Rapid Prototyping 101: Geo AI Problem Statements

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Hi!

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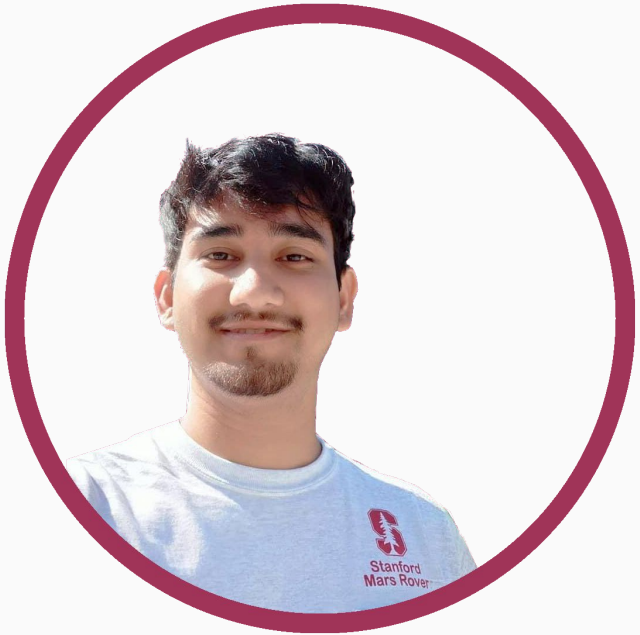

DPS batch #11

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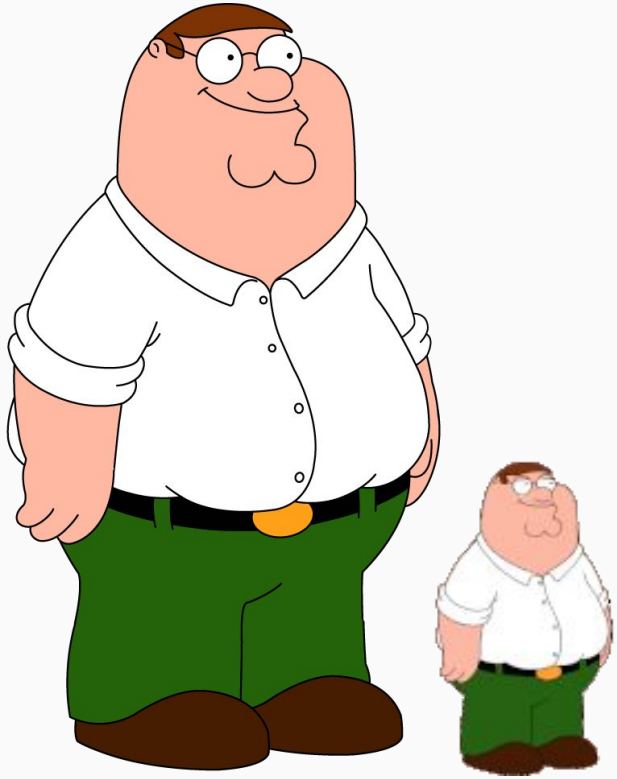


What are we Learning?

We are going to help Peter from Family Guy build his business. From zero to end-to-end web application with Flask.

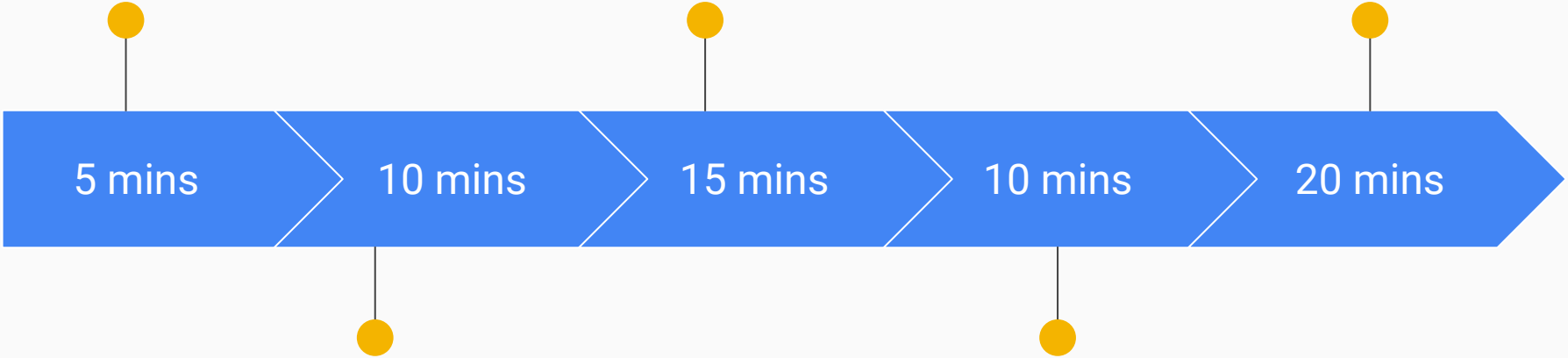
- Digital ASAP
- Frameworks are Tools
- Motivation & Repository Flow

Flask ==

Peter’s business is digital and online!

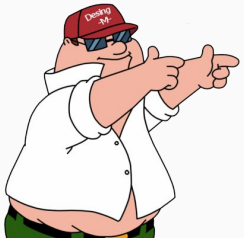
Peter knows maps and tracks his business online.

Peter deploys his web application, APIs and everything works!



Peter builds a cool UI and interacts with customers.

Peter uses Machine Learning models, creates ML API.



Peter's business is digital and online!

Peter knows maps and tracks his business online.

Peter deploys his web application, APIs and everything works!

5 mins

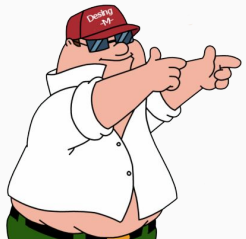
10 mins

15 mins

10 mins

20 mins

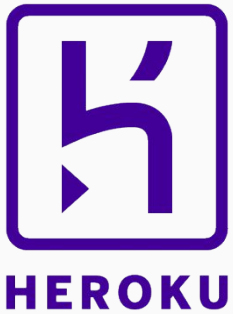
Peter builds a cool UI and interacts with customers.



Peter uses Machine Learning models, creates ML API.

#1 Basic Flask Server & Heroku

We help Peter's business go online and digital with Flask backend and HTML hosted in Heroku. Peter will have a digital presence and have a basic web-application running in a web address.



#2 Responsive UI & JS

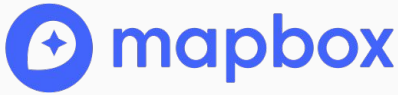
We will add cool designs and UI in Peter’s web-application keeping User eXperience (UX) in mind. Peter will now have a cooler presence online.

#3 User Input & Store/fetch to/from Database

We will interact with users and take their input in with different forms. We will also learn how to store the data in databases such as Firebase, MongoDb etc.

#4 Mapbox Map & Mongodb

We will learn to add a map in our web-application and fetch data to display in map from Mongodb database. We will learn on how to add responsive designs, markers, 3D objects, 3D buildings, live traffic, API data or geojson data over map.



#5 3D Maps, AR & 3D Interactive Applications

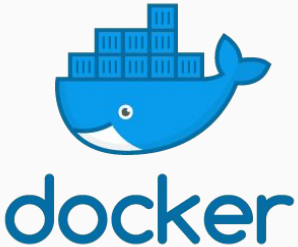
We will learn on how to build 3D maps, build amazing interactive 3D applications and also other Mixed reality applications with web frameworks.

#6 Deep Learning

Access cutting edge Deep Learning models from our Flask server itself and display the results on user request over an input

#7 ML API @ Google VM or App Engine

- Make Deep Learning API and serve it with Virtual Machine or Google App Engine via Docker.
- Fetch data from our API to display results in our web-application or store results in Mongodb.



Assignment

This is where you test yourself and understand by doing practically:

1. Make a Flask ML API to get JSON response and fetch it from python shell.
2. The Flask ML API can be hosted in Google VM or Google App Engine.

:

* Develop the pipeline while you are training the models. This will make your life 200% easier. Replace the dummy ML model later with the trained model.

* Test API with POSTMAN.

Thank You :)