The system will be available on the predetermined IP/localhost. The homepage of the system will hold the noticeboard of the respective residential institute, navigation (option) and a Login panel.

**Contents of the Webpage**

The navigation will house the following information: Institute administration (Provost, House Tutors and Assistant House Tutors, System administrator). The Login panel holds the options to sign into the system, register oneself and signing out (if someone is already signed in at that instance).

**Types of User and Authentication**

The functionalities of the system will vary depending on the user. The system supports 3 types of users: Board Member of Administration (e.g. Provost, House Tutors and Assistant House Tutors), System Administrator (a Board Member or Institute Official) and Student. All users can sign up, sign in, sign out and recover their accounts.

**User Sign Up**

All sign up activities are depend on the System Administrator. The System Administration has the authority to enable and disable any account.

**System Administrator Sign Up**

A default system administrator account will be registered into the System. The System Administrator will collect the default username and password from the developer.

**Student Sign Up**

At the time of admission, students are assigned to the residential institutes or halls from the register office. The register office sends a list of the assigned students to the institute. Through the account of the system administrator, data of the assigned students will be entered into the system. The following student information will be loaded into the system: name, department, class roll, registration number, present address, permanent address, session, status (resident/non-resident), room number, co-curricular, local guardian, blood group, a photo and account status(enabled/disabled) . By default all students’ status will be non-resident and account status will be disabled. Room number, co-curricular field, local guardian, blood group, payment fields will be kept empty initially. Seat applications are handled by the board members of the administration manually. When a student is given a seat, a board member will update the status, room number and local guardian (name, address and contact number of the local guardian) for that particular student. Co-curricular, payment and blood group fields can be updated when needed.

When the student is signing up into the system, the following information needs to be entered: Registration number, Department, Username, password, confirm password, recovery email. If the entered registration number does not match any of the registration numbers entered into the database by the System Administrator, the sign up attempt will be terminated with a message telling the individual that he/she is not linked with that hall.

**Board Member Sign Up**

The System Administration can add/ remove accounts of the Board Members. When registering board members, the following information needs to be entered: name, department, username, password, confirm password, recovery email.

**Account Recovery**

In case a user forgets his/her password, he/she will be allowed to retry for 5 times or go directly for recovery. If he/she is unsuccessful even after 5 times, the user will be prompted to enter his/her recovery email address. If the entered recovery email address matches with the email present in the database, a recovery passcode will be sent to that email. Otherwise, a failure message will be sent. When the student enters the recovery passcode, he/she will gain access to the system again. He will then will be asked to reset his password. If the user fails to recall his recovery email, he/she may take help of the system administrator.

**Sign Out**

If account activity remains stalled for 30 minutes, user will be automatically logged out (after the stall duration).

**Information System**

Data storing, editing, viewing, searching and account management are handled by the Information System.

**Store Data**

The System Administrator plays the role of entering the data to be stored in Database. Overall, the Student database will contain the following information for query: university registration no, name, session, department, class roll, status, room no, room history, local guardian (name, address and contact number), blood group, photo, payment. The system administrator can also enter data and query database.

**Edit information**

This functionality will allow users to edit their information like password, recovery email or phone number.

**Enable/Disable Account**

Student accounts can be enabled or disabled by their respective house tutors. System Administrator can enable/disable accounts of Board Members.

**View Student Profile**

A student can see his/her own profile. Board Members and System Administrator can see profiles of the Students.

**Search Specific Students**

This functionality can be used by Board Members and System Administrator to query student information.

**Communication**

The communication module involves matters regarding the noticeboard and complaint form.

**Noticeboard**

The noticeboard can be viewed by both registered users and visitors. The Board Members of administration manage the content of the noticeboard. Every notice content has a noticeID.

**Complaint Form**

When a student logs into the system, there will be an option to submit a complaint by a form if he/she is a resident student. The following fields will have to be entered in the form: student name, room no. and complaint. The Board Members will be allowed to view complaint forms and query the student database.