

Scenario:

Your assignment is to write a standard web service that serves a straightforward API. The service has to be containerized. It will act as a small microservice displaying greeting text based on a query parameter.

Requirements:

- **Programming Language & Framework:**

- Choose a programming language you are comfortable with (Python, Go, NodeJS).
- Create a web application using a simple web framework (e.g., for Python, Flask, for Node.js, Express, or built-in net/http for Go).

- **Web Server Functionality:**

- The web server should be listening to port 8080.
- Create a new API and add: GET /greet endpoint.
- This endpoint should perform a GET request and accept a query parameter name.
- The server response should be a dictionary JSON as {"message": "Hello !"}.
- If the name parameter is missing, the server reply should be "Now everyone can be a hero....;,".

- **Dockerization:**

- Prepare a Dockerfile to dockerize the web server.
- Make sure that the docker image is relatively thin and well-optimized.

- **Testing & Validation:**

- Open a web browser and ensure the service is available at <http://localhost:8080/greet?name=YourName>.
- Test the service by sending a few requests using different name values.

Bonus:

- Create a health check (GET /health) for the service that accepts a request and returns a JSON response regarding the status of the service (e.g., severity level returned as {"status": "ok"}).
- Add a CI/CD pipeline script (e.g., GitHub Actions, Jenkins, Gitlab) that builds a Docker image, starts the service, and runs a basic test suite against the running container.