**Namma Yatri**

Problem Statement 1: Map Cost Improvements

**Problem Statement**:

Maps have made navigation easy. On the one hand, there are premium maps that are accurate but expensive. On the other hand, the inexpensive map products are open but inaccurate, impacting the user experience. Today, maps cost up to 70-80% of the total operating costs of the Namma Yatri app. We need to exponentially reduce the map costs to operate at a zero commission or a nominal subscription fee.

**Solution Scope & Deliverables**

The primary goal is to reduce map costs. Today, premium map APIs are used in

1. Auto-complete locations
2. Calculating distance & fare
3. Finding nearby riders/drivers
4. Navigation support
5. Safety features

Some broad solution themes:

1. Reducing the usage of maps (without adversely affecting UX)

2. Hybrid model of using open and premium maps

3. Crowd-sourced maps (for top lanes/pick-up spots)

4. Leveraging the map feature of users or drivers (instead of the platform)

5. Disruptive innovations to replace maps in some use cases

**Solution** :

Open-Source Mapping:

The app can switch to open-source mapping solutions like OpenStreetMap or Mapbox that provide accurate and up-to-date maps at a lower cost than premium maps. These mapping solutions are community-driven, and the maps are constantly updated by a large network of contributors worldwide. This would reduce the operating costs of the app while maintaining the quality of the maps.

Map Data Compression:

The size of map data is a significant contributor to the cost of map data storage and transmission. Implementing map data compression techniques, such as vector tiles, can significantly reduce the data size without compromising the accuracy of the maps. This would lower the cost of data storage and transmission, resulting in a significant reduction in operating costs.

Strategic Partnerships:

The app can explore strategic partnerships with companies or organizations that provide mapping services at a lower cost. This would provide access to accurate and up-to-date maps while reducing the overall cost of map data. In return, the partnering organization can gain access to the app's user base, leading to potential revenue opportunities for both parties.

User-Generated Maps:

The app can also explore the option of user-generated maps, where users can contribute to mapping data by providing feedback on maps, reporting errors, or adding new features. This would not only reduce the cost of map data but also increase user engagement and satisfaction with the app