

WorldExplorer App Case Study

1	Name of the Project	WorldExplorer App
2	Objective/ Vision	<p>Build a system to search for country and list matching countries, show details of a selected country and bookmark a country. The application should have header section, search section and result display section.</p> <p>The application needs to fetch country details by using the following API link. https://restcountries.eu/</p> <p>Sample reference APIs: https://restcountries.com https://restcountries.com/v3.1/name/india</p>
3	Users of the System	All Internet users
4	Functional Requirements	<ol style="list-style-type: none"> 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) World Explore - View to select the country to display the States 4) Search for country and show list of matching countries 5) View details of selected country and its continent 6) Bookmark a country - should be able to store all the bookmarked countries for a user 7) Logged in user can bookmark countries 8) Recommendation for other countries from the same continent.
5	Non-functional requirements	<ol style="list-style-type: none"> 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	<ol style="list-style-type: none"> 1. VCS : Gitlab 2. Middleware : Spring Boot 3. Frond end : Angular/React 4. Data Store : MongoDB / MySQL 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

