ADR 1: *Choice of Web Framework*

Title: Selection of the web framework

Status: Accepted

Context: We must have a scalable and maintainable web framework to build our VetCare platform. The framework must be able to support our agile development, as well as ensure security and performance for our end users.

Decision: Our team decided on Spring Boot as the foundation to our platform to help achieve this. This will provide as with a solid base to build upon, as well as additional tools and features to make our development process more streamlined.

Consequences:

- **Easier:** We will have full control over our framework, ensuring customisation and optimisation where necessary.

- **More Difficult:** Increased initial development efforts as well as maintenance for the platform, as it must align with Spring Boot requirements.

ADR 2: *Database Selection*

Title: Selection of our Database Management System

Status: Accepted

Context: VetCare will have to store structured data from our users in not only an efficient manner, but also secure. We will have to store medical records, appointment schedules, prescriptions all from our users. This database must ensure data integrity such that there are no leaks, as well as provide a scalable relational database, which we can achieve through using SQL.

Decision: We have decided to use MySQL as the database management system for VetCare. MySQL is renowned for its performance and reliability when using it. It allows us to scale when necessary when our platform grows.

Consequences:

- **Easier:** Reliable, relation database that is widely used within the industry, making implementation simpler.

- **More Difficult:** Need to manage how our queries are called in the case of large number of users utilising the site simultaneously.

ADR 3: *Real-Time Notification System*

Title: Implementation of Real-Time Notification System

Status: Accepted

Context: VetCare requires a system to deliver real-time notifications to pet owners for appointments, prescription refills, as well as reminders for critical documents that veterinarians require. The platform must be able to handle a high volume of notifications across various channels, including email, SMS, and in-app notifications, with low latency and high reliability. As well as be stored inside of a mailbox system for the user.

Decision: We will be using an SMTP system for sending out email notifications to our users for notifications, with the additional option for SMS. We will also have real time alerts on a website as well as a mailbox system to store all our previous communications with users.

Consequences:

- **Easier:** We will use Spring Boot components to simplify the process.

- **More Difficult:** Must ensure secure transmission when communicating with the users, which will require effort in implementing.