

Submission by Anik Ghosh

Hello, and hope you are doing well!

My submission of the DOPC service is written in Python, and I would like to be a part of your team in Berlin. The project and its dependencies have been managed with [uv](#), but it is not necessary to install `uv` to run the service.

Installation Procedure

Please install Python 3.12 or newer from this [link](#).

Once Python has been installed, you will need to install the python packages called `fastapi`, `httpx`, and `uvicorn` to run the service. You will also need `pytest` and `pytest-asyncio` to run the tests.

The simplest way to do this is with `pip`, which is installed alongside Python.

Please run the following two commands to install the 5 aforementioned packages:

```
pip install fastapi httpx uvicorn
```

```
pip install pytest pytest-asyncio
```

These are the only necessary packages.

(Optional) Use a uv environment instead of installing packages

If you already have `uv` installed, I have provided an environment in the root project folder. To activate it please open a terminal in the root directory of my project, and enter the following command:

```
source .venv/Scripts/activate
```

If this does not work, please try installing the packages with `pip` instead.

Running the service

Once the packages have been installed, please extract the `anik-submission.zip` file, which I have uploaded on [Google Drive](#) along with this document. You will also find the unzipped project files in a folder in the same directory as this document and the `anik-submission.zip` file. Once the files have been extracted and the above five packages have

been installed, please navigate to the project root and simply enter the following command:

```
python -m dopc
```

By default, the dopc service runs on port 8000, but you can change this with the `--port` argument. If you would like to use a different port number, please run the following command from the project root:

```
python -m dopc --port 3333
```

, where 3333 is an example port number.

All source code for the service is available in the folder called `dopc` in the project root. It has been modularized for maintainability.

Running the tests

All tests are available in the `tests` folder in the project root. Please run them by simply running the command `pytest` from the project root.

Additional Points

- I have used the Haversine formula to calculate the shortest distance between two points, given their latitude and longitude coordinates.
- The code for this project is on my GitHub in a forked repository [anikg2/wolt-backend-internship-2025](#)
- If you like my work, please contact me at anik.ghosh@rwth-aachen.de or connect with me on [LinkedIn](#).

Thank you very much, and hope to hear from you soon!
