**City University of Hong Kong**

**CS3343 Software Engineering Practice**

**Self Assessment Report**

# PROJECT TITLE: CITYU STUDY ROOM SCHEDULER

**Group 10**

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| **Student Name** | **SID** |
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Self-assessment report - Dilnaz AUSHAKHIMOVA

Group role: Project Manager

As the project manager of the Study Room Scheduler project, I learnt a lot of things and encountered a lot of problems.

I learned the importance of delegating tasks based on team members' strengths and expertise. Assigning responsibilities according to individual skills and interests ensured efficient task completion and enhanced overall productivity.

Adopting agile project management methodologies, allowed for greater flexibility and adaptability to changing requirements. Iterative development cycles and continuous feedback loops improved the project's responsiveness to stakeholder needs.

Regularly engaging with stakeholders throughout the project lifecycle proved crucial in managing expectations and gaining valuable insights. Maintaining open lines of communication helped ensure that the final product met their requirements and exceeded their expectations.

Limited availability of hardware and software resources posed challenges during the development phase. This constraint impacted the team's productivity and, at times, caused delays. In future projects, I would work on better resource planning to mitigate such issues.

Balancing multiple tasks and deadlines proved challenging, leading to occasional schedule slippages. Improved time management strategies, such as setting realistic timelines and prioritizing tasks, would help mitigate these by challenges in the future.

Managing a team of diverse individuals presented occasional communication and coordination challenges. Maintaining team cohesion and fostering effective collaboration required proactive effort and leadership. Building stronger team relationships and improving communication channels are areas I would focus on in future projects.

In conclusion, the Study Room Scheduler project provided valuable insights into project management practices. The lessons learned, challenges encountered, and areas for improvement will guide future projects, ensuring the implementation of best practices and ultimately leading to more successful outcomes. I am confident that the knowledge gained from this project will contribute to my growth as a project manager and positively impact future endeavors.

Self-assessment report - Nurdaulet TAUMERGENOV

Group role: Testing team lead

The CS3343 Group project taught me much about project management and the project design process. My groupmates and I could design, distribute, develop and test full-scale Java app during one semester.

First, as a team, we had to make critical and significant decisions that would define our project during the early project development stage. During that process, I learned how to choose the correct project development lifecycle for our project and technology.

Later, as a testing team lead, I was responsible for foreseeing my fellow testing team and running a true test-driven approach to developing our app. This taught me how to manage the team and define feasible and correct test cases aligned with our project expectations.

Along the way, I deepened my knowledge of project design tools such as UML diagrams and sequence diagrams because those tools played a vital role in keeping everyone on the same page. Also, as a testing team, we could implement the theoretical knowledge we gained during the classes by implementing unit test cases and integration test cases that covered conditional, branch, and statement-level code.

Self-assessment report - Nur ALDEKEN

Group role: Development Team Lead

Thanks to this project, I went through the whole process of software development, starting with planning and ending with releasing a full, bug-free and tested version of our software.

It was a great experience to discuss the requirements and plan how our software would look like and act like from just an idea. As a team, we shared different ideas and discussed pros and cons of each approach and each feature before coming up with a common solution, satisfying everyone. During this process, I believe everyone contributed equally, which I really liked.

As a Development Team Lead, my role was to control the developer’s side, set the tasks for each milestone and appropriate deadlines for them. I also helped with designing diagrams in the beginning of the project and coding throughout the timeline. The difficult part was dividing tasks between developers, as I was afraid combining different parts would cause some problems. However, in the end everything went well, so I believe I did a good job in managing my team’s progress.  
 In addition to it, one of my responsibilities was to check the code carefully and do the code refactoring, which I believe I did well. In the end, I hope we have highly maintainable code.

Working on this project, I not only improved my technical skills, but also my management and leadership skills. I also am grateful to my teammates, especially to developers, who did everything on time and as planned. Thanks to smooth collaboration and thorough planning, we faced near to zero problems during development itself.

Self-assessment report - Alibi ZHENIS

Group role: Program Tester

During the course project, I played a crucial role as a program tester in the development of a Java application. My primary responsibility was conducting comprehensive testing, and providing valuable feedback to the development team. Throughout the project, I acquired and applied various technical skills, testing methodologies, and collaboration techniques.

In terms of technical skills, I became proficient in using JUnit, a widely-used testing framework for Java applications. I was able to create effective test cases, execute them, and analyze the test results. By applying JUnit, I verified the correctness of individual components and various functionalities of our application. Additionally, I implemented bottom-up testing techniques to validate the integration and interactions between different modules and components, ensuring that the core functionalities were robust and reliable.

I also gained knowledge about code coverage, including statement coverage, branch coverage, and path coverage. By understanding these concepts, I assessed the effectiveness of our tests and ensured that a sufficient percentage of the code was exercised by our test suite. This helped us identify any areas where our testing might be lacking and allowed us to improve the overall coverage of our application.

I continuously sought opportunities for learning and improvement throughout the project. I proactively researched and explored new testing methodologies, best practices, and tools, which I applied to enhance the effectiveness and efficiency of our testing efforts.

In conclusion, my role as a program tester project allowed me to develop and apply valuable skills in software testing, test planning, and collaboration. By utilizing JUnit and various testing techniques, I ensured the reliability and quality of our application. With a continuous focus on learning and improvement, I believe this project was highly practical and informative.

Self-assessment report - Aliya OSPANOVA

Group role: Program Developer I

As a program developer, I actively participated in writing code and developing the Study Room Scheduler App. I applied my Java OOP skills and followed best coding practices to ensure that the code was clean, efficient, and easy to maintain. I adhered to the project's coding standards and guidelines to maintain consistency across the codebase. Additionally, I provided constructive feedback during code reviews to enhance the overall code quality.

During the project, I encountered various challenges that required problem-solving skills. I approached these challenges proactively by analyzing the problems, exploring potential solutions, and collaborating with team members to find the best approach. I effectively utilized debugging techniques and tools to identify and resolve issues promptly. My problem-solving skills played a crucial role in ensuring the stability and functionality of the Study Room Scheduler App.

Additionally, I actively participated in collaborative efforts to achieve project goals. I maintained effective communication with team members, sharing ideas, discussing implementation strategies, and resolving conflicts constructively. I listened attentively to others' perspectives and provided valuable input during team discussions. I fostered a cooperative environment by offering support and assistance to my colleagues when needed. This positive teamwork environment enabled us to work harmoniously and accomplish project milestones successfully.

My focus on writing high-quality code, resolving issues efficiently, and fostering a positive team environment positively impacted the project's outcomes. I’m happy about my contributions and the skills I have acquired throughout the project, and I look forward to applying these experiences in future software engineering endeavors.

Self-assessment report - Anton SHATOKHIN

Group role: Program Developer II

As a Program Developer II, I have gained valuable experience in various aspects of software development, including effective communication with the testing team, the application of best design principles, code refactoring practices, and object-oriented programming (OOP).

One of the key skills I have developed is communication with the testing team. By actively collaborating and understanding their requirements, I ensure that the code I develop meets the necessary quality standards. Regular communication with testers allows for early identification of issues and prompt resolution, resulting in improved overall product quality.

I have also emphasized the application of best design principles in my development work. By following design patterns and architectural principles like SOLID and DRY, I create code that is modular, maintainable, and scalable. This approach improves code structure, reduces redundancy, and enhances overall code quality.

Furthermore, I have embraced code refactoring practices. Through continuous code reviews and self-assessment, I identify areas for improvement and implement necessary changes to enhance code readability, efficiency, and maintainability. Code refactoring eliminates technical debt, improves code organization, and optimizes performance, resulting in a more reliable and efficient application.

Additionally, I have actively practiced object-oriented programming principles. By utilizing concepts such as encapsulation, inheritance, and polymorphism, I design code that is modular, reusable, and extensible. OOP allows for code that is organized around objects, promoting code reuse and ensuring easier maintenance and updates.

Self-assessment report - Beket YERMEKOV

Group role: Program Developer III and Tester II

Throughout the development of the CityU Study Room scheduler app, I deepened my understanding of Object-Oriented Programming (OOP). This approach allowed me to design a modular and scalable architecture, promoting code reusability and maintainability. Challenges arose when integrating the app with ‘so-called’ databases (JSON reader/writer), requiring careful handling of data structures and persistence. Managing user requests and ensuring data consistency posed additional hurdles, necessitating the implementation of synchronization mechanisms.

Good code quality and debugging skills played a crucial role in this project. By adhering to coding standards, writing clean and readable code, and following established design patterns, I ensured the app's stability and maintainability. Furthermore, my strong debugging skills enabled efficient issue identification and resolution, improving the user experience.

I put significant effort into implementing a test-driven approach. Thorough unit testing helped detect bugs and issues early, preventing their propagation. This approach enhanced the reliability and stability of the app, ensuring a higher quality end product.

Future improvements for the CityU Study Room scheduler app include enhancing the user interface (UI) to improve user experience and intuitiveness. Performance optimization through data persistence can enhance responsiveness and scalability.

In summary, my role as a Program Developer and Tester for the CityU Study Room scheduler app provided valuable insights into OOP, strengthened the importance of good code quality and debugging skills. The implementation of a test-driven approach allowed for effective bug detection and resolution. Future improvements can enhance the app's functionality, user experience, performance, and security.