

STRATIV

Python Developer Assignment

In this assignment, you need to fetch data from a source, format them, make them available by creating simple rest APIs and display the information in a simple secured web page. Once you complete the assignment you'll have a simple web page using which users can find information about different countries. Your APIs should support HTTP clients. People should be able to use CURL, Postman or any other REST client to interact with your APIs. Commit your work according to each phase.

Phase 1

You will start by consuming data from this API <https://restcountries.eu/rest/v2/all> . Here you can find information about different countries. Start a new django project, create a django app and design necessary models where you can store these information.

name, alphacode², capital, population, timezone, flag, languages and neighbouring countries.

Write a script to fetch these data and store it into the newly created database.

Don't forget to commit your work!

Phase 2

In this phase, you need to write some RESTful APIs based on the models you've created in the previous phase. Here's the list of APIs you need to build.

1. List of all countries
2. Details of an specific country
3. Create a new country
4. Update an existing country
5. Delete an existing country
6. List of neighbouring countries of an specific country
7. List of countries who speaks the same language based on a specific language
8. Searching a country by its name (should be able to search partial name)

Don't forget to commit your work!

Phase 3

In this phase you need to design a simple html template where you can show the information about the countries. You should display a table where we can see the list of countries and their respective information.

name, alphacode², capital, population, timezone, flag

There should be a search field where I can search a country by its name. Also, for each country there should be a detail button. By clicking the button we should see a detail page where we can see the list of their neighbouring countries and languages they speak.

You can use any front-end technology you want. We just want to see a basic HTML page, but using a CSS framework like Bootstrap or Bulma will be highly appreciated.

For displaying data you can consume the existing APIs if you want to. Even you can use Django's form template approach for getting data in the views and passing it to the template for showing it, if that's preferable for you.

Don't forget to commit your work!

Phase 4 (Final Phase)

In the last phase, you need to establish a way to authenticate so that your APIs are not accessible by anyone. Modify your existing code base so that all your APIs are safe.

Create a new user using django's default User model (django.contrib.auth.models.User)

Create a login page so the registered users can see the country list page by logging in.

Deliverables

You should push your code to a public git repository like github, gitlab or bitbucket with clear instructions about how to run your program.

Special instructions

- You must use Python/Django to solve this problem.
- You are free to use any third party library or framework if you want. Just make sure that you have added the dependency of those to your repository and you have given the instruction on the readme file regarding how to run your program including the libraries. The readme should contain any special instruction for installation and configuration of your application.
- Make sure your instructions are clear. You should include the specific version of the libraries, databases etc. Following your instructions, anyone should be able to set up your project in a new machine.
- Commit early and often. Don't commit everything after finishing the assignment. By looking into your commit message we will try to get an idea how you approached the problem.