

Implementation Details

- Singleton design to create only one instance of Institute class.
- Iterator
- Facade Pattern (there are different method with different functionality)
- Proxy Firewall for login authentication.
- State Pattern.
- Inheritance between user and (Admin, Faculty, Student).
- Polymorphism in methods like book room, cancel booking etc.
- Using Serialize and Deserialize to store information.

Timeline

- UI Design (5 Days)
- Basic classes (like User, Institute, Booking etc). (1 Day)
- Using CSV file to create database.(1 Day)
- Controller classes for all fxml file and connecting fxmls.(2 Day)
- Implementing various functionalities. (12-15 Days)
- UI design update using css.(2 Days)
- Bonus (2 Days)

Problems faced



1. Extra commas & hyphen in csv file.
2. Changed time format of all courses(12 to 24).
3. Opening User page after successful login(Later i was able to open each page on same Stage).
4. Putting data in TableView.
5. Using Change Listener in course search bar(made some modifications in csv).
6. Problem in Serializing static ArrayList.
7. Less discussion.
8. Implementation of Bonus (was using old API's).

Work Distribution

Kaustav

- 1) **UML:** Class Diagram, Use Case Diagram
- 2) **UI:** Login.fxml, Student.fxml, Faculty.fxml, Admin.fxml
- 3) **Code:** Class implementation (like Institute, User, Admin, Faculty, Student etc), All Controller classes implementation (Login, Admin, Faculty, Student).
- 4) **CSV:** Modifications.
- 5) **Testing:** Add Course, Room booking, Cancel booking.
- 6) **Bonus:** Email notification for booking request.

Raj

- 1) **UML:** Class Diagram
- 2) **UI:** Faculty.fxml (Partially)
- 3) **Code:** Template for classes (like Institute, User, Admin, Faculty, Student etc)
- 4) **CSV:** Add Courses details (pre-req, post condition, room no., schedule).

Bonus (Email Notification)

Student

- If room booking request is **accepted** by Admin.
- If room booking request is **cancelled** by Admin.
- If room booking request is **Auto Rejected**.

Faculty

- If booked room is **cancelled** by Admin.

Implemented by:- Kaustav Vats

