Term-2 1445 H

StudyCabin

IT 320 Project Proposal
KSU StudyCabin

Prepared by

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Second Term 1445 H

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1 Introduction

Every student at King Saud University tries their best to achieve the best results each semester. This desire won't be attested unless the students have the right resources and environment. Nowadays, students are surrounded by a lot of distractions no matter where they are and struggle to have a suitable environment to stay focused, especially during exams' season. Nonetheless, students struggle with choosing a suitable place for group projects, meetings and study groups. We decided to take advantage of the students' familiarity with reservation apps and design an app that allows King Saud University students to reserve their own study room at different university locations at any time rather than making a manual reservation. Which will help them to stay in a focused environment and achieve their academic goals. It will make the process of reserving a study room easy, reachable and fast. In this proposal, we identified the problem we will solve with the benefit of our solution. In addition, we introduce the product vision that we aim to achieve by the end of the project and the road map that guides us in developing this product listing the expected functions in each sprint. Next, we addressed the main product objectives, the product scope and a list of the scrum team members who will be assigned to this product through its different sprints.

2 The Problem

King Saud University students struggle to find available study rooms on campus, particularly during peak periods like exams or project deadlines. This results in wasted time, increased stress, and potential conflicts over space. A concrete example of this problem is a group of students working on a collaborative project who spends several hours searching across various campus buildings for a place to study together, only to be interrupted by another group claiming the same space due to the lack of a formal reservation system.

By developing an Android app that offers real-time visibility into available study rooms and an intuitive booking system, could streamline the process for King Saud University students by ensuring they can easily secure a place to study or collaborate with peers, anytime and anywhere on campus, ultimately fostering a more productive and satisfying academic environment.

3 The Solution

To address the challenge of finding available study rooms at King Saud University, we plan to develop a reservation management system in the form of an Android app called **"KSU StudyCabin"** designed to provide students with real-time information on study rooms availability and a user-friendly booking system. This solution is set to revolutionize the way students access study rooms, allowing them to effortlessly reserve rooms for individual or group study sessions. The impact of this app will be profound, significantly reducing the time and stress associated with securing study areas, eliminating potential conflicts over space, and enhancing the campus environment, especially during critical times like exams and project deadlines.

4 Product Vision

For King Saud University students, **Who** seek a seamless and efficient way to book study rooms, **The 'KSU StudyCabin'** is a dedicated Android application designed to transform how students find and reserve study rooms in campus. **That** offers a way to facilitate the reservations management process for King Saud University, **Unlike** the current King Saud University Deanship of Library Affairs' reservation system, **Our product** provides a more accessible, user-friendly solution tailored to the needs of king Saud University students in Saudi Arabia. It ensures that students can quickly view available spaces and secure their ideal study environment.

4 Product Roadmap

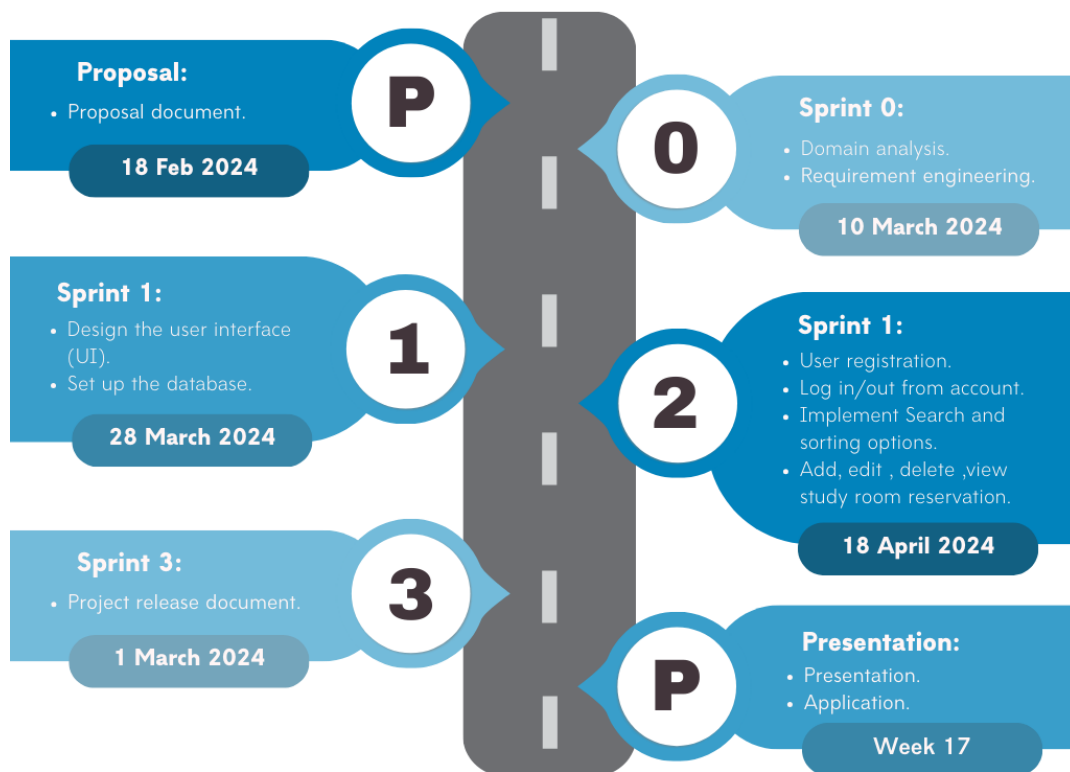[Figure 1: shows the roadmap of KSU Study Cabin]

Proposal:
- Proposal document.

18 Feb 2024

Sprint 0:
- Domain analysis.
- Requirement engineering.

10 March 2024

Sprint 1:
- Design the user interface (UI).
- Set up the database.

28 March 2024

Sprint 1:
- User registration.
- Log in/out from account.
- Implement Search and sorting options.
- Add, edit , delete ,view study room reservation.

18 April 2024

Sprint 3:
- Project release document.

1 March 2024

Presentation:
- Presentation.
- Application.

Week 17

Figure 1

5 Objectives

- **Product**
  - Enable students to register, log in, and log out seamlessly to manage their study space reservations.
  - Provide features to add, edit, and delete reservations, giving students full control over their study space scheduling.

- o Implement sorting algorithms that allow students to organize available spaces by various criteria such as location, amenities, and time availability.
- o Develop a robust search feature that enables students to find specific study spaces based on their preferences and needs.
- o Allow students to view and manage their own reservations, ensuring a personalized experience that caters to their individual study habits.
- o Allow students to book study spaces for group study sessions.

- **Project**
- o Gather requirements from students to understand their needs.
- o Create a user interface that is intuitive and accessible for all students, with a clear layout for reservation management.
- o Build the backend system to handle reservations, cancellations, and modifications.
- o Develop and integrate features for adding, editing, and deleting reservations as well as sorting, searching, and managing group sessions.
- o Conduct thorough testing to ensure all features are working as intended and to fix any bugs prior to launch.

- **Learning**
- o Learn how to design, develop, and deploy a mobile application for Android platforms.
- o Learn agile development methodologies (such as Scrum) for iterative development and continuous improvement based on user insights.
- o Learn to apply data analytics for understanding user behavior and optimizing the reservation system based on usage patterns.

6 Scope

Our aim is to develop a dedicated Android application for King Saud University students that simplifies the process of booking study rooms. The app will provide a straightforward registration process and options for logging in and out. Students will be able to easily add, edit, and delete reservations. The app will feature effective search and sorting tools, allowing students to quickly locate and organize their reservations within an intuitive, student-friendly interface. Also, it will allow students to book study spaces for group study sessions. This application will be developed exclusively for the Android platform and will support only the English language, ensuring a focused approach to development and user experience. On the contrary, the application will not include features for real-time chat or direct communication between users, nor will it support multi-language options or integration with other university systems beyond the booking functionality.

7 Scrum Team

Scrum Team	
Product Owner:	Shdn Alsheddi
Developers:	Shdn Alsheddi
	Dana Alomar
	Tarfah Al Ateeq
	Munira Almogren
Scrum Master (SM):	Ghaida Abdulaziz Alfayez
Stakeholders:	Ghaida Abdulaziz Alfayez

8 References