# Business Requirements Document (BRD)

## *XYZ (EV Two wheelers Mobile Application)*

[Logo]

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# 1 Executive Summary

This Business Requirement Document (BRD) outlines the requirements for the XYZ EV Mobile Application aimed at college going youth. The application aims to enhance the experience of college students with electric two wheelers by providing a platform that instils various features serving the needs of these college students.

# 2 Objectives

The application aims to simplify access to electric two-wheelers, promote ride sharing, and encourage sustainable transportation practices within college campuses.

1. Facilitation of easy access of Electric Two wheelers around the campus for students.
2. Allowing ride sharing among groups of students.
3. Providing an eco friendly and safe travel.

# 3 Project Scope

The scope covers the essential features of the application, including user registration, vehicle booking, ride sharing, navigation, group ride management, and charging station location services.

1. User Registration and profile creation.
2. Searching and booking options for the electric Two wheelers.
3. Allowing the ride sharing option as well.
4. Group rides management options.
5. Use of Google Maps API for mapping and navigation.
6. Nearest battery charging station locator option.

# 4 Stakeholders

The project involves multiple stakeholders, ranging from end users (college students) to service providers, developers, and infrastructure partners, all contributing to its success.

1. College Students
2. Two Wheeler EV Providers
3. App developers
4. Legal team
5. Charging Station Owners

# 5 Business Drivers

The initiative is guided by factors such as growing market demand, the need for efficient student travel, environmental sustainability goals, campus partnerships, and opportunities for revenue generation.

- Market Demand
- Improve efficiency in the existing travel process of the students
- Environmental sustainability
- Campus Partnerships
- Revenue Generation

# 6 Proposed Process

The solution is structured around a streamlined process that includes user onboarding, booking and navigation, ride sharing, and access to charging facilities.

1. User Registration and Profile creation
2. Mapping Routes, searching and booking
3. Ride Sharing and Group Rides Organization
4. Navigation through Google Maps API
5. Charging Station locator

# 7 Functional Requirements

The application will deliver key functionalities such as user registration, vehicle search and booking, ride sharing, navigation integration, and charging station availability.

1. **User Registration and Profile creation**: Users/students must be able to register into the Application and create their profiles using their emails or other social media connections.

2. **Mapping Routes, searching and booking**: Users must be able to search for the nearest available two wheeler EVs and be able to book them on the first come first serve basis for a given amount of time as per their requirements. Route Mapping for their selected destinations should also be provided as the best route option suggestion.

3. **Ride Sharing and Group Rides Organization**: Users heading towards the same destination, from a nearby pickup point, must have the option of ride sharing through

the route mapping process. Also, an option for group ride events must be available for specific places.

4. **Navigation through Google Maps API**: Using the google Maps API integration within the application, the users must be able to navigate through the routes of their choice.

5. **Charging Station locator**: Users should be able to locate nearby charging stations for electric two-wheelers and check their availability.

# 8 Non-Functional Requirements

In addition to core features, the solution must meet non-functional needs including usability, performance under peak load, security of user data, and compatibility with iOS and Android platforms.

1. **Usability**: The application should have an interactive UI and should allow smooth navigation through the app to enhance the UX.
2. **Capability**: The app must be capable enough to handle concurrent users during the peak hours for the students.
3. **Security**: The user data must be kept secured to ensure user security and privacy.
4. **Compatibility**: The app must be compatible with ios and Android.

# 9 Assumptions

The project is based on a set of assumptions that define the environment and conditions under which the application will operate. These form the foundation for planning and development.

- Students have smartphones with internet access.
- Partner EV providers will integrate their vehicle inventory.
- Campuses will allow parking and charging of EVs.

# 10 Constraints

Development and implementation are subject to certain constraints, including technical, financial, and operational limitations that may influence outcomes.

- Limited project budget and timeline.
- Limited EV fleet availability during rollout.
- Integration with only Google Maps in Phase 1.

# 11 Out of Scope

To establish clear project boundaries, certain features and services are excluded from the current release and will not be addressed in this phase.

- Inter-city EV booking.
- Direct EV purchase through the app.
- Cash payment option (digital payments only).

# 12 Success Metrics / KPIs

Measurable performance indicators will be used to evaluate the effectiveness and adoption of the application, ensuring alignment with business objectives.

- Student registrations in the first 6 months.
- Utilization % of EVs (time in use vs idle).
- Reduction in carbon footprint.
- Average booking completion < 30 seconds.

# 13 User Roles & Permissions

Different user groups will interact with the application in specific ways, with defined permissions and responsibilities assigned to each role.

- **Student Users:** Can register, book, share rides, and locate EVs.
- **EV Providers:** Manage vehicle availability.
- **Admin:** Monitor usage, resolve issues, and manage permissions.

# 14 Reporting & Analytics

The application will deliver insights through reporting and analytics capabilities, enabling stakeholders to track usage, performance, and business impact.

- Ride usage statistics (per student, per day).
- Revenue tracking per provider.
- Charging station utilization reports.

# 15 Risks & Mitigation

Potential risks are identified along with strategies and safeguards designed to minimize their impact on the project and its stakeholders.

- **Low adoption by students** → Incentives and campus promotions.
- **Data breach** → Encryption and regular security audits.
- **EV battery shortage** → Real-time battery monitoring and alerts.

# 16 Future Enhancements

Planned improvements and additional features for subsequent phases are outlined, offering a forward-looking view of the product roadmap.

- Gamification (rewards for eco-friendly travel).
- Campus ID card payment integration.
- AI-based ride prediction for peak demand.
- Cross-campus ride-sharing expansion.

# 17 Glossary

| Term | Explanation |
|---|---|
| app | application |
| UI | User Interface |
| UX | User Experience |
| API | Application Programming Interface |
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# 18 Document History

| Version | Date | Changes | Author |
|---|---|---|---|
| 0.1 | 16 Jan, 2024 | Initialisation | Aarushi Sharma |
| 0.2 | 18 Sept, 2025 | Added sections: Assumptions, Constraints, Out of Scope, Success Metrics, User Roles, Reporting, Risks, Future Enhancements | Aarushi Sharma |
| 0.3 | | | |
| 0.4 | | | |
| 0.5 | | | |