

1: the code for the attendance chart feature is in the file `attendance_analysis.py`. (attached)

## 2: Flask app

- a. `pip install Flask`
- b. created another file `app.py` (attached)

3: Creating a templates folder (in order to do that, I created a new folder „templates“ in the same directory as the Flask app from the step above and then created an HTML file `index.html` inside this folder - the file is also attached).

4: Basically, we can test it here already. I guess it would be the second, less preferable option of the two I mentioned, but I tested both just for the record:

- a. run the Flask app with `python app.py`
- b. test the web app with going to <http://127.0.0.1:5000/>, you should see the chart

## 5: Express server

- a. first I had to install Node and Express, you probably already have it; I also save all the files in one directory including the Express server.
- b. Initializing node by

```
mkdir express-server
cd express-server
npm init -y
npm install express
```

- c. Then I created an express server in a `server.js` file and saved, as mentioned, in the same directory (the file is attached)
- d. Installing Axios library and enabling CORS (so that the Express server could make http (Axios) requests to the Flask server)

```
npm install axios
pip install flask-cors
```

e. Then updated the Flask app to include CORS

```
from flask import Flask, render_template
from flask_cors import CORS
```

```
app = Flask(__name__)
CORS(app)
```

f. And now the final test: running both servers in two separate terminals – `python app.py` for Flask and `node server.js` for Express, this is our test result:

