<Team 104>

<FitUS>
Software Architecture Document

Version <2.0>

Revision History

Date	Version	Description	Author
<09/07/2023>	<1.0>	<The first version of the Software Architecture Document, including the Introduction, Architectural Goals and Constraints and Logical View (subjected to change)>	<Team104>
<23/07/2023>	<1.1>	<The revised version for the Software Architecture Document, featuring some changes scattered from section 1-4, also added missing parts for section 5 and 6>	<Team104>
<02/09/2023>	<2.0>	<Adjust goals and constraints; redraw use-case model, Logical View, Deployment and Implementation View diagrams>	<Team104>

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Software Architecture Document

1. Introduction

This document provides a comprehensive architectural overview of the system, using a number of different architectural views to depict different aspects of the system. It is intended to capture and convey the significant architectural decisions which have been made on the system.

This Software Architecture Document applies to the FitUS website which will be developed by the team.

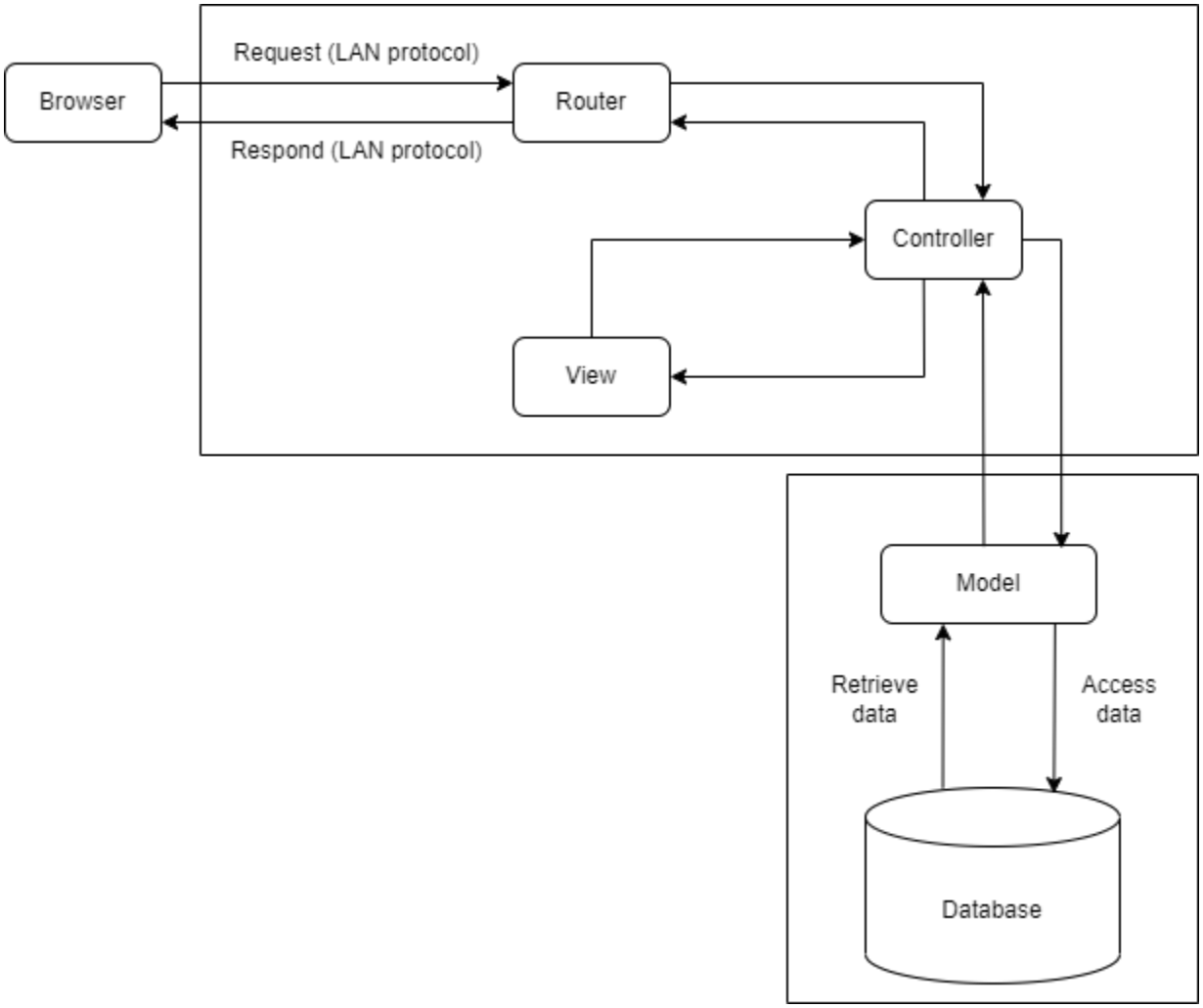
2. Architectural Goals and Constraints

There are some requirements and constraints that significantly affect the architecture. The list of requirements and constraints is useful to completely review the architecture of this application. There are:

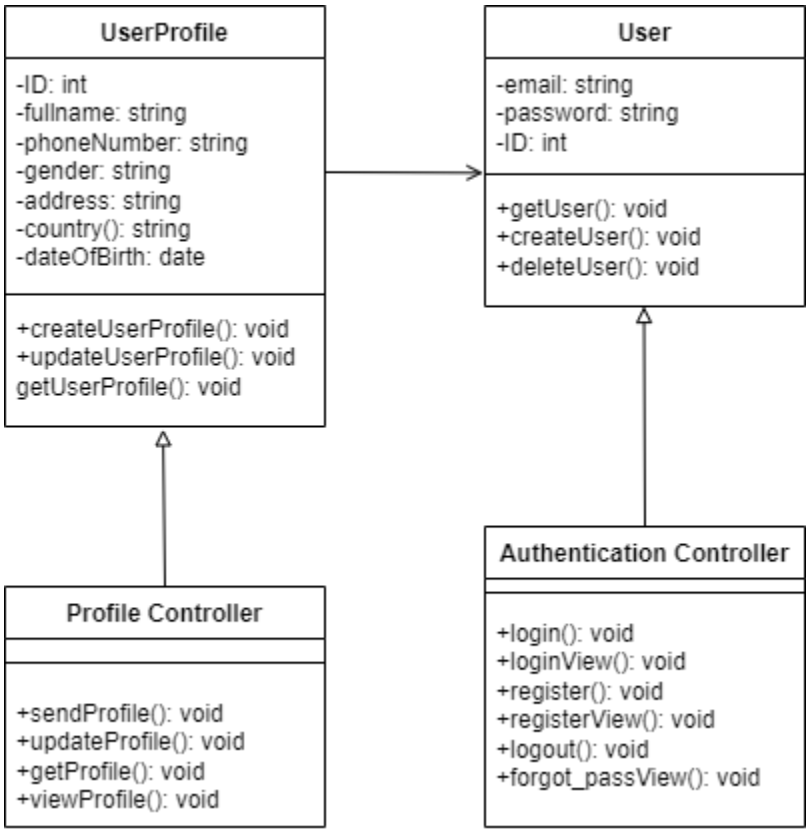
- Rapidly responding product to a customer who uses an application.
- Databases must be normalized into BCNF (if possible) to be conveniently handled.
- The backend structure must follow MVC structure.
- UX must be designed as part of the Website Layout structure.
- An account's password must be protected (hashed before being stored in the database).
- The application must work in an environment that has Internet connection.

3. Use-Case Model

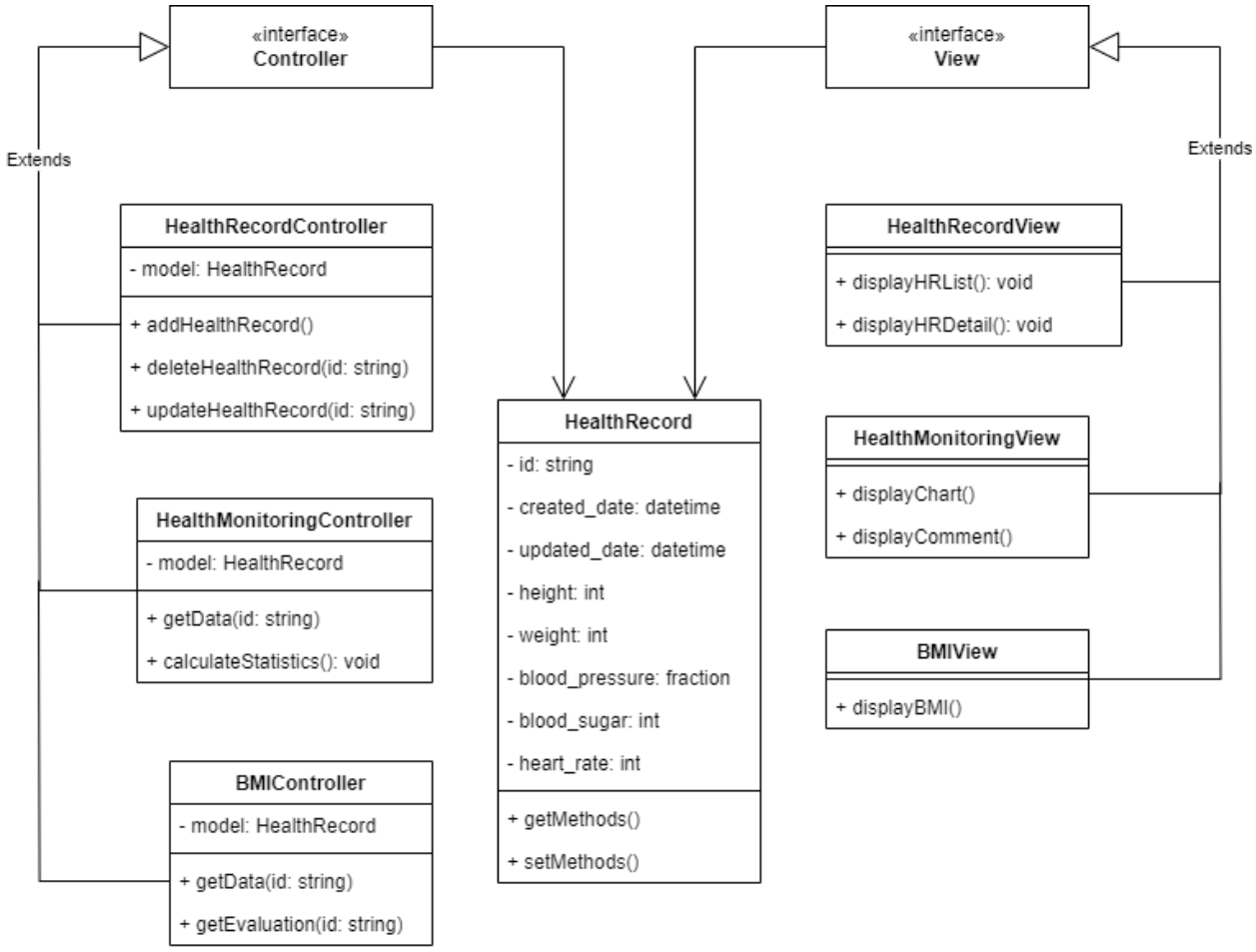
4. Logical View



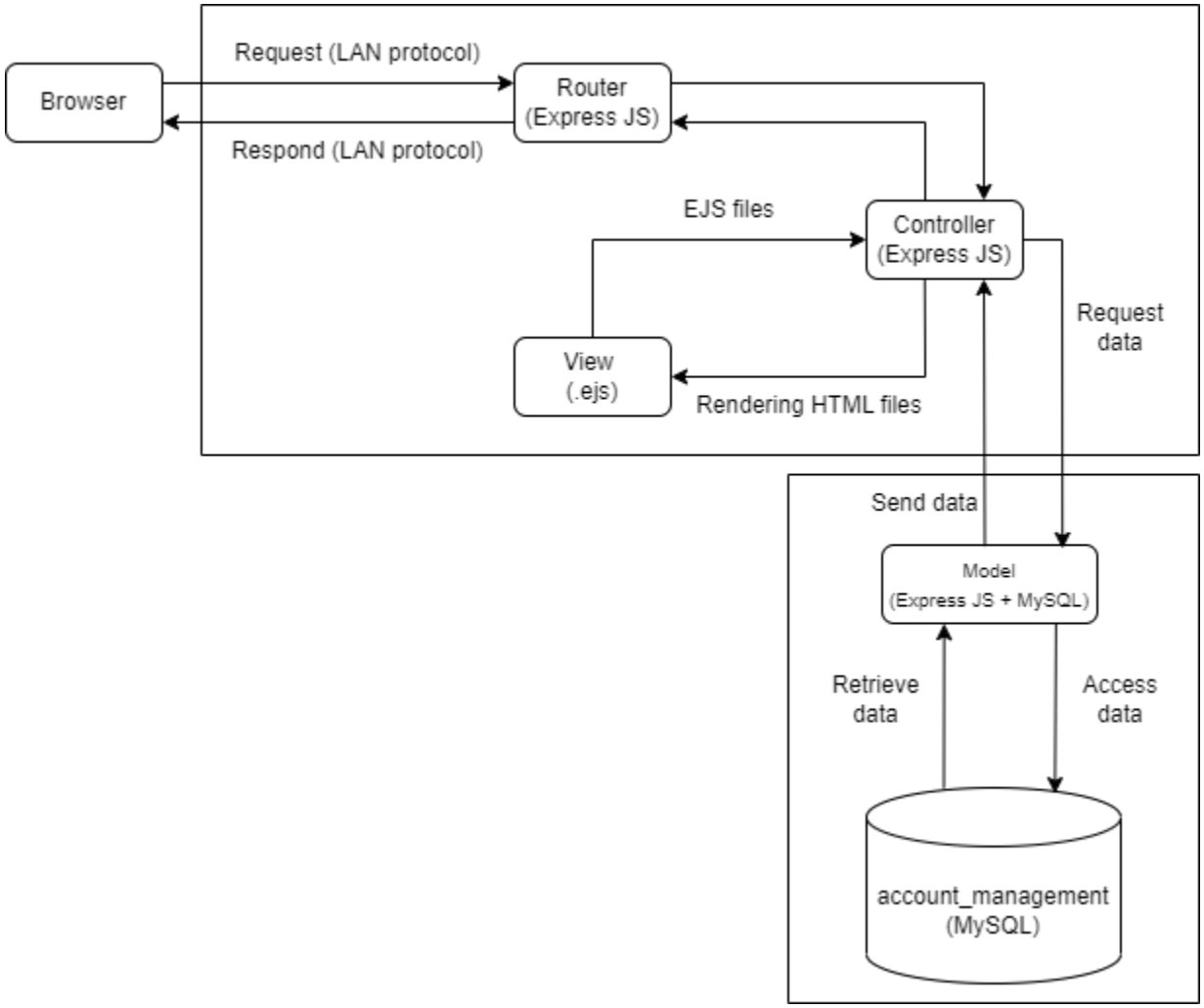
4.1 Component: Account



4.2 Component: Health record


«interface»
Controller
«interface»
View
Extends
Extends
HealthRecordController
- model: HealthRecord
+ addHealthRecord()
+ deleteHealthRecord(id: string)
+ updateHealthRecord(id: string)
HealthRecordView
+ displayHRList(): void
+ displayHRDetail(): void
HealthRecord
- id: string
- created_date: datetime
- updated_date: datetime
- height: int
- weight: int
- blood_pressure: fraction
- blood_sugar: int
- heart_rate: int
+ getMethods()
+ setMethods()
HealthMonitoringView
+ displayChart()
+ displayComment()
HealthMonitoringController
- model: HealthRecord
+ getData(id: string)
+ calculateStatistics(): void
BMIView
+ displayBMI()
BMIController
- model: HealthRecord
+ getData(id: string)
+ getEvaluation(id: string)

5. Deployment



6. Implementation View