

Spring project - EV Charging system

Main features:

1. Authentication
2. Station management
3. Connector management
4. Charging session management
5. User management: profile, transaction history, wallet

Business Requirements:

1. **User Registration and Authentication:** The system must allow users to register, log in, and authenticate securely.
2. **Profile Management:** Users must be able to view and edit their profile details.
3. **Station Management:** The system must allow the addition of charging stations.
4. **Connector Management:** Charging connectors at stations must be manageable, including adding, reserving, and tracking their status.
5. **Reservation System:** Users must be able to reserve charging connectors and secure their future charging session.
6. **Charging Session Management:** The system must handle the initiation and termination of charging sessions. Furthermore, from the amount paid, the system must calculate the value in kW to charge and inform the user.
7. **Transaction Tracking:** Users must be able to view detailed transaction history for their charging sessions.
8. **Station Search:** Users must be able to search for charging stations based on location or see all stations and connectors and their availability.
9. **Authorization:** Only authorized users should be able to perform specific actions, such as starting a charging session.
10. **System Wallet management:** Users receive fidelity points based on their activity in the system, specifically creating transactions.