devoteam

Challenge Assignment

Corona API

Description

The world is infected with the coronavirus. In order to help stop the virus from spreading you need to develop an API. Your task is to help the Republic of Serbia to control and record people that are entering the country.

For each person that enters check basic info:

- id (JMBG)
- name
- surname
- citizenship
- stateFrom
- symptoms

You need to go through the list of countries that are coronavirus hotspots, and if a person comes from that region, it needs self-isolation for 28 days, and if a person comes from any other country where coronavirus hasn't spread too much, self-isolation is 14 days.
In case that person has virus symptoms you should put them in hospitals specially made for coronavirus where their capacity isn't full. When a person goes into a hospital you should handle free spots at the hospital. Pay attention that every person that enters Serbia must have citizenship of the Republic of Serbia. Those who do not meet the requirements won't enter the country.
You should write each valid case into the database.
In the case of the duplicate id, you need to handle it and write an output message with an error message and error code 400 [Bad request]. Also, you should provide the user with a list of all persons by isolation type and throw errors if the input is wrong. If the data source is empty, the error type will be 404 [Not found].

User should get an email every day at 14:45 [Europe/Belgrade timezone] with data:

- In isolation
- Out of isolation
- With symptoms
- Total number of hospitals

The message should be displayed as a template.

Provide an option for checking if a person in self-isolation is at home and how many days he/she has left. If days of isolation came to 0, a person should be deleted from the table (patients in isolation) and inserted in the table history of the patients.
Errors should be handled by one global error handler. The error response body should have an error type and error description.

1. Data


```
{
 "id": 12345678912,
 "name": "Chad",
 "surname": "Kroeger",
 "citizenship": "Serbia",
 "stateFrom": "Italy",
 “symptoms”: “yes”
}
```


Database connection (MySQL):

host: localhost
port: 3306
user: custom (root)
password: custom (root)
Database: custom [multiple databases]