BookEasy

Team Members:

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Introduction:

BookEasy is a Guesthouse booking system for IIT Kgp. Currently the process for booking a room is completely offline and requires repeated trips to Department and Guesthouse. Problems are compounded with the absence of Faculty Advisor which causes wastage of time. We want to make this entire process online which not only will ensure that the process of booking is done hassle free but also would serve a single booking solution for the guesthouse.

Workflow:

The process will start with User (Student/Faculty) registering for our webapp. Registering process involves filling up relevant details which includes Name, Institute ID, Institute mail ID etc. Till then the user entry will remain as a ghost entry in the User Table and user status will be instated once the user is authenticated.
For booking a room, a user will be asked to fill a booking form. After filling up the form, according to the category of booking (A, B, C and D; categories and its corresponding dependencies are mentioned in the IIT Kgp Guest house site) and the designation of the booker, the relevant approval request will be sent to the respective authority. For category D, the approval entity is the Faculty Advisor of the student and for Category C and above, the approval entity is the Dean Office. Priority will be given to guests covered under category A and B. Once approved, the given room will be booked for the guest and the relevant tables will be updated. For checking which all rooms are available and the price of various rooms, an availability view will be there.
A user can also view all his bookings. These will be divided into 3 categories : approved requests, pending requests and disapproved requests. Disapproved requests will also include the reason for disapproval by the approval entity.

A user can also approve bookings(given he/she is a faculty). The booking ID, purpose of visit and booker's name will be displayed and the user can approve/disapprove the booking. In case of disapproval, a reason would need to given

Technology To be Used:

- Web Backend: **Django**
- Frontend: **HTML/CSS, Materialize**
- Database: **SQLite**

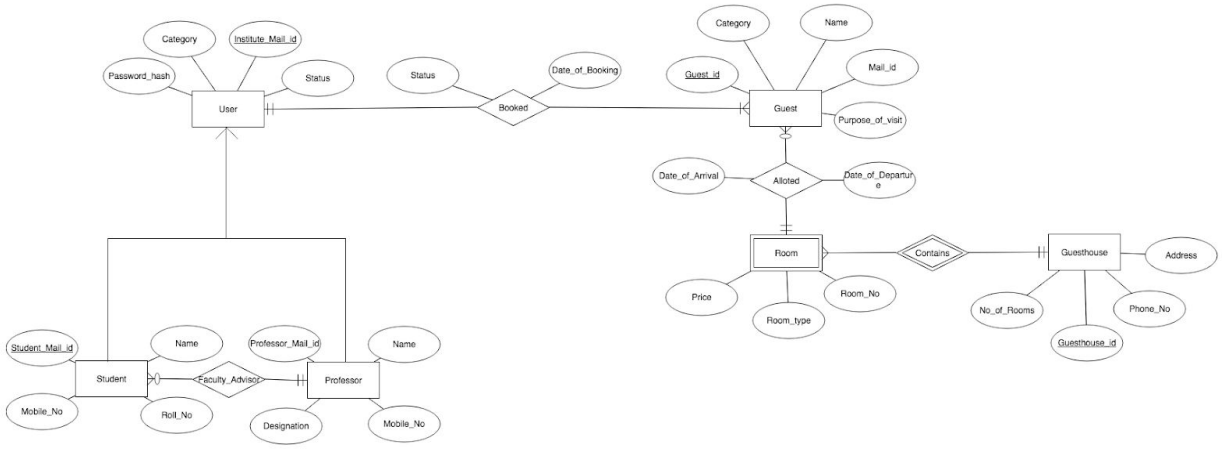
Forms and Views

Forms:

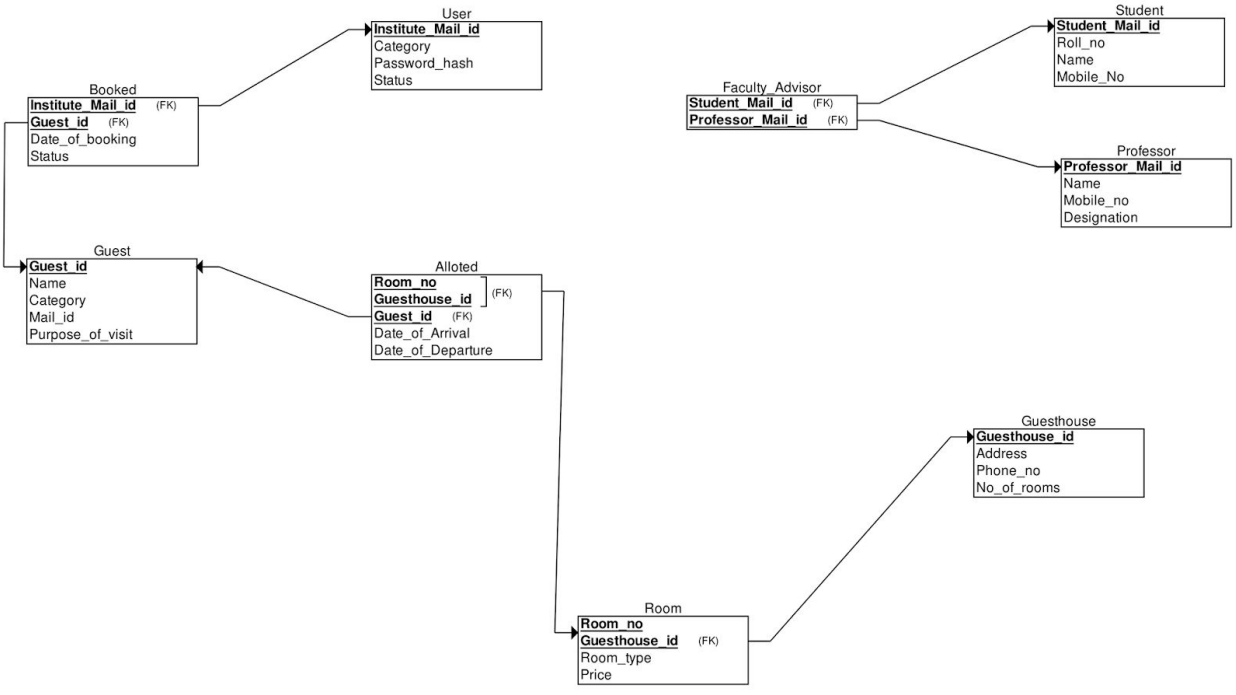
- ***Signup Form*** - There will be a single registration form pertaining to the Booker. This will insert an entry in the Bookers relational schema.
- ***Login Forms*** - There will be 2 login forms pertaining to Booker and the HOD. It will be used to authenticate the users.
- ***Make Booking Form*** - This form will be visible to the Booker once he logs in. It will be used to book the room and insert an entry in the Bookings relational schema. There will be a status attribute which will indicate the status of the booking. It will be assigned 'pending' initially.

Views:

- ***View Bookings*** - This view will show the user the history of his/her approved/disapproved/pending bookings.
- ***View Approval Requests*** - This view will show the approval entity all the requests for bookings.
- ***View Availability-*** This view will show the user all available rooms in a guesthouse within a given time span.



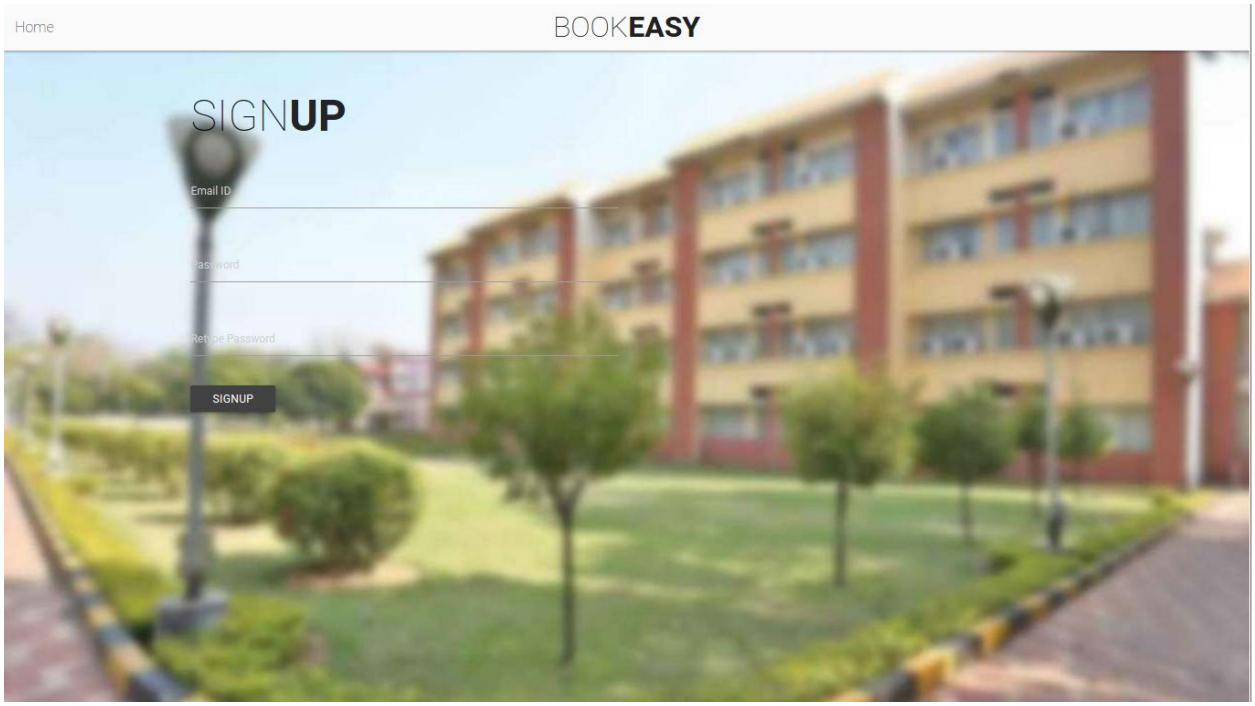
ER Diagram

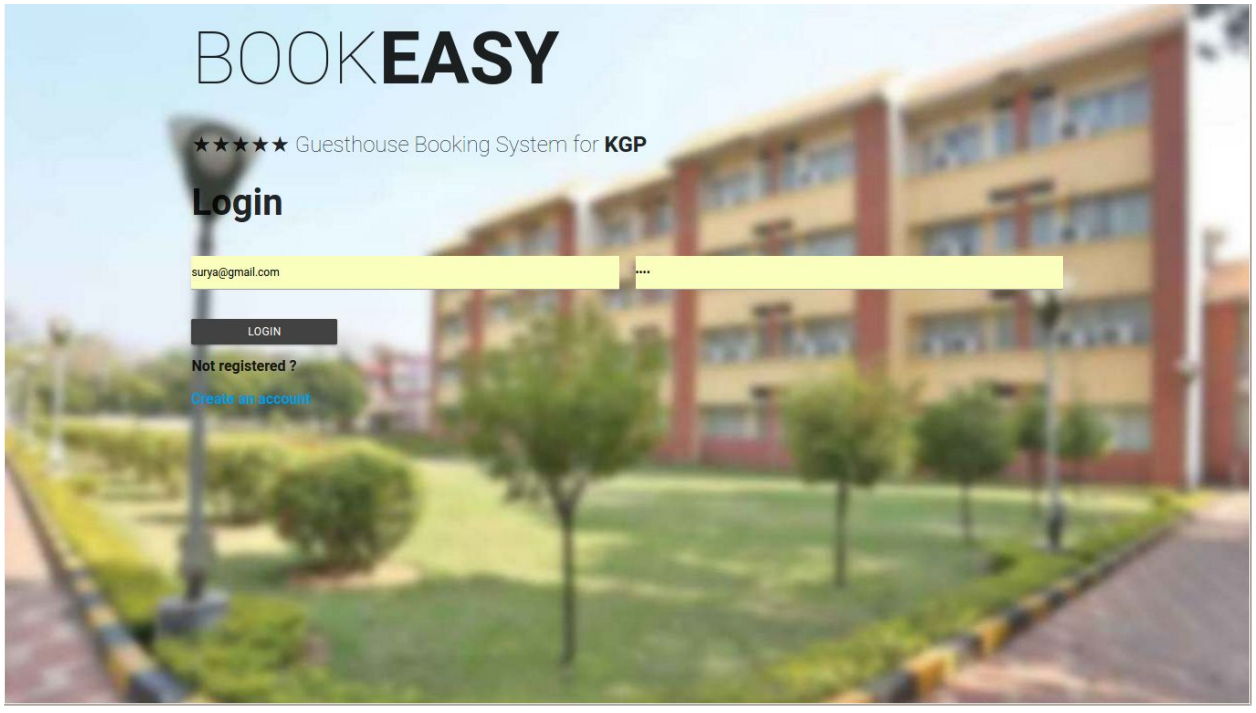


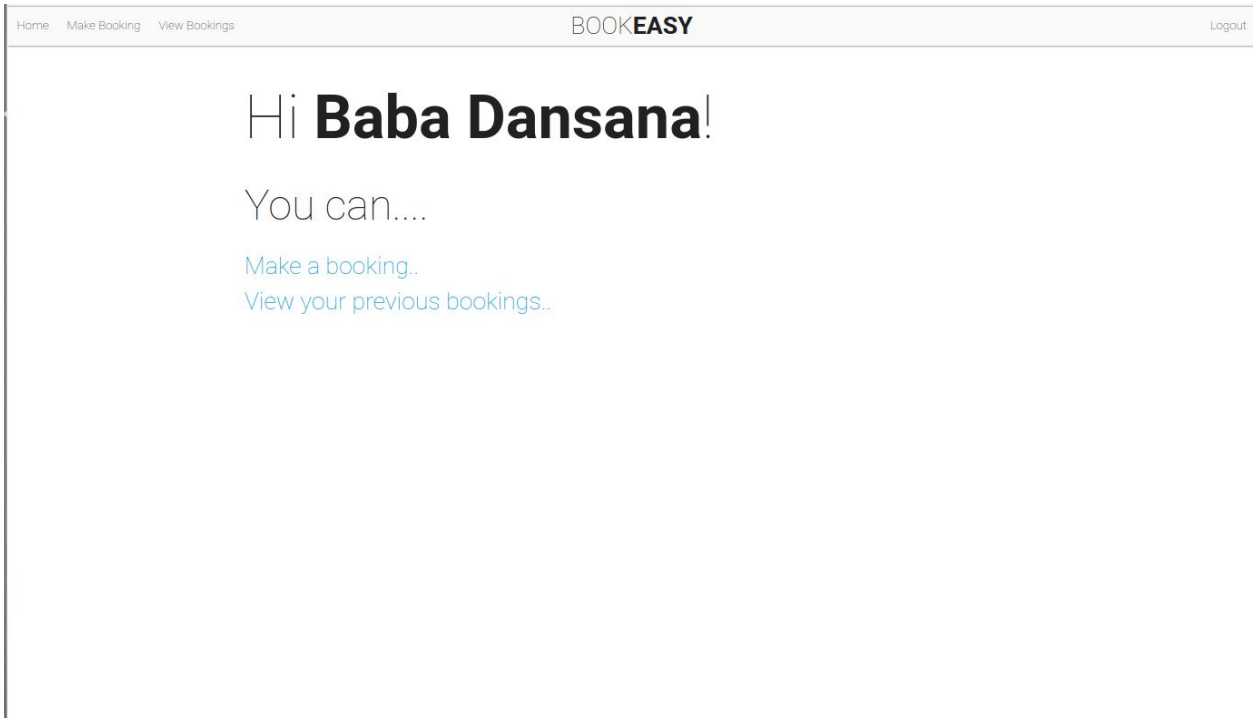
Database Schema

Note : The schema was modified a bit for easiness in writing the queries. Mainly, the alloted and room tables were combined for storing only the no of rooms of each type in each guesthouse. The queries were then made according to the booked table. Also, the faculty advisor table was generalised to approval entity table for storing the user, guest category and the respective approval entity.

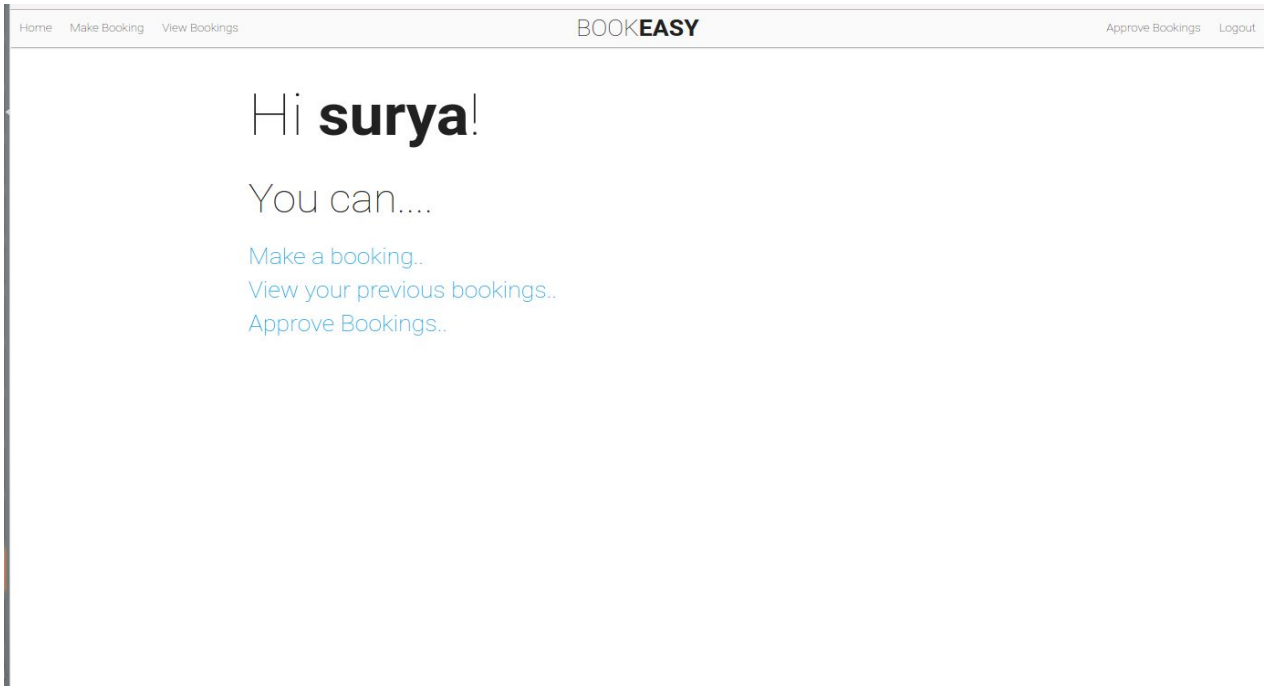
SCREENSHOTS



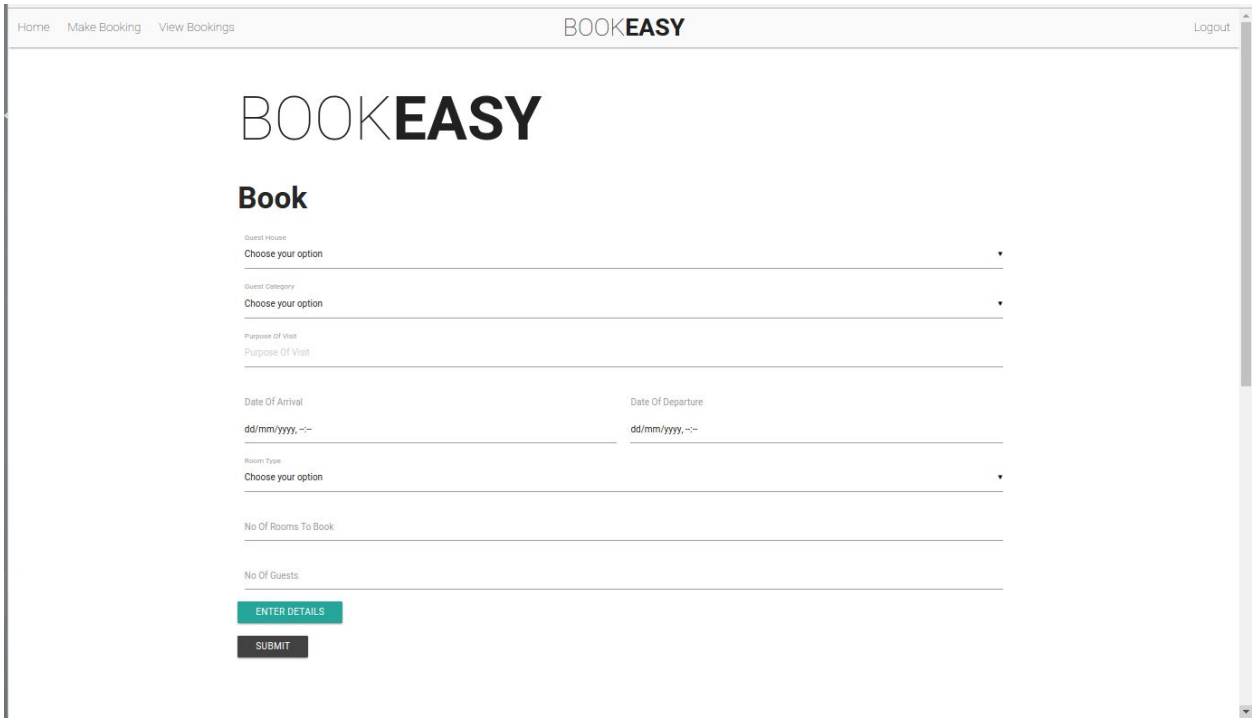




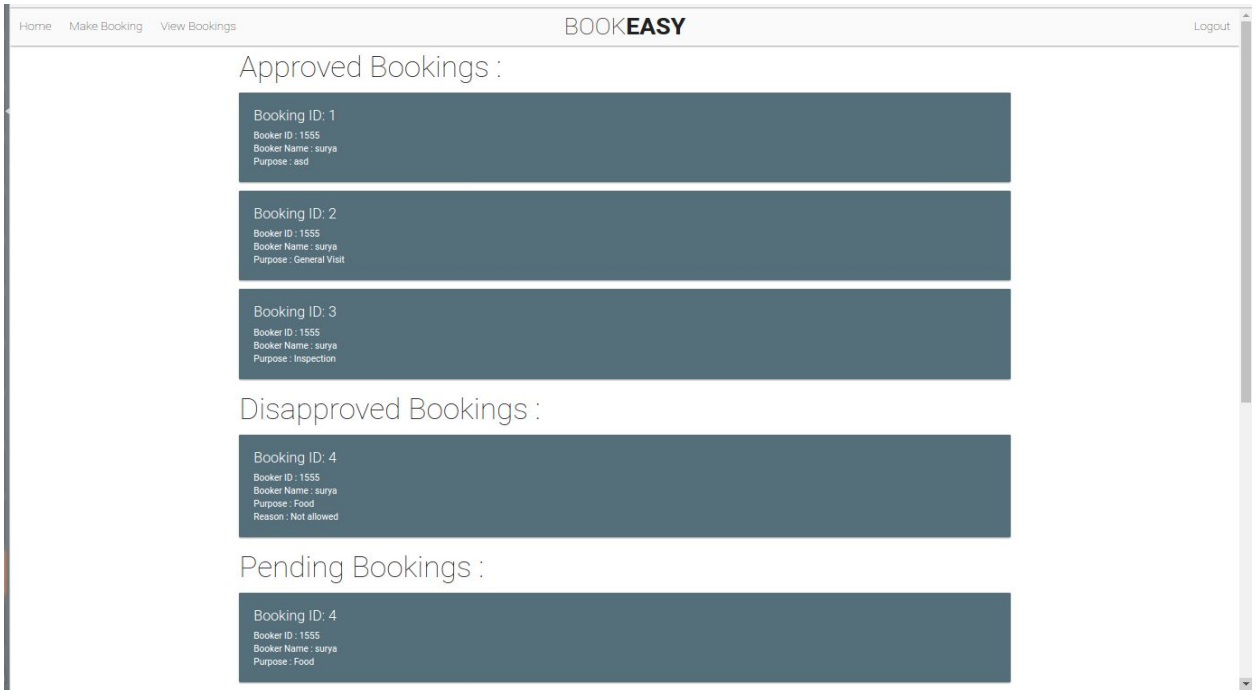
Student Homepage



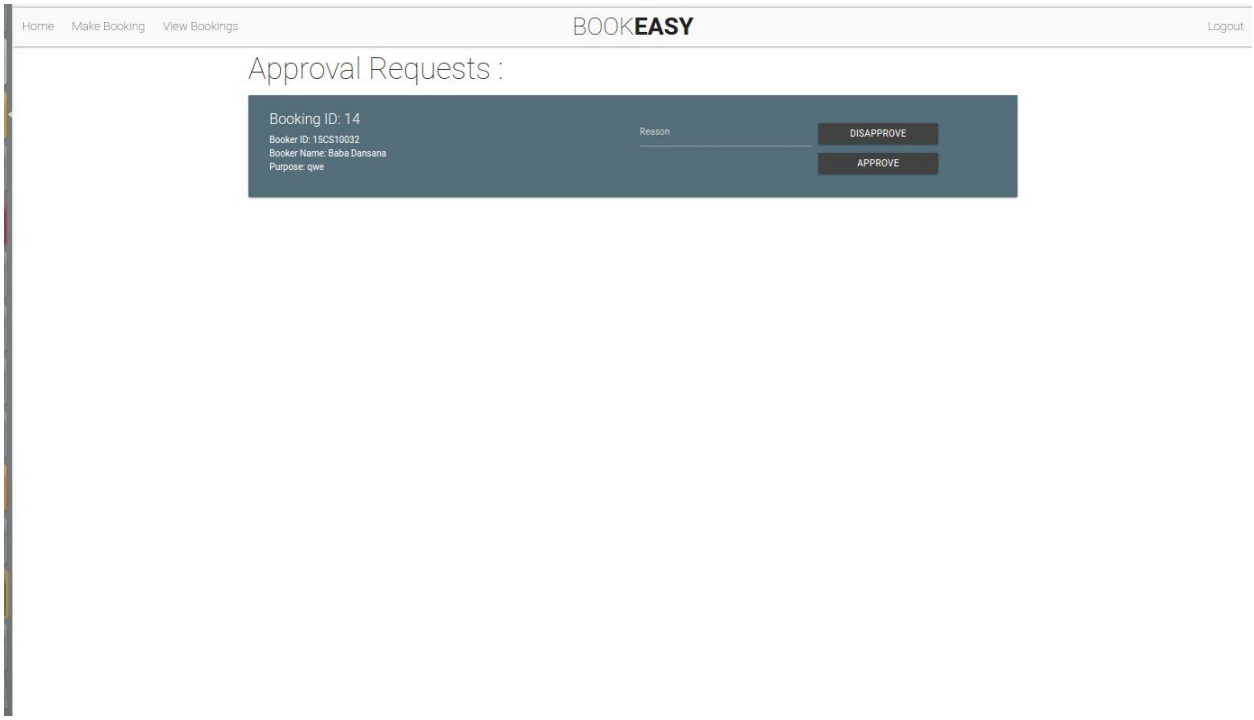
Faculty Homepage



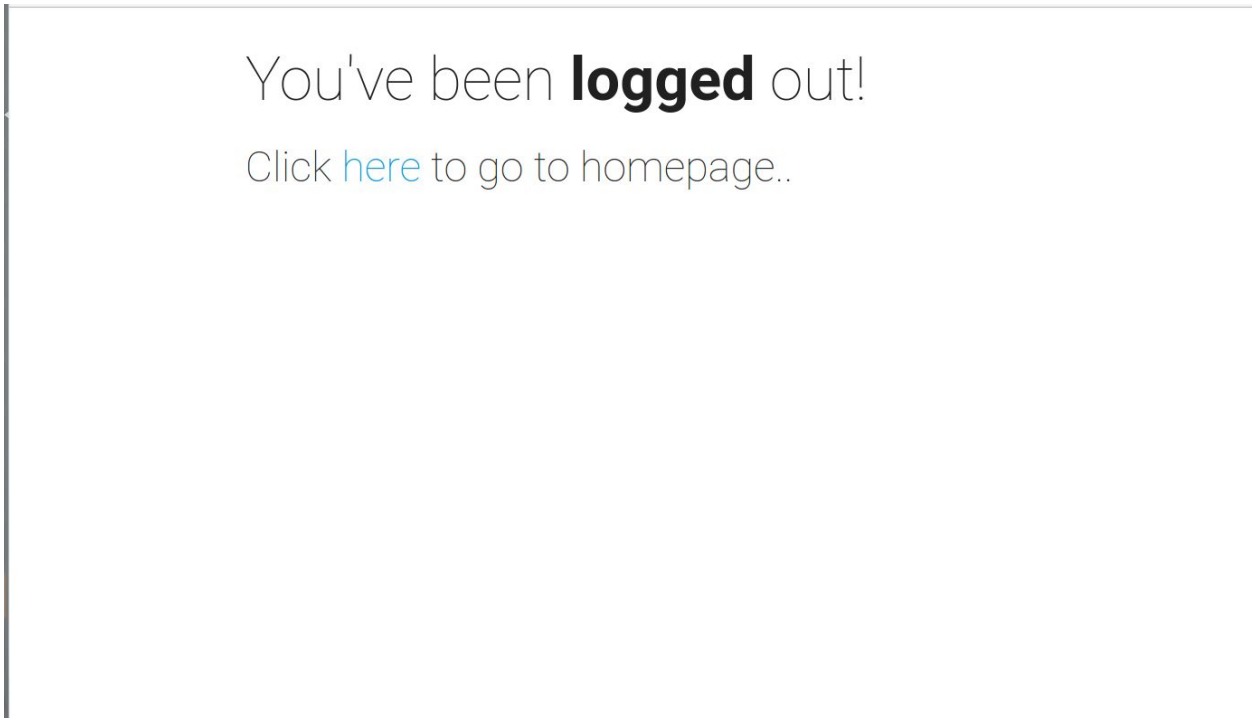
Make Booking



View Bookings



Approval Requests



Logout Page