King Fahd University of Petroleum and Minerals
College of Computer Sciences and Engineering
Information and Computer Sciences Department
SWE 363 - 182

SWE 363

Web Engineering and Development

Instructor: Hamzah Luqman

Software Requirements Specification

Project Title: KFUPM E-Maintenance

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1. *Introduction*

1.1 PURPOSE:

The aim is to develop a website system that manages the services provided by the maintenance department at KFUPM. These services include maintenance, cleaning, painting…etc. The interested users can access the system through the available website and explore the available services. The purposes of this document are to:

- Gather and identify requirements.
- List down the key features of our program.
- Identify different stakeholders and describe them.
- Identify any constraints to the proposed software.

1.2 SCOPE

The "KFUPM E-Maintenance" is a website where the user domain is KFUPM affiliates including students and faculty as well as lecturer and anyone else belonging to KFUPM and is making use of its property. The users can request maintenance services and manage the status of their requests.

1.3 PROBLEM STATEMENT:

The aim of this project is to develop a website that digitalizes the process of requesting maintenance for KFUPM personnel, making it smoother and much easier to track.

1.4 PROJECT Goals

- Allow the users to generate maintenance requests
- Keep track of maintenance requests
- Allow staff to undertake requests
- Generate usage reports for the admins

1.5 Product Overview:

The aim of this product is to develop a website that can be adopted within the maintenance department to manage clients' maintenance requests and allow for asynchronous communication between the two parties (KFUPM maintenance department and KFUPM affiliates) regarding maintenance requests. The users can request maintenance services online and the maintenance department responds to their request via the Website, allowing for tracking along the way.

2. Overall Description

2.1. Organization and Content of the Website

Registered user view

- Profile
- Services
- Tracking of personal requests
- Feedback

Staff view

- Assigned Requests

Admin view

- Report generation
- Managing Services

Anonymous user view

- Services
- Registration

2.2. Stakeholders, Users and User Characteristics

2.2.1 Stakeholders

- Saudi Arabian Government: The government is related to the software by the rules and regulations they stated in the country's regulation.
- KFUPM: KFUPM is the owner of the software and they will manage the system.
- KFUPM Students: They are the target users of the software.
- KFUPM Maintenance Department: They are a target of the software and the provider of its services.
- Software Development Team: They are responsible for developing the Maintenance software.

2.2.2 Users and User Characteristics

User Characteristics	Main functionalities	Typical computer literacy	Typical educational background	Expected frequency usage of the system	Notes
Anonymous Users	Browsing services	Familiar with computers	N/A	N/A	Anyone interested in viewing maintenance dept. services
Registered Users	Browsing services, Requesting services	Familiar with computer s	High school/ Bachelor's	Twice a month	
Staff	Scheduling services, closing requests	Familiar with computers	High school	Daily	
Admins	Manage and maintain the system	Expert	Bachelor's and higher	Daily	

2.2. General Constraints

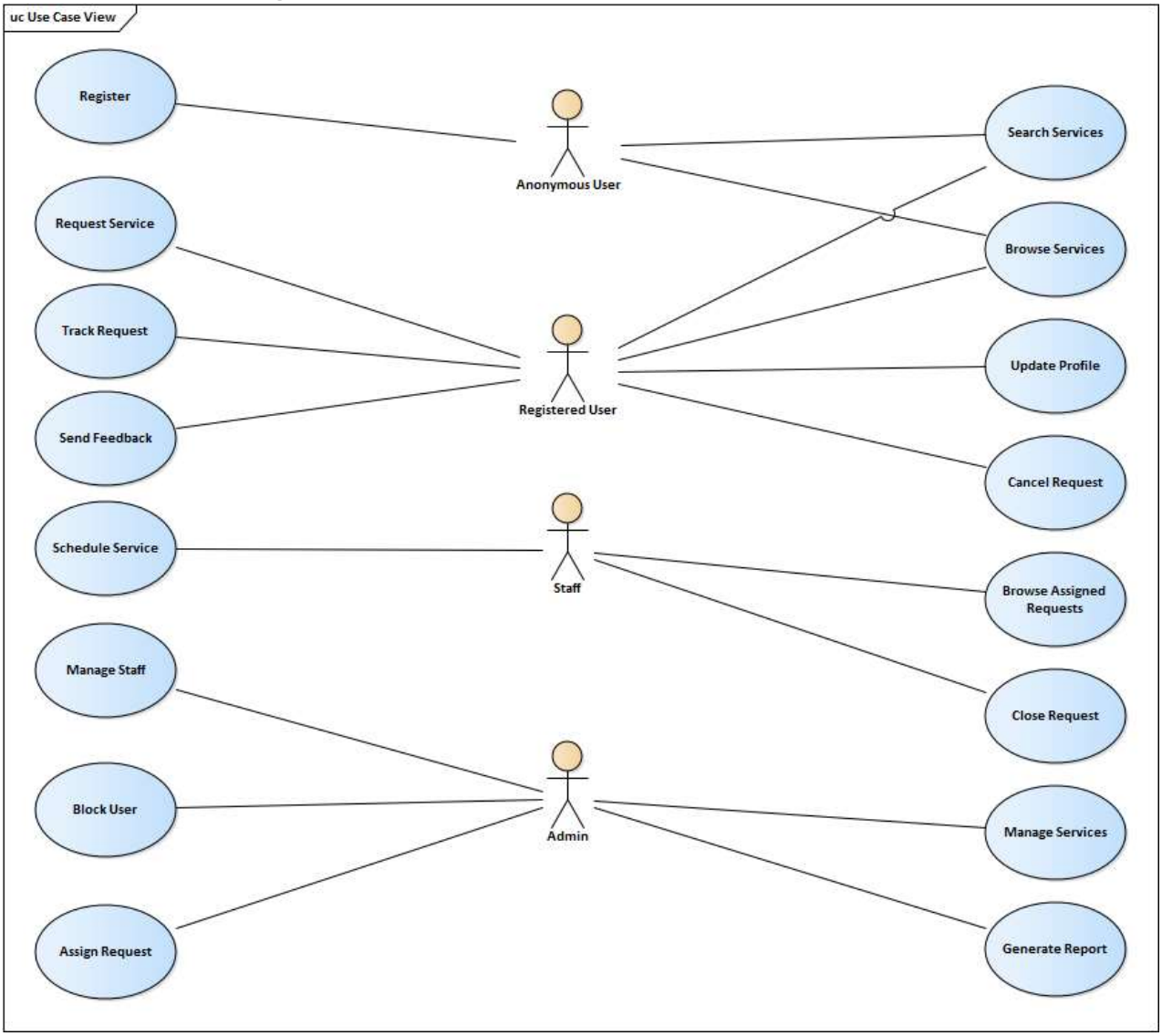
- The system shall follow the guidelines and rules of KSA.
- The project shall be implemented using html, CSS, Javascript, php, and MySQL.
- The project shall be done by April 13, 2019.
- The project should be designed using UML as the modeling language.
- The system server should be CCSE server.
- The website passes the HTML and CSS validation test.

2.3. Assumption and Dependencies

- The system is used by KFUPM members only.
- The system is used inside KFUPM only.
- Faculty can publish publication directly or through an organization.

3. System requirements

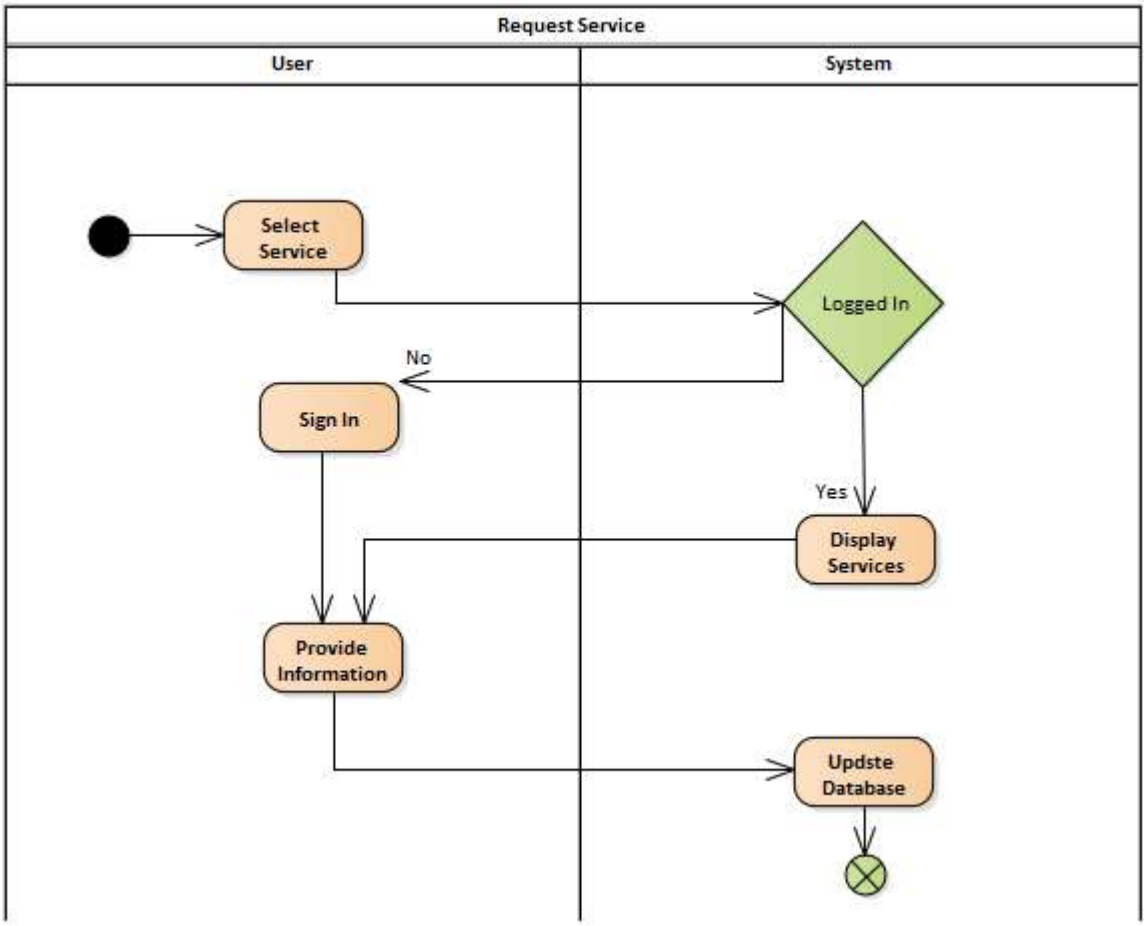
3.1. Use case Diagram



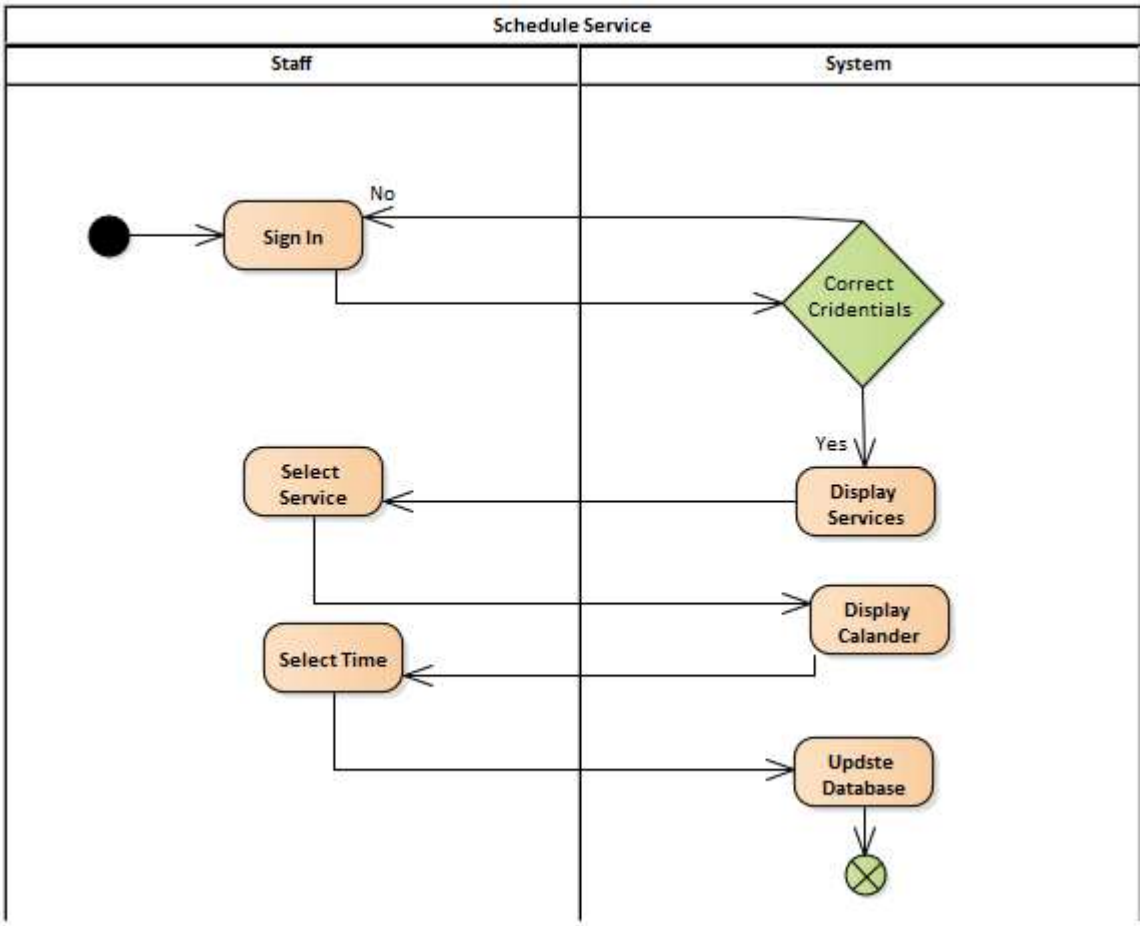
4. Analysis Models

4.1. Activity Diagrams

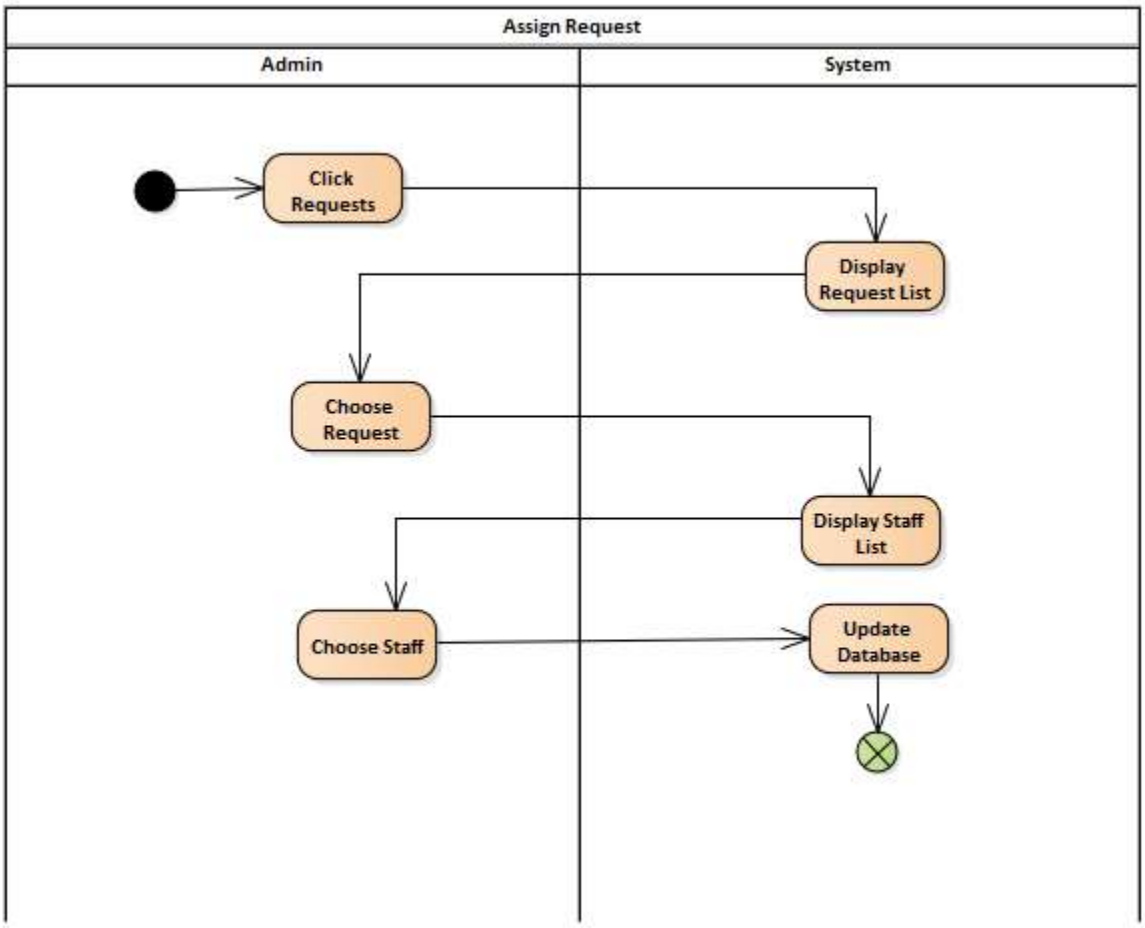
4.1.1 Request Service



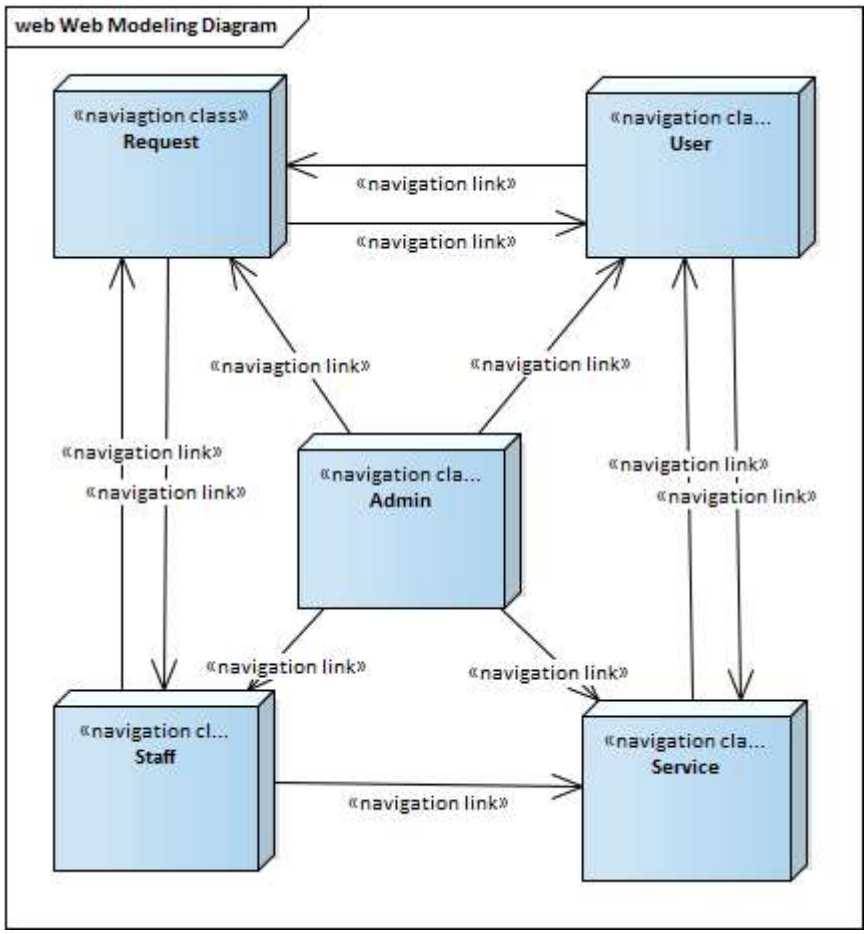
4.1.1 Schedule Service



4.1.3 Assign Request



4.2. Navigational Diagram



5. Class Diagram