Power BI Report - Boat Views Analysis

About Data:

https://www.kaggle.com/competitions/procom23-data-science-competition-round-1/data

This dataset contains information on boats that are listed for sale, including their price in 4 different currencies, boat type, manufacturer, category, year built, length, width, material, location, and the number of views the boat listing received in the past 7 days.

Columns:

The "Price" column provides the price of the boat in 4 different currencies, which allows for comparison across different currencies. The "Boat Type" column specifies the type of boat, such as sailboat or motor yacht, while the "Manufacturer" column indicates the company that manufactured the boat.

The "Type" column specifies the category of the boat, such as new, used, diesel, etc. This information can be important for potential buyers who are looking for a boat that fits their specific needs. The "Year Built" column provides the year the boat was built, which can be an important factor in determining the value and condition of the boat.

The "Length" and "Width" columns provide information on the physical dimensions of the boat in meters. The "Material" column indicates the material used to construct the boat, such as GRP (glass-reinforced plastic), steel, etc. This information can be useful for buyers who are looking for boats made from specific materials.

The "Location" column specifies the location of the boat, which can be important for potential buyers who are looking for boats in specific regions or countries. Finally, the "Number of views last 7 days" column provides information on the popularity of the boat listing, as it indicates how many views the listing received in the past 7 days.

Conversion rate for Price column:

- 1 Swiss Franc(CHF) equals 1.09 United States Dollar
- 1 Euro(EUR) equals 1.08 United States Dollar
- 1 Danish Krone(DKK) equals 0.14 United States Dollar
- 1 Pound sterling(Â£) equals 1.21 United States Dollar

Data Cleaning:

https://colab.research.google.com/drive/1BxtwzUf8cuOYnVWzOwrbPhpARFA3qp6P?usp=sharing

Imputation based on mean and mode

```
# Imputating based on mean and mode
l_m = str(df.Location.mode())
df.Location = df.Location.fillna(l_m)

m_mf = str(df.Manufacturer.mode())
df.Manufacturer = df.Manufacturer.fillna(m_mf)
m_mt = str(df.Material.mode())
df.Material = df.Material.fillna(m_mt)
t = str(df.Type.mode())
df.Type = df.Type.fillna(t)


df.Length = df.Length.fillna(df.Length.mean())
df.Width = df.Width.fillna(df.Width.mean())
df['Year Built'] = df['Year Built'].replace(0, 2020)
```

Cleaning Country to get only country

```
[32] def country(x):
       return x.split()[0]

     df['country'] = df['Location'].apply(lambda x: country(x))
```

Cleaning price, as we have different currency values in that column

```
def currency(x):
  c = x[:3]
  return c

def value(x):
  c = x[4:]
  return float(c)

def conv(x):
  if x == 'EUR':
    return 1.08
  if x == 'CHF':
    return 1.09
  if x == 'DKK':
    return 0.14
  else:
    return 1.21
```

```
[34] df['currency'] = df['Price'].apply(lambda x: currency(x))

     df['value'] = df['Price'].apply(lambda x: value(x))

     df['rate'] = df['currency'].apply(lambda x: conv(x))

     df['USD Price'] = df['rate']*df['value']
```

Removing irrelavant columns for our analysis

```
[36] df = df.drop(['Price','Location','currency','value','rate'], axis=1)
```

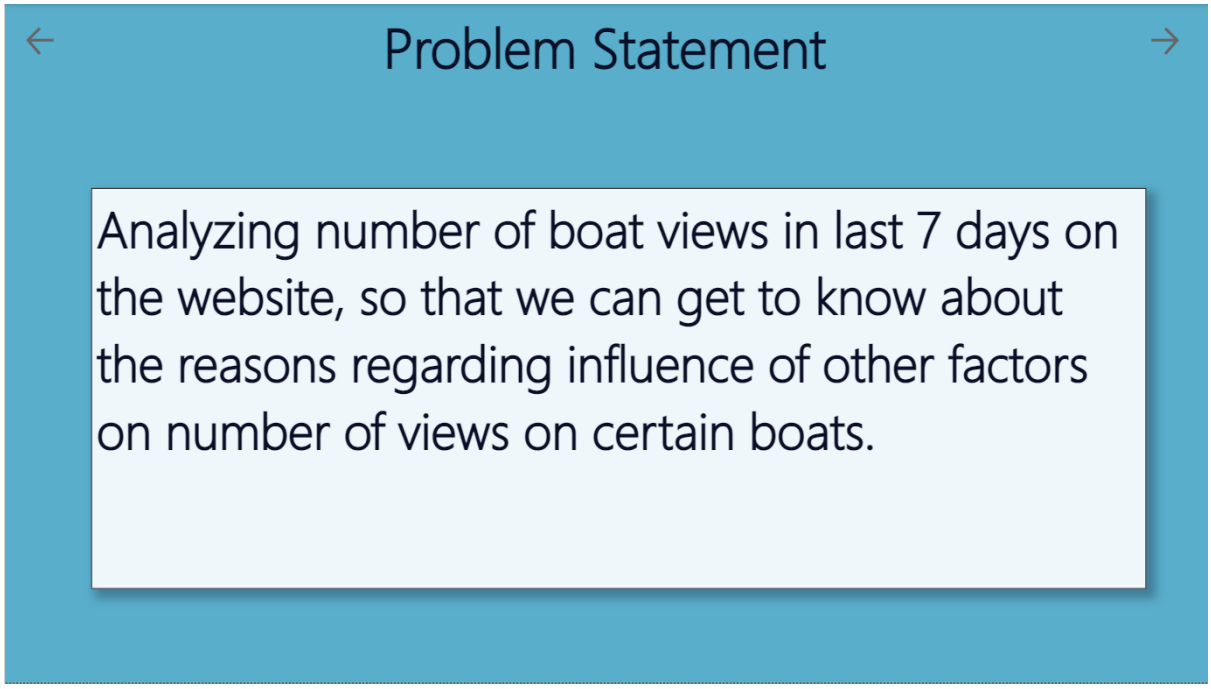
Dashboard screenshots on next page

Power BI Dashbaord

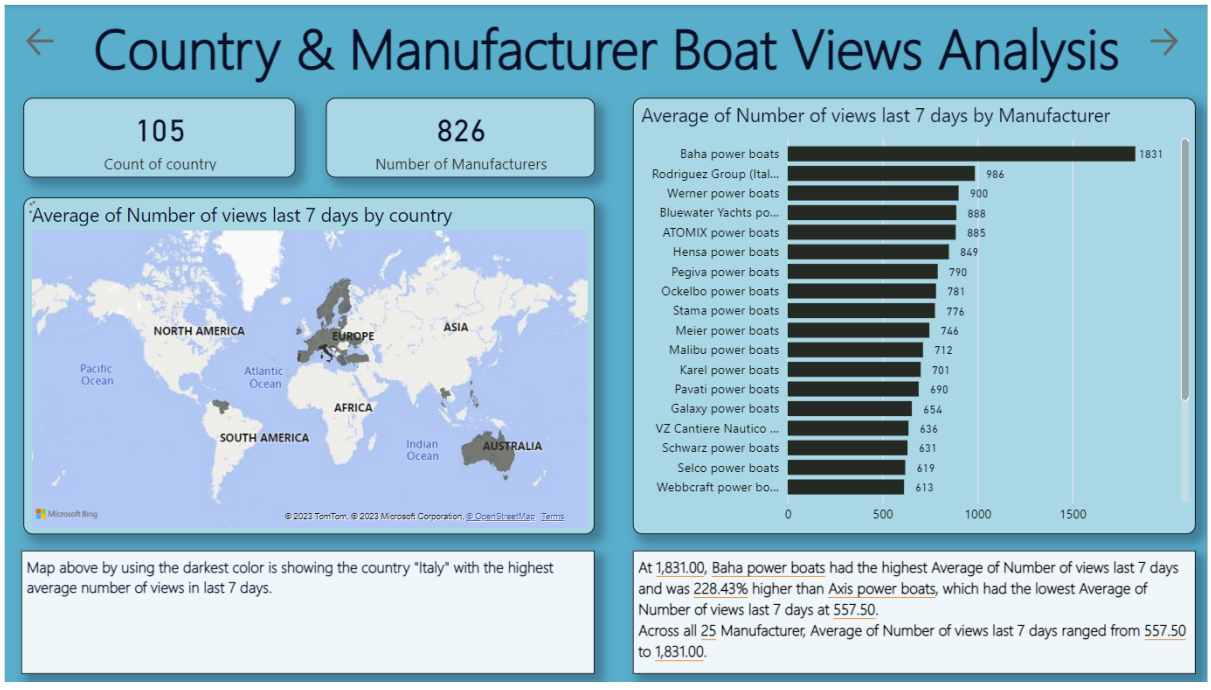
Every analysis chart is based upon the number of views in last 7 days column

Github: https://github.com/Mujtaba18624/Video_Game_Analysis_Power-BI

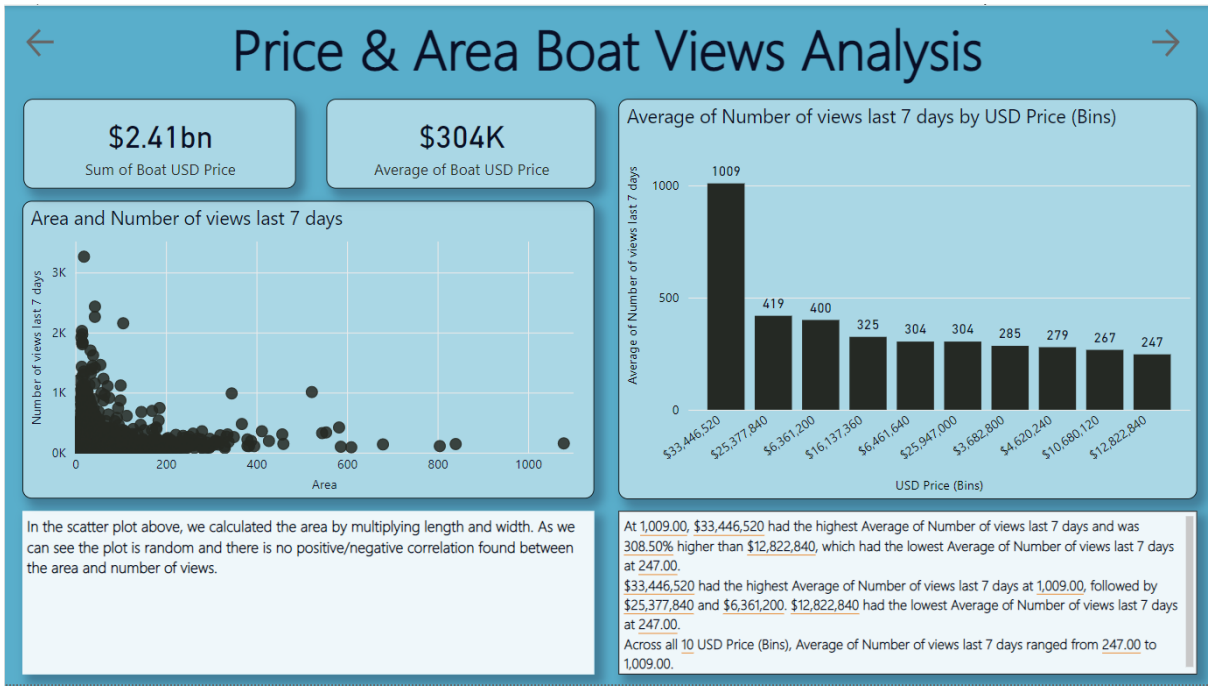
1. Problem Statement:



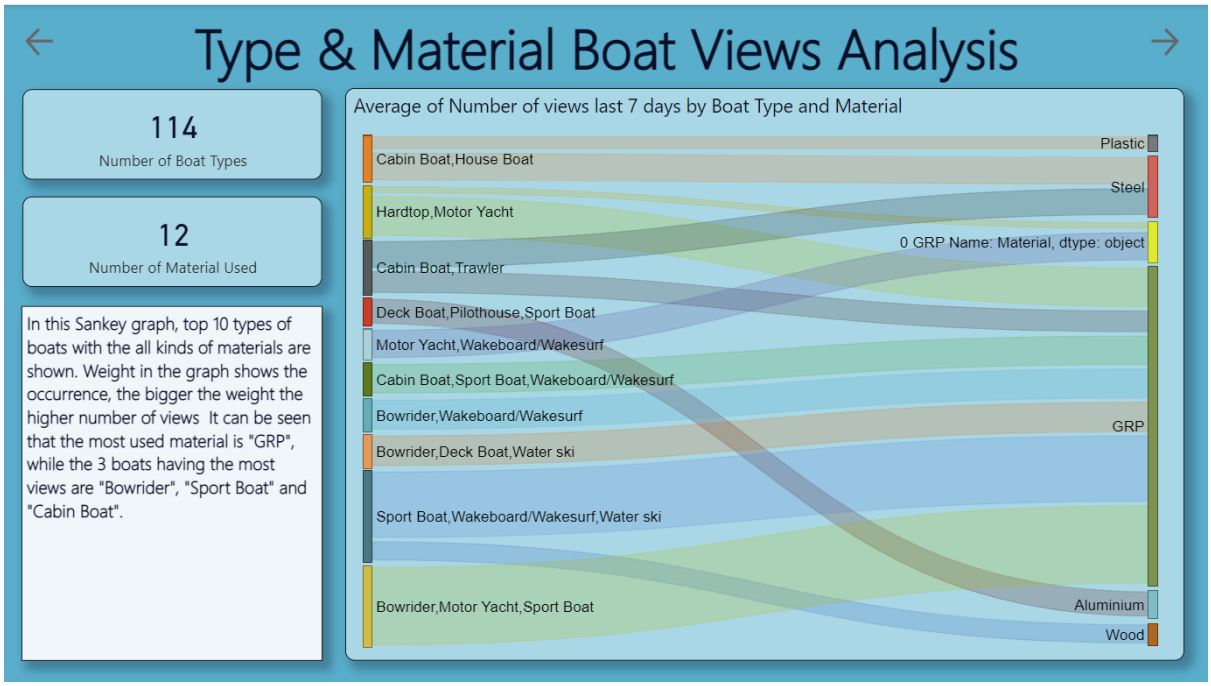
2. Boat Country and Manufacturer Analysis Page:



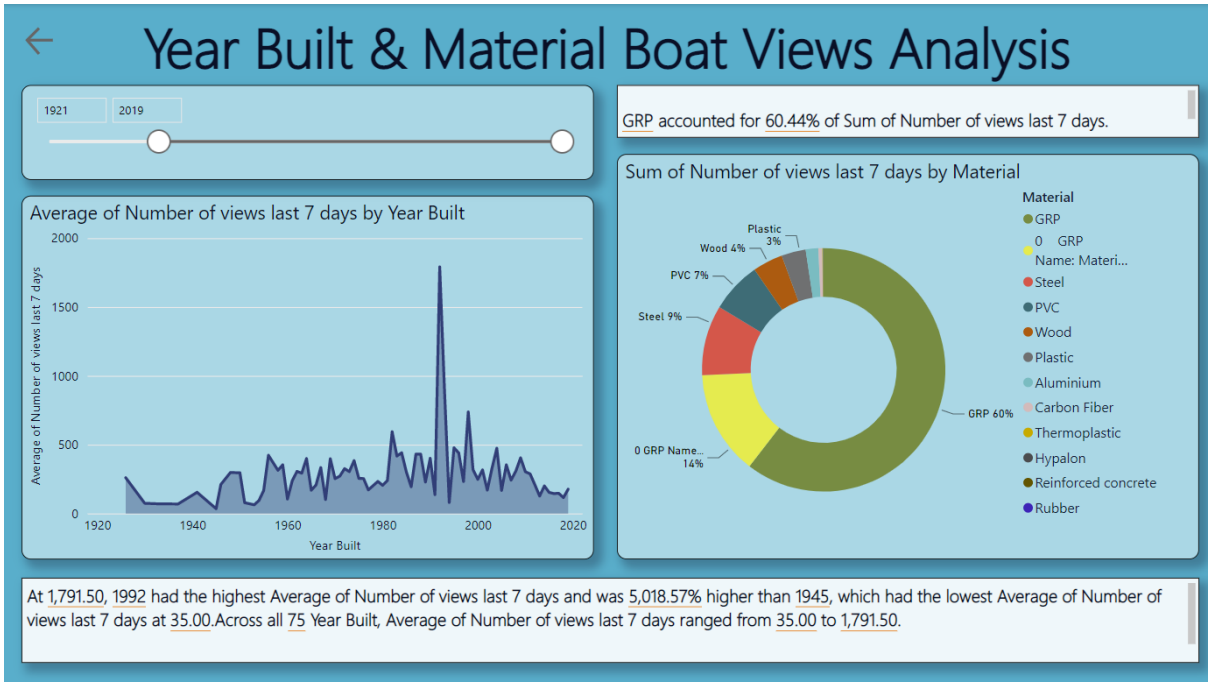
3. Boat Price and Area Analysis Page:



4. Boat Type and Material Analysis Page:



5. Boat Year Built and Material Analysis Page:



Consistency was kept in background colour of charts and text box. Summary Text box have different background and border effects so that they can be identified differently and are readable to users. Same colour scheme (consistency) was used for material boat material in Sankey and donut chart.