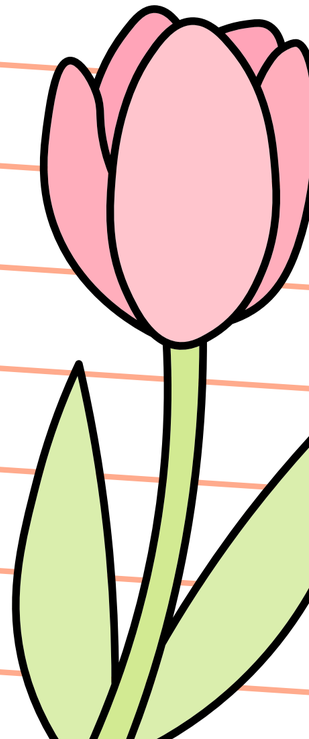
PRACTICAL MACHINE LEARNING FOR BEGINNERS

By KARIUKI REUBEN

CAR PRICING MODEL

- What does it take to build a model?
- After building the model what next?
- What is ml?
- How can we improve the model?
- How do we put the model in production?



FACILITATOR

As a Lead Data Scientist with extensive experience in fintech, e-commerce, and Edutech, I excel at transforming raw data into actionable insights that drive business growth and enhance decision-making processes. My data analysis and visualization expertise have enabled me to deliver impactful solutions across various industries.

Course Coverage:
Exploratory Data Analysis
Use Case Description Anallysis
Data Preprocessing and Modelling
Flask Framework and Modelling
Model Deployment
Model Deployment

BACKGROUND

Capacity Kenya is a car listing platform and have over 1M customers. From the site analytics data, they observe customers are searching for car prices more frequently than before. They are looking for a way to better serve the customers by making car price feature a product on the site and also afford vendors to have access to this service.

PROPOSED SOLUTION

Build an optimized Car Pricing Solution and add it as a feature on the site.

The solution will be driven by Machine Learning Model to capture use car features and determine the expected car price in the market.

BENEFIT TO CAPACITY KENYA

Major benefits of this solution are:

- Customers will trust our car listing for better pricing.
- Free API for car pricing will attract more customers to our web app
- More data gathered will further improve business performance.

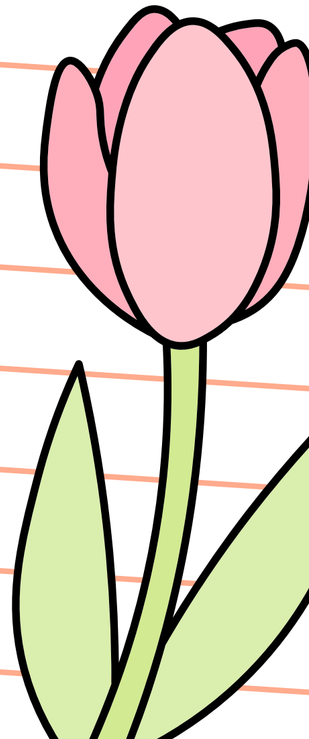
METHODOLOGY

Data Gathering(August 1)

- Decide on business values and resources requirement.
- Design soln architecture including components & dependencies.
- Design interface wireframe & gather external data points.

Model training & development(August 25)

- Data preprocessing validation.
- Data Modelling
- Validation and Explainability.

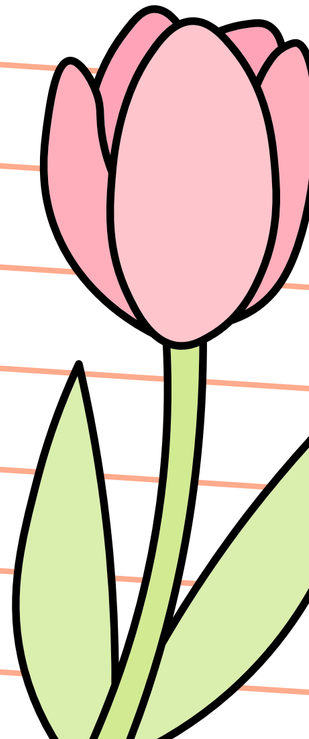


Solution Access (Sept 1)

- User Interface
- API

Model Deployment (Sept 20)

- Infrastructure Provisioning
- Model Wrapping with Flask Framework.
- Docker Image Generation
- Deployment on the Provisioned Server.



SOLUTION ARCHITECTURE & WIREFRAME

Solution will be deployed as a flask web app and API can be consumed on this local Machine

CAR PRICING/CAPACITY KENYA SOLUTION
WIREFRAMES

Year

Present Price? (in Dollars)

Kilometres Derived

Previous Owner (0 or 1 or 3)

Fuel Type?

Are you a dealer or Individual ?

Transmission type

THANK YOU