Dockerizing a RESTful API for Managing Person Objects

Deadline 2-5-2023, 23:45

Main Requirements

You have been tasked with creating a Docker image that hosts a RESTful API for managing person objects. The API should allow users to perform CRUD (Create, Read, Update, Delete) operations on person objects. Each person object should have the following attributes:

- `id`: A unique identifier for the person object.
- `name`: The name of the person.
- `age`: The age of the person.
- `gender`: The gender of the person.
- `email`: The email address of the person.

API Specification

The RESTful API should have the following endpoints:

- `GET /persons`: Retrieve a list of all person objects.
- `POST /persons`: Create a new person object.
- `GET /persons/{id}`: Retrieve a specific person object by its ID.
- `PUT /persons/{id}`: Update a specific person object by its ID.
- `DELETE /persons/{id}`: Delete a specific person object by its ID.

Docker Image Specification

You should write a Dockerfile that builds a Docker image containing the RESTful API code and its dependencies. You should then run a container from this Docker image to verify that the API is working correctly. Your submission should include the following:

- The Dockerfile used to build the Docker image.

- The RESTful API code.

- Documentation on how to run and test the Docker container locally.

- Public URL to the Docker image on Docker Hub.

Grading Criteria

Your submission will be graded based on the following criteria:

- The correctness of the RESTful API implementation.

- The correctness of the Dockerfile and the resulting Docker image.

- The correctness and completeness of the test suite.

- The clarity and completeness of the documentation.

  Warning: The code you provide will be automatically tested for evaluation. Please make sure your code adheres to the specifications, complete, and works as expected before submitting.