



DVLA: MSc Software Engineering (Web Development)

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User Story

User Registration:

The login process validates user credentials against the database, ensuring only authorised users can access the system. This enhances security and builds user trust. The design must include secure password storage to safeguard sensitive data against breaches.

Login Validation:

The login process validates user credentials against the database, ensuring only authorised users can access the system. This enhances security and builds user trust. The design must include secure password storage (e.g., hashing) to safeguard sensitive data against breaches.

Location Management:

Users can select a pickup location from a predefined list, managed via a Location table that includes attributes like country, city, and street. This ensures consistent and accurate location data for car pickups. Validating locations reduces errors and ensures proper car allocation.

MY TASKS

The tasks that I was allocated included:

- UI for landing pages
- User flow chart for customer and admin
- Creating Tests

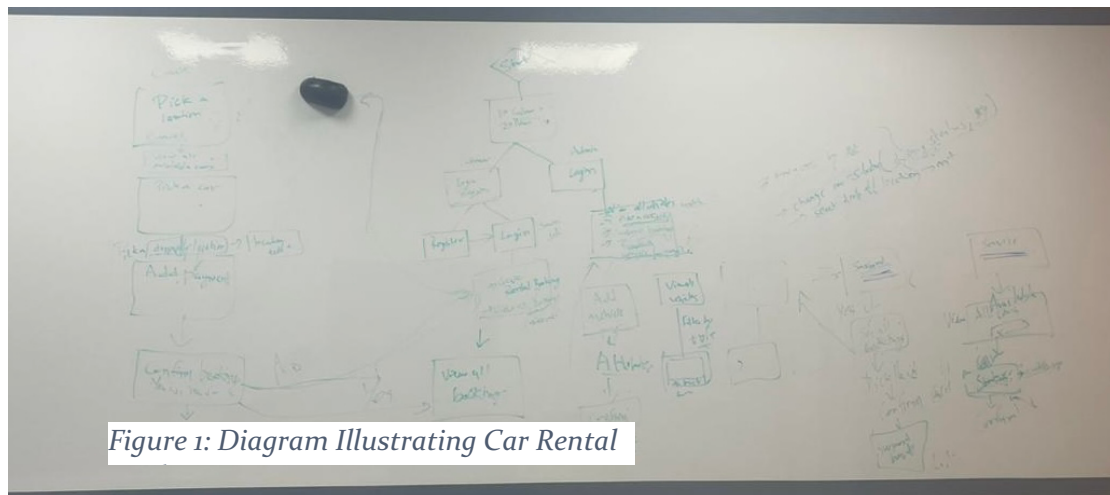
1. Database Design

Initially, as a group, we got together to design a diagram showing how different parts of the database would interact with each other to have a visual representation of what we were going to build, as can be seen below.

Once we had designed it and created the diagram, Parjal and I worked together and pair-programmed on the admin class, taking turns where I was the driver, and he was the navigator, switching roles periodically. We both worked on the admin class, initially creating unit tests for it to fail and then writing the relevant methods to pass these tests successfully. An example of this is the login method, which creates a database-backed login for the admin. We proceeded to take turns creating tests that fail for each of the methods and then created and defined the relevant functions within the admin class until we satisfied all the tests.



Figure 1: Database Architecture



Sprint Planning Meeting

Meeting Type	Date	Time	Agenda	Action Items	Blockers and Updates
Sprint Planning Meeting	16/12/12	11:00 AM	1. Develop a user story map. 2. Write user stories from requirements and set them on the Kanban board. 3. Allocate size estimates for tasks. 4. Identify versions of the code for the Minimum Viable Product (MVP).	Completed: • Developed the user story map as a team. • Broke down user stories into tasks. • Created an ERD to represent the database. Pending: • Allocate size estimates for tasks. • Identify the MVP.	
Stand-Up Meeting 1	17/12/12	10:00 AM	1. Review story map and rate user stories. 2. Identify MVP. 3. Allocate tasks.	Jay: • Implement view for all locations. • View all cars by location ID. • View cars by location & availability. Rid: • Develop login functionality. • Create customer table. • Save customer ID. PJ: • Create Payment & Booking tables with related methods.	1. Completed allocation of size estimates for tasks. 2. Identified MVP user stories.
Stand-Up Meeting 2	18/12/12	10:00 AM	1. Run through previous tasks and status. 2. Discuss blockers. 3. Review customer & admin user flow.	Jay: • Update vehicle booking drop-off. • Select car to book by location. • Filter/browse cars by type. • Enable viewing individual cars. Rid: • Continue login dev. • Create customer/admin flow menu. PJ: • Cancel booking. • Admin login. • Add vehicles. • Booking & suspend functions.	PGAdmin was down, so Rid could not progress on backend tasks.
Stand-Up Meeting 3	19/12/12	10:00 AM	1. Run through previous tasks and status. 2. Discuss blockers. 3. Review customer & admin user flow.	Jay: • Update booking drop-off. • View each car. • Testing. Rid: • Check flow map. • Testing. PJ: • Add vehicles. • Booking & suspend functions. • Testing.	PGAdmin was down, so Rid could not progress on backend tasks.
Retrospective	19/12/12	10:00 AM		What Helped Us Move Forward: 1. Paired programming. 2. Planning database/user stories together. 3. Leveraging current knowledge. 4. Team support during Challenges: 1. Database access issues. 2. Adapting to new processes. 3. Merge conflicts. Improvements: 1. Pre-project setup. 2. Jira alternative. 3. Smaller stories.	

Reflection

As someone who is new to software development relative to my team members, I initially struggled to keep up with the pace they were going at. This made me a little anxious at first, but thankfully, I found our daily standups to be very helpful in allowing me to address my early concerns, and my team members were more than happy to assist me in the parts I was struggling to get to grips with. Working in this agile method, I found it to be very effective as I could get assistance on any blockers I had, and it also allowed us to be more flexible with how we achieved our MVP if we found a better way of achieving the desired results.

I initially had an issue for the first half of the week where I was unable to access PGAdmin. This greatly inhibited my ability to carry out my tasks. Mark assisted over several Teams calls in order to finally resolve the issue and get it back working. This was enormously frustrating as I was helpless to carry on my objectives, and this was a major blocker for me. Going forward, I have learnt to ensure that I triple-check that any programs or software that I am using are working and up to date in order to avoid any potential delays.

I also found our end-of-week retrospective to be extremely helpful as it enabled me to review the week's work and get valuable feedback from my peers on what I did well and what I can do to improve going forward and how I could implement this effectively. This was great for me as it allowed me to put everything into perspective and look back at the week's work and how much the team and I achieved and how far I had come in such a short space of time.

Overall, working on this project, I found the Agile method to be beneficial and effective.

Team Contribution

Parjal: 5

Jeffrey: 5