National Institute of Technology Calicut
Department of Computer Science and Engineering
CS3004D SOFTWARE ENGINEERING
ASSIGNMENT 1 - SRS

Submission deadline (on or before):
14th February 2021, 10:00:00 PM

Submission format:
Should be submitted as a single PDF file with name Team<TeamNumber>.pdf Eg: Team1.pdf

Policies for Submission and Evaluation
The team lead only will make submission in the moodle (Eduserver) course page, on or before the submission deadline. The SRS should be prepared in accordance to the template given in :
https://docs.google.com/document/d/1COgXcw_gJJXEUunKDJ6rCkuIOv8HLFFXhnP2o8oBFOg/edit?usp=sharing

For each team, one topic (given in the last section) is assigned, and the details regarding this topic allocation is available in the following spreadsheet.

https://drive.google.com/file/d/1WPEM6bi4jJJ8Zb60B-UORiOCzRxdpg12/view?usp=sharing

Each student in the team should participate in the SRS document preparation task, and the team lead has to clearly mention the details inside the Activity Log section in the SRS template. The course instructors have the freedom to conduct individual evaluation either based on viva, or quiz based on the submission. The total marks for the assignment is 10 marks. The marks awarded will be based on the uploaded SRS document and the evaluations.

Assignment Task
Each team can work up on the **allotted** project idea, and prepare the SRS based on your discussion among the team members. Clearly identify the requirements and fill the sections in the SRS template.

Topics

1. Borrow and Lend for NITC
The aim of the project is to develop a mobile based application for sharing books. The users of this App can borrow books from other users and lend their books to others within a time constraint. The user can add the details of the books (Title, Author) with them in the App. When users search for the book based on the availability it should list all the lenders. When a user borrows a book, after the specified time period they should get alerted by a message to return.

2. Guest House Booking in NITC

The aim of this project is to develop an application for booking rooms in the guest house. The application should show the availability of the rooms. If further requests came for a room then the room should be allotted based on the priority. The priority is given by the position of the requested person in NITC.

3. Infrastructure Complaint Reporting

The aim of this project is to develop an application to report the complaints about the infrastructure in NITC. Someone can report the complaints in the application like - problem with tube light, fan etc and the room number. Based on the type of complaint, the corresponding section can see the complaints and resolve it as soon as possible. After completion, the corresponding section should mark the status of the complaint as completed. Users should be able to give a feedback - star rating.

4. Mess Bill Management System

This application helps the mess contractors to generate the month-end mess bills automatically for the students. At the start of each month, the mess contractors can feed the details of students who are going to take food from that particular mess. Whenever the student takes food from the mess the entries are made, and sends an SMS to the student. If mistakenly the mess contractors marks the entry of a student, then the student can report a complaint. At the end of each month, the App generates mess bills including extras and sends the students SMS with the total amount.

5. NITC placement management system

This application is mainly for managing the placements of students. New Students can sign up or register giving complete details. They can submit resumes and also they can update profile information.They can register for a particular Company. The System would also be able to search for eligible students and company with respect to their specifications and requirements. The eligible students would receive an email including the details of the Company, placement procedure and other details.

6. Project Allocation in NITC

Each final year NITC student of B. Tech courses have to complete an individual project. This application helps the project coordinator to automatically allocate a faculty for each student based on the preference list given by students and faculties without any complaints. The students first mention their order of preference for faculty. Faculty gets to choose from those who have shown interest to work with them. There can be a cut-off on the number of students assigned to each faculty.

7. Attendance Tracker System for NITC

This is a helping aid for NITC students to track their current attendance percentage of each registered course. The students can add their course details for which he/she is registered for the current semester. At the end of each day, App gives an alert to mention the classes he/she attended or missed on that particular day. He/she can view their current attendance percentage for each course and also the projected percentage he/she will be scoring at the end of the semester. It gives an alert if the student's approximate attendance percentage is below a particular cut-off.

8. Hey Auto

This App is for helping the individuals for availing the auto service near to them. It can track the registered auto services nearby and call them for a ride. The users can rate them based on their service. Besides this, the users can book for a ride in advance by specifying the expected ride date and time. Payment is not involved. This is a location based service for registered users and auto drivers. Feedback may be collected from the users.

9. Skilled Labour Support

The App aims to provide the skilled labour services nearby. The services can be categorized (Plumber, Electrician etc.) and the service provider can register their details (Phone number, Types of services offered) along with their service charges per hour. The user can view the service providers near to them by selecting a particular category of service. Based on the service providers availability, the users can avail their service by calling them. The users can rate their service by giving feedback. This is a location based service.

10. NITC Health Center appointment booking system:

The aim of this project is to develop a system for the students to book appointments at NITC health center. The student can select the date, and then the page displays the list of doctors. Students can choose from the list and submit. Booking goes to the health center admin and he/she will assign a token which contains token number and time slot. Students can see the booking status and token under his/her bookings section.

11. NITC Basket

Create an application for NITC Basket for the students and staff to order vegetables. Admin updates the details of each vegetable available. Students and faculties can order them in advance using their college id (no need to pay money online) and they can also cancel it if they wish (But time constraint should be there). Users have to provide other details like Name, Department Name, Course/Duty (for faculties whether teaching faculty, lab staff etc.), Phone number and Residential Address/Hostel. After advance booking if they didn't collect the item, then they will automatically be added into a black list (keep a constraint for a number of times not collected >1). They can order anything in the future only if admin removes them from the black list.

12. Project evaluation slot Booking System

The aim of the project is to develop a system to ease the booking of slots in an online manner. The students need a login and they can request their evaluation committee members about the available time slots of a date or a period. Teachers are able to login and mark their free/available time slot in the calendar after getting a request from the student. Based on the response from teachers(marking in the calendar) the system needs to match all those members' matching time and indicate it to the student with a slot in which every member is free

13. NITC Magazine:

This system helps in automating the process of selecting articles for NITC magazine. There is a dedicated email-id to which the submissions are sent from the students. The application accepts the email sent with a subject (Eg: NITC2021-MAGAZINE-ARTICLE-SUBMIT) to that email account. It automatically fetches the article and the submission details and should go through the screening process. The admin will be able to allocate the article to the reviewers and will be able get feedback (in terms of rating) from them. Finally the admin can shortlist them based on the ratings received.

14. NITC Work Support

This is a mobile based application in which the activities which require student volunteers are posted by the faculty members, and the students who wish to join such activities can register their names. Based on the received list the faculty members select the required students (may be in FIFO or using some other criteria). The selected students will be intimated back regarding their selection, and they will be required to confirm their availability.

15. NITC Blood Bank

This application will be able to register the details of the NITC people who are willing to donate blood in case of emergencies. The medical authority will be able to track the details of available donors based on their blood group, gender and age. NITC people with their NITC email can request for blood donations, and based on the confirmations received from donors, the system will be able to reply back to the requests.

16. NITC faculty appointment online

The students who want to meet the NITC faculties in person can request for their appointments through this App. The faculties will be able to reply back their convenient time based on their requests. At the starting of each day, if any appointments are scheduled then auto email and SMS alerts will be sent to both the student and the faculty regarding their scheduled appointments.