

Website Performance Analysis

Objectives

- ❖ Analyze sessions, engaged sessions, and engagement rate over time.
- ❖ Compare engaged vs non-engaged sessions across marketing channels.
- ❖ Visualize traffic distribution by hour and channel group using heatmaps.
- ❖ Identify patterns that can improve marketing effectiveness and user experience.

Key Insights

- Which channels bring in the most engaged traffic.
- The peak hours for website visits.
- Trends in session counts and engagement rate over time.
- Potential areas where engagement can be improved.

Tools & Libraries

- ✓ Python 3.x
- ✓ Pandas – data manipulation
- ✓ NumPy – numerical computation
- ✓ Matplotlib / Seaborn – data visualization
- ✓ Jupyter Notebook – interactive analysis environment

Visualizations

- Engaged vs Non-Engaged Sessions Bar Chart
- Traffic by Hour and Channel Heatmap
- Sessions and user over time
- Engagement Rate vs Sessions Over Time Line Chart
- Total users by Channel
- Average Engagement time by channel
- Engagement rate by Distribution channel