HTTP 5310 Capstone – Requirements Document

Sarath Saji N01697947

1. Introduction and Rationale

Project Name: AutoFix Scheduler
Developer: Sarath Saji

Rationale:
AutoFix Scheduler is a WordPress-based appointment booking platform tailored for automobile workshops. The application aims to streamline the process of scheduling vehicle services by allowing customers to book appointments online and enabling workshop staff to manage these bookings through a secure admin dashboard. The platform eliminates inefficient phone-based booking, helps organize workshop schedules, and enhances the customer experience through automated confirmations, service history tracking, and responsive design.

Goal:
To create a responsive, accessible, user-friendly booking platform that reflects real-world workshop management needs and showcases proficiency in WordPress CMS customization, plugin integration, and theme development.

2. Content Evaluation

a. Navigation

- Home
- Services
- Book Appointment
- My Bookings (for Customers)
- Dashboard (for WorkshopAdmin)
- Contact Us

b. Layout & Wireframe
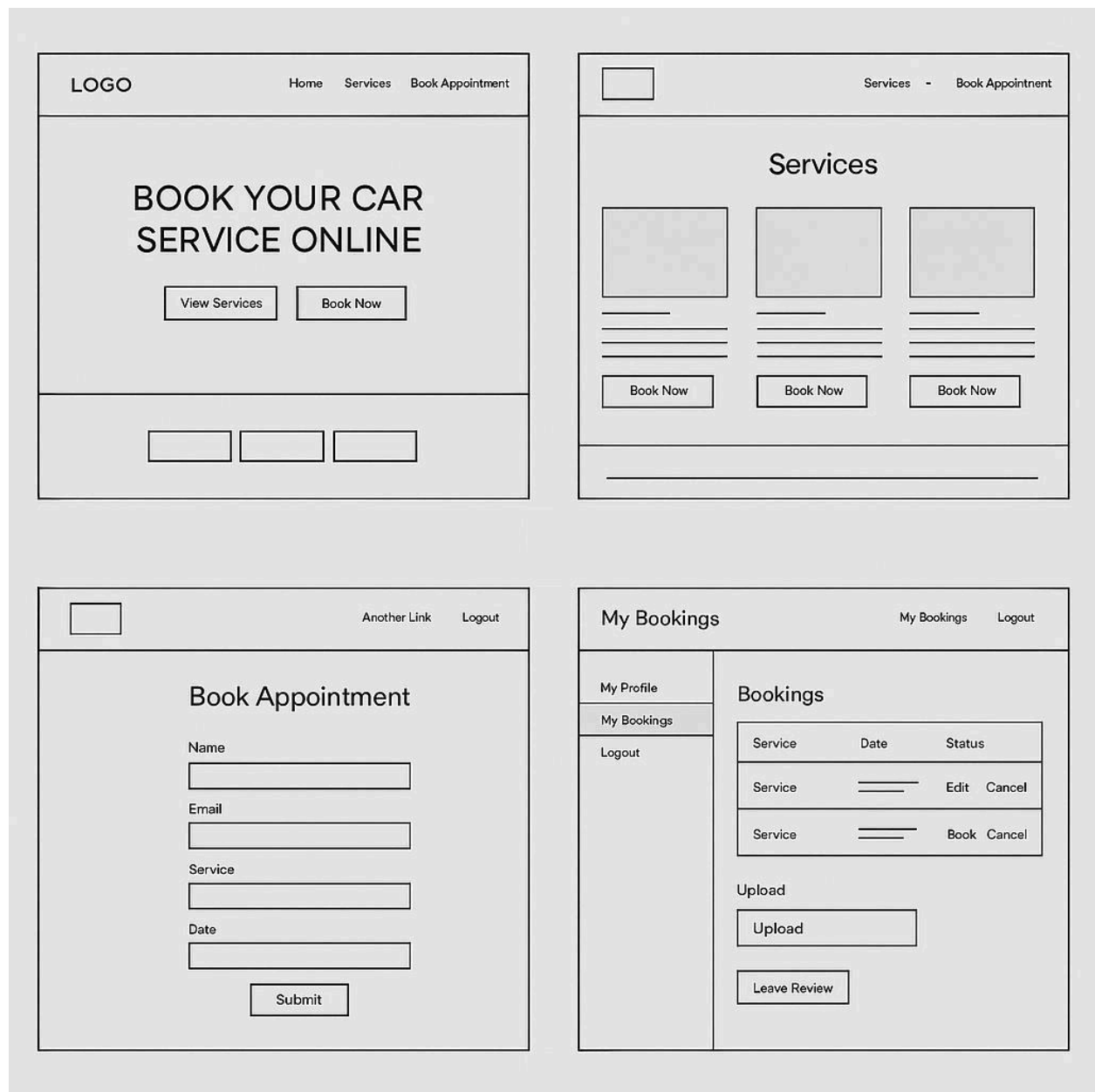
c. Content Sources

- Text: Custom written
- Icons: FontAwesome / free icon packs
- Images: Unsplash / Pexels (with attribution)
- Maps: Google Maps API
- Email: WP Mail SMTP or FluentSMTP

3. Functionality (User Stories)

Client (Customer) User Stories

Account Management

- As a Customer, I want to register and log in so I can book appointments.
- As a Customer, I want to manage my profile and vehicle details so I can reuse them during bookings.
- As a Customer, I want to recover my password so I can access my account if I forget it.

Appointment Booking

- As a Customer, I want to browse available services (e.g., Oil Change, Brake Check) so I can select the right one.
- As a Customer, I want to choose an appointment date and time based on workshop availability so I can plan conveniently.
- As a Customer, I want to receive email or SMS confirmation after booking so I know the appointment is scheduled.

Appointment Management

- As a Customer, I want to view all upcoming and past appointments so I can keep track of my service history.
- As a Customer, I want to reschedule or cancel my appointments when needed.
- As a Customer, I want to get automated reminders (email or SMS) before my appointments.

Workshop Discovery

- As a Customer, I want to see workshop location on a map so I can get directions.
- As a Customer, I want to see ratings or reviews of the workshop before booking.

Feedback and Reviews

- As a Customer, I want to leave a review after my service appointment.
- As a Customer, I want to view the feedback I've submitted.

WorkshopAdmin (Workshop Manager) User Stories

Account and Role Management

- As a WorkshopAdmin, I want to log in to a secure dashboard to manage bookings and services.
- As a WorkshopAdmin, I want to edit my workshop profile (business hours, services, contact info).

Appointment Management

- As a WorkshopAdmin, I want to view all upcoming appointments in a calendar or list format.
- As a WorkshopAdmin, I want to update appointment status (e.g., Confirmed, In Progress, Completed, Cancelled).
- As a WorkshopAdmin, I want to filter appointments by status, date, or service type.

Service Management

- As a WorkshopAdmin, I want to add, edit, or delete services with prices and durations.
- As a WorkshopAdmin, I want to assign specific mechanics to booked appointments.

Notifications and Communication

- As a WorkshopAdmin, I want to receive notifications for new, changed, or cancelled bookings.
- As a WorkshopAdmin, I want to send automated reminders to customers.

Reports and Analytics

- As a WorkshopAdmin, I want to see reports showing most booked services, total appointments, and customer feedback.

Should Have

- As a Customer, I want to track my past services.
- As a Customer, I want to upload vehicle documents.
- As a WorkshopAdmin, I want to filter bookings by service type.
- As a Mechanic, I want to log in and see assigned jobs.
- As a Customer, I want to reschedule existing appointments.

Nice to Have

- As a Customer, I want to rate services after completion.
- As a Customer, I want to get SMS reminders.
- As a Customer, I want to use a map to locate the workshop.

4. Technical Specifications

a. Technology Stack

- **Platform:** WordPress CMS
- **Hosting:** Localhost (Dev) → SiteGround or Bluehost (Live)
- **Languages:** PHP, HTML5, CSS3, JavaScript (for UI)
- **Plugins:**
  - Booking Calendar
  - *Contact Form 7* for custom forms
  - Custom Post Type UI
  - User Role Editor
  - WP Mail SMTP
- **APIs:**
  - Google Maps API

b. Hosting

- Development: Local using MAMP/WAMP
- Production: Free Hosting (InfinityFree)

c. Third-Party Software

- [Booking Calendar](#)
- Google Maps API
- Contact Form 7
- Flamingo

5. Development Specifications

- **Folder Structure:**
  - `/wp-content/themes/autofix-child`
  - `/wp-content/plugins/custom-functions`
- **File Naming:**
  - kebab-case (`service-manager.php`, `book-appointment.css`)
- **Accessibility:**
  - Use proper alt tags, semantic HTML, ARIA roles
- **Responsiveness:**
  - Mobile-first design with breakpoints for 768px and 1366px
- **Version Control:**
  - GitHub Repo: `https://github.com/sarathsaji/autofix-scheduler`

6. Schedule (Sample Weeks)

Week	Task
1	Finalize requirements doc, plugin research
2	Theme setup & CPTs (Services, Mechanics)
3	Booking form & email integration
4	Admin dashboard setup
5	Testing appointments, role permissions

6	Add Should Have features (uploads, mechanic view)
7	Polish UI, add maps, accessibility testing
8	Final testing, documentation, and deployment

7. Conclusion

This capstone project showcases advanced WordPress development skills, including user authentication, booking systems, admin control, and responsive design. By using a CMS as the foundation, the focus will be on customization, integration, and user experience. AutoFix Scheduler aims to be a fully functional, real-world-ready appointment booking system that highlights both development and project planning skills.