Course Helper

CS654A Project

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Introduction

Through this project we intend to help students of IIT Kanpur in choosing the right courses during their registration in order to optimally complete their degrees as well as make the most of their stay in the college by opting for the right courses at the right time.

Objectives

- Enlisting remaining credits

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- Enlisting possible course options to fulfill the credits requirement

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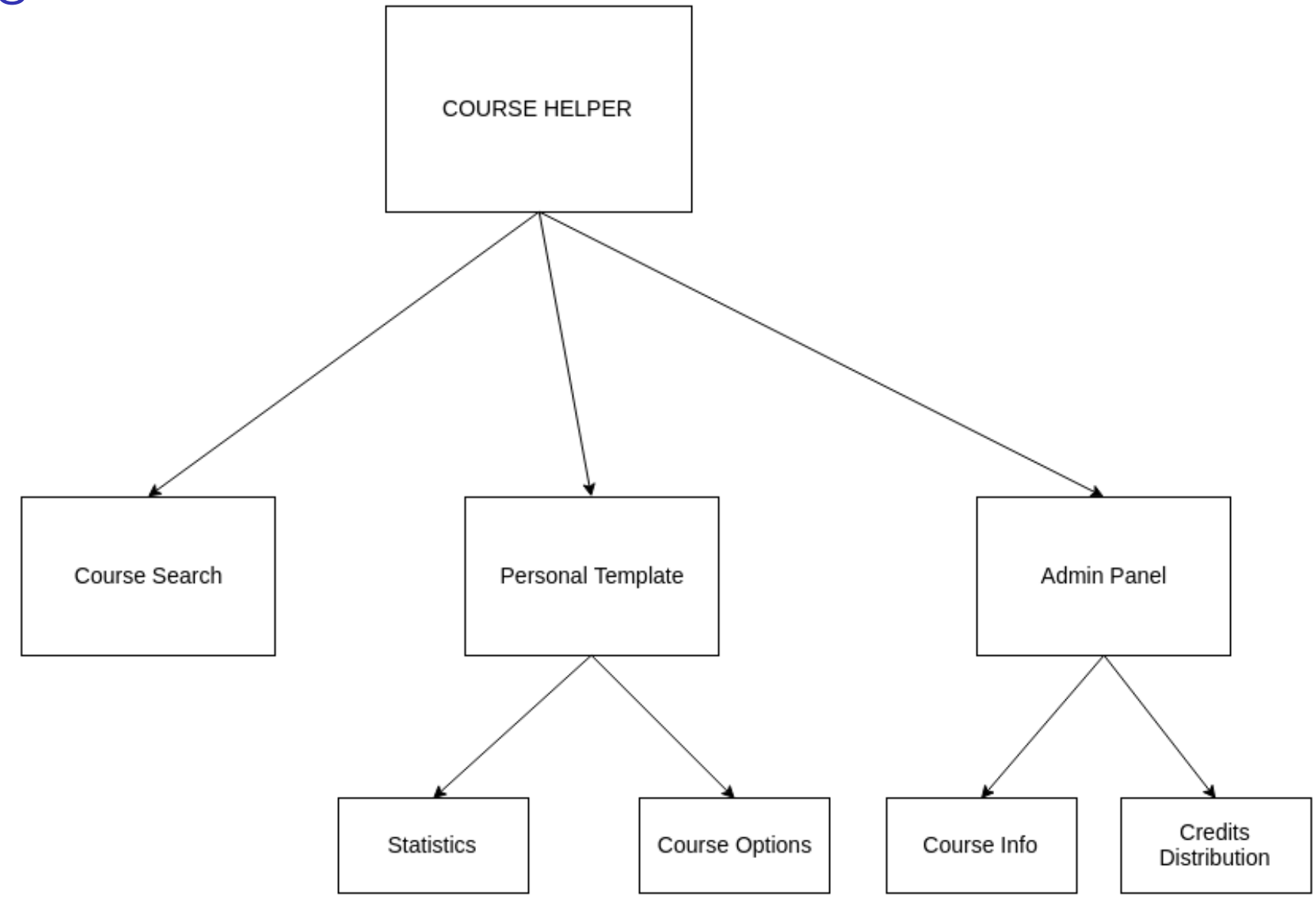
- Enlisting possible course options to fulfill the credits requirement
- Adding search filters on course lists

Logical View



Logical View

This solution will have 2 end users: (1) Students and (2) Administrator. Here is the description of the modules:

Course Search: Accessible to the student user, next semester course list with search filters

Personal Template: Accessible to the student user, will contain information about the remaining credits that have to be done by the student to complete his/her program.

Admin Panel: Accessible to the admin, to assign credit distribution and semester wise template for all departments.

Platform and Technologies

User end: An android application, with the help of the following 3rd party libraries:

- **Volley:** For sending HTTP requests
- **JSoup:** For parsing HTML responses in Java
- **Picaso:** For displaying user's profile picture

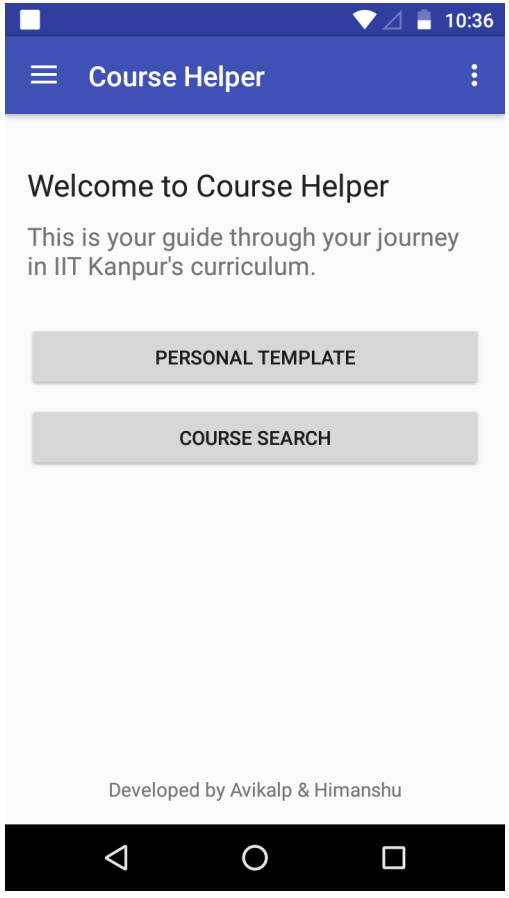
Server: Built on *Django* framework, hosted on EC2 instance of *AWS cloud server* along with help from the following libraries:

- **BeautifulSoup:** For parsing HTML responses in Python

Data:

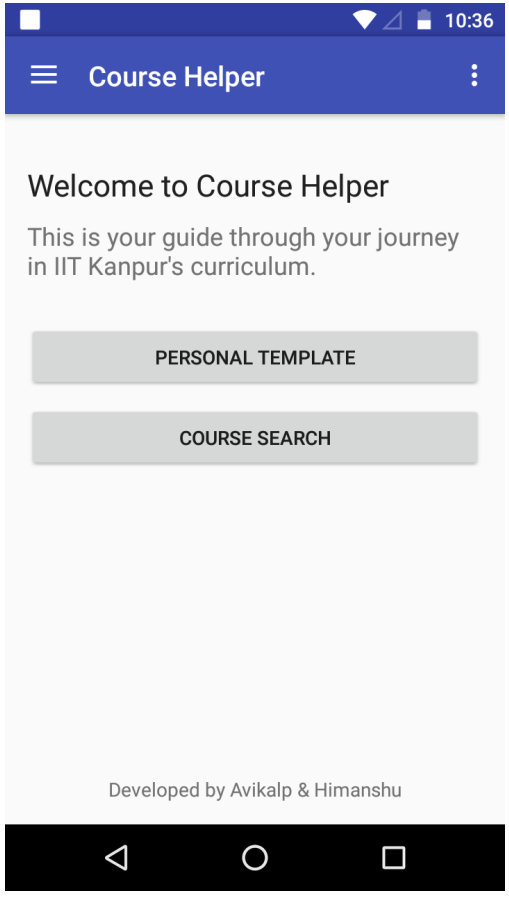
- **User data:** Read from OARS
- **Course & Degree info:** Managed using admin panel

Glimpses of the android app

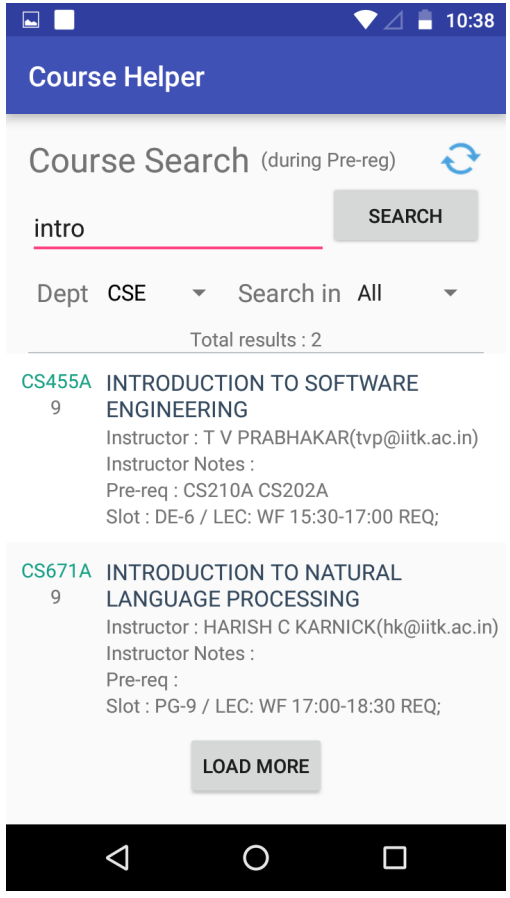


(a) Landing page

Glimpses of the android app

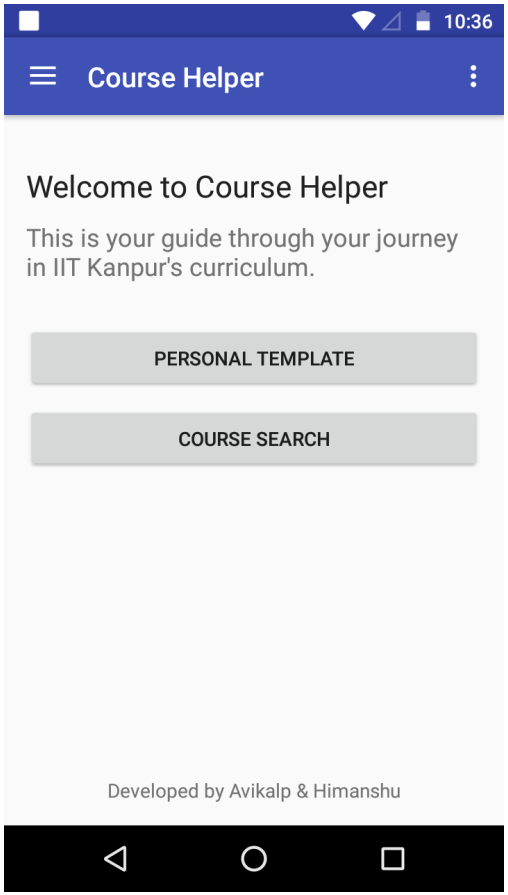


(c) Landing page



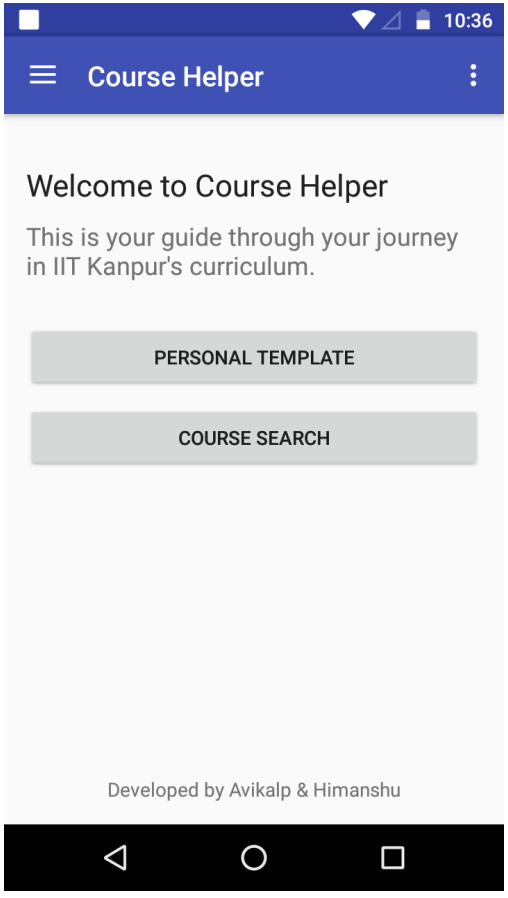
(d) Course Search

Glimpses of the android app

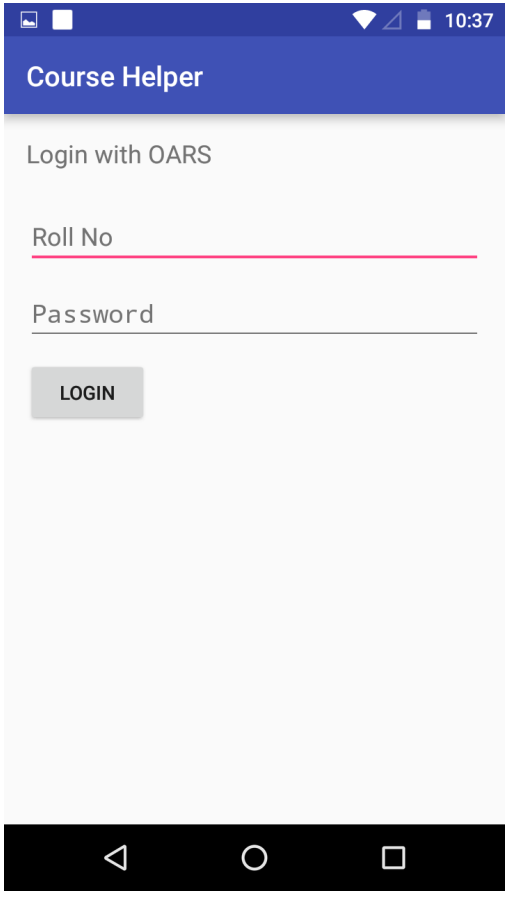


(e) Landing Page

Glimpses of the android app

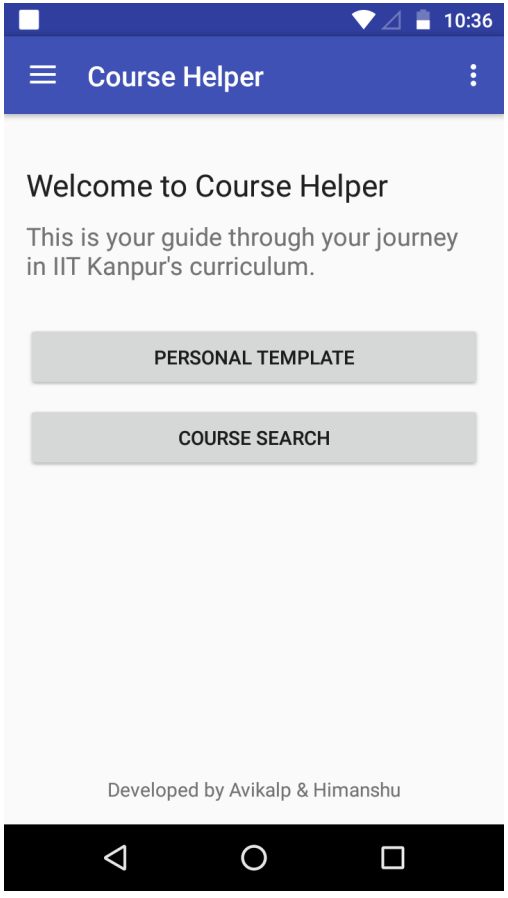


(h) Landing Page

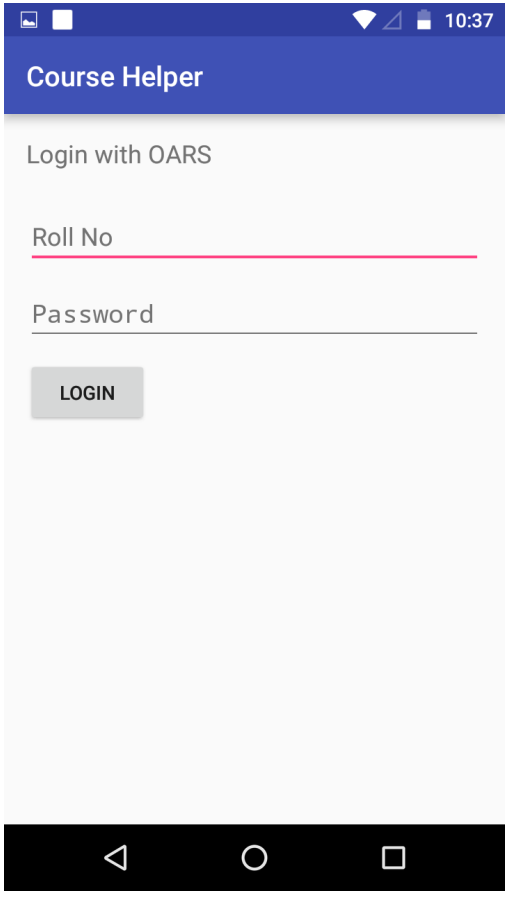


(i) Login

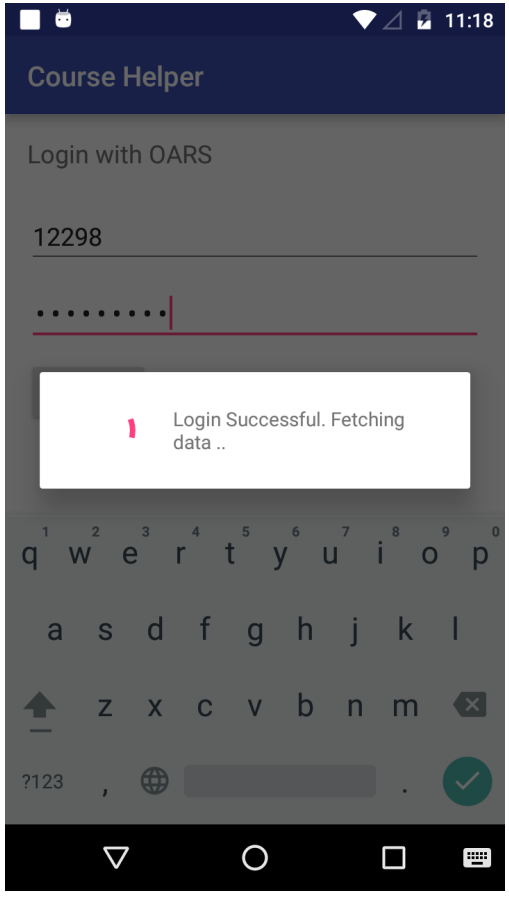
Glimpses of the android app



(k) Landing Page

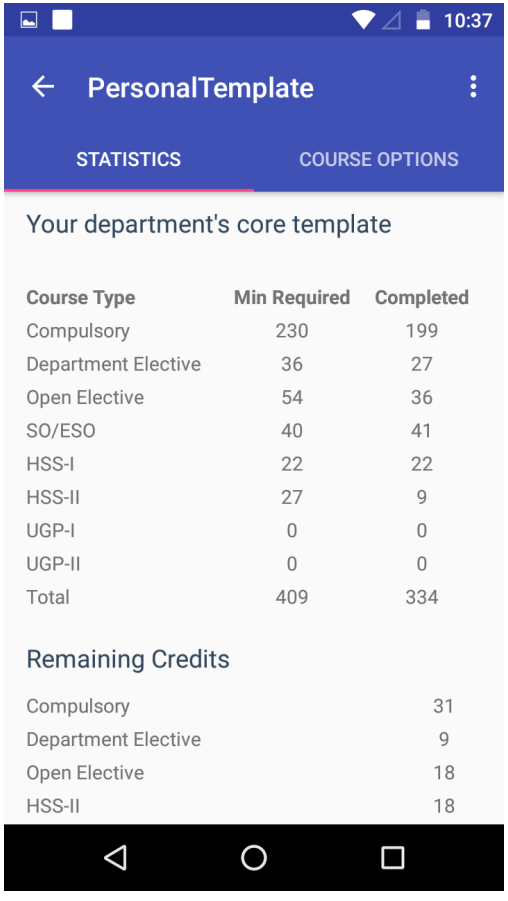


(l) Login

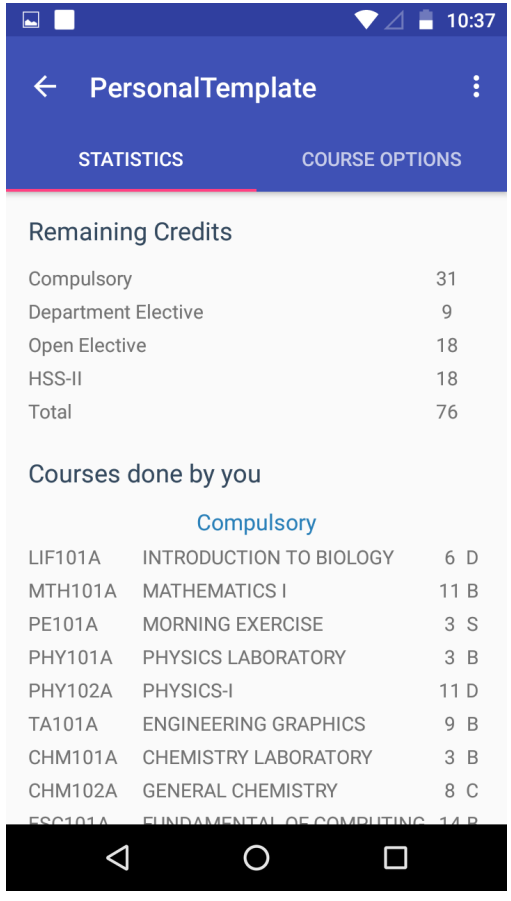


(m) Loading

Glimpses of the android app



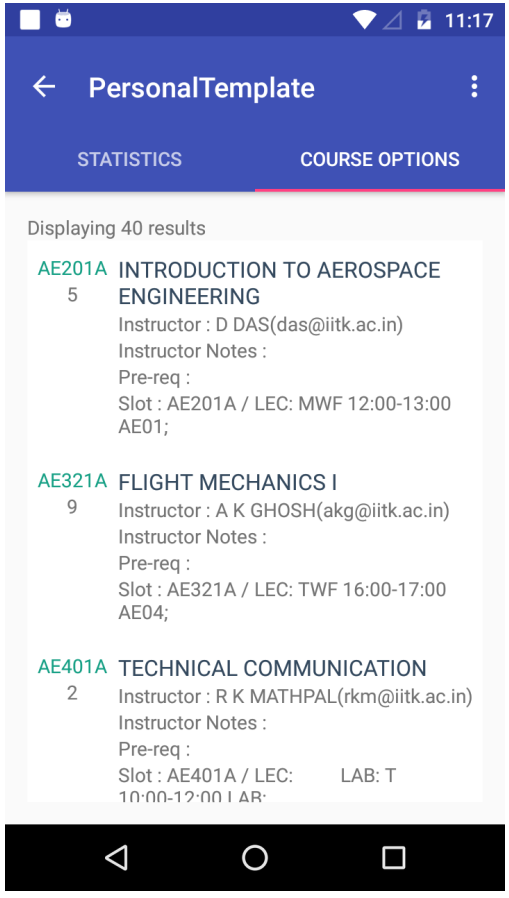
(n) Raw statistics



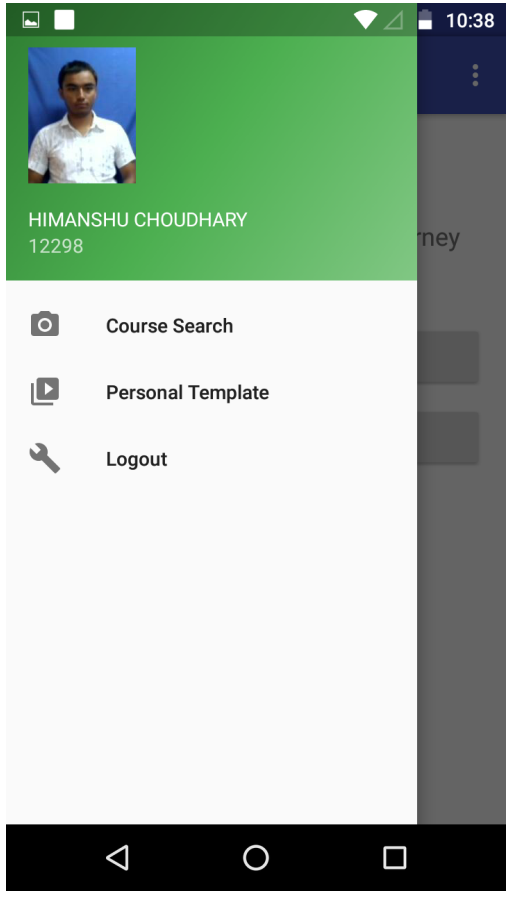
(o) Remaining credits

(p) Completed courses

Glimpses of the android app



(q) Course Options



(r) Logout

Salient Features

Server

- REST Architecture
- Shares OARS server load

Android App

- Low Network Traffic
- Works Offline (once data is downloaded)
- Privacy (user data stored locally)

Future Work

- Course Recommendation

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- Including "What-if" scenarios

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- Integration with OARS

Questions