

Project Title: A Software for Summer Internship

Supervisor: Idil Candan

Type: Standard Development Project

Project Description: CNG 300-400 courses in METU NCC are required to be completed for an engineering degree in order to help students observe the application of their theoretical knowledge, enhance their occupational experience, do engineering practice, get familiar with the industry and work conditions, and do a conscious career decision after graduation.

In this project, an Android application will be developed that will be used by students, companies, internship coordinator and instructors. All of its elements are web-based, therefore it can be used with PC, tablet, smart phone, etc. The system will offer some software modules: registration, statistics, monitoring and alert.

Below is the description of some software modules:

Registration (done by students): The student will need to fill the trainee student information form online, which issues a number for each registration.

Statistics and monitoring: The coordinator will see the registrations, company approvals, company evaluations and report evaluations.

Alert: The system will send several text alert or phone messages. An alert will be sent to company after the student fills the trainee student information form. Another alert will be sent to coordinator after the company supervisor approves. After both company supervisor and coordinator approves, students will get an alert.

The company supervisor should fill out the online evaluation form after the end date of internship, because of this the company supervisor should get an alert after the student finishes his/her internship. So he/she logs in to the system and fills the evaluation form.

Report Evaluations: Students need to submit their reports to this system until the given deadline. Instructors evaluate the reports and if needed, some updates are requested from the students. The system should forward instructor comments to students via email.

The system will be further developed in order to have estimations of service time (the time you will receive approval from company and from coordinator). For that, server will provide information about the average service time and a rough estimation can be calculated by using well known queueing theory formulae. Other functionalities such as canceling the internship before the start date of internship should be added to the system.

Queueing model will help to answer the following questions:

- What is the average waiting time for a student?
- What is the likelihood a person will have to wait for more than 2 days?

Software Requirements: Android Development Environment

Hardware Requirements: PCs, Smart Phones

Milestones

1. Installing and learning Android programming environment (three weeks)
2. Preparing the server (three weeks).
3. Establishing the GUI. (two weeks)
4. Coding for queuing management. (four weeks)
5. Getting familiar with methods for estimation (Three weeks)
6. Coding for estimation (Four weeks)
7. Testing. (Two weeks)