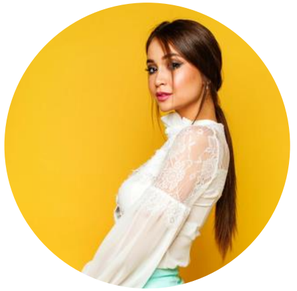
Machine Learning Final Project

Prediksi Analisis MPG Mobil

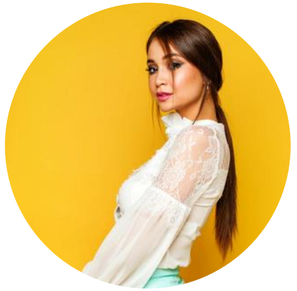
The Team

Anggita Sakato

Kayasmine Afifa Gunawan



M. Farrel Aditya



Cinantya

Luthfi Herianda

Syahrul Akbar

M. Amar Primus

M. Aulia Addinul

Nabill Nashrullah

Our Case

Problem, Condition, Goals

Key Components

Strategy to Reach our Goals

Describing Data
Penjelasan cara mendapatkan karakteristik dataset

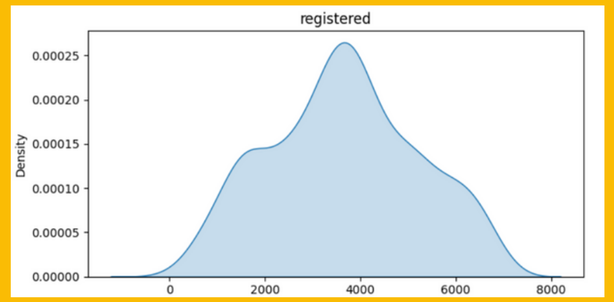
Exploratory Data Analysis
Penjelasan cara mendapatkan hubungan antar data da;a, dataset

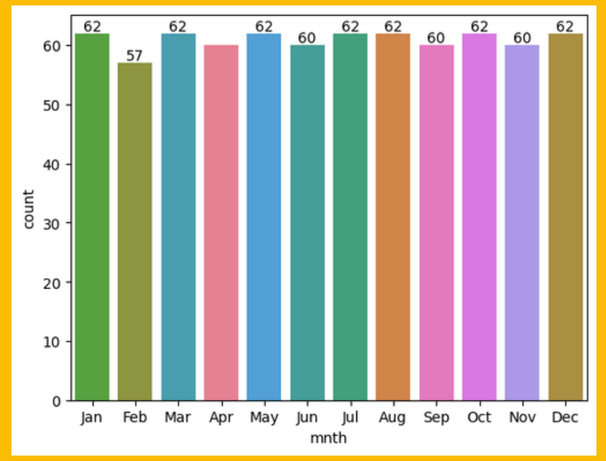
Feature Engineering
Penjelasan strategi mendapatkan fitur beserta cara menghindari masalahnya

Modelling + Evaluation
Penjelasan karakter model + cara mengevaluasinya

Describing Data

- Noise Data
- Tipe Data
- Volume Data
- Variabel Target






```
rent.dtypes
```

	0
instant	int64
dteday	object
season	int64
yr	int64
mnth	int64
holiday	int64
weekday	int64
workingday	int64
weathersit	int64
temp	float64
atemp	float64
hum	float64
windspeed	float64
casual	int64

```
rent.isna().sum
```

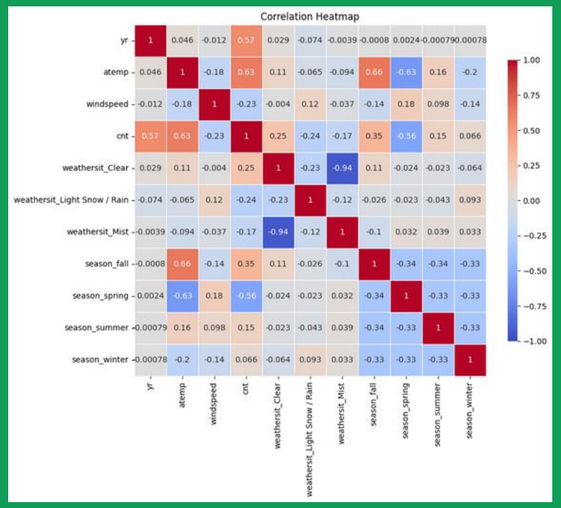
	0
instant	0
dteday	0
season	0
yr	0
mnth	0
holiday	0
weekday	0
workingday	0
weathersit	0
temp	0
atemp	0
hum	0
windspeed	0
casual	0

*Bebas Menggunakan Grafik Apapun

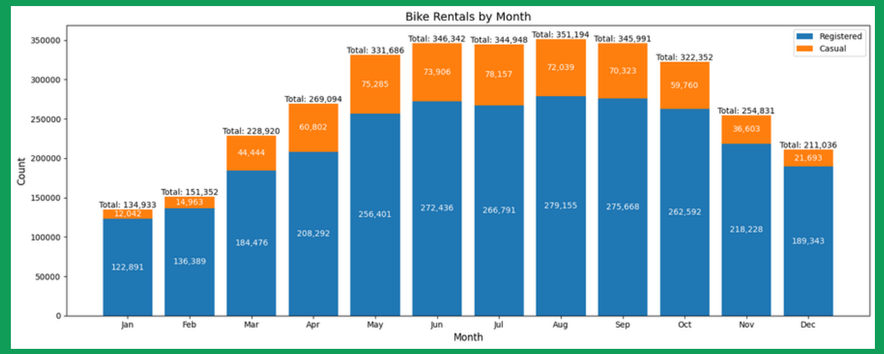
EDA

- Explain Reliationship Inside the Graphics

Grafik A



Grafik B



*Bebas Menggunakan Grafik Apapun

Feature Engineering

Imputation

Change Missing Value and Outlier using <descriptive stats>

Modify Data

Remove or Modify the data (data types, formatting, etc)

Encoding

converting categories (like text) into structured numerical formats (one-hot, label encoding).

Transform

Altering Data Distribution

Scaling

Balancing value to consistent range (Min-Max, Z-score).

Clustering

grouping similar data points

Reguralization

adding penalties (e.g., L1/Lasso or L2/Ridge) to limit complexity

Feature Engineering

Encoding

weathersit_Clear	weathersit_Light Snow / Rain	weathersit_Mist	season_fall	season_spring	season_summer	season_winter
False	False	True	False	True	False	False
False	False	True	False	True	False	False
True	False	False	False	True	False	False

Model Building

Challenges - x%

Challenges when building this model

Strategy - x%

Strategy to Overcome those problems

Solution - x%

Strategy implementation + improvisation

Model Evaluation

Name of Evaluation

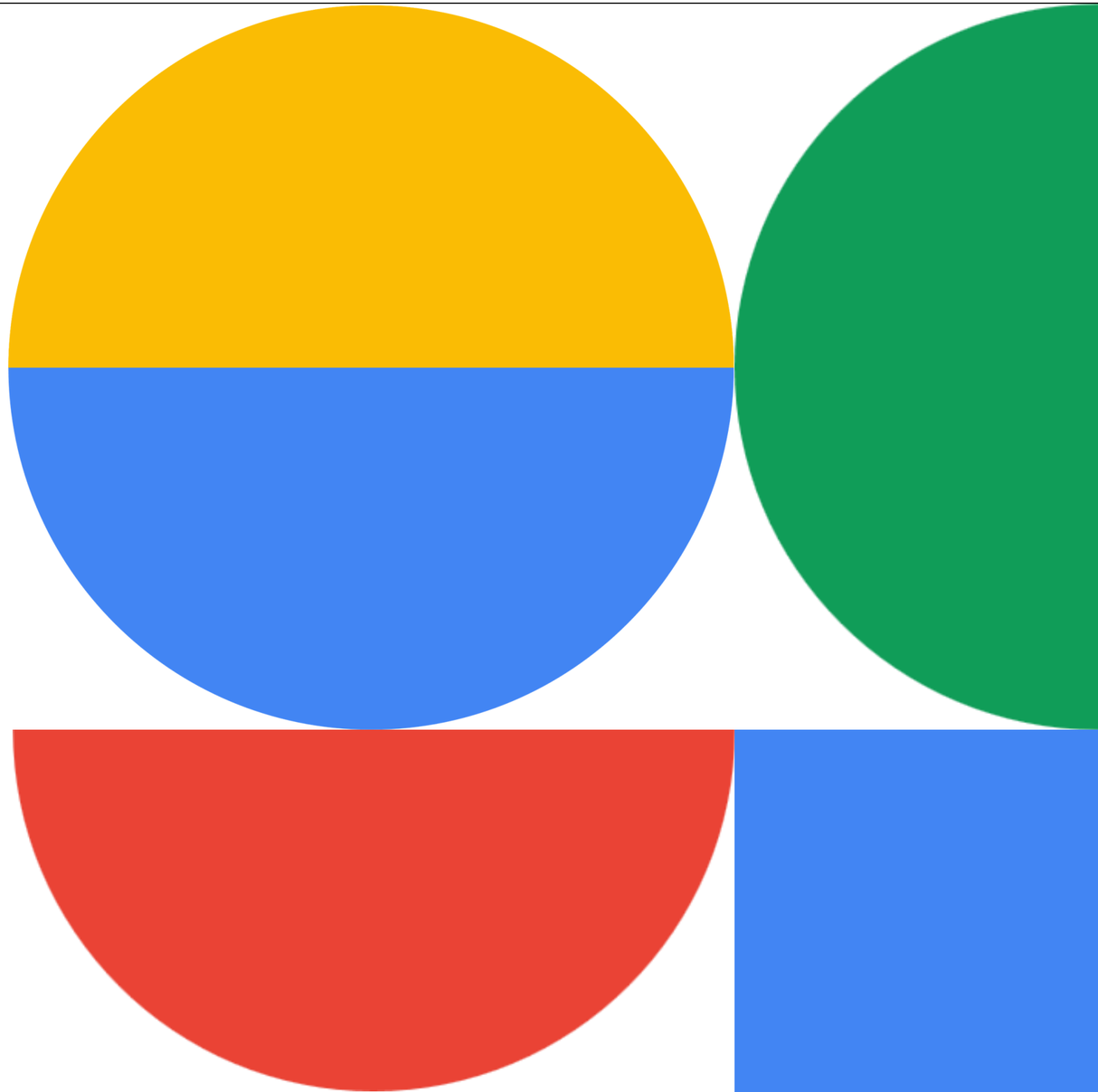
Results

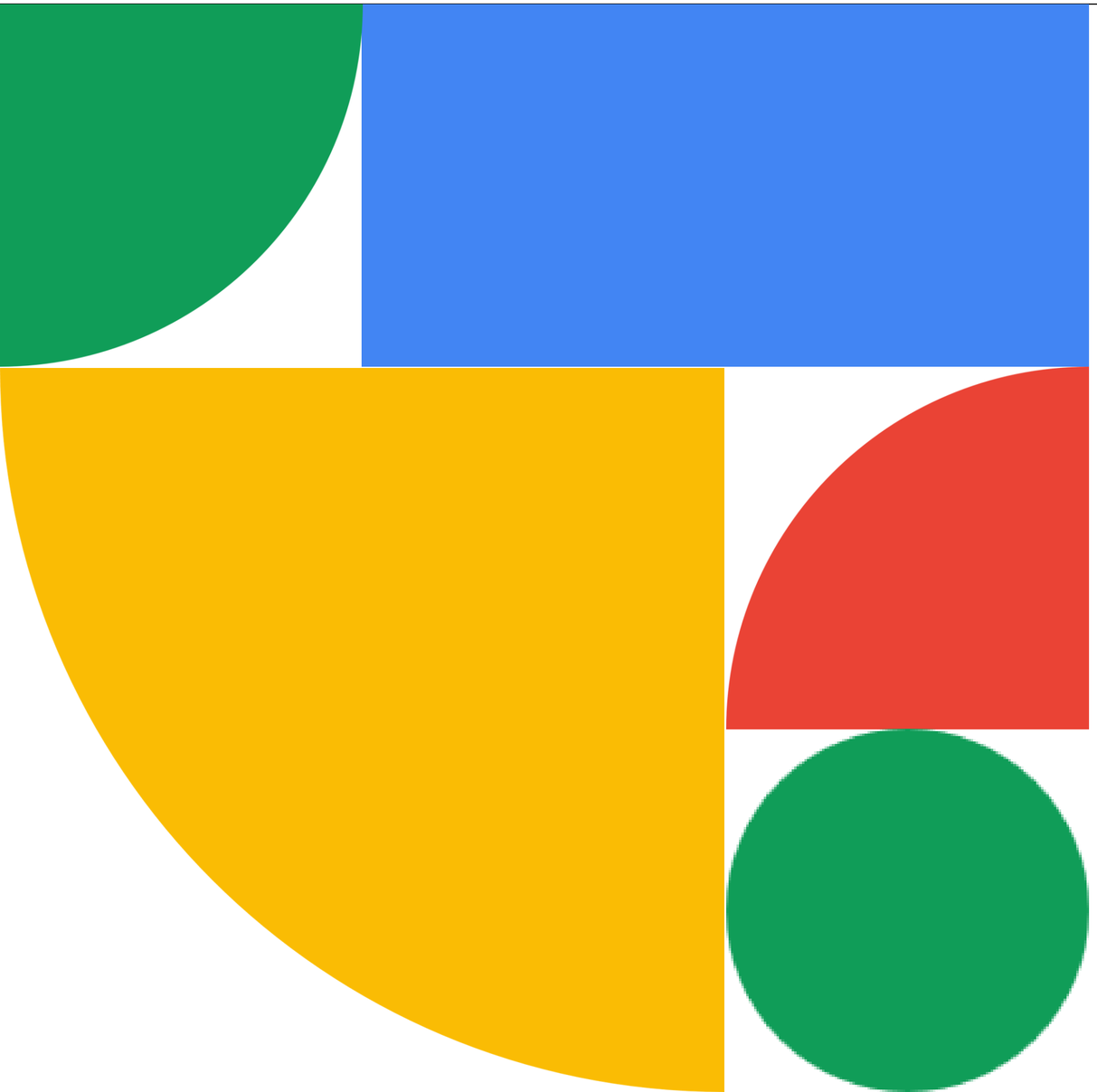
Name of Evaluation

Results

Name of Evaluation

Results





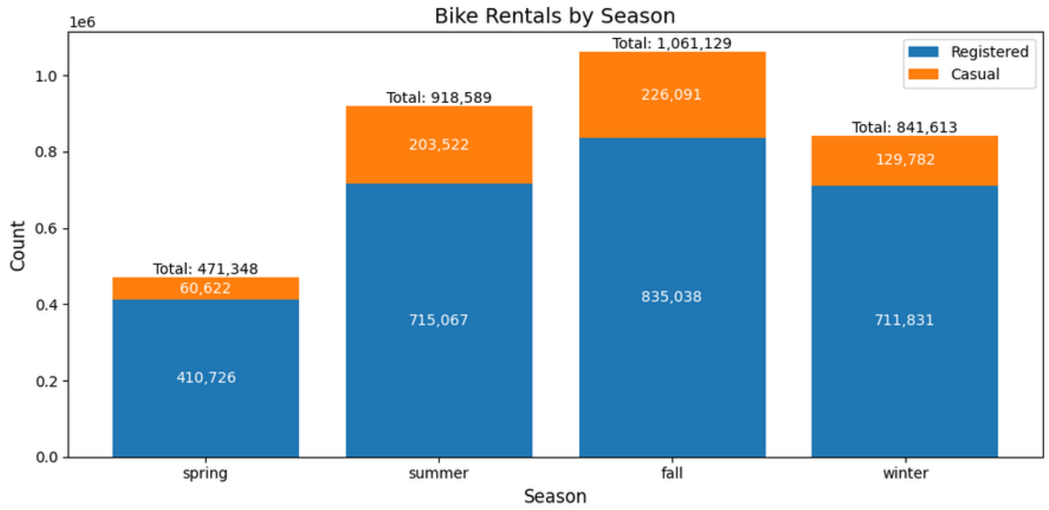
Model Conclusion

Based on the evaluation and process, give us your opinion on the model

Model Usability

In what circumstance the model will be useful. Why we need to create this model

Data Analysis



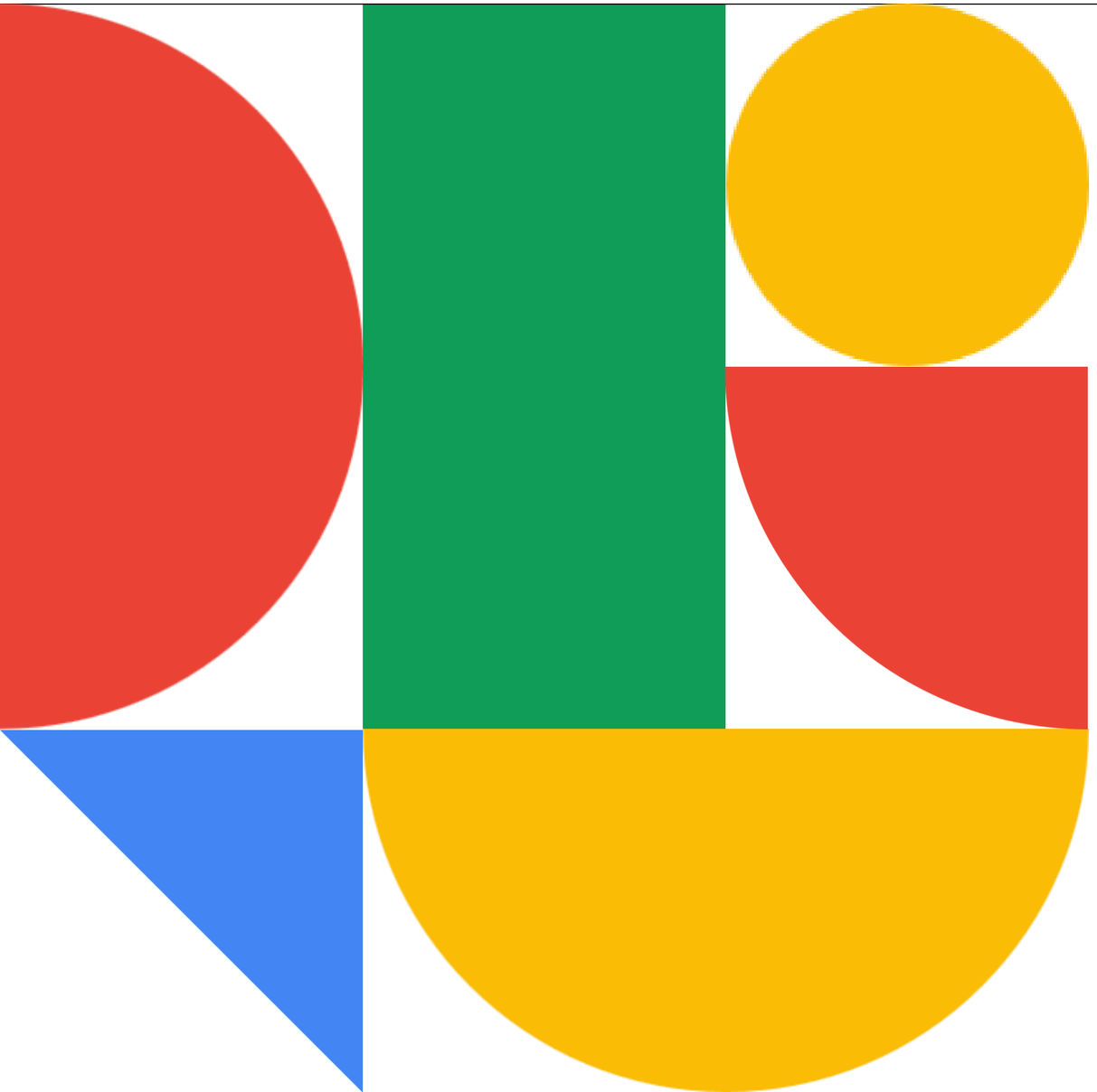
Conclusion Gathered from dataset.

1.

2.

3.

4.



Questions?
Reactions?

Feel free to get in touch with us.