Bilkent University

Department of Computer Engineering

Senior Design Project

Project Name: StudyB

Project Specification Report

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1. Introduction

Studying during university life is very crucial to success. Either studying alone or with a group is an option but getting help from other students is a contribution to this success. But unfortunately, getting help can be a little harsh because of various reasons.

For example the student can be a first year student and who may not have a social life enough to form a study group or ask for help. Another reason may be that the student may be a prolonged student whose friends are graduated or taking other courses.

In order to help willing students to form a study group or to look for help by sharing documents or communicating via chat rooms, StudyB project was born and will be serve as a mobile application study platform.

1.1 Description

Our project aims to provide a platform where willing students can find study partners, share course materials and thus help each other. Thanks to StudyB, students will be able to get together after confirming that they are Bilkent students through their bilkent emails. On the course pages, students will be able to share course materials such as course notes and questions and will be able to answer and help each other. Students who are looking for a study partner will be able to create study rooms and will be able to work together with the people who enrolled in these rooms, either face-to-face or in a virtual environment.

There will be a scoring system to encourage students' cooperation and prevent lurkers. After a 2-week trial period, members who do not participate in any way but benefit from the materials of other people on the platform will be removed from the platform. Also a score system is developed according to the amount of participation which will have scoreboards according to the wishes of the users. Among the members who want to show their participation amounts in the score

table, the most participating member will appear on the scoreboard of course page as the master of that course.

In addition, according to the courses students have enrolled, system will have their exam schedules and information, and they will be notified when the exam dates are approaching.

1.2 Constraints

1.2.1 General Constraints

❏ StudyB will be a free application on the mobile platform.
❏ The application is for Bilkent students.
❏ The project will be completed in May 2020.
❏ The application's language will be English.

1.2.2 Implementation Constraints

❏ StudyB will be implemented for Android Operating System.
❏ Java Script, AngularJS will be used in the implementation step.
❏ The project will be developed on Github which all group members have as a change to access the platform.
❏ StudyB creates its dataset from STARS platform.
❏ Object Oriented Programming will be used as a design pattern.
❏ Website and all the relative data of the application will be stored in cloud.

1.2.3 Security Constraints

❏ The application will require a university email address (ug.bilkent.edu.tr) from student to sign up to the system. This information will not be public and it will be saved the application database.
❏ StudyB will require a nickname to access to the platform. The users create their nicknames which can be anything(name, number, etc). This will be public and other students will see this nickname. However, if the students want to

hide their information. They can choose the hide button and the system will give a random number instead of their nickname.

1.2.4 Sustainability Constraints

- ❏ Application code will be well commented and efficient.
- ❏ Application documentation will be well organized for updates.
- ❏ StudyB's main goal is to help students to find their study partners and study materials. According to their feedback, application will be developed for updates.

1.2.5 Social Constraints

- ❏ Users can meet new people as a study buddies.
- ❏ From the main page, people can communicate better by making suggestions, answers or comments.

1.3 Professional and Ethical Issues

StudyB aims to help students in their university life in the best way. To do this StudyB will be updated for any new requirements or feedback from the users and provide its users with its best features. In order to make StudyB's features as efficient as possible; users' Bilkent emails, courses, exam dates, attended study rooms, activities on the platform will be stored in the database. Conversation that had in chat room among users will not be saved as a data to preserve personal rights.

Information that are taken from users will not be shared with any third party datasets and saved only for the developer team to the purpose of developing StudyB better for users. There is going to be a privacy policy which explains how the collected data will be used. Users are going to be able to access and read this documentation in application.

In terms of professionality of our application, only bilkent users will be accepted to the system. There will not be any access from outside with another email extension except ug.bilkent.edu.tr. Users are going to be able to communicate with people from campus so the documentations shared by users will be available only for Bilkent students.

2. Requirements

2.1 Functional Requirements

❏ Users will create an account with their Bilkent webmail accounts (with the ug.bilkent.edu.tr extension).

❏ Users will select the specific department and course of Bilkent University that they want to enroll in.

❏ Users are going to be directed to the main page of the selected course.

❏ Users can make comments on the posts on the main page.

❏ Users can ask questions about the course.

❏ Users can share documents such as pdf's, images, etc. about the midterms, quizzes, homework, etc. on the main page of the course.

❏ Users can export their calendar to the application to take the exam tips notifications.

❏ Users can take general tips for their assigned courses as a notification. If they do not want to take, they can make that course feature disable from settings.

❏ Users can enroll the study buddy feature by clicking a button on the main page.

❏ Users can start a new conversation with their study buddy in a chat room.

❏ According to the users activities, a score list will be created to identify lurkers and students who contribute most.

❏ Top three contributor students are going to be seen on the score list and the top student is going to be called as the master of that course.

- ❏ If users do not want to be seen in the score list, she/he can make her/his nickname invisible in the list.
- ❏ Lurkers can be identified from this score list if they do not contribute for a month and after that, they will be in the suspension period as a punishment.

2.2 Non-Functional Requirements

2.2.1 Usability

- ❏ StudyB will have a minimalist user interface in its main page therefore it will be easy to use and learn.
- ❏ Google calendar is going to be able to be added to the account if the user prefers to follow midterms, finals.
- ❏ Feedbacks will take into consideration to develop the application better.

2.2.2 Reliability

- ❏ StudyB will not allow any user from outside of Bilkent University.
- ❏ StudyB should be used any time as a stable system and should avoid any crash.
- ❏ StudyB should prevent lurkers from the system for the best usage.

2.2.3 Scalability

- ❏ StudyB will be used in only Bilkent University for now. Undergraduates are going to be able to assign to the application. Database should be scalable for at least the number of students in Bilkent University and should support dynamical changing of the users.

2.2.4 Privacy

- ❏ User information will be private including their email address and private messages between two users in chat rooms. Also, if the user desires, nicknames will be unseen and a random number will be shown as nickname to other users.

3. References

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