Covid-19 App Case Study

1	**Name of the Project**	**Covid-19 App**
2	**Objective/ Vision**	Build a system to keep track of Covid-19 cases in different countries. Users should be able to register themselves in the application and save search data as a logged user. Logged in user should be able to put put countries in watch list for their covid cases. The application needs to fetch existing covid-19 data from api of **https://apify.com/covid-19** where the user can **v**iew covid patients by countries.
3	**Users of the System**	All Internet users
4	**Functional Requirements**	**1)** Home Page should consist of Register page through which a user can register himself. Upon registration, the user should be able to login into his account. **2)** Home page should show entire world covid cases in real time. **3)** User home page should also have options to edit his profile and changing his password. **4)** The Covid Watcher - View to select the country to display its covid cases **5)** There should be a functionality for putting the cities in watch list. **6)** Search Service- View to select the country to display its Covid cases **7)** Search result should be presented by infected cases, recovered cases, deceased cases. **8)** User can view watch list countries covid cases
5	**Non-functional requirements**	a) App should be accessible from any location with access to the Internet. b) App should be responsive to display consistently across multiple device screens. App should have an intuitive UI that can be operated by novice-expert Internet users
6	**Tools and Technologies to be used**	**1.** VCS : Gitlab **2.** Middleware : Spring Boot **3.** Frond end : React **4.** Data Store : MongoDB / MySQL **5.** Testing : Junit, Mocha, Chai, Jest **6.** Container : Docker **7.** Bug Fix : Sonarlint **8.** CI : Gitlab

User Stories

1	**As a user I should be able to register with the application so that I can login and use the functionalities of the application.**
2	**As a user, I should be able to login with my user name and password in order to access the functionalities of the application.**
3	**As a user, I should be able to login with my Gmail account in order to access the functionalities of the application. .(Optional requirement)**
4	**As a user I should be able to search resources to view their details**
5	**As a user, I should be able to save resources to a wishlist/favourite so that I can access them later**
6	**As a user, I should be able to access items saved to my wishlist/favourite**

Notes:

- The application should be based on microservices architecture
- API Gateway pattern should be implemented using Spring Cloud Gateway
- Services should register themselves with Eureka Service Discovery server.
- All layers of microservices should be covered with automated unit and integration tests
- All microservice endpoints should have API documentation

High Level Architecture Diagram