\*\*Cahier de Charge: Mobile App Development Project\*\*

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\*\*1. Project Presentation\*\*

\*\*1.1 Context\*\*

The proliferation of digital technology in the 21st century has revolutionized commerce. With the advent of smartphones, e-commerce has taken a new twist, seeing businesses launch mobile applications to reach a broader audience. The Mobile App Development project will entail creating an e-commerce mobile application that incorporates a network of individuals who will serve like a messenger system.

\*\*1.2 Problem Statement\*\*

The current market lacks sufficiently integrated e-commerce platforms that connect buyers, sellers, and integrated messenger networks for effective communication. This leads to delays and inefficiencies in transactions, resulting in customer dissatisfaction and loss of business.

\*\*2. Analysis of the Existing Situation\*\*

The current e-commerce environment is characterized by isolated systems. In many cases, buyers deal directly with sellers, and the communication tools employed are not integrated into the systems. This not only leads to inefficiencies but also erodes the agility that characterizes digital commerce. Consequently, businesses have been unable to fully exploit the potential that e-commerce holds.

\*\*3. Proposed Solution\*\*

This project will develop a mobile application embedded with an integrated messenger system. This e-commerce app will bridge the communication gap by providing a seamless connection between buyers, sellers, and an entire network of users. With a budget of $50,000 and a deadline set for December 31, 2025, we are confident that the Scrum methodology will facilitate the timely and efficient attainment of this objective.

\*\*4. Functional and Non-Functional Requirements\*\*

\*\*4.1 Functional Requirements\*\*

- User Registration: Users will be able to create and manage their profiles.

- Product Catalog: Retailers can list their products along with the necessary details.

- Search Function: To facilitate easy location of items.

- Shopping Cart: Users can add chosen items ready for checkout.

- Payment Gateway: Secure online transactions facilitated through linked cards or digital wallets.

- Messenger: Buyers and sellers communicate efficiently.

\*\*4.2 Non-Functional Requirements\*\*

- Availability: The app should be available 24/7 for smooth user interaction.

- Performance: Fast load times and quick response.

- Scalability: The system should accommodate increasing numbers of users and data.

- Security: The platform should adhere to security standards to protect user data and transactions.

\*\*5. Technology Stack\*\*

- Frontend: JavaScript, React Native.

- Backend: Node.js, Express.js.

- Database: MongoDB.

- For real-time communication (messaging): Socket.IO.

- Cloud infrastructure: AWS services (S3, EC2).

- Other tools: Docker for containerization, Jenkins for continuous integration and delivery.

\*\*6. Application Overview with Design Choices\*\*

\*\*6.1 Logo\*\*

Our logo will be simple, appealing, and representative of our e-commerce app. It will be designed to be recognizable and easily associable with the services on offer.

\*\*6.2 Interfaces\*\*

The main interface will be user-friendly, intuitive, and easy to navigate. The app interface would be divided into three main areas: the product area, shopping cart, and messenger.

\*\*6.3 Design Choices\*\*

For seamless use, the app will be designed mindful of the end-user. Emphasis will be placed on colors, fonts, and icons that enhance simplicity and ease of use.

\*\*7. Conclusion\*\*

In conclusion, effective e-commerce is more about efficiency and user satisfaction. This project aims to bridge the communication gap in e-commerce by integrating a messenger system into our proposed mobile application. Executing this project will not only enhance user experience but will also unearth the untapped e-commerce potential currently hindered by communication inefficiencies.

Once completed, the app will provide a more interactive, efficient, and user-friendly platform for buyers and sellers, leading to increased customer satisfaction and consequently, significant growth in e-commerce activities.

The project is confident of delivering value for the allocated budget and within the stipulated timeline. The Scrum methodology, coupled with the team's expertise and determination, will undoubtedly facilitate the successful completion of this project.

This new mobile app, upon completion, will undoubtedly revolutionize e-commerce, delivering business growth and customer satisfaction.