**Software Requirements Specification (SRS) for “Nep-Pay”**

**(Digitizing Nepal)**

**1. Introduction**

1.1 Purpose

The purpose of this document is to outline the software requirements for the development of Nep-Pay, a simple online payment gateway.

1.2 Scope

Nep-Pay will facilitate secure online transactions for users and merchants, allowing them to send and receive payments seamlessly.

1.3 Definitions, Acronyms, and Abbreviations

- Nep-Pay: The online payment gateway.

- API: Application Programming Interface.

1.4 References

- Payment Card Industry Data Security Standard (PCI DSS).

**2. Overall Description**

2.1 Product Perspective

Nep-Pay will function as a standalone online payment gateway, interacting with various platforms through APIs to process transactions securely.

2.2 Product Features

2.2.1 User Registration

- Users can create accounts and profile information.

2.2.2 Payment Processing

- Facilitate transactions between users and merchants securely.

2.2.3 Transaction History

- Users can view their transaction history.

2.3 User Classes and Characteristics

- Customers: Individuals making online purchases.

- Merchants: Businesses receiving payments online.

2.4 Operating Environment

Nep-Pay will operate in a web-based environment, supporting modern web browsers and mobile devices.

2.5 Design and Implementation Constraints

- Compliance with PCI DSS for secure payment processing.

- Integration with partner banks and financial institutions.

**3. System Features**

3.1 User Management

3.1.1 User Registration

- Users can create accounts with basic information.

3.1.2 Authentication

- Secure login using email/password or other authentication methods.

3.2 Payment Processing

3.2.1 Payment Initiation

- Users initiate payments through a secure interface.

3.2.2 Transaction Confirmation

- Users receive confirmation of successful transactions.

3.3 Transaction History

3.3.1 View Transactions

- Users can view their transaction history.

**4. External Interface Requirements**

4.1 User Interfaces

- Web-based user interface for desktop and mobile browsers.

- Mobile application interfaces for iOS and Android.

4.2 API Interfaces

- Integration with partner banks and financial institutions.

- Provide APIs for merchants to integrate with Nep-Pay.

**5. Non-functional Requirements**

5.1 Performance Requirements

- Response time: Transactions processed within 3 seconds.

- Scalability: Support at least 100,000 concurrent users.

5.2 Security Requirements

- Compliance with PCI DSS standards.

- Data encryption during transmission and storage.

5.3 Reliability and Availability

- 99.9% system uptime.

- Regular backup and recovery procedures.

5.4 Usability Requirements

- Intuitive user interfaces for both customers and merchants.

**6. System Maintenance**

6.1 System Updates

- Regular updates for security enhancements and feature improvements.

6.2 Bug Fixes

- Prompt identification and resolution of software bugs.

**7. Additional Requirements**

7.1 Legal and Compliance

- Compliance with local and international financial regulations.

- Privacy policy adherence.

7.2 Documentation

- Comprehensive documentation for users, merchants, and developers.

**8. Approval**

(Signatures of key stakeholders indicating approval of the Nep-Pay Software Requirements Specification.)