**SET09402 - Coursework 1**

# Team: Haulage Heroes

Contents

[Team: Haulage Heroes 1](#_Toc170334557)

[Project Phases and Timeline (5 Weeks) 2](#_Toc170334558)

[Week 1: Initialization and Planning 2](#_Toc170334559)

[Week 2: Requirement Elaboration, UML Modeling, and Initial Development 2](#_Toc170334560)

[Week 3: Development and Initial Testing 2](#_Toc170334561)

[Week 4: Code Review, Testing, and Bug Fixing 2](#_Toc170334562)

[Week 5: Finalization and Delivery 3](#_Toc170334563)

[Detailed Task Distribution 4](#_Toc170334564)

[Liam (Full Stack Developer) 4](#_Toc170334565)

[Aiden (Manager) 4](#_Toc170334566)

[Shaun (Software Tester) 4](#_Toc170334567)

[Suzanne (Process Manager) 5](#_Toc170334568)

[Branching Strategy 6](#_Toc170334569)

[Workflow 6](#_Toc170334570)

## Project Phases and Timeline (5 Weeks)

### Week 1: Initialization and Planning

**Day 1-2:**

* Set up the project repository on GitHub.
* Define branching strategy and document it.
* Conduct a kickoff meeting to discuss requirements and assign tasks.
* Set up repositry and base code with example data/compiler set up.

**Day 3-7:**

* Each member elaborates on their assigned user stories and documents the requirements in GitHub issues.
* Conduct team review sessions to discuss and refine the requirements.
* Start producing/reviewing UML & database diagrams.

### Week 2: Requirement Elaboration, UML Modeling, and Initial Development

**Day 1-2:**

* Finalize and store all UML diagrams in version control within the GitHub repository.
* Ensure all team members understand the UML diagrams and the overall system design.

**Day 3-7:**

* Start development of features for each user story.
* Each member works on their assigned tasks simultaneously:
  + Liam: Customer, Driver, and Administrator features.
  + Aiden: Customer, Driver, and Administrator features.
  + Shaun: Customer, Driver, and Administrator features.
  + Suzanne: Process management and testing framework setup.

### Week 3: Development and Initial Testing

**Day 1-7:**

* Continue development of features using .NET MAUI.
* Regularly commit code to individual feature branches.
* Implement unit tests for each user story.
* Conduct mid-week check-ins to monitor progress and address blockers.
* Suzanne begins initial testing of completed features and reports any bugs.

### Week 4: Code Review, Testing, and Bug Fixing

**Day 1-3:**

* Perform final code reviews for other team members.
* Document the quality of code using appropriate metrics.
* Respond to code review feedback and make necessary changes.
* Ensure all code is merged into the develop branch after reviews.

**Day 4-7:**

* Conduct extensive testing of the develop branch.
* Identify and fix bugs reported by Suzanne.
* Continue to implement and update unit tests based on feedback.

### Week 5: Finalization and Delivery

**Day 1-3:**

* Conduct final check and reviews and ensure all features are thoroughly tested.
* Perform final bug fixes and ensure all test cases are passing.
* Prepare the application for release.

**Day 4-7:**

* Document the final state of the application.
* Ensure all tasks are closed in GitHub.
* Conduct a final team review and retrospective to discuss what went well and areas for improvement.

## Detailed Task Distribution

### Liam (Full Stack Developer)

* **Customer User Story:**
  + Manage my account
* **Driver User Story:**
  + Manage my trips
* **Administrator User Story:**
  + Manage trip manifests

**Tasks:**

1. Elaborate requirements and document in GitHub issues.
2. Develop features in .NET MAUI.
3. Implement unit tests.
4. Document code quality metrics.
5. Respond to code reviews.

### Aiden (Manager)

* **Customer User Story:**
  + Manage billing
* **Driver User Story:**
  + Record trip expenses
* **Administrator User Story:**
  + Manage employees

**Tasks:**

1. Oversee requirement elaboration and documentation.
2. Review and manage branching strategy.
3. Conduct code reviews.
4. Support Liam, Shaun, and Suzanne in their tasks.
5. Document code quality metrics.

### Shaun (Software Tester)

* **Customer User Story:**
  + Request a pickup/delivery
* **Driver User Story:**
  + Confirm pickup/delivery
* **Administrator User Story:**
  + Manage customers

**Tasks:**

1. Elaborate requirements and document in GitHub issues.
2. Develop features in .NET MAUI.
3. Set up testing framework and conduct initial testing.
4. Implement unit tests.
5. Document and report bugs.
6. Perform code reviews.
7. Document code quality metrics.

### Suzanne (Process Manager)

* **Customer User Story:**
  + Track an item
* **Driver User Story:**
  + Report delays/emergencies
* **Administrator User Story:**
  + Track trip progress

**Tasks:**

1. Elaborate requirements and document in GitHub issues.
2. Create/update UML diagrams.
3. Implement unit tests for testing tasks.
4. Document and report bugs.
5. Perform code reviews.
6. Document code quality metrics.
7. Ensure project management processes are followed.

## Branching Strategy

* **Master Branch**: Stable version of the application before release.
* **Develop Branch**: Latest development version, where new features are merged.
* **Feature Branches**: Individual branches for each feature/user story (e.g., feature/customer-account-management).
* **Bugfix Branches**: Branches for fixing urgent bugs (e.g., bugfix/issue-123).
* **Release Branches**: Branches for preparing a new release (e.g., release/v1.0).

## Workflow

1. **Branching**: Create a feature branch for each task.
2. **Development**: Develop features and commit changes to the feature branch.
3. **Pull Requests**: Create pull requests to merge feature branches into the develop branch, must be reviewed by another user before final commit.
4. **Code Reviews**: Team members review pull requests, request changes if needed, and approve.
5. **Merging**: Once approved, merge the feature branch into the develop branch.
6. **Testing**: Perform testing on the develop branch.
7. **Release**: Merge the develop branch into the main branch for a new release.