CLASS 24 24-06-2021

**QUESTIONS**

👉 What is model deployment in ML?  
👉 Why do people deploy ML models?  
👉 How does Heroku deploy machine learning model?  
👉 What is heroku Gunicorn?  
👉 What is Procfile?  
👉 How do I deploy flask app to Heroku?

**ANSWERS**

1. **Deployment of an ML-model** simply means the integration of the model into an existing production environment which can take in an input and return an output that can be used in making practical business decisions.

2. The **goal of building a machine learning model** is to solve a problem, and a machine learning model can only do so when it is in production and actively in use by consumers. As such, model deployment is as important as model building. As Redapt points out, there can be a “disconnect between IT and data science.

3**. How to Deploy a Machine Learning UI on Heroku in 5 Steps**

* Step 1: Create your Gradio app
* Step 2: Write your requirements.txt file
* Step 3: Create a setup.sh file
* Step 4: Create a Procfile
* Step 5: Deploy!

4. **Gunicorn** is a pure-Python HTTP server for WSGI applications. It allows you to run any Python application concurrently by running multiple Python processes within a single dyno.

5. **Procfile** is a mechanism for declaring what commands are run by your application's dynos on the Heroku platform. From Process Types and the Procfile, which is a good introduction, but basically you use the Procfile to tell Heroku how to run various pieces of your app.

6. **Deploy Python Flask App on Heroku:**

* Step 1: Create your app.py file
* Step 2: Create trending.py file, which is basically the file that contains your business logic. After creation import main function in app.py file.
* Step 3: Create an HTML file to render the output that you collected from the response object.
* Step 4: Login to your Heroku account using CLI
* Step 5: Create a web app on Heroku
* Step 6: Create requirements.txtfile in the same project directory
* Step 7: Create a Procfile
* Step 8: Create runtime.txt to specify the Python version at runtime
* Step 9: Initialize an empty git repository and push the code