CHALLENGE DETAILS

Introduction

Thank you for your application to Digital Product School.

This challenge is intended for **Artificial Intelligence Engineer** applicants.

Their is **no deadline**, but keep in mind that we have **limited spots** for each batch. We follow the FIFO logic, the applicants who complete the mission first, will be invited first for interview.

Mission 1: Create a AI Model

Description

Download the "Monatszahlen Verkehrsunfälle" Dataset from the München Open Data Portal. Here you see the number of accidents for specific categories per month. Important are the first 5 columns:

- Category
- Accident-type (insgesamt means total for all subcategories)
- Year

- Month
- Value

Your goal would be to visualise historically the number of accidents per category (column1). The dataset currently contains values until the end of 2020. Create an application that forecasts the values for:

- Category: 'Alkoholunfälle'
- Type: 'insgesamt
- Year: '2021'
- Month: '01'

Note: There has been recently some update on the data shared with you for the AI Engineering Challenge. The dataset has recently been updated and includes values until 2021. You should drop the records which come after 2020 for developing the prediction model. If you are interested, you can compute the error between your prediction values and the actual numbers (ground truth data).

Mission 2: Publish your source code & Deploy

Description

Publish your source code in a **github repository**. It should both contain the code how you made it and the visualisation itself (as an image). We'd like to see the steps how you arrived at the solution, so please make sure to commit every step you did and not just the final application in 1 or 2 commits. If you are not familiar with github, follow the instructions here.

The next step is to **deploy** the model. You would need to create an endpoint that returns your predictions. Make sure that your endpoint accepts a POST request with a JSON body like this:

```
{
"year":2020,
"month":10
}
```

And it should return your applications prediction in the following format:

```
{
"prediction":value
}
```

The model can be deployed to a cloud service. You can use (aws, google cloud, heroku or whatever you prefer, they usually all provide a freetier)

Mission 3: Send us the URL of your work

Description

Make a POST request to the following URL.

```
https://dps-challenge.netlify.app/.netlify/functions/api/challenge
```

Body

The body of the request should be JSON format, like below:

```
{
"github":"https://github.com/ACCOUNT/REPO",
"email":"EMAIL",
"url":"DEPLOYED_ENDPOINT",
"notes":"NOTES" // Not mandatory
}
```

Fill in your email address for `EMAIL` , the path to your github repo at `ACCOUNT/REPO` and the link of your deployed model at `DEPLOYED_ENDPOINT` .

At `NOTES` , you can write some notes to us. These notes can be anything you would like us to know, especially for technical decisions. They are not mandatory, so you can also skip this this parameter.

Double-check that your email address is the same with the one you used at the application form.

Content type

The `Content-Type` of the request must be `application/json` .

Sample Request

```
POST https://dps-challenge.netlify.app/.netlify/functions/api/challenge
Content-Type: application/json

{
"github":"https://github.com/DigitalProductschool/website",
"email":"name@example.com",
"url":"https://digitalproductschool.io/",
"notes":"I deployed using ..." // Not mandatory
}
```

Sample Response

If your POST request succeeds, the server returns HTTP status code `200` .

```
Status 200 OK
{"message":"Congratulations! Achieved Mission 3"}
```

Thank you for your challenge!

After successful completion of Mission 3, you will receive an email from us and you will be invited to an interview.

Any question? Found a bug?

Please note that our team will not answer anything related to the challenge. If you have any (other) questions, please reach us through support@digitalproductschool.atlassian.net