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Batch Code: LISUM20

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Submitted To: Data Glacier

Imported Linnerud toy data and used it for model prediction

```
In [36]: import pickle
         models = {"model":model,"model2":model2}
         with open("models.pkl","wb") as file:
             pickle.dump(models,file)
```

```
In [42]: with open("models.pkl","rb") as file:
              models = pickle.load(file)
         print(models["model"].predict([[0.923824,16.507468,1.488591]]))
```

```
[0.821762991]
```

```
In [3]: data = load_linnerud().data
        target = load_linnerud().target
        feature_names = load_linnerud().feature_names
        target_names = load_linnerud().target_names
```

```
In [4]: df1 = pd.DataFrame(data, columns = feature_names)
        df2 = pd.DataFrame(target, columns = target_names)
```

```
In [5]: df1.head()
```

Out[5]:

	Chins	Situps	Jumps
0	5.0	162.0	60.0
1	2.0	110.0	60.0
2	12.0	101.0	101.0
3	12.0	105.0	37.0
4	13.0	155.0	58.0

```
In [6]: df2.head()
```

Out[6]:

	Weight	Waist	Pulse
0	191.0	36.0	50.0
1	189.0	37.0	52.0
2	193.0	38.0	58.0
3	162.0	35.0	62.0
4	189.0	35.0	46.0

Saving the prediction model to pickle file


```
In [36]: import pickle
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```

```
In [42]: with open("models.pkl","rb") as file:
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```

```
[0.821762991]
```

Deployed the model on flask

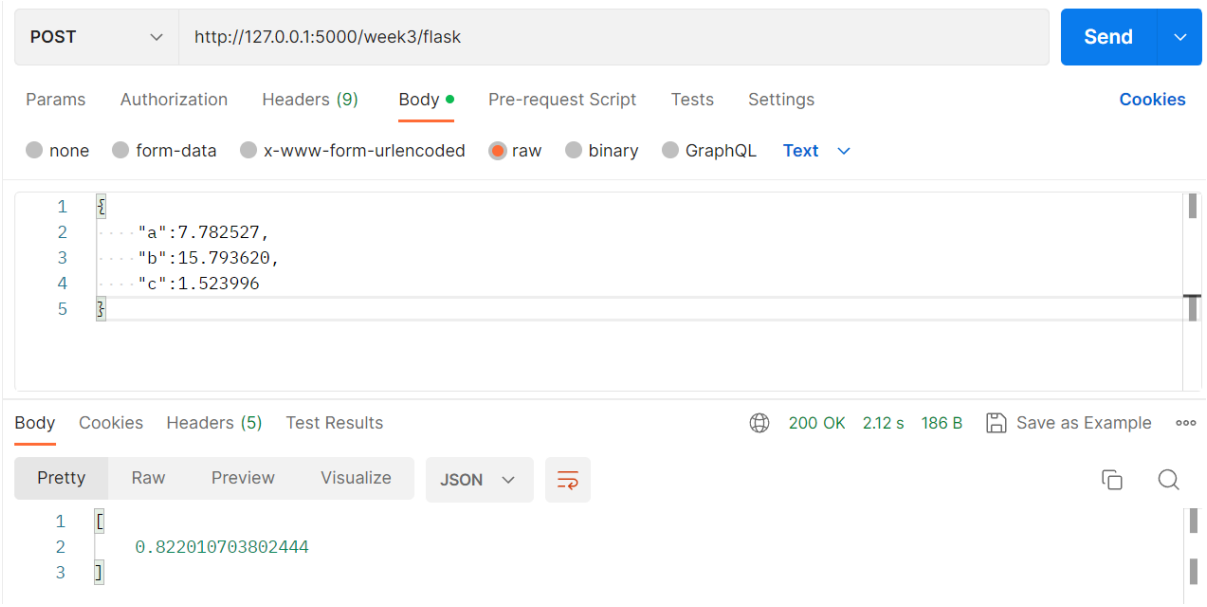
flask_week3.py > ...

```python
from flask import Flask, request, jsonify, json
import pickle
import warnings
warnings.filterwarnings("ignore")

app = Flask(__name__)

#with open("models.pkl","rb") as file:
    #models = pickle.load(file)

@app.route("/week3/flask",methods = ["POST"])



def prediction_model1():
    #weight_model = request.get_json()
    #prediction = models["model"].predict(weight_model)
    #return jsonify({"Prediction": prediction.tolist()})

   with open("models.pkl","rb") as file:
      models = pickle.load(file)
      x=[]
      for keys,values in json.loads(request.data).items():
         x.append(values)
   return(models["model"].predict([[x]]).tolist())

```

Flask run

```
PS C:\Users\yashw\OneDrive\Desktop\Data Glacier\Flask deployment> $env:FLASK_APP = "flask_week3.py"
PS C:\Users\yashw\OneDrive\Desktop\Data Glacier\Flask deployment> python -m flask run
 * Serving Flask app 'flask_week3.py'
 * Debug mode: off
WARNING: This is a development server. Do not use it in a production deployment. Use a production WSGI server instead.
 * Running on http://127.0.0.1:5000
Press CTRL+C to quit
127.0.0.1 - - [28/Apr/2023 23:00:29] "POST /week3/flask HTTP/1.1" 200 -
```

Tested on postman



Cors Error

```
8   from flask_restful import reqparse, abort, Api, Resource
9   from flask_cors import CORS, cross_origin
10
11  app = Flask(__name__)
12  CORS(app, resources={r"/": {"origins": "*"}})
13
14  @cross_origin
```

Prediction Model

Chins: 2

Situps: 3

Jumps: 1

Predict