University of British Columbia, Vancouver

Department of Computer Science

CPSC 304 Project Cover Page

Milestone #: <u>1</u>

Date: _____

Group Number: 10

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By typing our names and student numbers in the above table, we certify that the work in the attached assignment was performed solely by those whose names and student IDs are included above. (In the case of Project Milestone 0, the main purpose of this page is for you to let us know your e-mail address, and then let us assign you to a TA for your project supervisor.)

In addition, we indicate that we are fully aware of the rules and consequences of plagiarism, as set forth by the Department of Computer Science and the University of British Columbia

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2a)

The domain of the application is **personal healthcare**, designed for people with health conditions, their families, and health consultants to monitor and manage user health and vital information. This app is mainly designed to assist users and their families in monitoring and improving their own health by tracking vitals and following health programs. Our app also allows health consultants to monitor and manage patient health and programs that may be offered. Users can use a device that will track their vitals. There will be a streamlined communication system between users and health consultants, ensuring accurate and up-to-date health information.

2b)

The database for our personal healthcare application models several essential health factors to facilitate effective monitoring and management of user health. It captures comprehensive user information, including emergency contacts and family members with read access, allowing for enhanced support, especially for elderly patients. For instance, if an elderly patient with chronic heart disease uses the app, their family members can access real-time data on their vital signs, medication schedules, and health programs, ensuring they are adhering to treatment.

Each user is linked to a medical consultant, ensuring professional oversight and tailored interventions. The database also includes health entries like prescriptions and treatment notes, which are vital for continuity of care. By tracking health programs and specific conditions, users can engage in customized initiatives tailored to their needs.

Additionally, the app allows for the monitoring of health data over time, enabling users and their families to visualize improvements in vital signs, such as blood pressure or heart rate. This historical data can highlight trends, showing healthy habits positively impacts overall health. For instance, an elderly patient may show consistent improvements in their blood pressure readings, providing motivation for both users and their families. Overall, the database promotes streamlined communication among patients, families, and health consultants, fostering a collaborative approach to personal health management and improving health outcomes.

3a)

Our database will store, manage, and retrieve user information and their health condition, treatments, prescriptions, devices, and registered programs, as shown above. Users will be able to view their health statistics, track progress in any assigned health programs, and access their

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medical records, including prescriptions, treatments, and notes written by health consultants. Healthcare providers will be able to update patient records, notes, diseases or injuries, as well as prescribe treatments to patients. The database will also support device tracking, maintaining contact information such as emergency contacts and regular contacts for each patient.

- 4a) Our personal healthcare application will use the provided Oracle database for data management.
- b) The backend will be developed using Node.js, with JavaScript as the primary programming language for server-side logic and front-end integration.

