Transport App Case Study

1	**Name of the Project**	**Transport App**
2	**Objective/ Vision**	Create an app to search and view routes for stations Dashboard view with three sections - Display Favorite station, Station statistics - This Dashboard is the default view to be shown. - The 3 sections are: - Favorite station - Station statistics - View All Favorite destination under Favorite section - Display all mode of transport under transport statistics section - View all stations information from 3rd party tracks service provider (https://developer.transportapi.com/)
3	**Users of the System**	All Internet users
4	**Functional Requirements**	**1)** Home Page should consist of Register page link through which a user can register himself. Upon registration, the user able to login into his account. **2)** User home page should also have options for to edit his profile and changing his password. **3)** Search for destination station – Shall provide all mode of transport to travel to the destination **4)** Nearby stops to destination – Nearby station of the destination **5)** Transport mode - View all transport modes to a destination from https://developer.transportapi.com/
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. c) 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 : Angular/React spring mvc **4.** Data Store : MongoDB / MySQL postgres **5.** Testing : JUnit, Mocha, Chai, Jest, Protractor **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