**CEF440: INTERNET PROGRAMMING (J2EE) AND MOBILE PROGRAMMING**

**Analysis of the System Requirements of a Passenger positioning system (Municipal commuting App)**

Presented by:

| **Name** | **Matricule** |
| --- | --- |
| Acha Rha’ah Achubang | FE20A001 |
| Amehmbo Ngewung Sonia | FE20A008 |
| Atem Randy Asong | FE20A014 |
| Tambe Salome Ntoh | FE20A109 |
| Tiokeng Samuel Edward | FE20A110 |

***Introduction***

The purpose of this report is to outline the requirements of a passenger positioning app that is to be used both by passengers and drivers. The app will specify their position at a given point in time, while the driver will use it to locate where the passengers are found at a given time. This will help reduce the amount of time passengers have to wait for a taxi and enable drivers optimize fuel consumption.

***Functional Requirements***

1. Passenger Registration and Login: The app should allow passengers to create accounts using their personal information including name, phone number, email address and login securely.
2. Driver Registration and Login: The app should allow drivers to create accounts using their personal information including name, phone number, email, driver’s license and vehicle details, and login securely.
3. Booking a ride: The app should allow passengers to book a ride by specifying pickup and destination locations and the app should display the estimated cost.
4. Payment System: The app should incorporate a payment system that enables passengers to pay for rides they book on the app. The app should support many modes of payments(e.g. Mobile money, credit cards etc.)
5. Location Services: The app should integrate with its location services on passenger and drivers devices to enable the app to track the current locations of both passengers and drivers.
6. Routing and Navigation: The app should provide drivers with an optimal route and directions to the passenger's location.
7. Interactive Map: The app should have an interactive map that displays the current location of both passengers and drivers in real time.

***Non-functional Requirements***

1. User Interface: The app should be intuitive, user-friendly, and easy to navigate for both passengers and drivers, with appropriate pictorials, labels and descriptions.
2. Performance: The app should be fast, reliable, and scalable, with high processing power and low latency.
3. Security: The app should be secure with password protection, encryption, firewall and other security measures.
4. Compatibility: The app should be compatible with multiple platforms, including iOS and Android.

***Conclusion***

In summary, this report has described the requirements for an app that will be used by both passengers and drivers to locate each other effectively. Requirements include passenger and driver registration and login, booking, payment system, driver location tracking, routing and navigation, interactive map, user interface, performance, security, compatibility and availability. With these requirements met, the app will reduce the amount of time passengers have to wait for a taxi, help drivers optimize fuel consumption and improve overall ride-hailing experience.