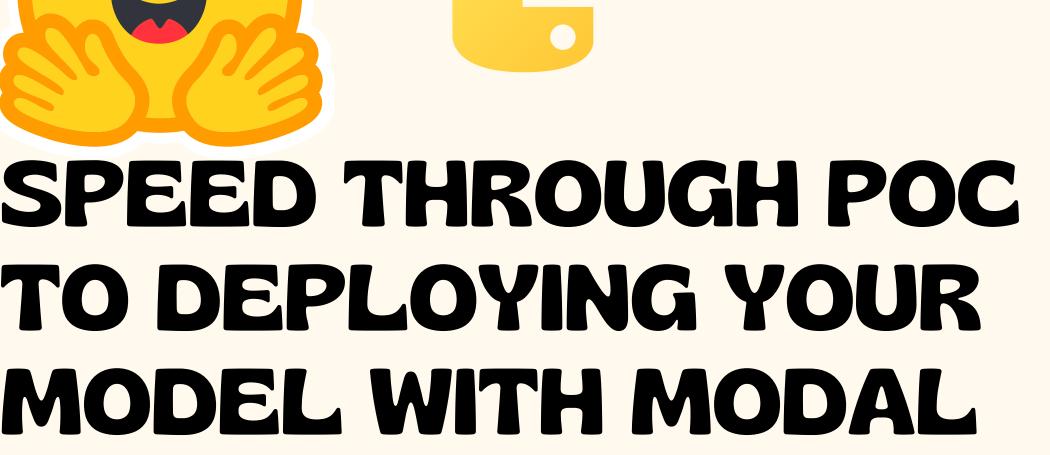
STREAMLINING ML DEPLOYMENT IN CLOUD WITH MODAL





CHALLENGE SOLVED: DEPLOYING AI IDEAS TO CLOUD

- THESE DAYS AI IDEAS INCLUDES NOT JUST CODE. IT INCLUDES LARGE MODELS, AND THE HW CONFIGURATION REQUIRED RUN THESE MODELS
- CREATING CLOUD INSTANCES CAN BE SIMPLE FOR POC. WHEN IT COMES TO DEPLOYMENT THE WORKFLOW IS LABORIOUS
- UNDERSTANDING EACH CLOUD SERVICE PROVIDER WILL REQUIRE ADDITIONAL TIME, AND DEVELOPMENT COST.

THIS IS WHERE MODAL COMES IN...

- WE HAVE MANY OPENSOURCE MODELS THAT CAN HELP IN AUTOMATING MANY TASKS
 RANGING FROM CLASSIFICATION TO TEXT GENERATION. WITH MODAL WE CAN DEPLOY
 THEM AND USE IT
- ALL OF IT IS DONE USING PYTHON CODE !!! YEP ITS COMPLETELY ABSTRACTED

MODAL IN 4 STEPS

1. IT IS AN END-TO-END CLOUD COMPUTE SERVICE

2.CAN DO: MODEL INFERENCE, BATCH JOBS, TASK QUEUES, WEB APPS AND MORE. ALL WITHOUT YOUR OWN INFRASTRUCTURE.

3. LIBRARY: PIP INSTALL MODAL-CLIENT

4.API: MODAL TOKEN NEW

MODAL CODE

```
IMPORT MODAL
STUB = MODAL.STUB("EXAMPLE-GET-STARTED")

@STUB.FUNCTION()

DEF SQUARE(X):
    PRINT("THIS CODE IS RUNNING ON A REMOTE WORKER!")
    RETURN X**2

@STUB.LOCAL_ENTRYPOINT()

DEF MAIN():
    PRINT("THE SQUARE IS", SQUARE.CALL(42))
```

RAW PYTHON CODE

```
DEF SQUARE(X):
    PRINT("THIS CODE IS RUNNING ON LOCAL MACHINE!")
    RETURN X**2
DEF MAIN():
    PRINT("THE SQUARE IS", SQUARE(42))

IF __NAME__ == __MAIN__:
    MAIN()
```

HTTPS://GITHUB.COM/INSIGHTBUILDER

MODALS & HF MODELS

- WILL LOOK AT SIMPLE PYTHON PROGRAM EXECUTED INSIDE MODAL
- IMPLEMENT THE TEXT CLASSIFICATION TASK USING OPEN SOURCE MODEL FROM HUGGING FACE
- IMPLEMENT TEXT GENERATION TASK USING THE GPT2 MODEL FROM HUGGING FACE
- DISCUSS ON USING THE BIGGER MODELS WITH GPU OPTIONS INSIDE MODAL





THANKS FOR WATCHING

