Title: - JIO TV Data Analysis Project

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Department: MCA (BCU)

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❖ Objective: -

The primary objective of the JIO TV Data Analysis project is to utilize data-driven insights to improve content strategies, enhance user experience, and optimize platform performance. This involves analysing JIO TV Cinema's extensive content catlog and user interaction data to achieve the following specific objectives:

- Understand User Preferences and Behaviour
- Analyse Content Trends
- Recommendation Systems

❖ Problem statement: -

- With the rapid growth of the streaming industry, Jio TV has amassed a vast collection of content and user data.
- However, effectively leveraging this data to enhance user satisfaction, improve content recommendations, and drive strategic decisions remains a challenge.

1. Content Trends Analysis
2. Recommendation System Enhancement
3. User Behaviour Insights

❖ Solution: -

To address the challenges and achieve the objectives, a comprehensive solution is proposed, combining advanced data analysis, machine learning, and visualization techniques. Below are the detailed components of the solution:

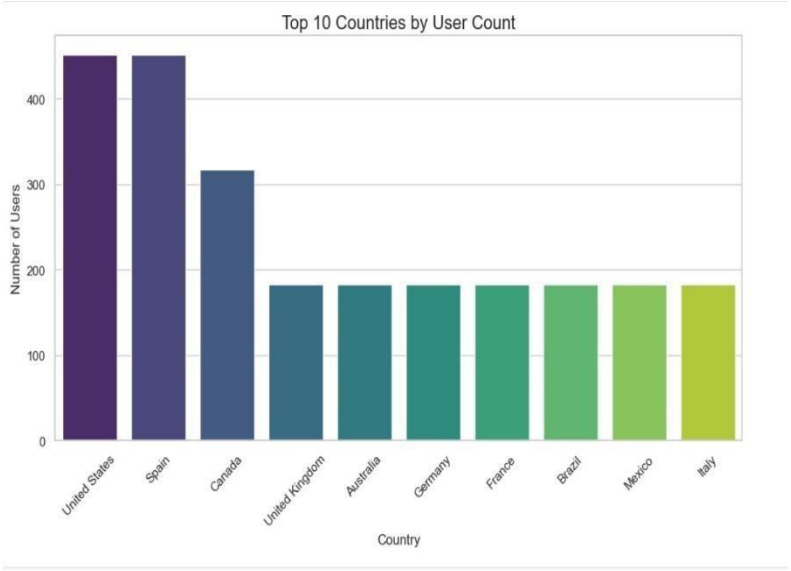
1. Data Collection and Preprocessing
2. Content Trends Analysis
3. User Behavior Analysis

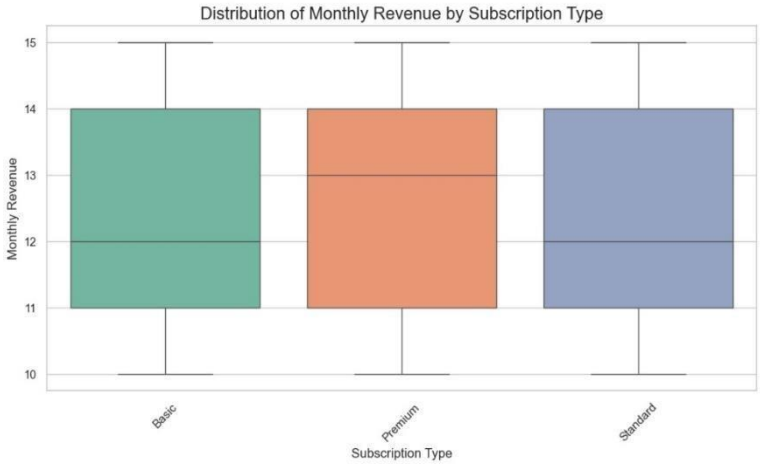
❖ Implementation: -

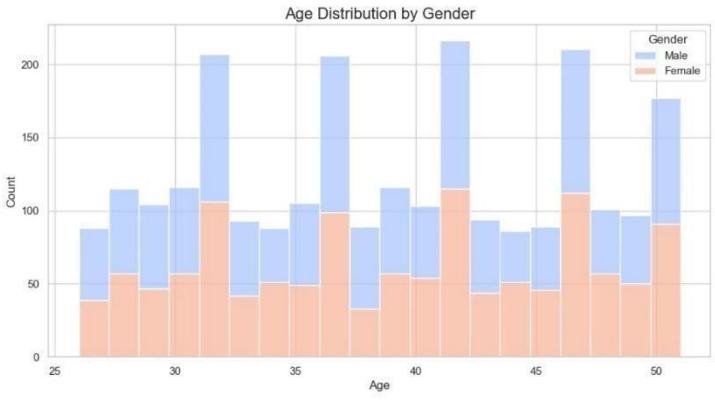
```
import pandas as pd import seaborn as sns
import matplotlib.pyplot as plt import
warnings warnings.filterwarnings("ignore")
df = pd.read_csv("E:/JIO TV_Userbase.csv")
sns.set_theme(style="whitegrid")
# 1. Distribution of Monthly Revenue by Subscription Type
plt.figure(figsize=(12, 6)) sns.boxplot(data=df, x='Subscription
Type', y='Monthly Revenue', palette="Set2") plt.title('Distribution
of Monthly Revenue by Subscription Type', fontsize=16)
plt.xlabel('Subscription Type', fontsize=12) plt.ylabel('Monthly
Revenue', fontsize=12) plt.xticks(rotation=45) plt.show()
# 2. Count of Users by Country (Top 10 Countries)
plt.figure(figsize=(12, 6))
top_countries = df['Country'].value_counts().head(10)
sns.barplot(x=top_countries.index, y=top_countries.values,
palette="viridis")
plt.title('Top 10 Countries by User Count', fontsize=16)
plt.xlabel('Country', fontsize=12) plt.ylabel('Number
of Users', fontsize=12) plt.xticks(rotation=45) plt.show()
```

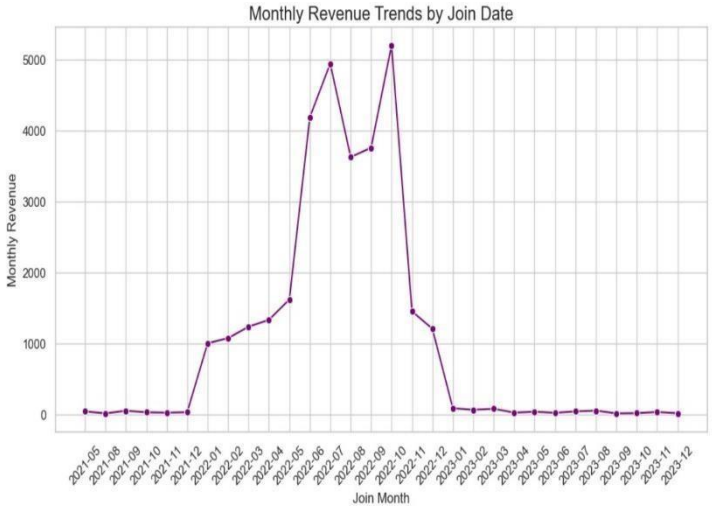
```
# 3. Age Distribution by Gender plt.figure(figsize=(12,
6))
sns.histplot(data=df, x='Age', hue='Gender', multiple='stack',
palette="coolwarm", bins=20) plt.title('Age Distribution by
Gender', fontsize=16) plt.xlabel('Age', fontsize=12)
plt.ylabel('Count', fontsize=12) plt.show() # 4. Monthly
Revenue Trends by Join Date plt.figure(figsize=(12, 6))
df['Join Date'] = pd.to_datetime(df['Join Date']) df['Join
Month'] = df['Join Date'].dt.to_period('M')
monthly_revenue = df.groupby('Join Month')['Monthly
Revenue'].sum().reset_index()
monthly_revenue['Join Month'] = monthly_revenue['Join
Month'].astype(str)
sns.lineplot(data=monthly_revenue, x='Join Month', y='Monthly
Revenue', marker='o', color="purple") plt.title('Monthly
Revenue Trends by Join Date', fontsize=16) plt.xlabel('Join
Month', fontsize=12) plt.ylabel('Monthly Revenue',
fontsize=12) plt.xticks(rotation=45) plt.show()
```

- Output: -


Top 10 Countries by User Count
Number of Users
0
100
200
300
400
United States
Spain
Canada
United Kingdom
Australia
Germany
France
Brazil
Mexico
Italy
Country


Distribution of Monthly Revenue by Subscription Type
Monthly Revenue
10
11
12
13
14
15
Basic
Premium
Standard
Subscription Type


Age Distribution by Gender
Gender
Male
Female
Count
0
50
100
150
200
25
30
35
40
45
50
Age


Monthly Revenue Trends by Join Date
Monthly Revenue
5000
4000
3000
2000
1000
0
2021-05
2021-08
2021-09
2021-10
2021-11
2021-12
2022-01
2022-02
2022-03
2022-04
2022-05
2022-06
2022-07
2022-08
2022-09
2022-10
2022-11
2022-12
2023-01
2023-02
2023-03
2023-04
2023-05
2023-06
2023-07
2023-08
2023-09
2023-10
2023-11
2023-12
Join Month