

Website Traffic (Clickstream) Analysis

Alfido Tech – Executive Summary & Project Document

□ Executive Summary

This project analyzes website traffic using **clickstream interaction data** to understand user behavior, entry and exit patterns, engagement levels, and geographical reach. Due to the absence of session-level and explicit user identifiers, **proxy-based analytics techniques** were applied, which align with industry-standard practices for clickstream analysis.

The analysis focuses on identifying:

- Key landing interactions (entry points)
- Exit interactions (drop-off points)
- Bounce behavior using single-interaction users
- User engagement trends
- Geographic distribution of traffic

Insights derived from the analysis were used to propose **actionable conversion optimization strategies** for Alfido Tech. The results highlight that user traffic is concentrated around a limited set of entry points, with a significant proportion of users disengaging after a single interaction. These findings indicate strong opportunities for improving navigation flow, content placement, and call-to-action effectiveness.

Tools Used:

Python (Pandas, Matplotlib, Seaborn), Jupyter Notebook

□ Project Resources & Code Links

- **Dataset:** `traffic.csv`
- **Jupyter Notebook:**
<https://github.com/sharmasanyam950-dev/Alfrido/tree/main/Website%20Traffic%20Analysis>
- **Notebook Files:**
 - `Traffic_cleaning&Analysis.ipynb`

□ Analysis Workflow (Brief)

1. Data loading and cleaning

2. Column standardization using proxy identifiers
 3. KPI computation (total clicks, unique users, engagement)
 4. Landing interaction analysis (first click per user)
 5. Exit interaction analysis (last click per user)
 6. Bounce rate estimation using proxy logic
 7. Geographic traffic analysis
 8. Visualization and insights generation
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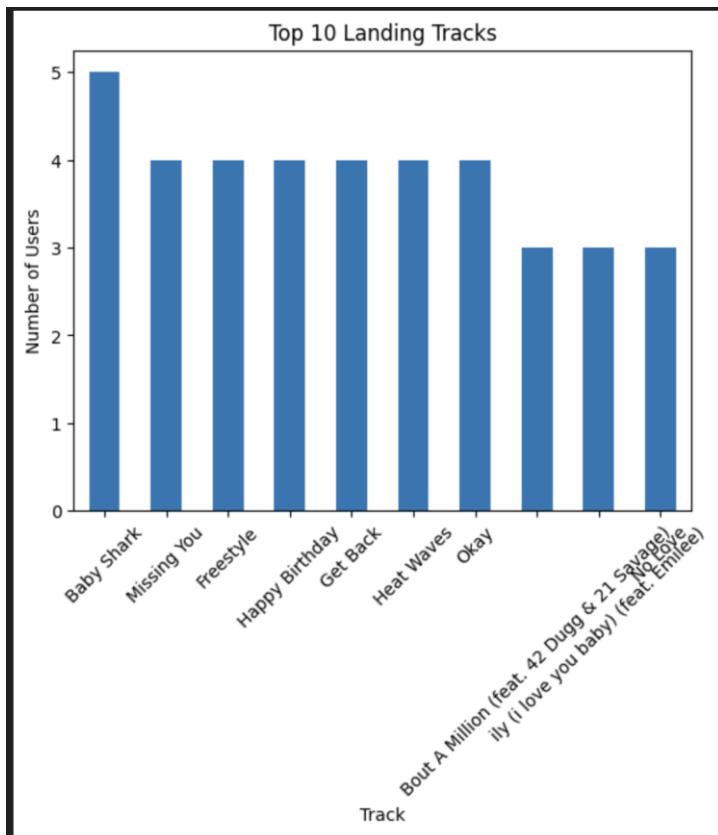
Key Visualizations (Add Screenshots)

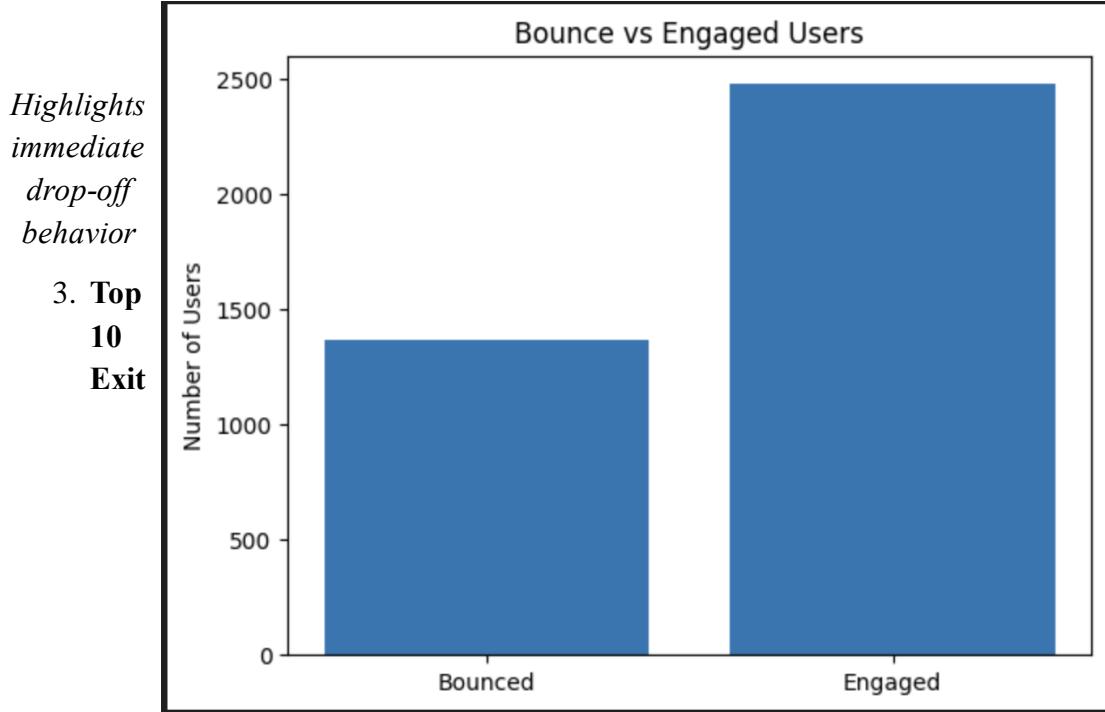
Insert screenshots of the following charts:

1. Top 10 Landing Tracks (Bar Chart)

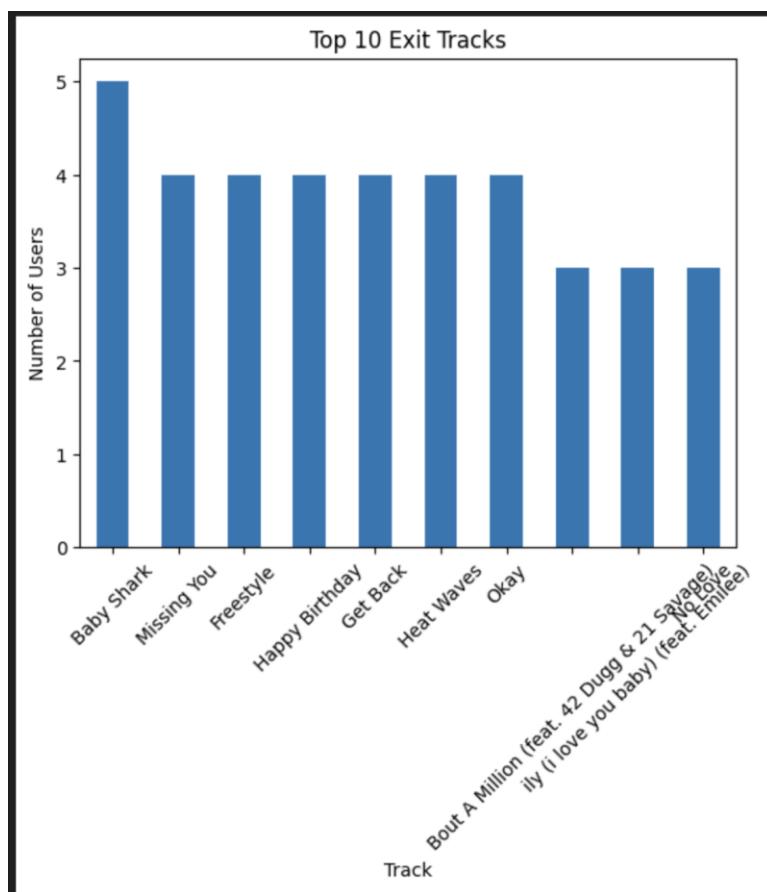
Shows primary entry points for users

2. Bounce vs Engaged Users (Bar/Pie Chart)



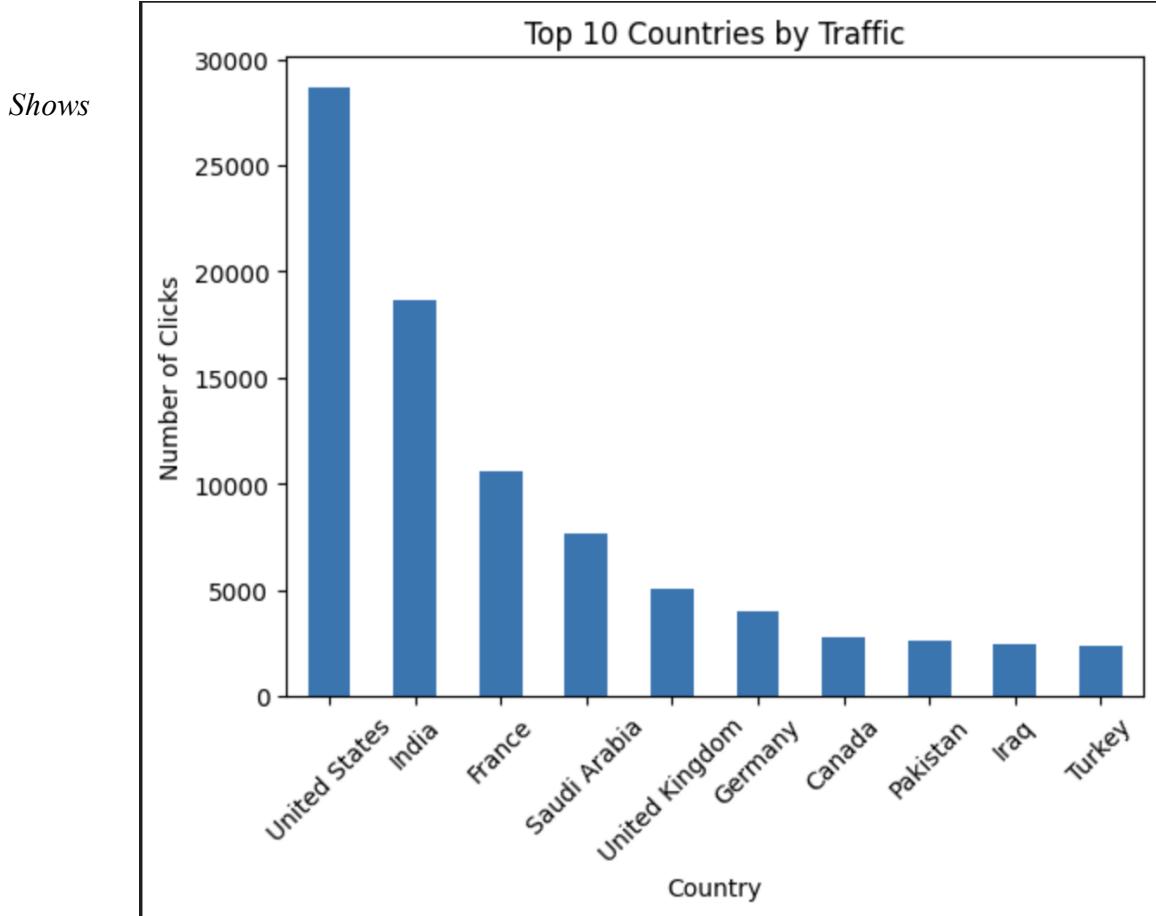


Tracks (Bar Chart)



4. identifies disengagement points

5. Country-wise Traffic Distribution (Bar Chart)



□ Key Insights

- User entry traffic is concentrated on a small number of content items.
- A significant portion of users exit after a single interaction, indicating high bounce behavior.
- Certain content consistently appears as exit points, suggesting weak continuation flow.
- Traffic engagement varies by geographic region.
- Limited navigation depth reduces overall conversion potential.

□ Recommendations for Alfido Tech

1. Optimize high-traffic landing pages with stronger CTAs.
2. Reduce bounce rate by improving internal navigation flow.
3. Promote high-intent content prominently across the platform.
4. Focus marketing efforts on regions with higher engagement.
5. Implement session-level tracking for deeper future analysis.

□ Conclusion

This project demonstrates how meaningful user behavior insights can be extracted from limited clickstream data using proxy-based analytics techniques. The findings provide clear guidance for improving user engagement and conversion performance at Alfido Tech.