001
- Narsee Monji Institute of Management Studies, NISM Bhawan, Plot: 82, Sector 17, Ajmer, Rajasthan 313001
- St. Paul's Sr. Sec. School, NISM Bhawan, Plot: 82, Sector 17, Ajmer, Rajasthan 313001



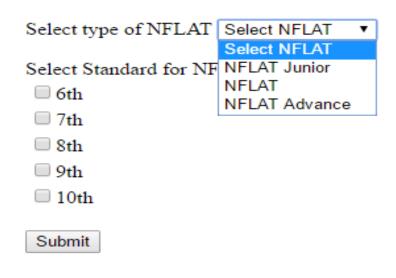
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Question Bank Upload

Upload Excel Sheet Upload

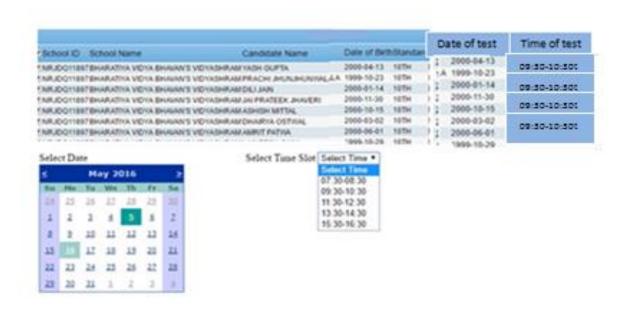


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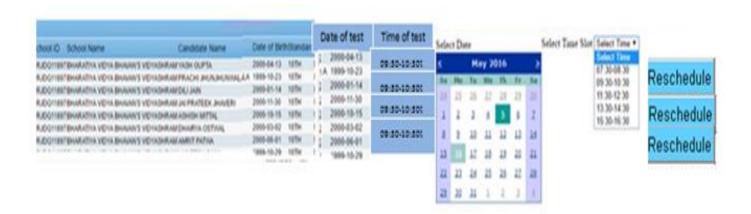
Annexure 19 For Multiple Students Slot Selection



Reschedule



Annexure 19.1 For individual Student Slot Selection





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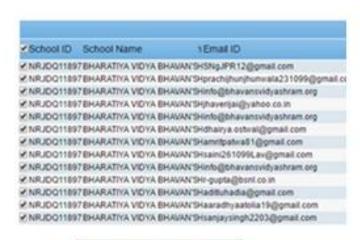


Annexure 20 Add user and assign their Role User Interface

Name of the User		
Email-Id of the User		
Role	Select Role ▼	
Mobile Number	Select Role Super User	
Submit	Back Office User	

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Certificate Generation for multiple Schools







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