# Approach Document

**Craft Demo:**

**Problem Statement:**

* Country lookup CLI.
* Reference data through API <https://www.travel-advisory.info/api>
* Given Country Code should return Country Name

E.G:

lookup --countryCode=AU

Australia

**Approach towards problem statements:**

* Chosen BASH scripting for creating CLI requirement based on the passed argument/s separated using “,”.
* Curl data through API <https://www.travel-advisory.info/api> for updated dataset.
* Iterating and parsing JSON dataset populated through API <https://www.travel-advisory.info/api> using JQ tool.
* Used functions to define declaration and definition.
* Created show\_help() for help page for users.

**REST Implementation:**

* Used MAVEN based Spring Boot Application for REST implementation.
* Used Prometheus, Actuator for exposing the metrics endpoint which in tern can be used for scrapping the metrics from Prometheus server and viewing them through Grafana Dashboard.
* Used Spring DATA JPA for persistent of the data using embedded H2 database.
* Exposed H2 database with endpoint (/h2-console-updated) and password protected.
* Exposed CRUD operations for country lookup APIs.
* Written Dockerfile for docker image generation.
* Written Jenkinsfile for CICD Impl.
* Written docker-compose file for quick run, though I would prefer K8S.
* Enabled Swagger UI endpoint for API doc.
* /health endpoint is exposed using <http://localhost:8080/actuator/health>
* /diag endpoint is exposed as response is referenced in <https://www.travel-advisory.info/ap>
* /conver endpoint is exposed but Processing business logic is TODO.
* Creation of k8s cluster and running local image will be done using KIND.
* We can attach custom or AWS managed SSL certificate to the exposed REST endpoint.

**NOTE: Monitoring and Logging details are populated in** [**https://github.com/psi09/assignment-docs**](https://github.com/psi09/assignment-docs) **with reference AWS arch diagram.**