

6. Railway Reservation System

22/4/23

Problem Statement: Railway reservation is a critical process that is required to be streamlined to provide a hassle-free travel experience to passengers.

GRS:

① Functional Requirement:

- * System shall allow users to register with their personal information, contact details.
- * The system shall allow users to search for trains based on the source & the destination.
- * Provide the ~~source~~ real-time seat availability.
- * Users shall be able to select their preferred seat based on the availability.
- * Shall allow users to cancel their tickets online by providing the PNR number.
- * Shall send SMS & email notifications to user regarding their ticket status.

② Non-functional Requirement:

1. Performance - Should provide response in less than 3 seconds for user actions.
2. Security - Should ensure the confidentiality & integrity of user data.
3. Availability - shall have a minimum uptime of 99.9%.
4. The system shall be user friendly in use.

③ User requirement:

- * Should be able to register with the system by providing their personal information.
- * Should be able to search for trains based on date, source, destination.
- * User should be able to make payments online using a secure payment gateway.
- * User ~~have~~ should have a dashboard.
- * Users should be able to provide feedback on their travel experience.

④ Software requirement:

- * Operating system and web server.
- * Programming language and Database management system.
- * Framework and Payment gateway integration.
- * SMS and Email APIs to send notification.
- * Front-end development & testing frameworks.

⑤ Domain Requirement:

- * Should be able to manage the train schedule for all the trains operated by the company.
 - * Seat and fare management.
 - * Reservation management & ticket printing.
 - * Cancellation management and reporting.
 - * Integration with other system.
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