CIS 3760 – Software Engineering

Individual Accountability Report (IAR)

Q1. Student Name: Shawn Kaplan

Q2. Student ID: 0966499

Q3. Associated Team Deliverable: Sprint 3

Q4. Section#, Team #: Section 1, Team 1

Q5. What were the main technical or methodological concepts and/or skills that were required to complete this team deliverable? (bulleted list is preferred):

- Android (Java and Kotlin)
- Agile + Scrum
- Networking (HTTP requests)
- GitLab

Q6. What was your existing level of experience with these topics/skills before your team began working on this deliverable? (1-2 sentences):

I already have ample Java and Kotlin experience from prior work and personal projects. While the Kotlin experience was not in Android, the syntax is not new to me, which is why I was comfortable refactoring the entire app codebase to Kotlin. Networking is also not a new subject to me, as I have experience building full stack web applications for school, work, and personal projects. I've also worked in an agile environment with scrum and GitLab before, for both work and school projects.

Q7. Comment on your individual academic, methodological, or technical learning during this deliverable, and what additional learning may be needed to understand or be more competent with these topics in the future?

All of my learning in this deliverable was related to Android app development, which I found to be much smoother in Kotlin than Java. This was not a surprise to me since regular JVM development is also easier in Kotlin. This deliverable led to me learning how to make network requests from within the Android environment, create alert popups, and set up dynamic activity transitions (ie. Switching from the main activity to the product editing activity when scanning a barcode).

Q8. What specific contributions did you make to this team deliverable? This should include technical or project management contributions.

As Scrum Master, I coordinated the team by creating and directing meetings. I also helped design the back-end API, overall system structure, and client-side tasks for the sprint.

Then, I refactored the entire client from Java to Kotlin, reducing the line-count from 3300 lines of Java to 2000 lines of Kotlin while eliminating 3 major memory leaks, massively improving readability and performance. Lastly, I implemented the client-side functionality of viewing a scanned item's information, editing an item's information, and creating new items based on a scanned barcode.

Q9. With whom did you collaborate for any of the above contributions (be specific)?

I worked directly with Nick and Scott for the API design, with Will for task assignment and client design, and alone for the code refactor and client-side task implementation.

Q10. Comment on how well you managed your time over the time period allocated in the Course timetable to this team deliverable (i.e. the time between the prior team deliverable to this team deliverable).

I managed my time very well. All of the deliverable tasks were completed with some time to spare and this gives me confidence in my performance in the final sprint.