MIB Automation – ITLB354

- Examination -

Autumn 2021/22 – Version A Student's Name

Time allowed: 12 hours

Copy your code to this document, or create a zip file containing the source files and this document, then upload it to Moodle for submission.

Calendar Day Info API

Create a HTTP API using flask that is able to return the corresponding US holiday and name day for a given date.

Temperature Info API

Create a HTTP API using flask that is able to return the corresponding average day temperature for a given city.

Endpoints

`/temperature/<cityname>`

Returns the corresponding average temperature for today by city name

Example response

```
{"city":"Budapest", "country": "Hungary", "averagetemp":10.4}
```

`/usage`

Renders an HTML page that lists all the requests that have been made to the `/temperature` endpoint since the application is running. It should list the given parameters as well.

In the implementation of the endpoints you should use other 3rd party API's to retrieve data.
Use the following API to get coordinates by city name: https://geocode.xyz/api
Use the following API to get temperature info by coordinates: https://open-meteo.com/en

- good requests and parsing (20 points)
- handling the endpoint parameters and correct response values (10 points)
- server side rendering (10 points)
- optimal solution and error handling (10 points)
- clean code (10 points)

Automation system specification

Write down a system specification for **one of** the following automation project:

1.
   - The automation runs once a week
   - Searches a given hashtag on Instagram and saves the most recent 100 image links into a CSV file
   - Creates a google presentation with the text of the most liked 3 images
   - Deletes the CSV a day later
   - Emails the presentation to a specified email address in the same week.

2.
   - A process that runs every hour
   - Checks if the EUR/HUF exchange rate difference between the current rate and a year ago is bigger than 20% (based on public exchange information)
   - Sends the information to a web based service that appends the exchange rate information to a CSV file
   - The web service uploads the CSV file to google drive and deletes the file every week
   - An email is sent with the biggest difference every month

You don't have to write code, just the technical system specification. It should mention all the necessary tools and configurations of the system.

- Mentioning the right tools (10 points)
- Correct pipeline of tools (10 points)
- Handling edge cases (10 points)
- Optimal solution (10 points)

OVERVIEW OF MARKS AVAILABLE

Temperature Info API	Automation system specification	TOTAL
60 points	40 points	100 points

Overall feedback comments: