Web-a-thon on Full Stack Web Application Development

Title: Online Application for Vehicle Service Centre **(tag no:** 8**)**

Team 14: Dhopas
23MCA0126
23MCA0304
23MCA0307
23MCA0310

Abstract:

This project is aimed at creating a comprehensive and efficient platform for booking car maintenance and services, catering to the diverse needs of customers, maintenance personnel, and administrators. The platform will utilize modern technologies such as React/ Angular for the front-end, MongoDB for the database, and Node.js for the back-end, ensuring a user-friendly interface and robust functionality. The end result will be an intuitive and reliable platform that simplifies the process of booking car services, enhancing the overall customer experience.

Process Flow Diagram:
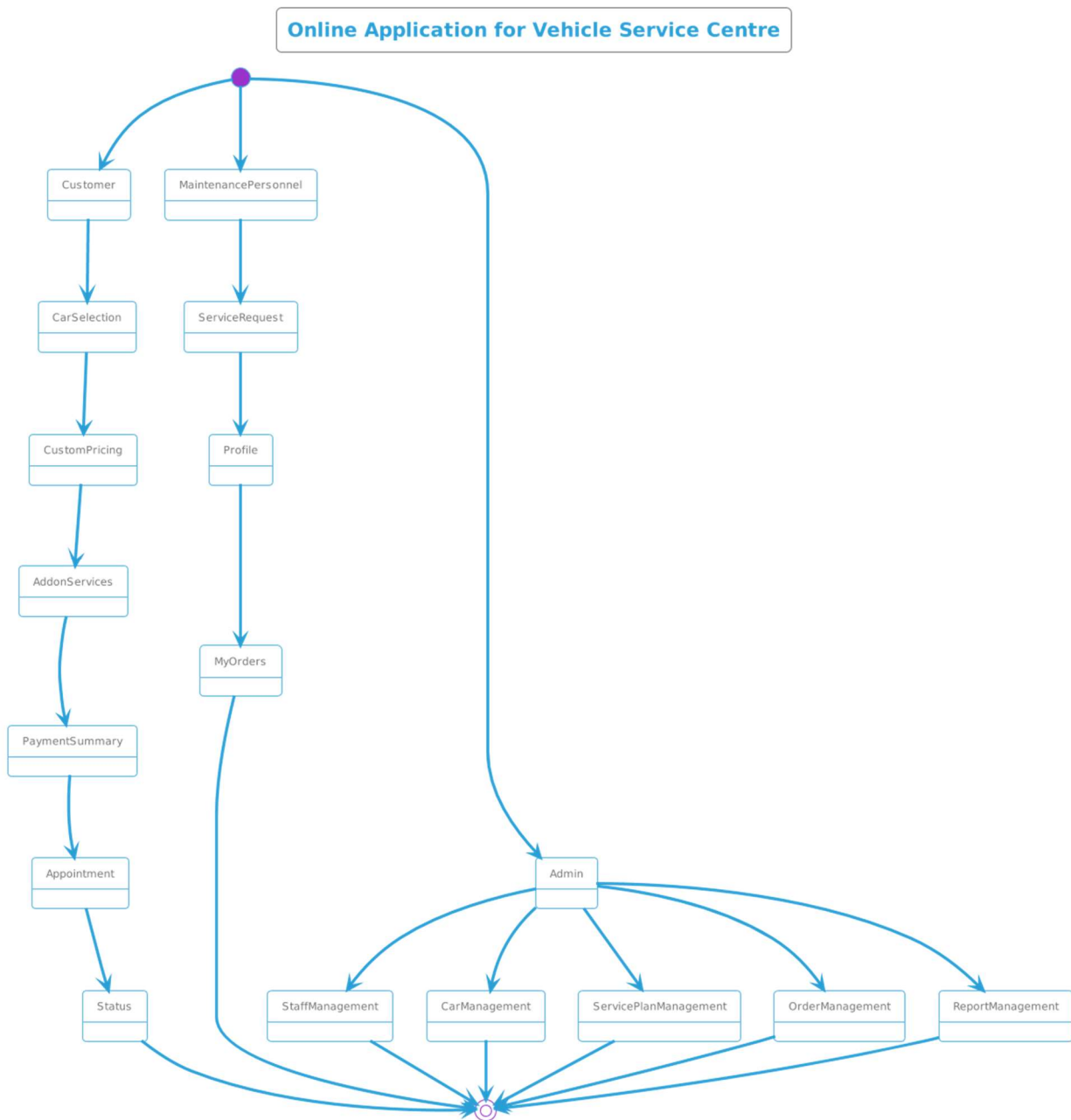
Modules:

User Authentication: Customers, maintenance personnel, and administrators can securely sign up and log in to access their respective accounts.

Car Selection and Customization: Customers can browse through different car categories, enter car details, and choose from various maintenance plans and add-on services.

Dynamic Pricing: Custom pricing allows users to select service plans based on their car's specifications and desired services.

Appointment Booking: Users can schedule, reschedule, and view appointments, providing flexibility and convenience.

Real-time Status Updates: Customers can track the status of their car service, whether it's done, in progress, or in queue.

Profile Management: Maintenance personnel and administrators can update their profile information and view past and current orders.

Admin Dashboard: Administrators have access to a comprehensive dashboard for managing staff, cars, service plans, orders, and generating reports.

Additional Functionalities:

Payment Integration: Integrate payment gateways to facilitate secure online transactions for service bookings.

Notification System: Implement email or SMS notifications to keep users informed about appointment confirmations, status updates, and reminders.

Feedback and Ratings: Allow customers to provide feedback and ratings for the services received, enhancing transparency and trust.

Inventory Management: Enable administrators to track and manage inventory for car parts, cleaning supplies, and other resources.

Analytics Dashboard: Provide visual insights through analytics dashboards, allowing administrators to monitor key metrics and trends.

Technologies Used:

Frontend: ReactJS/Angular JS, HTML5, CSS

Backend: Node.js

Database: MongoDB

Additional Libraries/Frameworks: Express.js, Mongoose (for MongoDB interaction), Bootstrap (for frontend design)