Epics & User Stories

ChargeHub

Teste e Qualidade de Software
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EPIC 1: Station Discovery

User Stories:

- **As an EV Driver**, I want to search for charging stations near my location so that I can access stations within a short distance from me.
    - **Priority/Estimate:** High, 2
    - **Acceptance Criteria:**
        - be able to allow location access
        - be able to see a list of charging stations
        - be able to view stations ordered by proximity

- **As an EV Driver**, I want to filter stations by charger type, availability, location and cost so that I can find stations that match my technical needs and budget.
    - **Priority/Estimate:** Medium, 2
    - **Acceptance Criteria:**
        - be able to apply filters by charger type
        - be able to apply filters by availability
        - be able to apply filters by location
        - be able to apply filters by cost
        - be able to see only stations matching selected filters

- **As an EV Driver**, I want to see charging stations on a map so I can easily locate them.
    - **Priority/Estimate:** Low, 3
    - **Acceptance Criteria:**
        - be able to grant location access
        - be able to open map view
        - be able to see station markers on the map

- **As an EV Driver**, I want to trace a route to a nearby charging station so that I can visualize the path to it.
    - **Priority/Estimate:** Optional, 4
    - **Acceptance Criteria:**
        - be able to select a charging station
        - be able to select "Get Directions"
        - be able to view a route from current location to station on map

- **As an EV Driver**, I want to see the closest charging stations when planning a trip, so that I can see where I should stop to charge my vehicle.
    - **Priority/Estimate:** Optional, 5
    - **Acceptance Criteria:**
        - be able to enter trip start and end points
        - be able to start trip planning
        - be able to see stations near the route in list
        - be able to see stations near the route in map
        - be able to view distance from departure point to the stations

EPIC 2: Slot Booking & Scheduling

User Stories:

- **As an EV Driver**, I want to book a charging slot in advance so that I can ensure availability.
  - **Priority/Estimate:** High, 3
  - **Acceptance Criteria:**
    - be able to select a charging station
    - be able to choose a time slot and confirm booking
    - be able to reserve the selected time slot
    - be able to prevent double-booking of that slot
    - be able to receive booking confirmation with charger type, time, and token

- **As a Station Operator**, I want to set custom schedules for my charging stations, so that I can control when each station is available for use.
  - **Priority/Estimate:** Optional, 4
  - **Acceptance Criteria:**
    - be able to open schedule management interface
    - be able to define available time slots for each charger
    - be able to define unavailable time slots for each charger

- **As an EV Driver**, I want to receive notifications 15 minutes before my booked time starts and when it starts, so that I am reminded to arrive at the charging station on time.
  - **Priority/Estimate:** Optional, 2
  - **Acceptance Criteria:**
    - be able to receive a notification 15 minutes before booking starts
    - be able to receive a notification at the start time of the booking

- **As an EV Driver**, I want to receive a notification if a charger I booked becomes disabled before my scheduled time, so that I can make alternative arrangements in advance.
  - **Priority/Estimate:** Low, 2
  - **Acceptance Criteria:**
    - be able to receive notification if charger becomes unavailable before the scheduled time
    - be able to receive prompt with options to rebook at another station or cancel booking

EPIC 3: Charging Management

User Stories:

- **As an EV Driver**, I want to use my reservation token in the app to unlock the charger when I arrive, so that I can start my charging session securely and only during my reserved slot.
  - **Priority/Estimate:** High, 3
  - **Acceptance Criteria:**
    - be able to input reservation token in the app
    - be able to remotely unlock the corresponding charger
    - be able to begin the charging session after unlocking

- **As an EV Driver**,I want to see real-time charging status including battery percentage, current cost, and energy consumed, so that I can monitor and manage my charging session according to my needs and budget.
  - **Priority/Estimate:** Optional, 4
  - **Acceptance Criteria:**
    - be able to open session details in the app
    - be able to view live battery percentage
    - be able to view real-time cost
    - be able to view energy (kWh) consumed

- **As a Station Operator**, I want to monitor all active and historical charging sessions, so that I can ensure operational visibility, detect issues, and analyze usage patterns
  - **Priority/Estimate:** Optional, 4
  - **Acceptance Criteria:**
    - be able to view current charging sessions with user info, charger status, duration, and energy consumed
    - be able to access past charging sessions
    - be able to apply filters to historical data

- **As an EV Driver**, I want to stop the charging session from the app at any time, so that I can charge only the amount I need and control the cost.
  - **Priority/Estimate:** High, 2
  - **Acceptance Criteria:**
    - be able to select "Stop Charging" in the app
    - be able to stop power delivery immediately
    - be able to view a session summary with cost, time, and energy used

- **As an EV Driver**, I want to restart the charging session from the app if I stop it accidently, so that I can continue charging without needing to make a new reservation.
  - **Priority/Estimate:** Optional, 2
  - **Acceptance Criteria:**
    - be able to select "Restart Charging" in the app
    - be able to resume charging using the same reservation

EPIC 4: Payment Integration

User Stories:

- **As an EV Driver**, I want to receive the payment summary in the app when my charging session ends, so that I can easily review and pay for the charging cost directly through the app.
  - **Priority/Estimate:** High, 4
  - **Acceptance Criteria:**
    - be able to view payment summary when session ends
    - be able to see total amount due
    - be able to see energy consumed
    - be able to see charging duration
    - be able to select a payment method
    - be able to complete payment within the app

- **As a Station Operator**, I want to access financial reports per charging session and verify their payment status, so that I can monitor revenue and ensure that all sessions have been correctly billed and paid.
  - **Priority/Estimate:** Medium, 4
  - **Acceptance Criteria:**
    - be able to open financial reporting section
    - be able to view each charging session's payment status
    - be able to view amount charged and payment timestamp

EPIC 5: User Profiles & Charging History

User Stories:

- **As an EV Driver**, I want to view my charging history and total energy consumption over time, so that I can track my usage patterns and manage my charging behavior more efficiently.
  - **Priority/Estimate:** Medium, 4
  - **Acceptance Criteria:**
    - be able to open the "Charging History" section
    - be able to view past charging sessions with dates and locations
    - be able to view energy consumed (kWh), session duration, and cost

- **As an EV Driver**, I want to track my estimated CO_2 savings based on my charging activity, so that I can understand the environmental impact of using electric vehicles instead of fuel-based alternatives.
  - **Priority/Estimate:** Low, 4
  - **Acceptance Criteria:**
    - be able to access the sustainability section in user profile

- be able to view estimated CO_2 emissions avoided in kg or tons

- **As an Admin**, I want to view aggregated user statistics and charging behavior trends, so that I can analyze platform usage and optimize the service for users.
  - **Priority/Estimate:** Optional, 5
  - **Acceptance Criteria:**
    - be able to open analytics or reporting section
    - be able to view total users
    - be able to view average energy per session and peak usage times
    - be able to view total CO_2 saved across the platform

EPIC 6: Backoffice Operations

User Stories:

- **As a Station Operator**, I want to update my station's information such as availability and pricing, so that users always see accurate data when booking a charging slot.
  - **Priority/Estimate:** Medium, 3
  - **Acceptance Criteria:**
    - be able to access a station's details
    - be able to update availability, pricing, and charger information
    - be able to save changes and reflect them immediately in the user-facing app

- **As an Admin,** I want to create station operator accounts, so that new employees can manage charging stations assigned to them.
  - **Priority/Estimate:** High, 3
  - **Acceptance Criteria:**
    - be able to fill in required details for a new operator account
    - be able to allow operators to access the platform with appropriate permissions
- **As an Admin,** I want to assign or remove stations from specific station operators, so that I can manage responsibilities across the network effectively.
  - **Priority/Estimate:** High, 3
  - **Acceptance Criteria:**
    - be able to open an operator's profile in the admin dashboard
    - be able to assign or remove stations
    - be able to update operator's access based on assigned stations

- **As an Admin**, I want to manage all user accounts, including EV drivers and station operators, so that I can enforce platform rules and support operations effectively.
  - **Priority/Estimate:** Low, 4
  - **Acceptance Criteria:**
    - be able to view list of all users in the admin dashboard

- ■ be able to search for specific accounts
        - ■ be able to edit, deactivate, or delete user accounts

- **As an Admin**, I want to view system-wide reports and statistics, so that I can monitor platform performance and usage trends.
    - ○ **Priority/Estimate:** Optional, 4
    - ○ **Acceptance Criteria:**
        - ■ be able to access the analytics section
        - ■ be able to view KPIs like total sessions, revenue, energy delivered, and user growth

- **As a Station Operator**, I want to report users for misconduct such as not paying or damaging equipment, so that the platform can take appropriate action.
    - ○ **Priority/Estimate:** Medium, 3
    - ○ **Acceptance Criteria:**
        - ■ be able to access a problematic session from the operator dashboard
        - ■ be able to click "Report User"
        - ■ be able to provide a reason and submit the report to the admin team

- **As an EV Driver**, I want to report chargers I use, so that other drivers can benefit from my feedback.
    - ○ **Priority/Estimate:** Optional, 2
    - ○ **Acceptance Criteria:**
        - ■ be able to visit the charger's detail page after a session
        - ■ be able to submit a report or comment about the charger

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EPIC 7: Authentication & Account Management

User Stories:

- **As a user of the platform,** I want to be redirected to the correct dashboard based on my role after login, so that I can access the appropriate features and information for my responsibilities.
    - ○ **Priority/Estimate:** High, 4
    - ○ **Acceptance Criteria:**
        - ■ If I log in as an EV Driver, I should be redirected to the EV Driver dashboard.
        - ■ If I log in as a Station Operator, I should be redirected to the Station Operator dashboard.
        - ■ If I log in as an Admin, I should be redirected to the Admin dashboard.
        - ■ The system must identify my role accurately upon login.
        - ■ The redirection must occur automatically and quickly after successful authentication.

- **As an EV Driver,** I want to update my account information, so that my profile stays accurate and secure.

- ○ **Priority/Estimate:** Medium, 3
- ○ **Acceptance Criteria:**
  - ■ be able to navigate to the profile settings
  - ■ be able to edit personal details
  - ■ be able to save updated information

- ● **As an EV Driver,** I want to permanently delete my account, so that I can stop using the service and remove my personal data from the platform.
  - ○ **Priority/Estimate:** Optional, 2
  - ○ **Acceptance Criteria:**
    - ■ be able to choose the option to delete my account
    - ■ be required to confirm the deletion
    - ■ have my account removed from the platform
    - ■ be automatically logged out after deletion