CS3450 Group 7 Project Plan

Project Summary

This project aims to create an online car rental service. It will have 4 different views depending on the access level. The first being the customer view. This view will allow customers to add money to an account, select from a list of cars, and rent a selected car for a given amount of time. The second view will be for employees at the tills. This view will allow employees to ask the user for insurance and for them to ensure the payment was received. They can also submit the hours they've worked. The third view will be for the "automobile retrieval specialist". This view will give a list of all cars that must be picked up and their location. This view will also have a button that will verify that the car was picked up. It will also allow them to submit the hours they've worked. The final view will be the manager's view. This view will allow a manager to pay all employees, it will also allow them to add and remove inventory.

Team Organization

Scrum Master: Jacob Cheney (May change later during project)

Designers and Developers: Madison Jensen, Gavin Robey, Jacob Smith

Software Development Process

The development will be broken up into five phases. Each phase will be a little like a Sprint in an Agile method and a little like an iteration in a Spiral process. Specifically, each phase will be like a Sprint, in that work to be done will be organized into small tasks, placed into a backlog, and prioritized. Then, using on time-box scheduling, the team will decide which tasks the phase (Sprint) will address. The team will use a Scrum Board to keep track of tasks in the backlog, those that will be part of the current Sprint, those in progress, and those that are done.

Each phase will also be a little like an iteration in a Spiral process, in that each phase will include some risk analysis and that any development activity (requirements capture, analysis, design, implementation, etc.) can be done during any phase. Early phases will focus on understanding (requirements capture and analysis) and

subsequent phases will focus on design and implementation. Each phase will include a retrospective.

Phase	Iteration
1.	Phase 1 - Requirements Capture
2.	Phase 2 - Analysis, Architectural, UI, and DB Design
3.	Phase 3 - Implementation and Unit Testing
4.	Phase 4 - More Implementations and Testing

Communication Policies, Procedures, and Tools

We chose to use Discord for our primary collaboration and communication tool, including group meetings and chat. For task assignments and burndown charts, we chose Jira. Our Git repository is hosted on Github.

Risk Analysis

- Database Structure
    - Likelihood - Low - Django manages database backend by default
    - Severity - High
    - Consequences - All data on rentals, employees, and finances will be inaccessible or lost entirely.
    - Workaround - Restore database from backup or create redundant system
- Login
    - Likelihood - Low
    - Severity - Med
    - Consequences - Users and staff unable to access software
    - Workaround - None
- Verification System
    - Likelihood -
    - Severity -

        - Consequences -
        - Workaround -
- UI
    - Likelihood -
    - Severity -
    - Consequences -
    - Workaround -
- Hosting
    - Likelihood - Low
    - Severity - High
    - Consequences - Users and staff unable to access software
    - Workaround - Move system to different hosting infrastructure or service

Configuration Management

Please see the project README for configuration management plan.

Requirements

- 3 car types: 10, 50,100
- Lowjack the car if they don't pay insurance
- Different types of users: boss, employee, user
- authentication/login
- Play money, boss able to pay employees
- Economy of things -> database
- Version control and scrum
- Calendar to view cars availability by date
- Once a car is rented out, it can not be rented until returned
- Manager can promote from customer to employee
- Till and car towing system