**Scope**

**Online Bus Ticket Reservation System** is a web-based application which facilitates and provide functionalities such as reservation of seats, cancellation of reservation and different types of route enquiries used on securing quick reservations, ticket booking and tracking bus. It maintains all customer details, bus details, reservation details.

ReactJS framework is used for the front- end of the software while the back end was designed using JavaEE, Spring Boot, JPA (Java Persistence API) and MySQL as database. This project is built by incorporating Agile principles using Scrum framework.

* User: Users can search for buses based on date, boarding position, and drop location. Users can also book tickets after logging in and they can also cancel tickets.
* Operator: Operators can register on the website and enter details about new buses, including the route and timings. Once the operator adds a bus, the request goes to the admin for approval or rejection.
* Admin: Admin can approve or reject new buses added by operators. Admin can also see the buses running and people who have booked tickets.
* Additional features: The system has a user-friendly interface, multiple online payment options like credit cards/debit cards, and an email system for booking and cancellation of the tickets.
* Security: Spring security will be used to provide security, authentication and authorization, and all the data will be properly secured with encryption.
* User-friendly interface: The system should be easy to navigate and understand for the users.
* Responsive design: The system should be responsive and accessible on various devices like mobile, tablet, and desktop.
* Compatibility: The system should be compatible with various web browsers and platforms.
* Scalability: The system should be scalable to support a high number of users and transactions.
* Front-end: The project will use ReactJS as the front-end framework for building the user interface.
* Back-end: The project will use Spring Boot, JPA (Java Persistence API) and Java EE as the back-end technologies for building the server-side logic and handling database operations.
* Database: The project will use MySQL as the database management system to store and manage the data.
* Integration: The front-end and back-end will be integrated to ensure seamless communication and flow of data between the client and server-side.
* Deployment: The application will be deployed on a web service like AWS(Amazon Web Services.
* Testing: The application will be tested using JUnit for unit testing.