**Project Deliverable 2: Backend Report**

**Introduction**

Managing software licenses poses challenges for both software users and providers, involving tasks such as generating unique serial numbers, securely storing them, and enforcing their validity. This project focuses on developing a web-based software license management system to address these challenges. The system aims to assist both end users and software providers in efficiently managing their licenses' serial numbers.

**System Description**

This report details the backend aspects of the web-based software license management system. The backend is responsible for handling data storage, processing user requests, and managing the overall system functionality.

**Meeting Schedule:**

Regular meetings were held every Thursday, discussing project progress, challenges, and solutions. Communication occurred through Zoom sessions and occasionally at the Concordia library.

**Features Implemented in Backend:**

**1. Database Management:**

* **User Account Database:**

- Allows the creation, editing, and deletion of user accounts with essential information (name, address, etc.).

* **License/Serial Number Database:**

- Manages the association of purchased serial numbers with user accounts, storing information such as serial number, purchase date, and expiry date.

**2. License Operations:**

* **License Renewal:**

- Provides functionality for users to renew or stop renewing licenses, especially relevant for subscription-based models.

* **New License Acquisition:**

- Enables users to purchase and acquire new licenses seamlessly.

**3. Communication Module:**

* **Email Notifications:**

- Notifies users, especially clients, through email about crucial events, such as approaching subscription renewal, invalid serial numbers, or irregular use.

**Features Implemented So Far:**

- Database management for user accounts and serial numbers.

- License operations, including renewal and new license acquisition.

- Basic communication module with email notifications.