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Mini 2 Lab 1

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This lab was about building a machine-learning model with the Tensorflow library, making it available for general use of the Iris dataset, by generating a set of resources that we tested using **Postman** during the development phase. The last part of this work focused on building a driver to call the model resources that we created in our API.

1. Requests is an elegant and simple HTTP library for Python, built for human beings:

- Send different HTTP method requests over different endpoints:

- PUT: used for modification
- GET: used for reading data
- POST: used for creating resources or others
- DELETE: used for deleting option

However, these are just principles to follow by the developer writing the endpoint handling resources provided

2. The web resources:

They are a set of resources that we make available through different endpoints:

- `/iris/datasets`
- `/iris/model`
- `/iris/score/`

Here in our work, they are related to the **IRIS Data** that we are working on and allow to perform different operations on the resource we are manipulating. The call to a specific endpoint can vary based on our sending parameter. This can be controlled via the content type we are manipulating, the header parameter, and the allowed methods (GET, POST, PUT, DELETE, HEAD, etc).

- After each request, there is a response with a given content and status code:

- 4xx: Error coming from client side
- 5xx: Server error
- 2xx: Successful request
- 3xx: Resource redirected

In the case of what I did in this lab, I sometimes faced the 500 error due to errors on the server side that I tried to handle like:

- Index error when a given dataset ID, model does not exist
- Value Error: when using a wrong data type.

But in general, all these are principles and general standards that we need to follow when building web applications particularly when providing resources to other consumers. The whole work is in the "**submission**" folder with a "**README.md**" instruction on each file also hosted on github at : https://github.com/labayifa/ai_design_mini_2_s24.git