Hospital-Management Application

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Project Description

- Application allows the user to schedule an appointment and view prescription by using login credentials.
- Application stores data related to appointments and prescriptions.
- Administrative controls are managed by giving limited access to the patient and doctors for appointment related activities.

Tools :

- IntelliJ IDEA
- GitHub
- Docker
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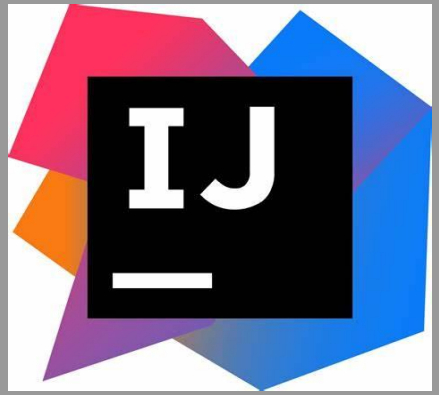
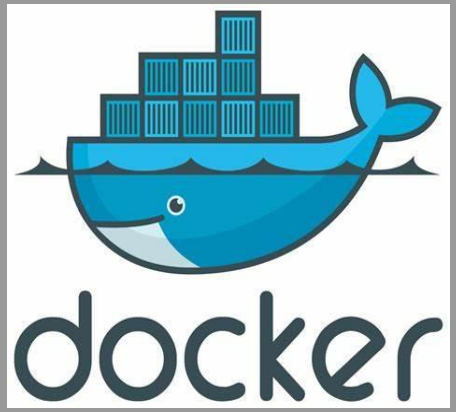


Database :

- MongoDB



Java

- We have used java for creating this application
- Java is a **programming language** and a **platform**. Java is a high level, robust, object-oriented and secure programming language.
- Any hardware or software environment in which a program runs, is known as a platform. Since Java has a runtime environment (JRE) and API, it is called a platform.

Apache Maven :

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- Apache Maven is a software project management and comprehension tool. Based on the concept of a project object model (POM), Maven can manage a project's build, reporting and documentation from a central piece of information.

Spring Boot

- Spring Boot makes it easy to create stand-alone, production-grade Spring based Applications that you can "just run".
- We take an opinionated view of the Spring platform and third-party libraries so you can get started with minimum fuss. Most Spring Boot applications need minimal Spring configuration.
- Create stand-alone Spring applications.Embed Tomcat, Jetty or Undertow directly

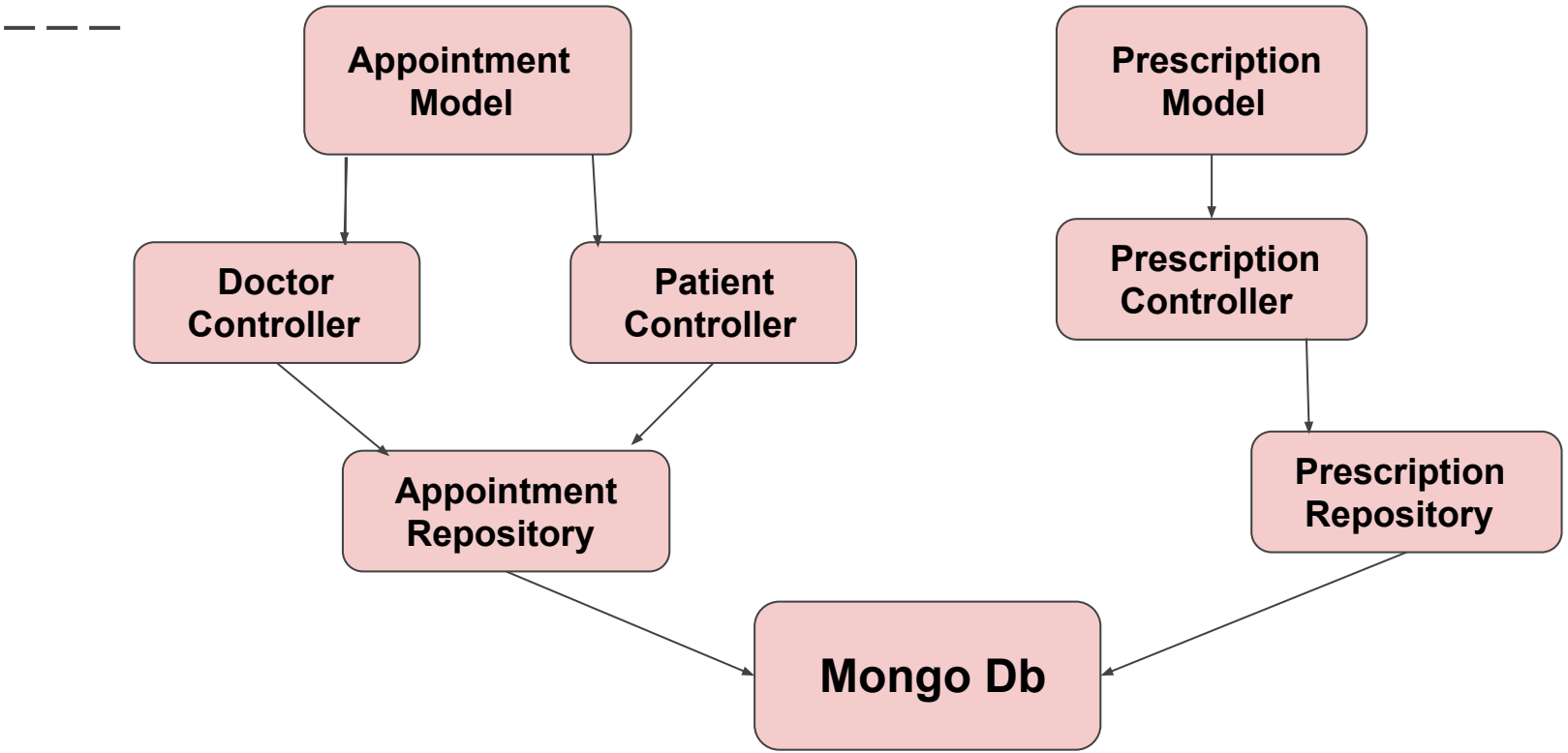
MongoDB

- **MongoDB**, the most popular NoSQL database, is an open-source document-oriented database. The term ‘NoSQL’ means ‘non-relational’. It means that MongoDB isn’t based on the table-like relational database structure but provides an altogether different mechanism for storage and retrieval of data. This format of storage is called BSON (similar to JSON format).

Docker

- Docker is an open platform for developing, shipping, and running applications. Docker enables you to separate your applications from your infrastructure so you can deliver software quickly. With Docker, you can manage your infrastructure in the same ways you manage your applications. By taking advantage of Docker's methodologies for shipping, testing, and deploying code quickly, you can significantly reduce the delay between writing code and running it in production.

App Architecture



Models:

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- **Appointment :**

  Appointment is the first model of Microservices that stores important data related to appointments such as appointment Id,patient name, doctor name, date and prescription object and basic constructors and getter setters are there.

- **Prescription :**

  Prescription is the second model of Hospital management application that stores data related to prescription such as prescription id,appointment id, description, patient name,doctor name and bsic getter setters are there.

Controllers:

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There are three controllers in this application:

- Doctor Controller
- Patient Controller
- Prescription Controller

Doctor Controller

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The Doctor controller has two Rest EndPoints:

- **/doctor/save:** This is a POST method which is basically used when doctor want to store some data in database or wants to schedule an appointment which is then stored in mongo database.
- **/doctor/doctorappointment:** This is a GET method which is basically used when doctor want to get some stored data in database or wants to retrieve some data from database of particular patient or perticular doctor. It uses doctor name as parameter.

Patient Controller:

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The Patient controller has two Rest EndPoints:

- **/patient/save:** This is a POST method which is basically used when patient want to store some data in database or wants to schedule an appointment which is then stored in mongo database.
- **/patient/myappointment:** This is a GET method which is basically used when patient wants to get some stored data in database or wants to schedule an appointment of any doctor. It uses patient name as a parameter.

Prescription Controller:

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The Prescription controller has two Rest EndPoints:

- **/prescription/saveprescription:** This is a POST method which is basically used when prescription details are about to be saved in mongo database.
- **/prescription/viewprescription:** This is a GET method which is basically used to view prescription data stored in database

Repositories

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There are two repositories in this Hotel-management application. They are as follows:

- **AppointmentRepository**
- **PrescriptionRepository**

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- **AppointmnetRepository:** This repository is basically used to store appointment data into the mongo database.It extends the mongoRepository and consists of various entities that are used to store appointment data.

- **PrescriptionRepository:** This repository is basically used to store prescription data into the mongo database.This also extends to the mongoRepository and consists of various entities that are used to store prescription data.

Thank you !