JU-Six-S Team - National Disaster Response System (NDRS)

Sprint 2 Retrospective Meeting Minutes

Date:	November 15, 2024
Start Time:	10:00 PM
End Time:	10:45 PM
Meeting Platform:	Discord Stream Room
Attendees:	Nasrin Akter Shimu (NA), Syeda Faria Sithi (SF), Musfikus Salihin Sifat (MS), Sunirmol Mollik (SMN), Sadman Sakib Sarkar (SS), Sovon Mallick (SM)
Product Owner:	Nasrin Akter Shimu
Scrum Master:	Sovon Mallick

Sprint 2 Evaluation in Retrospect

1. Get Shelter Center Information - MS

- **What Went Well:**
  - Implemented ShelterItem, User, ViewInfoUserAdmin, MainViewModel, and AddUpdateViewModel, enhancing shelter data handling and UI integration.
- **What Went Wrong:**
  - Test coverage gaps for edge cases and naming inconsistencies caused test failures and integration delays.
- **What Could Be Improved:**
  - Strengthen TDD with edge case tests, improve LiveData handling, and ensure consistent naming across components.

2. Make a Donation - SS

- **What Went Well:**
  - Developed the donation function using TDD with multiple test cases.

  - Maintained effective team communication and time management with Toggl.

- **What Went Wrong:**
  - Payment gateway integration and full functionality remain incomplete.
  - Challenges with TDD and inability to test CI due to lack of feature integration.
- **What I Learned:**
  - Improved TDD skills and recognized common pitfalls.
  - Realized the need for early integration and comprehensive testing.

3. Damage Assessment - SM

- **What Went Well:**
  - Integrated CI with GitHub Actions for automated testing.
  - Developed comprehensive Espresso tests and a user-friendly "Assess Damage" UI.
  - Efficient debugging with detailed logs and adherence to coding standards.
- **What Went Wrong:**
  - Testing on multiple devices/versions was time-intensive.
  - Limited CI logs and offline mode simulation tools delayed debugging.
  - Missing progress indicators affected UI experience.
  - Workflow delays due to dependency bottlenecks.
- **What Could Be Improved:**
  - Automate multi-device testing and enhance CI logs.
  - Use advanced tools for offline testing and add UI improvements like progress indicators.
  - Strengthen team coordination to avoid delays.

4. Report Incident and Request Assistance - NA

- **What Went Well:**
  - Implemented TDD with test cases for the reportIncident and requestAssistance functions in the ViewModel.
  - Efficient time management using Toggl.
  - Regular code updates pushed to Git.
  - Generated Javadoc for all files and adhered to the team's coding standards.
  - Actively worked on improving the CI workflow.
- **What Went Wrong:**
  - Issues with data mocking prevented showReportedIncident from retrieving data.
  - Limited knowledge of CI impacted its effective implementation.
- **What Could Be Improved:**
  - Enhance skills in data mocking and data retrieval for Android projects.
  - Learn more about CI practices to improve workflow efficiency.

5. Notify Real-Time Alert - SF

- **What Went Well:**
  - Successfully implemented TDD with reliable test cases for alert functionality in ViewModel.
  - Developed robust real-time alert functionality for effective communication.
  - Maintained a clean, modular codebase adhering to best practices.
- **What Went Wrong:**
  - Debugging delays caused by configuration issues and limited CI logs.
  - Challenges with offline mode testing due to inadequate simulation tools.
  - Partial CI implementation and occasional lapses in time tracking.
- **What Could Be Improved:**

- Enhance skills in unit testing and advanced mocking techniques.
- Improve CI logs for better error tracking and resolution.
- Gain more experience with CI setup for smoother implementation.

6. Coordinate Volunteers and NGOs - SMN

- **What Went Well:**
  - TDD clarified requirements and ensured reliable core functionalities like registration, task assignment, and status updates.
  - Early bug detection and thorough test coverage improved code quality.
- **What Went Wrong:**
  - Overlooked edge cases and missing Task class methods caused delays.
  - CI issues and test failures for updateTaskStatus() required additional time and refactoring.
- **What Could Be Improved:**
  - Test more edge cases upfront and enhance input validation.
  - Allocate time for test-driven refactoring to improve code maintainability.
  - Streamline repetitive test setups with helper methods.

Sprint 2 Practices and Learning Outcomes

1. Test-Driven Development (TDD)

- Everyone followed TDD, writing tests before coding.
- This helped find bugs early but required planning for good tests.
- The team improved at writing tests and thinking about edge cases.

2. Continuous Integration (CI)

- CI was challenging because we worked on separate Git branches.
- Next time, we will sync branches better to make CI smoother.
- We learned the importance of merging often to avoid problems and make testing easier.

3. Time Tracking with Toggl

- We used Toggl to track time spent on tasks.
- This helped us manage time better and estimate work more accurately.
- We were able to set more realistic deadlines and plan better in the future.

4. Improved Collaboration and Communication

- Daily stand-ups and extra chat channels helped the team work together better.
- We used Trello to track tasks and make sure everyone knew what they had to do.

5. Enhanced Android Development Skills

- We got better at using Android tools like LiveData, ViewModel, and WorkManager.
- Our UI/UX skills improved based on feedback, following Material Design principles.
- We also improved at using styles and themes for a consistent app look.

6. Better Debugging and Testing Techniques

- We got better at using Android Studio tools like Logcat and the profiler to fix performance issues.
- We used testing tools like JUnit and Mockito to make sure the code was working correctly.

7. Agile and Iterative Development Practices

- We kept following Agile principles with regular sprint reviews and feedback.
- We learned to be flexible, quickly fixing issues and improving our work.

Prepared by: Sovon Mallick
Date: November 15, 2024