

DEFINING THE CASES

There are two different actors: user and administrator.

USER

For the user, the case allows the user to generate a report on the top N populated countries in a specific continent, representative of which report.

The preconditions are:

1. User must be logged in.
2. Database connection must be established.
3. Valid input for continent selection and N value has been provided.

The Postcondition is that the report on the top N populated countries in the chosen continent is displayed to the user.

The Primary flow:

1. User logs into the system using their credentials.
2. User navigates to the Generate Country Report section.
3. User selects the desired continent from the list of available continents.
4. User enters the value of N for the number of top populated countries they want to see.
5. System validates the input values and executes a query to retrieve the population data for countries in the selected continent.
6. System generates a report listing the top N populated countries in the selected continent, organized by population size.
7. System displays the report to the user for review and analysis.

The Alternative Flow:

1. If the user enters an invalid continent or N value, the system prompts the user to input valid information.
2. If there is an issue with retrieving the population data from the database, the system displays an error message and advises the user to try again.

ADMINISTRATOR

Regarding the administrator, the case allows the administrator to add a new dataset to the existing database.

The preconditions are:

1. Administrator must be logged in with appropriate permissions.
2. The new dataset information must be prepared and formatted correctly.

The postcondition is that the new dataset is successfully added to the database for further processing and analysis.

The Primary Flow:

1. Administrator logs into the system using their administrator credentials.
2. Administrator accesses New Dataset feature within the system.
3. Administrator selects the type of dataset to be added (e.g., population data, language statistics).
4. Administrator uploads the dataset file or manually enters the dataset information into the system.
5. System validates the dataset format and content for accuracy and consistency.
6. Upon successful validation, the system adds the new dataset to the database for storage and future use.

The Alternative Flow:

1. If the dataset format is incorrect or contains errors, the system notifies the administrator and provides feedback on the required corrections.
2. In case of a network or database connectivity issue, the system displays an error message and prompts the administrator to try again later.