AL NASHI TRANSPORTATION CHARGE PREDICITON

MACHINE LEARNING

SUBMITTED BY :

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DATA SCIENCE

MACHINE LEARNING MINI PROJECT

AL NASHI

- Al nashi is currently leading transportation company in saudi arabia
- Al Nashi is company dedicated to providing efficient and reliable transportation solutions. With years of experience in the industry, we have built a reputation for excellence, serving our clients with utmost professionalism and delivering on our promises.
- At Al Nashi, our mission is to streamline transportation services and enhance connectivity, ensuring seamless movement of people and goods. We strive to exceed our clients' expectations by providing safe, timely, and cost-effective transportation solutions while minimizing our impact on the environment.

Description

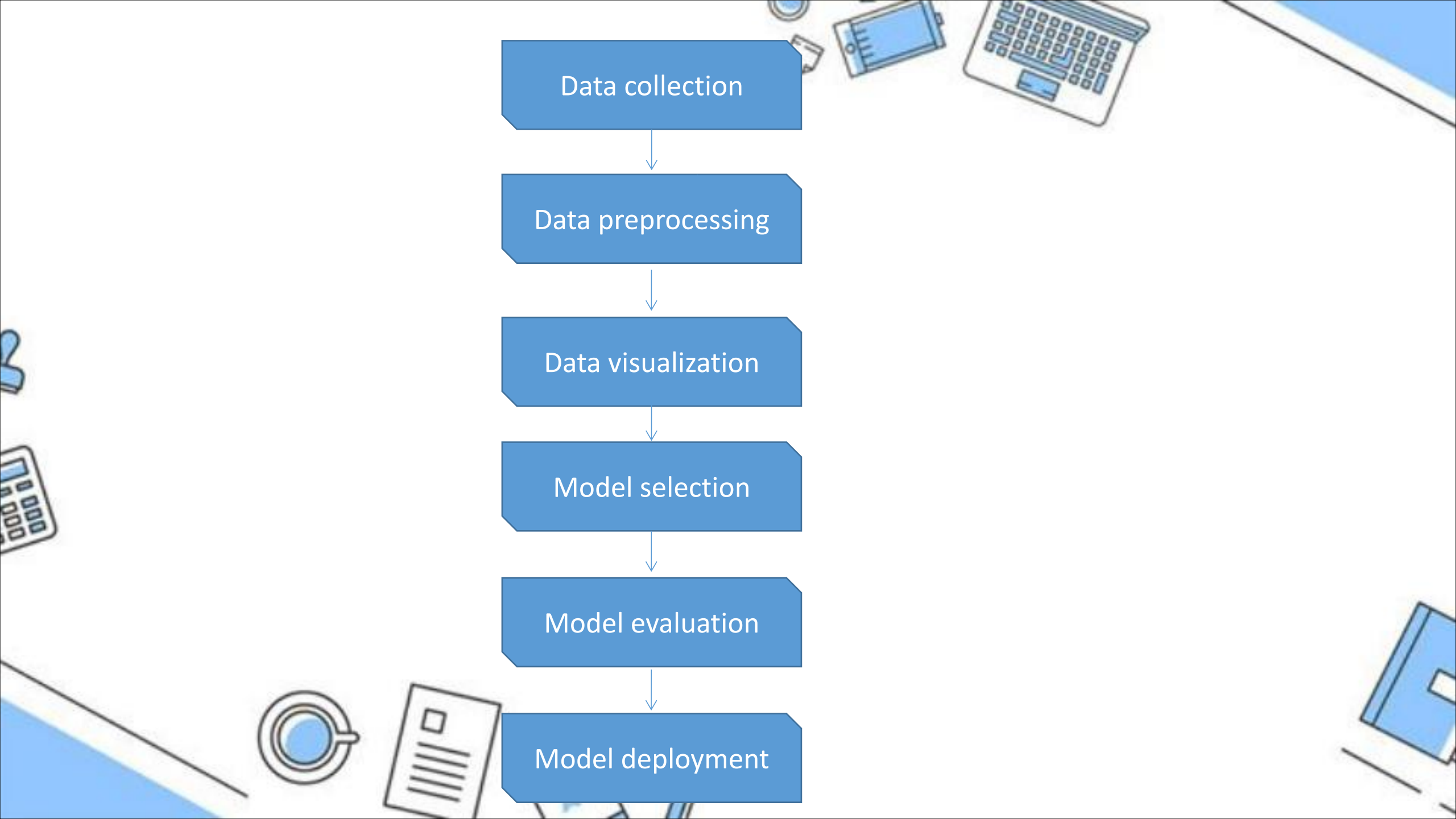
- In this project, the goal is to develop a machine learning model that can predict transportation charges based on various factors. The model will take into variable such as Destination,vehicle type, shipment type, and any other relevant features. By analyzing historical data, the model will learn patterns and relationships to make accurate predictions on transportation charges. This prediction can be valuable for logistics companies, freight forwarders, or businesses that frequently ship goods and need estimates for budgeting and planning purposes.

About Al Nashi Transportation Data Set

- Al nashi transportation data set in which we have diffrent attributes for predicting transportation charges
- we will calculate the charges depends on 1300 observations and 3 attributes

Feature names:

- Date,From,Destination,Vehicle type,owner,drivername,charges


Data collection
Data preprocessing
Data visualization
Model selection
Model evaluation
Model deployment

Data Collection

collected data from Al nashi transportation company

1	Date	From	Destination	Vehicle Type	Driver name	type	Owner	Charges
1	26/05/2021	RIYADH	AL JOUF	DYNA	AL NASHI 8504 (AKTHER)	NaN	AKTHER	1600
2	26/05/2021	RIYADH	AL KHARAJ	DYNA	AL NASHI CO 4950 (M ALI)	NaN	ALI	450
3	26/05/2021	RIYADH	JEDDAH	DYNA	JAMSHI	SPCL	SAIFULLAH	1200
4	26/05/2021	RIYADH	JEDDAH	DYNA	JAMSHI	SPCL	MAJEED	1300
5	26/05/2021	RIYADH	HAIL	FSR	SUHAIL	NaN	RAFIUDHEEN	1450

Data preprocessing

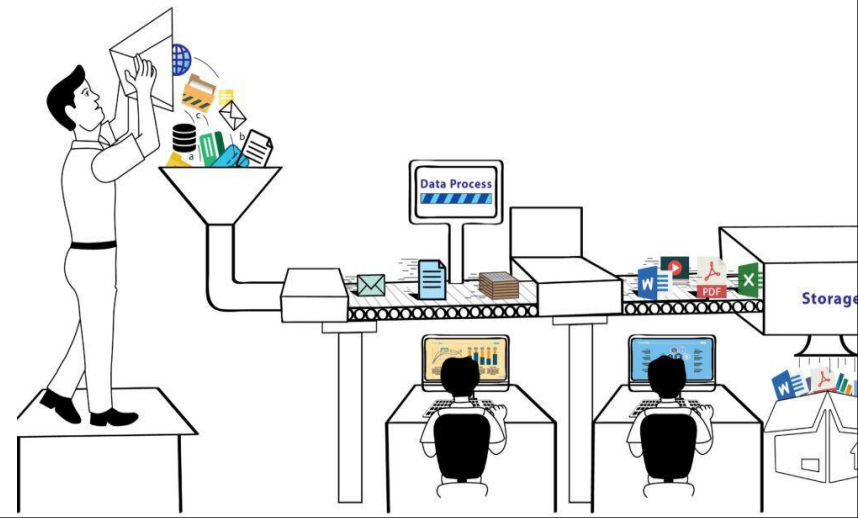
Outliers detection and removal 5

Feature selection 4

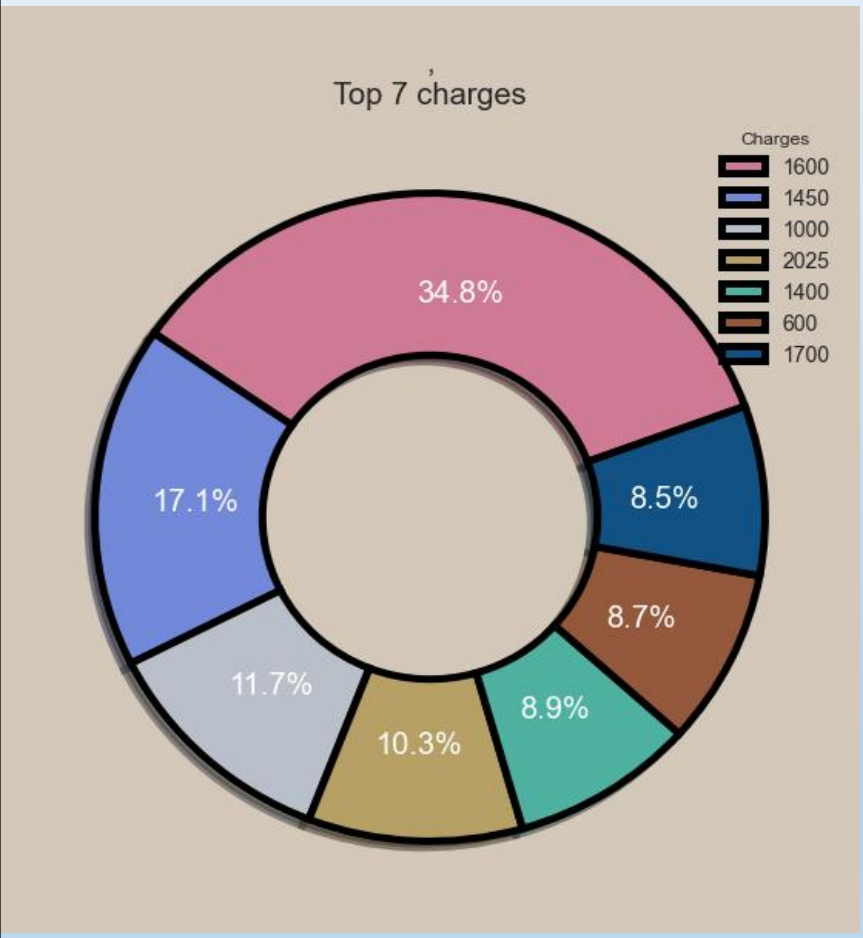
Handling Nullvalues 3

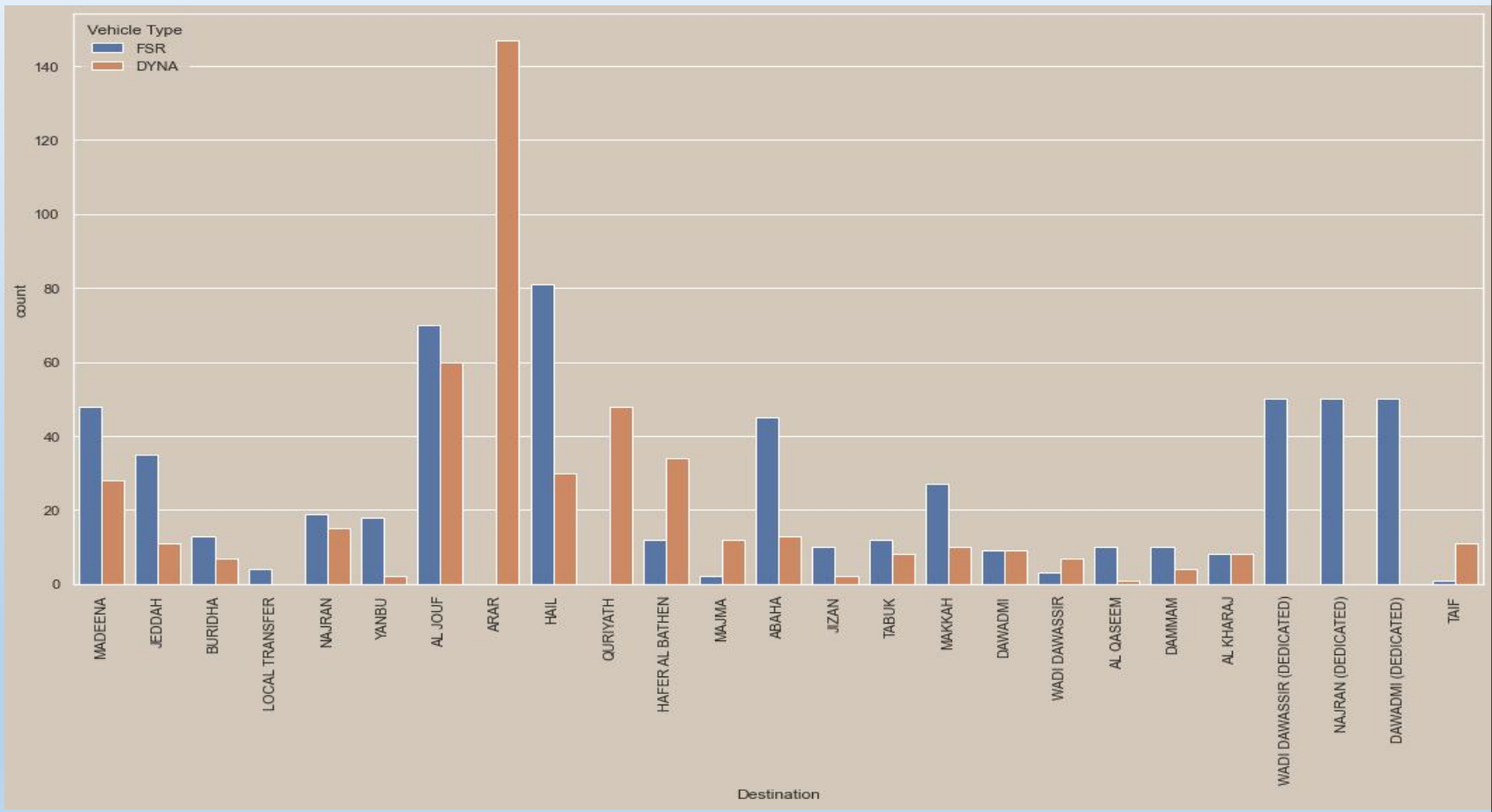
Handling Nullvalues 2

Handling Nullvalues 1

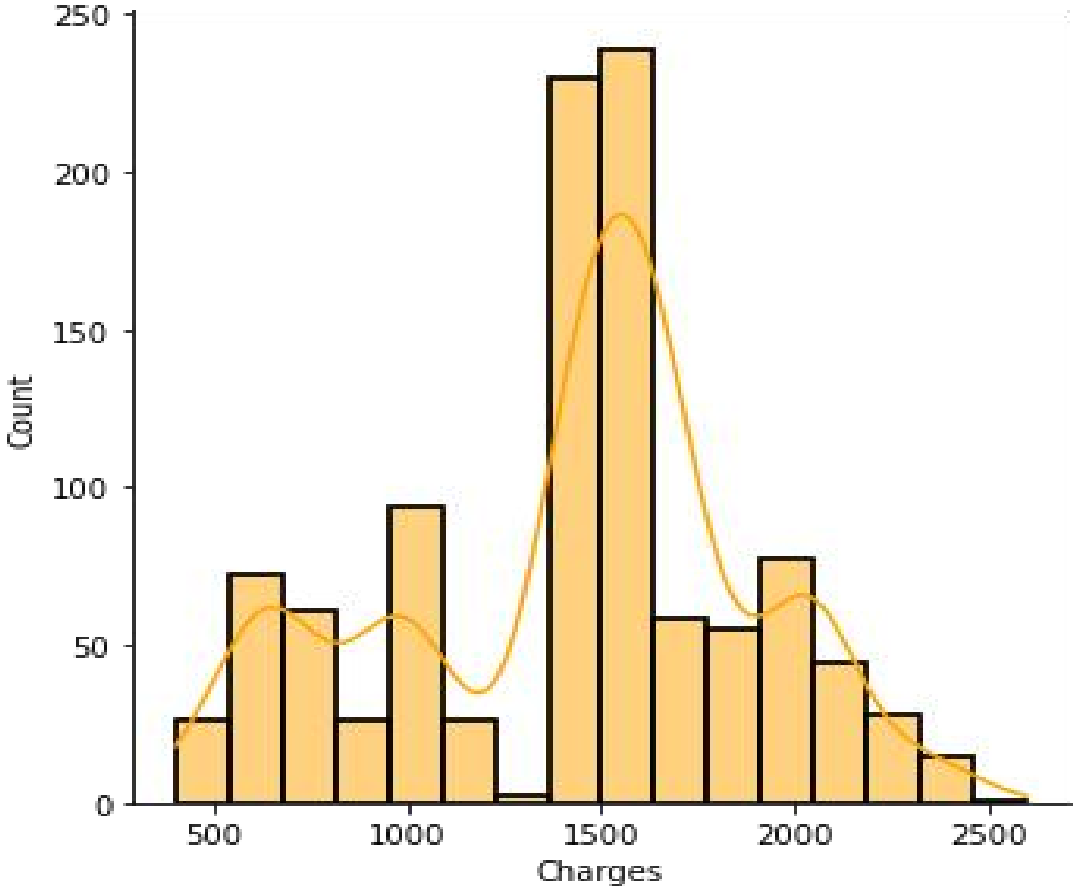


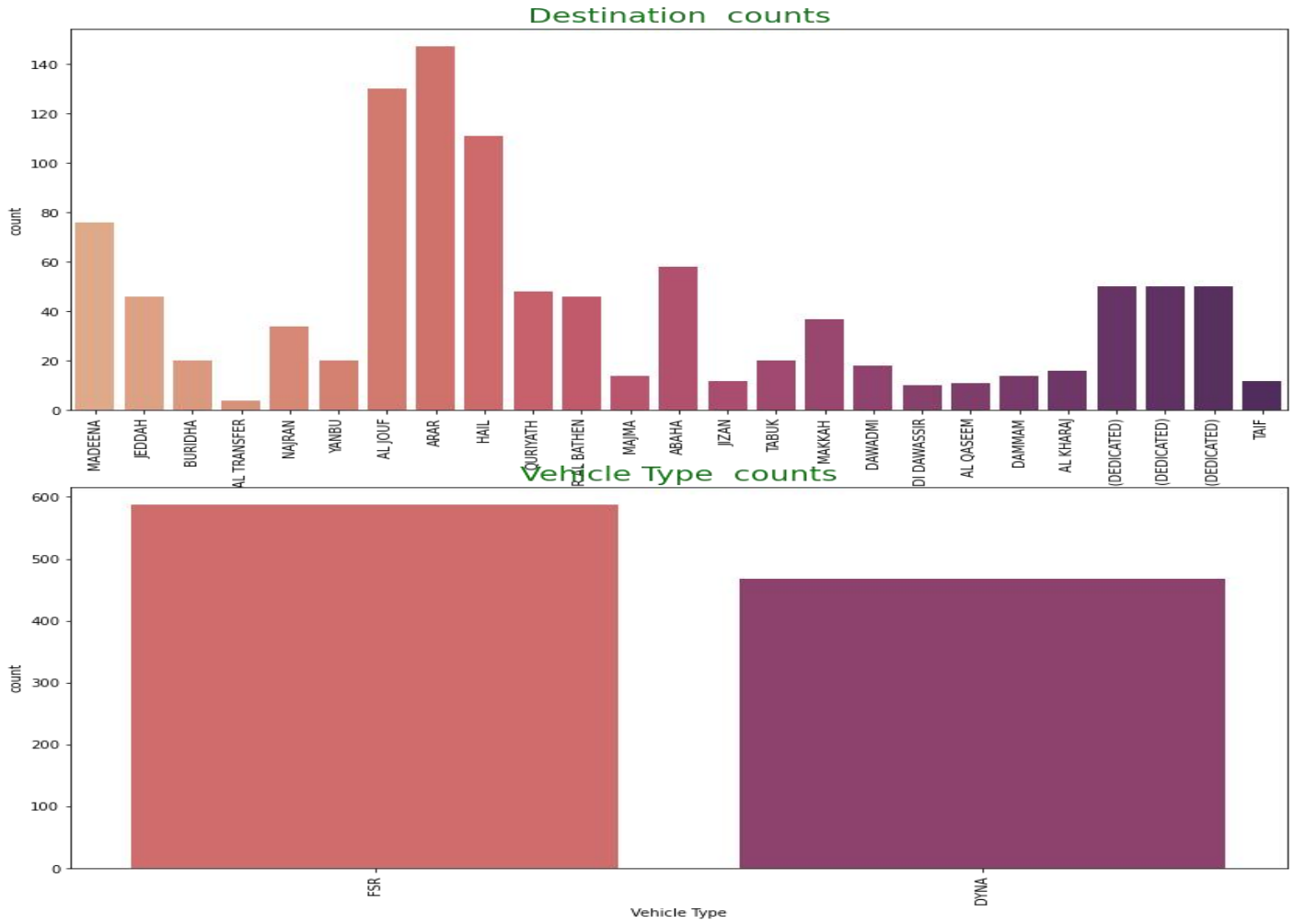
Data visualization





CONT:

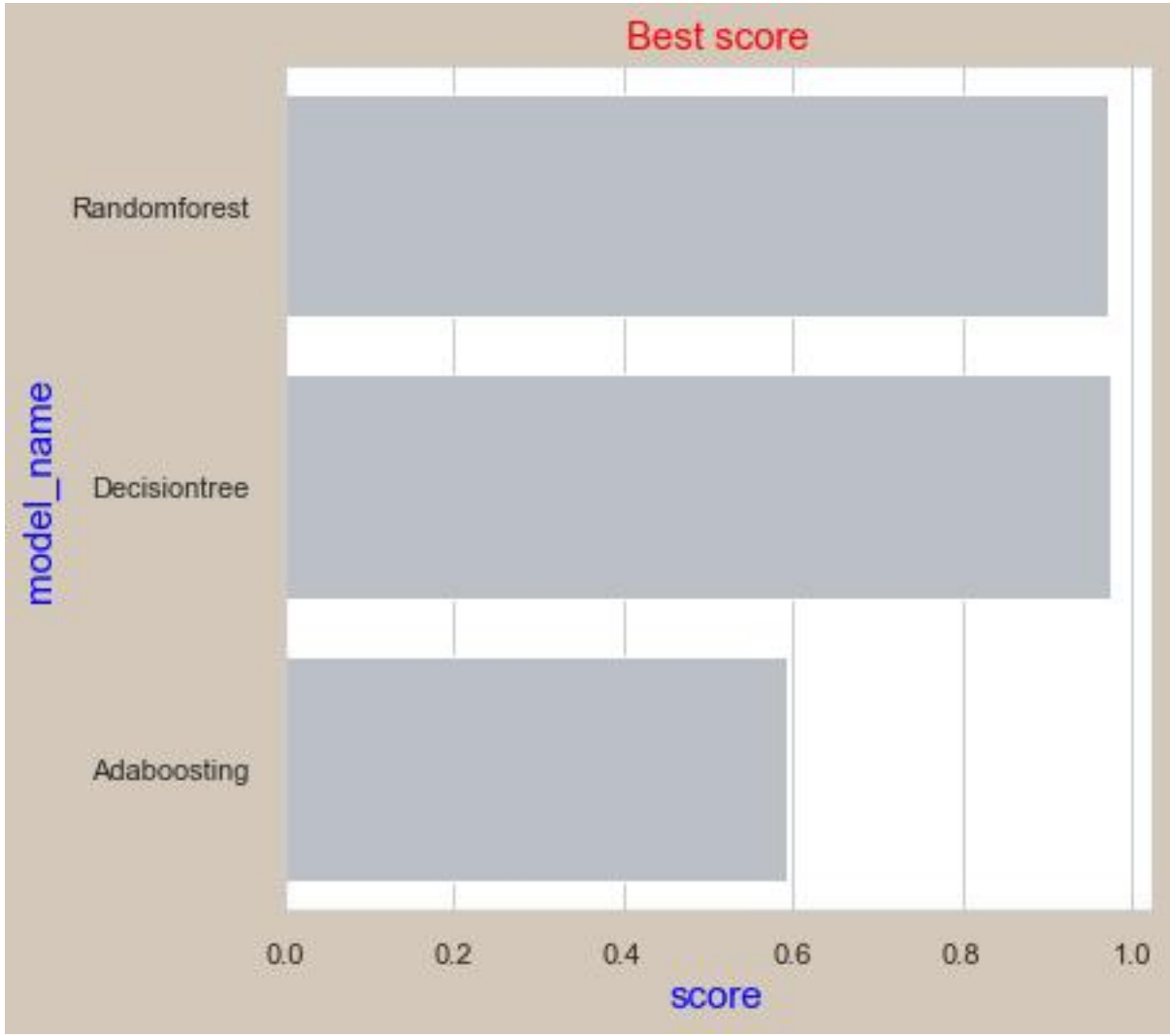

250
200
150
100
50
0
Count
500
1000
1500
2000
2500
Charges


Destination counts
140
120
100
80
60
40
20
0
count
MADEENA
JEDDAH
BURIDHA
AL TRANSFER
NAJRAN
YANBU
AL JOUF
ARAR
HAIL
QURIYATH
AL BATHEN
MAJMA
ABAHA
JIZAN
TABUK
MAKKAH
DAWADMI
DI DAWASSIR
AL QASEEM
DAMMAM
AL KHARAJ
(DEDICATED)
(DEDICATED)
(DEDICATED)
TAIF
Vehicle Type counts
600
500
400
300
200
100
0
count
FSR
DYNA
Vehicle Type

Model selection&training

- Here iam Using hypertuning for selecting best model
- Here RandomforestRegressor and DecsiontreeRegressor both are giving good scores and i randomly selected RandomforestRegressor
- After that training the model and taking score

Model comparison



Model Deployment

- Here model Deployment using Django Frame work
- Django is a popular python frame work f
- we can create website using Django

Other links:

http://localhost:8888/notebooks/1%20%20-Techols%20data%20science/projects/projects/Transpotation.ipynb

THANK YOU FOR YOUR ATTENTION