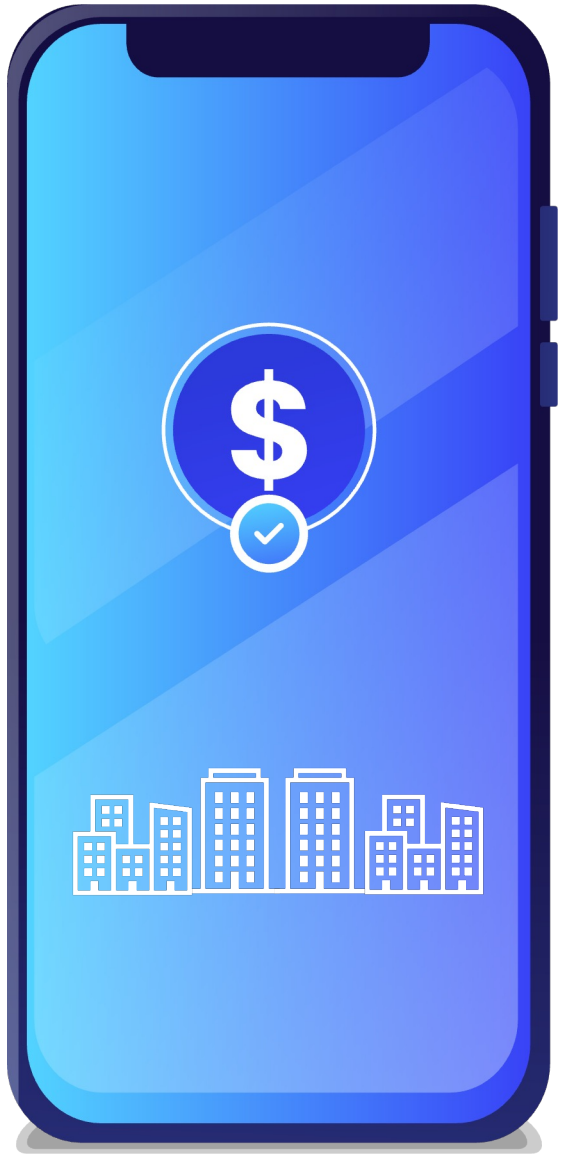
LAGOS HOUSING PREDICTIONS

OLALEKAN KEHINDE
BABAJIDE ALAO
INNOCENT ALINTA
MICHEAL ONABANJO
PAUL ADEGBITE



PROJECT TIMELINE

Web Scraping and first stage of data cleaning

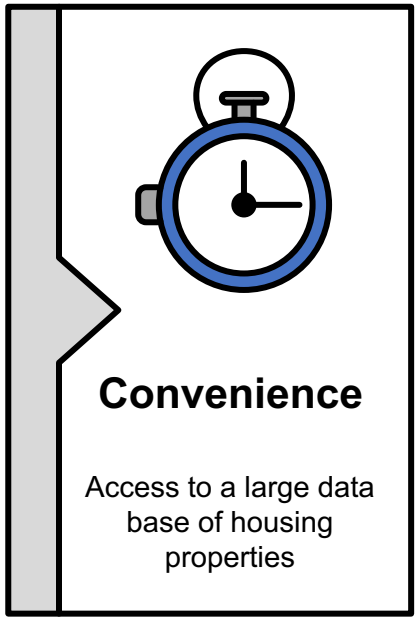
Final stage of data cleaning and EDA

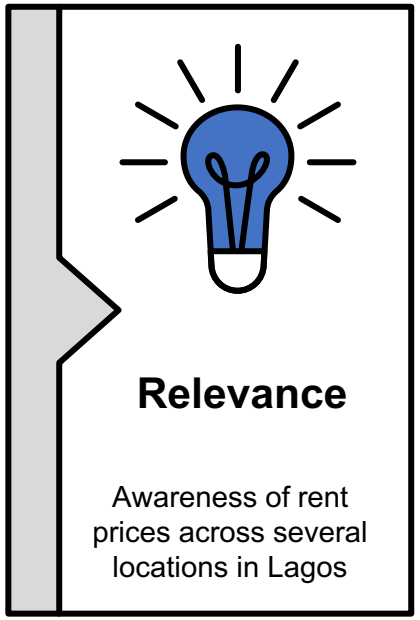
Model Creation and deployment

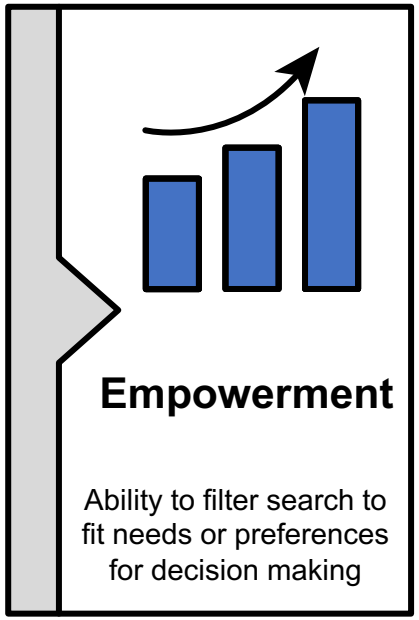
Maintenance / Continuous Improvement

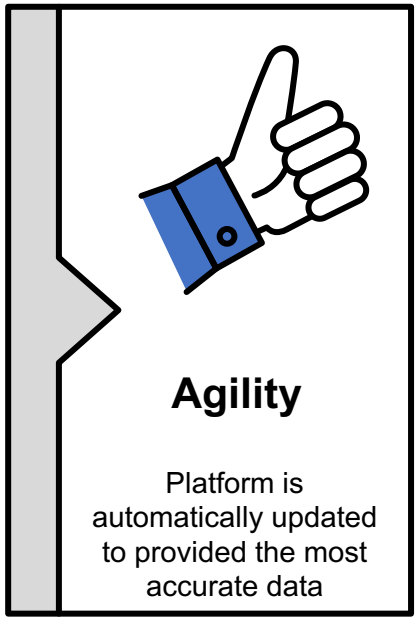
PROJECT OVERVIEW

The aim of this project is to develop an intuitive, machine learning model that can predict the cost of renting houses in the Lagos State area. This project will achieve the following for the end user:









PROJECT OBJECTIVES

1

END TO END MACHINE LEARNING MODEL

Machine learning algorithm that will be able to predict price

2

FEATURES & FUNCTIONALITY

XG Boost model perform well with a degree correlation of 0.7

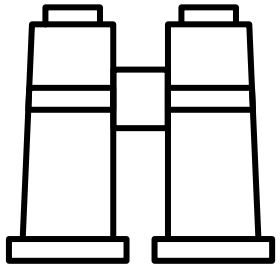
3

END USER EXPERIENCE

User friendly interface

MODEL AND DEPLOYMENT

STRATEGY



INVENTORY

DATA SCRAP

CLEAN & WRANGLE

TECHNOLOGY

END USER

EDUCATE

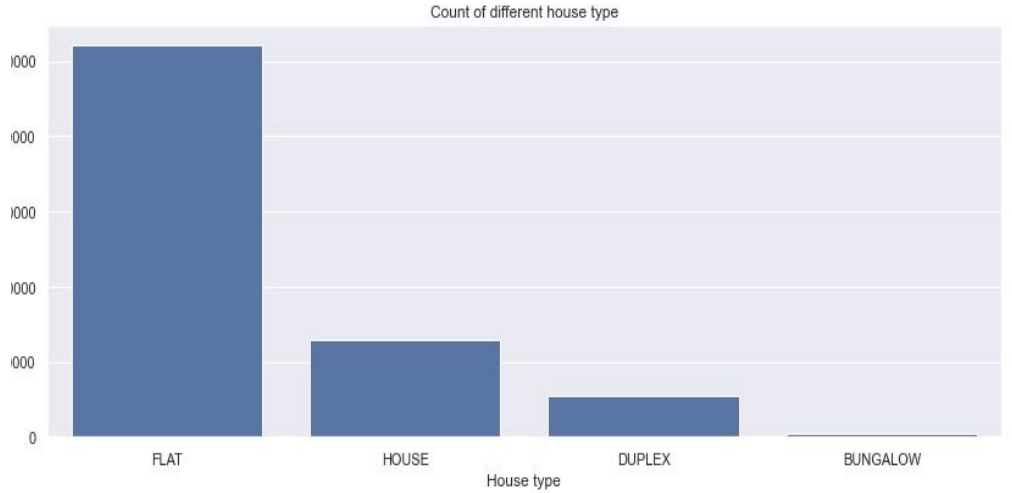
TEST

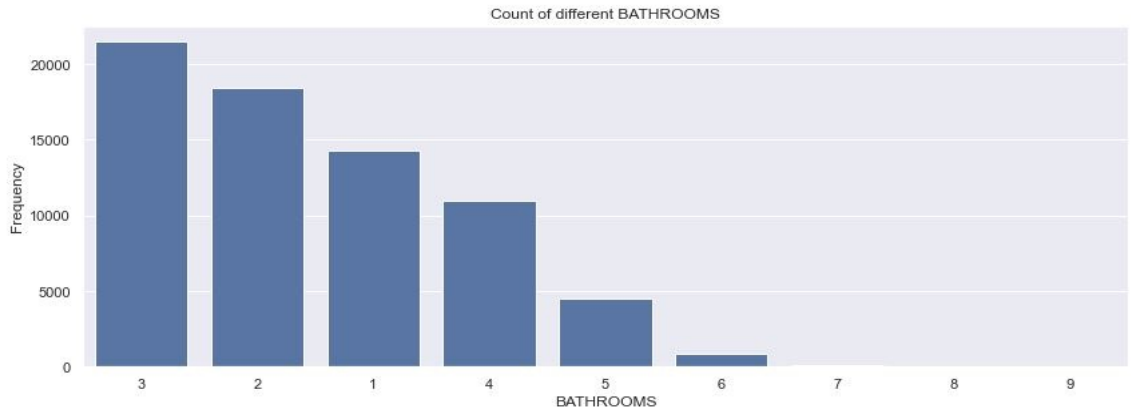
DEPLOY

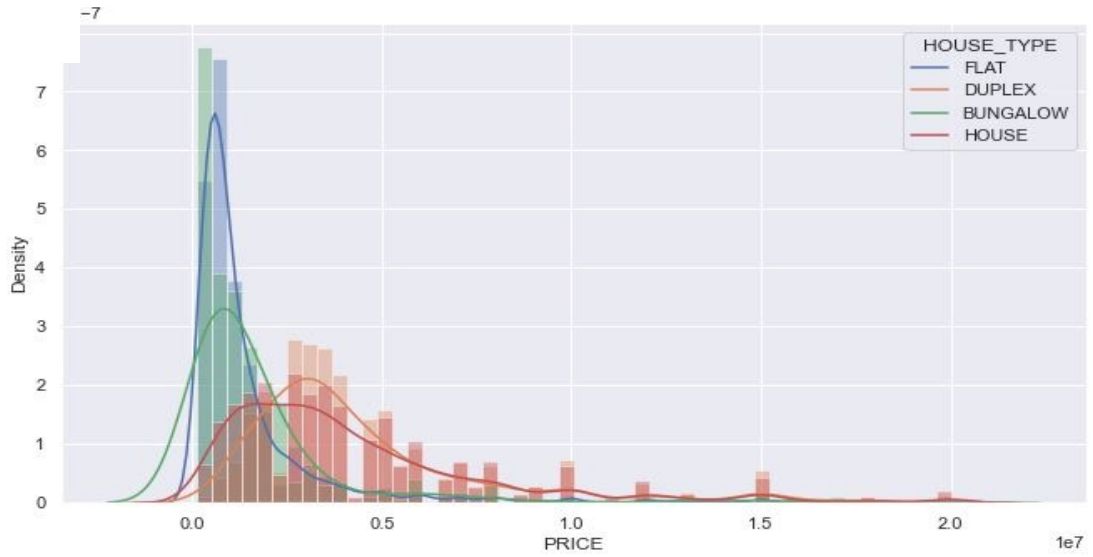
MAINTAIN

PROJECT EDA


<AxesSubplot:>
PRICE
BEDROOMS
BATHROOMS
TOILETS
1
0.51
0.51
0.53
0.51
1
0.92
0.9
0.51
0.92
1
0.92
0.53
0.9
0.92
1
1.0
0.9
0.8
0.7
0.6
PRICE
BEDROOMS
BATHROOMS
TOILETS


Count of different house type
FLAT
HOUSE
DUPLEX
BUNGALOW
House type


Count of different BATHROOMS
Frequency
20000
15000
10000
5000
0
3
2
1
4
5
6
7
8
9
BATHROOMS


−7
HOUSE_TYPE
FLAT
DUPLEX
BUNGALOW
HOUSE
Density
7
6
5
4
3
2
1
0
0.0
0.5
1.0
1.5
2.0
PRICE
1e7

PROJECT CHALLENGES

Data Quality Issues

Information on platform were either incorrect or duplicative

Feature Imbalance

Tried several models to fit within selected algorithm

Price Inconsistencies

Prices across different locations were inconsistent and inaccurate

ALGORITHM DEMO

The aim of this project is to develop an intuitive, machine learning model that can predict the cost of renting houses in the Lagos State area. This project will achieve the following for the end user:

Lagos House Pricing

FUTURE PROJECTIONS FOR MODEL