Project Deliverable 4 Tutron App Final Report

Faculty of the Engineering SEG2105Z - Summer 2023

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Introduction

Over the past two months, our team was able to develop an application from start to finish. This project allowed us to practice software developement principles to create an android application using Android Studio. We were also able to apply different practices in software development learned in the lab and in the class lectures to later develop an Ottawa based application called Tutron App. The app connects students with tutors for one-on-one tutoring sessions, and it has three user roles: tutors, students, and administrators.

In the Tutron App, student can effortlessly, create accounts, browse and connect with tutors offering multiple lessons as well as securely purchase their lessons using valid credit cards. Furthermore, the app enables the student to voice and make complaints if any issue were to arise. Each complain is monitored by the administrator and an appropriate action is taken. In contrast, tutors can list all lessons they offer and have the flexibility of accepting or declining a student's request.

This report will display all the application views in form of screenshots as well as show the contribution of each team member for each deliverable as well as the lessons learned.

UML Class Diagram

legend: User # email_adress: String native_language: String description: String - profile_picture: byte[] - city: String - card_number: String region: String - expiration_date: Date - is_processed : boolean -years_of_experience : int end_time : Time - is reserved : boolean - CREATED_MAX; int = 20 {readOnly} OFFERING_MAX : int = 5 {readOnly} - status : Status - slot : Slot - price : double APPROVED

TUTRON UML DIAGRAM_Deliverable4 _ Group6

Figure 1: UML class diagram

Team members contributions

Team Members	Deliverable 1	Deliverable 2	Deliverable 3	Deliverable 4
Raphaelle Jean-Baptiste	Student page, welcome page specifying user role	Front-end designs and java implementation	Unit tests	Unit tests and Final report
Lucy Amos	General sign up page, tutor page	Front-end designs and java implementation	Front-end designs and java implementation	Front-end designs and java implementation
Dris-Bella Ishimwe	General welcome page to sign up or login, login page	Unit tests	Final report and presentation documents	Final report and presentation documents
Sonia Wang Dané	Back end, UML diagram	Back end, UML diagram	Back end, UML diagram	Back end, UML diagram

Table 1: Table with each team member contribution throughout the project

Tutron App pages

Welcome Pages

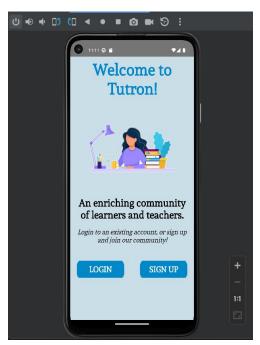


Figure 2: Landing Page

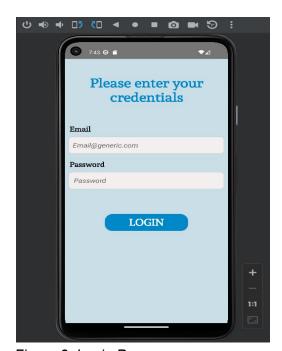


Figure 3: Login Page

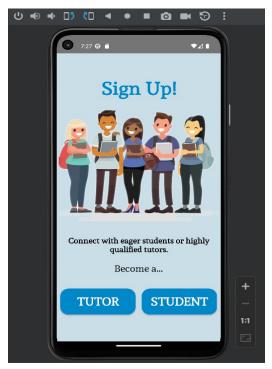


Figure 4 : Sign Up Page

Student Flow



Figure 5a: Student Sign Up Page

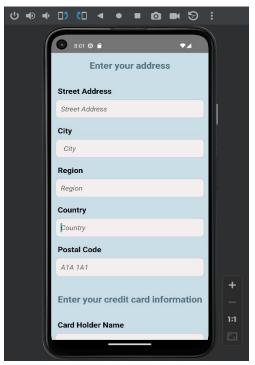


Figure 5b: Student Sign Up Page (continuation)

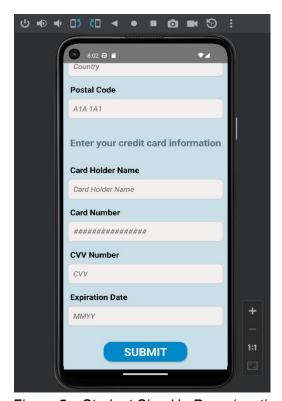


Figure 5c: Student Sign Up Page (continuation)

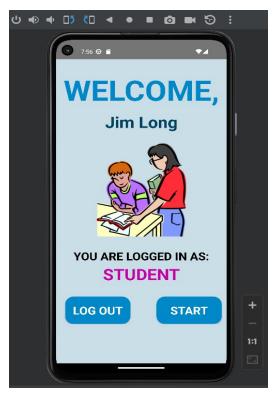


Figure 6: Student Welcome Page (when logged in)

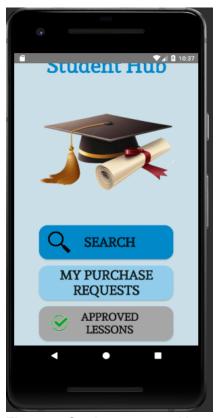


Figure 7: Student account-Home Page



Figure 8: Student account-Search Page



Figure 9: Student account-purchase request Page



Figure 10: Student account-approved lessons Page

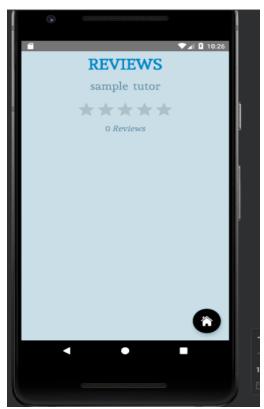


Figure 11: Student account-Review for tutor Page

Tutor Flow

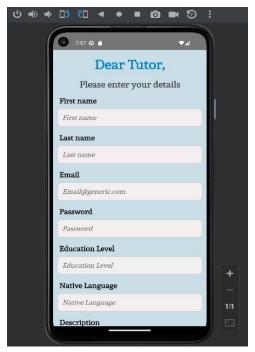


Figure 12a: Tutor Sign Up Page



Figure 12b: Tutor Sign Up Page (continuation)



Figure 13: Tutor Welcome Page (when logged in)



Figure 14a: Tutor account-Home Page



Figure 14b: Tutor account-Home Page (continuation)



Figure 15a: Tutor account- Profile Page



Figure 15b: Tutor account- topics list Page (continuation)

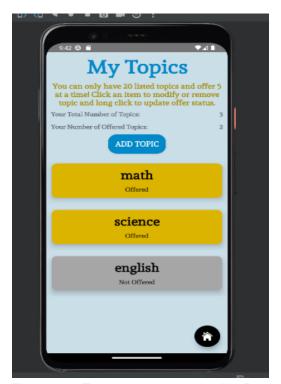


Figure 16: Tutor account- topics list Page



Figure 17: Tutor account- topic adding Page



Figure 18: Tutor account- topic confirmation screen



Figure 19: Tutor account- stop offering topic confirmation screen

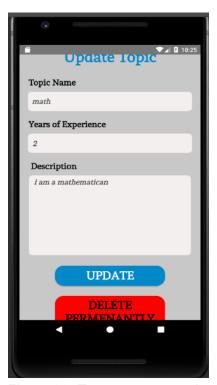


Figure 20: Tutor account- topic update Page

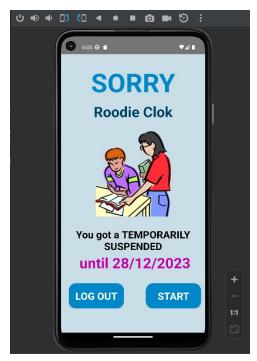


Figure 21: Tutor with a temporary suspension account Page

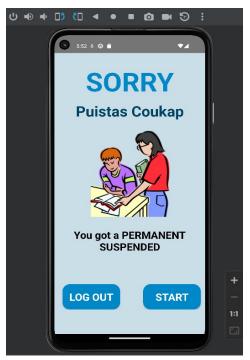


Figure 22: Tutor with a permanent suspension account Page

Administrator Pages



Figure 23: Admin Welcome Page (when logged in)



Figure 24: Admin complaints' view list Page

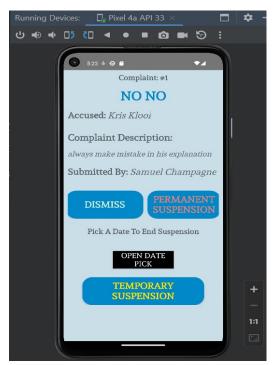


Figure 25: Admin complaints' actions Page

Other Pages

Lessons Learned

Developing this application has taught us a variety of lesson, that can be applied in life, school as well as work. Developing any application is a dynamic, process with continual progression and hurdles.

One of the fundamental lessons we learned was the power of communication and coordination. Collaboration and teamwork are essential components for successful application development. Working on the Tutron project taught us the power of communication coordination, and division of responsibilities. By communicating our personal deadline for our individual parts, we were able to efficiently coordinate the project's deliverables. In addition, we learned that, by using each team member's strengths, we fostered a better and more efficient development process.

Moreover, we learned to embrace hurdle and develop an adaptable system. Android development often include a lot of unforeseen hurdles. Our team had to learn to be more adaptable and include buffer days, to account to unforeseen challenges and bugs. We learned to adjust and be resilient despite the various adversity we went through.

While developing, not only did we improve our own individual technical skills in software engineering but also soft skill including effective project management, problem-solving, and teamwork.

Conclusion

Our android application, Tutron, helps connect students with local tutors. It supports three type of users: tutors, students, and administrators. Students can find tutors, request lessons, and leave reviews, while tutors can manage requests and their profiles. On the other hand, administrators ensure app functionality. Each user has their own particular features but overall this application bridges the gap between tutors and students in Ottawa, providing a user-friendly platform for seamless connection and scheduling of one-on-one tutoring sessions.

This project was very educational and helped us gain more knowledge regarding developing real android mobile apps, while implementing software engineering principles. We were able to familiarize ourselves with time management and how to improve codes while working as a team. We are proud of the functionally and features we implemented in this application and we look forward to furthering refining and improving skills in the future.