



PUBLIC

Coding Exercise

Platform CoE Interview 2025

Please find the description of the exercise as well as the way to send us your submission.

Description

Along with this document, you received a zip file containing a set of airports in JSON and CSV format. Your task is to build a small piece of software using this data with individual subtasks listed below. You can use any mainstream programming language to solve the exercises and you can leverage open-source libraries and frameworks as you see fit. Of course, you can also make use of SAP technology.

The data comprises of airports and landing strip with ICAO codes used as keys. Each airport contains IATA code, airport name, city, two-letter ISO country code, elevation above sea level, coordinates and time zone.

The elevation above sea level is in feet and coordinates are in decimal degrees.

Two datasets are provided: one with a small number of rows and another with approximately 29,000 entries. It's recommended to use the smaller dataset during the development phase of your application.

Submission

Please submit your solution via a public repository on a platform of your choice (e.g., GitHub, GitLab, Bitbucket). Ideally you start by creating the repository and commit code as part of your development process. Please include a README with prerequisites and instructions on how to run your application and script. Please also make sure that it is runnable.

Application Development Tasks

1. Build a web service that offers an endpoint which returns all airports from either the JSON or CSV.
2. Enhance the service and add a derived field like region (e.g., "US-Wisconsin" from country and state)
3. Add the capability to sort by name / city / state / country in descending or ascending manner.
4. Additionally, add a feature to filter the airports by name using a "contains" filter.
5. Create an endpoint to add new airport with name, city, state, etc during runtime.
6. Create an UI which loads the full dataset from the service and shows it in a table with all columns.
7. Improve the UI by highlighting rows of airports having elevation over 8000 feet.
8. Write unit tests and deploy your application to BTP (Optional).

Scripting Tasks

1. Calculate Average Elevation per Country.
2. Find Airports Without IATA Codes.
3. Determine the 10 Most Common Time zones.

Thank you and looking forward to meeting you. www.sap.com.