PROJECT PLAN DOCUMENT
TOPIC: CAR SHOWROOM MANAGEMENT

Team Members:
PES2UG21CS455 - Sai Janani C
PES2UG21CS463 - Samantha Susan John
PES2UG21CS469 - Samritha R
PES2UG21CS472 - Sanampudi Sai Sukruthi

SOFTWARE DEVELOPMENT LIFECYCLE MODEL

We have decided to use an **iterative model** of development for this project. Our project is broken down into smaller cycles or iterations, with each iteration representing a mini-project. The software is developed incrementally, and each iteration builds upon the previous one.

We use this model of software development because our requirements may evolve with time and are not frozen initially. Since this project is majorly dependent on user interaction, the iterative model allows for flexibility and incorporates customer feedback. By delivering the project in slow increments, we also deliver usable functionality to the users sooner in time.

TOOLS REQUIRED

- Planning tool - Jira
- Design tool - Figma
- Version control - Git, GitHub
- Development tool - Visual Studio Code
- Bug tracking tool - Jira
- Testing tool - Selenium

DELIVERABLES

Reusable Components:

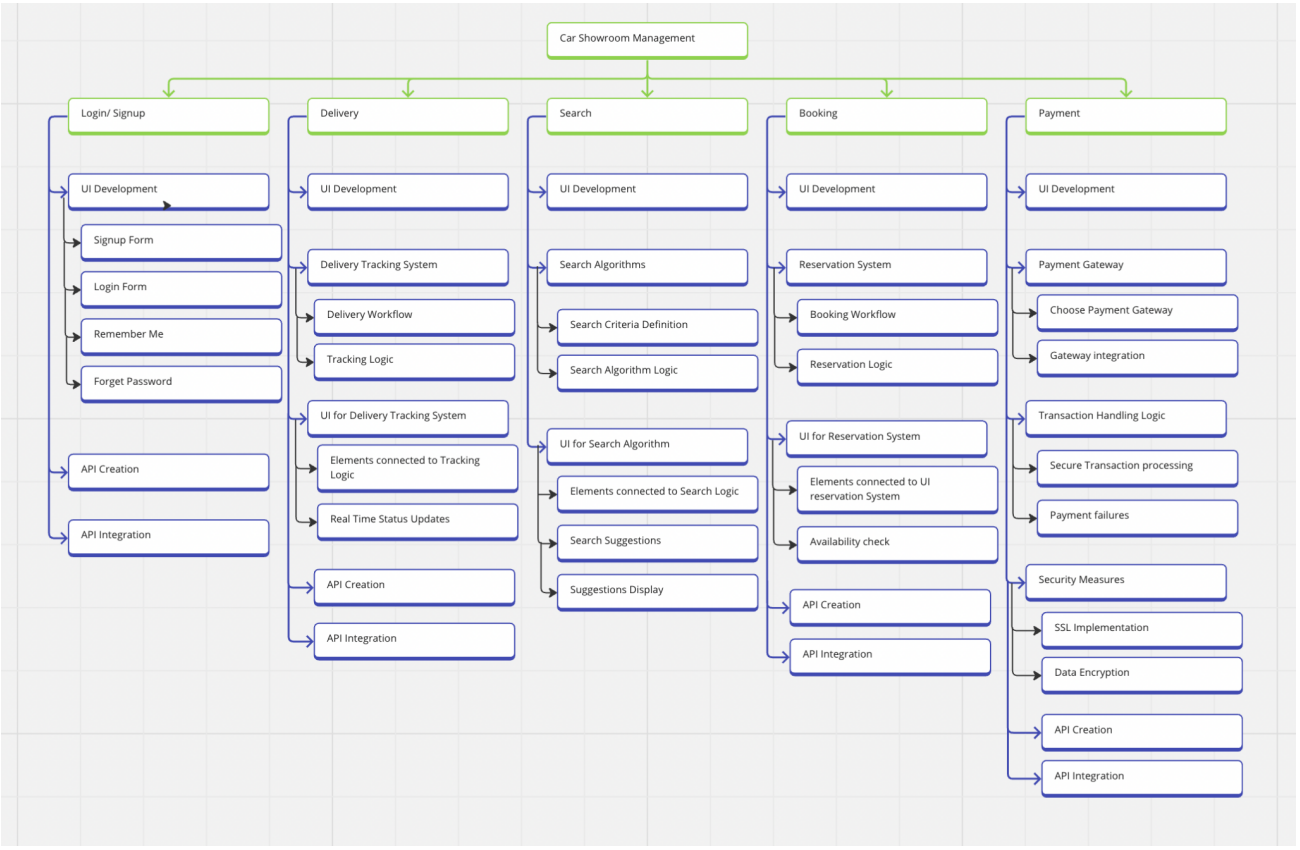
1. **Database Structure**: Create a common structure for storing data about cars, customers, and sales that can be used in many other car showrooms.
2. **Login System**: Make a system for users (customers, staff and admin) to log in; you can use this in car showrooms.
3. **Inventory Management**: Build tools for managing the list of cars; you can tweak it for each showroom.

4. **Design Templates**: Make a basic look for the software, which you can adjust a bit for each showroom.
5. **Reporting Tools**: Create tools for making reports about sales

Build Components:

1. **Customer Management**: Each showroom has different ways to handle customers, so you'll have to make this part new for each one.
2. **Sales and Invoicing**: How cars are sold and invoices are made can be different for each showroom, so you'll build this part for each project.
3. **Vehicle Inspections**: Checking cars and doing maintenance might be unique for each showroom, so you'll create this part separately.
4. **Customizing the Look**: Even though you have a basic design, you'll have to change how it looks to match each showroom's available cars.
5. **Payments**: How cars are paid for can differ, so you'll set up payments separately for each showroom.
6. **Security Rules**: Rules to keep the software safe will be different for each project.

WORK BREAKDOWN STRUCTURE



ESTIMATED EFFORT

Sum of estimates :

- Database Schema: 0.5 - 1 person-month
- User Authentication Module: 0.5 - 1 person-month
- Inventory Management Module: 1 - 2 person-months
- UI Framework: 1 - 2 person-months
- Reporting and Analytics Tools: 1 - 2 person-months

Total Estimate for Reusable Components: 4 - 8 person-months

- Customer Management Module: 1 - 3+ person-months
- Sales and Invoicing Module: 1 - 3+ person-months
- Vehicle Inspection and Maintenance Module: 1 - 2+ person-months
- Integration with External Systems: 1 - 2+ person-month
- Security Policies and Access Control: 0.5 - 1.5+ person-months
- Localization and Internationalization: 0.5 - 1.5+ person-months

Total Estimate for Build Components: Approximately 5 - 13+ person-months

- Project Management: 1 - 2 person-months
- Quality Assurance and Testing: 2 - 4 person-months
- Documentation: 1 - 2 person-months
- Ongoing Maintenance and Support: This will depend on the project's requirements but may range from 1 - 3 person-months per year.

Total Estimate for Other Factors: Approximately 5 - 9 person-months

- Overall rough estimate = 30 person-months

Calculating time using the Organic CoCoMo, we get time = 9 months

Average staff size = 4 (approx)

GANTT CHART