IFS4205 Team 1 Plan and Team Assignment

1. Team Members

1. Adeeb Ashraf Bin Mirzha Alam Arif
2. Chew Hong Kai
3. Gng Jia Hui
4. Lam Guang Jun
5. Mun Le Yuan
6. Yong Zhi Yuan

2. Team Assignment Overview

1. Front-end: Adeeb & Guang Jun
2. Back-end (Spring): Zhi Yuan
3. Server: Adeeb & Jia Hui
4. Tag: Jia Hui
5. Database: Hong Kai & Le Yuan

3. Team Assignment Details

Front-end - Adeeb & Guang Jun

- Coming up with the specifications and the design of the interface used by Users to access the Health System
- Implementation of the secure interface with HTML, CSS and JavaScript
- Ensure rightful authorization and authentication using Apache Shiro and JSON Web Token

Back-end - Zhi Yuan

- Setup webservice using Spring Boot and GraphQL
- Facilitate integration of the different subsystems together
- Ensure secure communication between the interface and the servers
- Implementation of k-anonymity with ARX tools

Server - Adeeb & Jia Hui

- Coming up with the specifications and the design of the servers
- Set up and configuration of the servers with the aid of Ansible
- Hardening of the servers without affecting their functionality

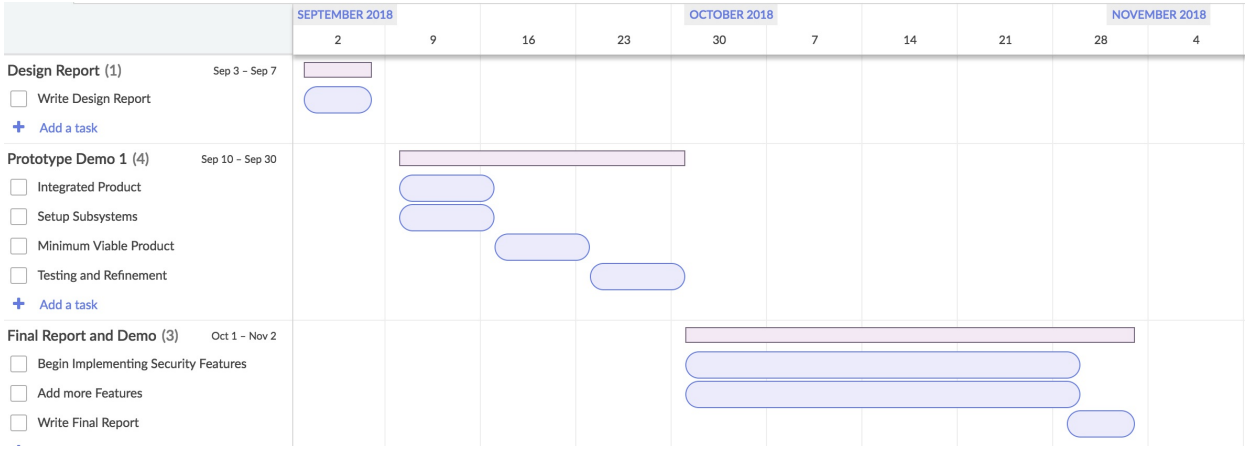
Multi-factor Authentication Tag - Jia Hui

- Coming up with the specifications and the design of the tag
- Development of the functionality and security features the tag will provide
- Implementation of the tag with RFduino

Database - Hong Kai & Le Yuan

- Coming up with the specifications and the design of the database
- Implementation of database with MySQL
- Generate and populate the database with large set of plausible data
- Design API required for secure and authentic update of the database with the external data by external parties

4. Project Timeline



Design Report - Week 3

Write Design Report

- Propose specifications and designs for each subsystem with regards to implementation, interfaces, controls and protocols
- Finish up Design Report

Prototype Demo - Week 4 to 7

Setup Subsystems

- Setup Ansible configuration management tool and use it to configure servers and make sure required services are up and running
- Setup web service using Spring Boot and GraphQL
- Setup Multi-factor Authentication Tag BLE communication capability
- Setup database and create tables
- Basic user interface and design

Integrated Product

- Integration of all subsystems, namely Tag + Front-end + Back-end, allowing information flow between systems
- Basic functionalities of each individual subsystem may not be fully achieved yet

Minimum Viable Product

- Implementation of all basic features proposed in Design Report

Testing and Refinement

- Improve on product functionality for a fully integrated and fully functional healthcare records system
- Subsystems may not be fully secure yet

Final Report and Demo - Week 8 to 11

Implementation of security features

- Hardening of subsystems
- Looking out for possible and known vulnerabilities and fixing them

Additional features

- Implement any additional features that improves on the functionality and security of our subsystem

Write Final Report

- Finish up Final Report