

Individual Contributions

ZippyPark

Team 2

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Summary

All team members contributed equally.

While each teammate is responsible for different project deliverables (project code, use cases, & documentation), care is taken to ensure that everyone's deliverable assignment is equivalent in complexity. Additionally, many deliverables require collaboration, so most items are a result of multiple contributions.

As instructed on the course website, the following pages detail contributions to specific deliverables. However, Team 2 agrees that all members ultimately did equivalent work for Demo 2.

1. Program Code Writing

This project is made up of three subsystems (or subprojects) that each have their own front-end design, back-end design, testing, documentation, etc. Groups of three members are assigned a subsystem. Each group is responsible for implementing different use cases. As instructed on the course website, the following list was adapted from the “Product Ownership” section of Report 1 & 2.

Customer Services (Mobile App)

Team Members: Samantha Moy, Atmika Ponnusamy, Shreya Patel

1. UC-1: Create Account
2. UC-2: Edit Account
3. UC-3: Delete Account
4. UC-4: Create Reservation
5. UC-5: Edit Reservation
6. UC-6: Cancel Reservation
7. UC-11: Points Management
8. UC-12: Payment

Arrival & Departure Operations (Scanner/Sensor GUIs)

Team Members: Andrew Ko, Parth Patel, Piotr Zakrevski

1. UC-7: Enter Garage
2. UC-8: Exit Garage
3. UC-9: Update Spot Status
4. UC-11: Points Management
5. UC-12: Payment

Manager Tasks (Website)

Team Members: Kylie Chow, Samantha Cheng, Nandita Shenoy

1. UC-1: Create Account
2. UC-2: Edit Account
3. UC-3: Delete Account
4. UC-4: Create Reservation
5. UC-5: Edit Reservation
6. UC-6: Cancel Reservation
7. UC-10: Display Statistics

8. UC-11: Points Management
9. UC-12: Payment

2. Unit Testing & Integration Testing

Each group performed unit testing for their subproject, which is outlined in README2.txt and compiled in 2_unit_testing.

All groups coordinated integration testing together, which is outlined in README3.txt and compiled in 3_integration_testing.

3. Front-End Design

Each group's subsystem requires front-end design.

Customer Services

User Interface: Android application

Technologies Used: Java, XML, JSch, JDBC, ADB, AVD, Android SDK 28

Arrival & Departure Operations

User Interface: Java Swing GUIs

Technologies Used: Java, Swing GUIs, & JDBC

Managerial Tasks

User Interface: Website

Technologies Used: Node.js, jQuery, EJS/CSS

Frameworks: Express, Bootstrap

4. Integration

All members have been continually working together to monitor integration issues, integration testing, and cross-platform issues.

As described in Section 2, all groups coordinated integration testing together, which is outlined in README3.txt and compiled in 3_integration_testing. One part of the project is developed for smartphone (Customer Services) and another is for desktop (Managerial Tasks), but we have not encountered cross-platform issues yet.

5. Additional Testing Algorithms

All members implicitly tested our mathematical models, non-functional requirements, and user interface requirements through unit testing and integration testing. The use cases listed in Section 1 could not have worked without the proper implementation of the other models/requirements. Therefore, there are no files specific to this section.

6. Debugging

All members participated in debugging, because each person was responsible for committing “bug-free” coding assignments.

7. Program Documentation

All members were assigned a documentation file to compile for Demo 2. Each person would coordinate collecting the necessary information from each group to create their file (i.e. technical documentation, user documentation, etc.). Additionally, all members are responsible for ensuring that their code follows good coding practice by properly commenting it. See 5_documentation.

8. Database

All members contributed to the important design decisions about the database structure. Please note that only one person actually constructed the database, because it is impractical for everyone to do this for such a straightforward task. Additionally, everyone contributes to database maintenance. When someone finds an issue or proposes a change, they notify the group of the idea they are planning to ensure it is safe, and then execute the solution.

9. Data Collection

The website subproject leverages garage usage data to display statistics and graphs. However, data collection scripts or programs are not necessary for this task. See README4.txt in 4_data_collection.

10. Brochure

All members decided on the content and design of the brochure. Please note that only one person actually made the document, because it is impractical for everyone to do this for such a small document. See brochure.pdf in 5_documentation.

11. Slides Preparation

All members decided on the content and design of the slide deck. Please note that only one person actually made the file, because it is impractical for everyone to do this for such a small presentation. See presentation_slides.pdf in 5_documentation.

12. Project Management

Please note that only the project leader and configuration manager executed project management tasks, because it is more practical to have a few individuals track team tasks when there are so many members. However, all members abided by group decisions/deadlines and regularly offered to help with managerial tasks. Everyone was extremely important to the smooth workflow that contributed to Demo 2.