Hospital Patient Appointment System

Team Details (Team 13)

Tufei Cai

Yunlin Peng

Yuxuan Liu

Team Member Background and Skills

- Tufei Cai: Bachelor degree in Statistics and Data Science at the UCSB. Experienced with simple web development with web frameworks such as Flask and Django and has knowledge of HTML, CSS, and JavaScript. I am also familiar with Hadoop and Pyspark.

- Yunlin Peng: Bachelor degrees in Data Science and Business Analytics at the University of Sydney. Experienced with MySQL, database management, HTML, CSS, and JavaScript.

- Yuxuan Liu: Bachelor degree in Information Management and Information System at BJUT. I have gained practical experience in Java application development.

Project Requirements

The project aims to create a management interface for database administrators to be able to insert, delete, and modify databases. The databases should use hash values to make reasonable partitions to store the data in different databases. Also, it involves developing a web application for end-users(users without experience with databases) to interact with the database and manage specific data through the web application.

Planned Implementation

The project aims to develop a comprehensive system to help with the scheduling and management of hospital appointments and to provide a secure and efficient data

management system on the backend with a user-friendly interface for patients. More specifically, the system provides an efficient platform for patients to book appointments online, and hospital staff can access current or upcoming appointments with the terminal interface of the system. The database system should be able to handle large amounts of data and ensure the integrity of the data. For demonstration, we will design our own dataset for testing our application. Also, the database would have reasonable replication in order to prevent data loss. Fully functional data storage system using NoSQL databases.

The patients' data will be partitioned into four databases based on different age groups. Specifically, patients under 18 years old will be partitioned into the children database, ranging from 19 to 35 years old will be distinguished as young adult, ranging from 35 to 65 years old will be identified as the middle age, and over 65 years old will be partitioned into the seniors database.

Programming Languages: Python

Frameworks: Flask, Fast-API, Streamlit. Django etc..

Team Responsibilities

(Database and HDFS) : Yunlin Peng

(Frontend Developer) : Tufei Cai

(Backend Developer) : Yuxuan Liu

Timeline

Time	Task
2/2	Proposal
2/15	Distributed database built
3/1	User interface built
3/15	End user interface built
4/1	Demo discussion
4/15	Demo Practices
4/16	Final report discussion
5/1	Final report finished