

COMP3011J MOBILE COMPUTING 2023-2024

BEIJING-DUBLIN INTERNATIONAL COLLEGE

Project Beta

StudySpace



Students:

21207295 Yiran Zhao

Professor:

Mohamed Saadeldin

November 17, 2023

1 Project Progress Introduction

The StudySpace application has reached its beta submission milestone in alignment with the previously outlined project plan. The StudySpace app is currently making steady progress on the project as written in the outline. In this phase, all of the main interfaces have been completed and all of the basic functionality has been implemented. This included dynamic timer functionality, a rich user profile interface, and the basic analytics interface. In addition, the current implementation has been tested, and the database and layout of some of the interfaces have been modified and improved. The subsequent sections will provide a detailed overview of the accomplished work. Specific images are shown in the PowerPoint.

2 Accomplished Work

2.1 Timer Functionality

The timer functionality has been successfully implemented to provide users with a dynamic timing tool to record their learning duration. The timer interface displays the selected learning location at the top, including the building and classroom. Users can easily start and end their learning by using the “Start” and “Stop” buttons. When the button is clicked to end the study, the text below the button displays the duration of the study period just completed and is recorded in the database. The duration of the study is dynamically displayed in the centre of the timer. Significantly, the outer ring of the timer features a dynamic visual element that creates an engaging and visually appealing user experience.

2.2 Profile Interface

The user profile interface has been carefully designed and implemented to provide a comprehensive view of personal information and achievements. The user can see their username and email address at the top of the page. In the middle is a cardview showing the total count of learning and the total number of hours the user has learnt. Below that is the medal wall feature, which is now set up to award a medal for every two hours of study. The interface seamlessly retrieves and displays relevant data from the database, ensuring accuracy and real-time updates. Furthermore, there is an icon in the top left and top right corners of the interface. Clicking on the icon in the top left corner displays the developer information, and clicking on the icon in the top right corner exits the login and returns you to the main interface where you need to choose to log in or register.

2.3 Analysis Interface

The analysis interface, although in its nascent stages, lays the groundwork for a robust analytics section. Users can access the main analysis interface, where they have the option to select specific analysis modules based on their preferences. Upon entering each module, users encounter distinct styles of visual icons that facilitate nuanced analysis of various aspects of their study habits. At present, I have identified and am ready to make use of AnyChart-Android visualisation tool. Ongoing development efforts are focused on enhancing the visual options, providing users with a more comprehensive and detailed analysis of their study trends. The aim is to enrich the Analysis Interface, making it an integral component of the StudySpace application’s features, and empowering users with valuable insights into their learning patterns and behaviours.

2.4 Database Adjustments

The database has undergone adjustments to optimize performance and accommodate evolving requirements. A pivotal modification was made to the *StudyTime* table, introducing two additional TEXT fields: *TimeOfDay* and *Date*. These enhancements enable the recording of more comprehensive study duration information, facilitating advanced visual analytics. Simultaneously, the *StartTime* and *EndTime* fields were consolidated into a single *Time* field. These enhancements enable the recording of more comprehensive study duration information, facilitating visual analytics. The revised Entity-Relationship diagram for the modified database is illustrated in Figure 1. These improvements guarantee the seamless integration of new features while preserving the overall integrity and efficiency of the StudySpace application. These database enhancements serve to accommodate the expanding functionalities of the application and uphold the StudySpace application's commitment to maintaining a robust, efficient, and cohesive user experience.

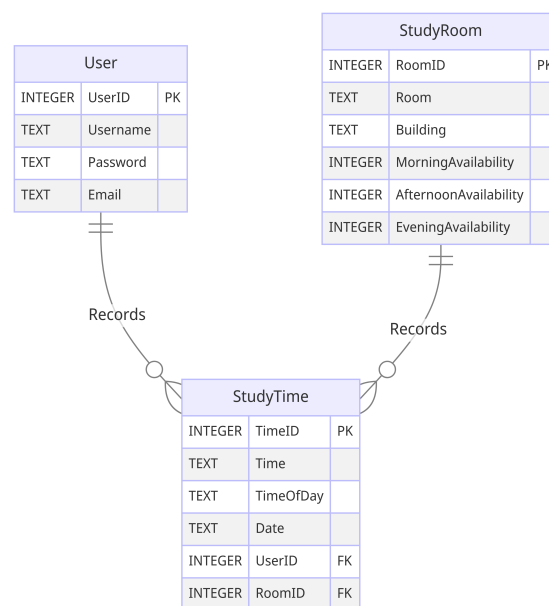


Figure 1: Adjusted Database Entity-Relationship Diagram for the StudySpace Application

3 Conclusion

The StudySpace application as currently implemented ensures a consistent styled page design and user-centred functionality implementation. Each interface's functionality has been rigorously tested and refined, ensuring a cohesive and reliable user experience. The accompanying PowerPoint presentation provides visual representations of these achievements, offering a more immersive understanding of the StudySpace application's progress.