

# Data Glacier Virtual Internship

## Machine Learning Model Deployment with Flask

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## Steps to the machine learning model deployment on the credit card default dataset.

### Step 1:

The pre-trained model was saved with the *pickle* library as *Model\_rfc.sav*

```
Loading Trained Model to Pickle For Web App Development with Flask

: import pickle

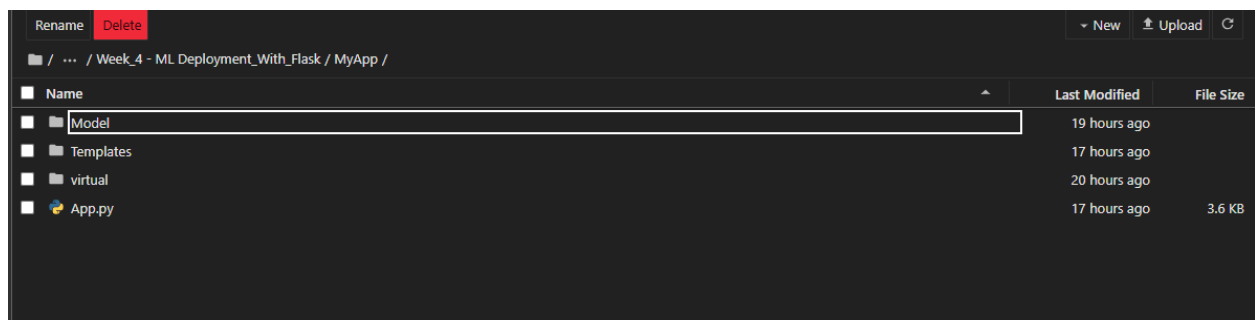
: # Save the model
: filename = "Model_rfc.sav"
: pickle.dump(Model_rfc, open(filename, "wb"))

:
```

### Step 2:

A folder called **MyApp** was created, which contains three different folders for the model deployment

- i. *Model folder*: Contains the saved model
- ii. *Template folder*: Contains the index.html for building the web app
- iii. *Virtual folder*: Bear all libraries to be used for the model building and deployment



### Step 3:

- i. The **app.py** contains the code that accepts the inputs from the user, processes them and then returns the results to the web app after a prediction is made based on the input of the user
- ii. For each execution of the **App.py** file, a terminal is opened and the code: *flask run* is executed, which generates a **URL** to the web application. This **URL** address is opened on a separate browser, and the necessary inputs are fed to the web interface to get the intended result the of prediction

## URL Link:

```
Windows PowerShell
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Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows

PS C:\Users\hp> cd "C:\Users\hp\Data Glacier Virtual Internships\Week_4 - ML Deployment_With_Flask\MyApp"
PS C:\Users\hp\Data Glacier Virtual Internships\Week_4 - ML Deployment_With_Flask\MyApp> flask run
* 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 - - [02/Sep/2025 19:47:05] "GET / HTTP/1.1" 200 -
█
```

## Web App Interface:

Input values:

LIMIT\_BAL:

SEX:

EDUCATION:

MARRIAGE:

AGE:

PAY\_1:

PAY\_2:

PAY\_3:

PAY\_4:

PAY\_5:

PAY\_6:

BILL\_AMT1:

BILL\_AMT2:

BILL\_AMT3:

BILL\_AMT4:

BILL\_AMT5:

BILL\_AMT6:

PAY\_AMT1:

PAY\_AMT2:

PAY\_AMT3:

PAY\_AMT4:

PAY\_AMT5:

PAY\_AMT6: