

## Lab 2 Report

Topic: Making Story for Agile Development Process (XP)

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# The Agile Journey of Building the Dhaka University Club Management System

In a small but bustling room on the University of Dhaka's campus, the development team of Group 3 gathered around a whiteboard covered in notes, sketches, and diagrams. The mission was clear: to build the Dhaka University Club Management System (DUCMS) in just two months. It would require relentless focus, communication, and the disciplined practice of Extreme Programming (XP) principles.

## **Week 1: Foundations and Member Registration**

The project started with a meeting of minds. Developers, testers, and stakeholders including the Club Manager and key representatives sat together to define the must-have features of the system. With customer collaboration at the heart of XP, they prioritized member registration as the first functionality to tackle. It was essential; the system couldn't operate without it. The team worked in pairs, writing tests for registration forms before writing any code. By the end of the week, they had a basic yet functional interface for new and associate members, complete with validation logic.

## **Week 2: Securing Access**

Next, they turned their attention to authentication. Every member would need secure access to the system, and the team knew this was non-negotiable. Implementing secure logins and integrating two-factor authentication proved challenging. Pair programming sessions extended late into the evening as they debugged and refined the login process. By week's end, they had achieved a robust and secure login system that passed rigorous testing.

## **Week 3: Serving Up the Food Ordering System**

Food order was a major draw for club members, and in Week 3, the focus shifted to creating an intuitive and visually appealing interface. Members needed to see a list of available dishes, nutritional details, and prices. Collaboratively, designers and developers built a system that allowed members to browse, add items to their cart, and submit orders. Tests ensured that every scenario from a simple order to large group requests worked without a hitch.

## **Week 4: Booking Community Space**

With the food ordering system in place, the team moved to community space bookings. There was no room for delays; every day counted. Club members and non-members needed the ability to request and book spaces. Pair programming was critical here. One pair focused on building the booking form and another on the approval workflows. The Club Manager's approval role had to work seamlessly, while notifications kept members informed of their booking status.

## **Week 5: Empowering the Club Manager**

Week 5 was all about giving power to the Club Manager. The team worked on creating a dashboard where revenues, expenses, and member approvals could be managed easily. Time was tight, but everyone knew this feature was critical for administrative control. Collaborative coding sessions ensured that reports generated by the manager were accurate and insightful.

#### Week 6: Member Dashboards and Final Enhancements

In Week 6, the team added the final touches: a personalized dashboard for members showing their orders, expenses, and booking status. Notifications and SMS alerts were configured to keep members engaged and informed. Intensive testing followed, with feedback sessions leading to last-minute tweaks and refinements.

### Week 7-8: Integration, Testing, and Refinement

The final two weeks were a whirlwind. User acceptance testing (UAT) involved club staff and key members trying out every feature. Feedback poured in, and the team addressed bugs, refined interfaces, and enhanced security measures. Every day brought new challenges, but the team thrived on the fast-paced iteration. Continuous integration helped them catch errors early, and test-driven development (TDD) ensured that every line of code delivered value.

Finally, on the last day of the eighth week, the team presented a fully functional DUCMS. The Club Manager logged in, approving a new member's request with a few clicks. A faculty member ordered lunch while checking her expenses for the month. Applause echoed as stakeholders saw their vision come to life. The journey was tough, but XP guided every step through collaboration, continuous feedback, and relentless focus on delivering value.