Browsing History Analysis Report

1. Introduction

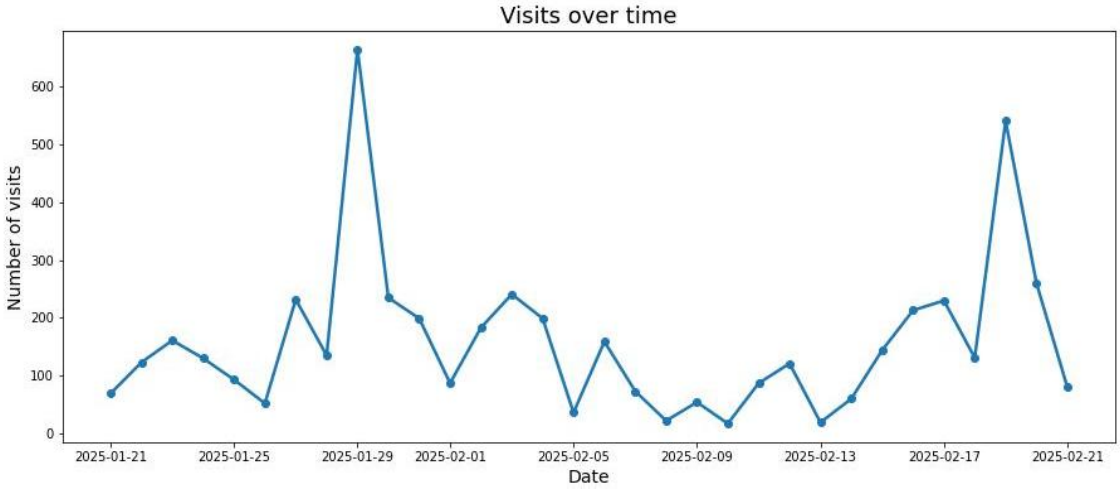
This report presents the analysis of a 'browsing history dataset', which provides the overview about the user's browsing habits and key behavioral trends. The task was to explore this dataset, analyze patterns in user behavior, extract meaningful insights, and visualize the findings.

2. Methodology

The analysis was performed using Python (Pandas, Matplotlib, Seaborn) in Jupyter Notebook with the following steps: Data Loading and Cleaning, Exploratory Data Analysis (EDA) and Visualization.

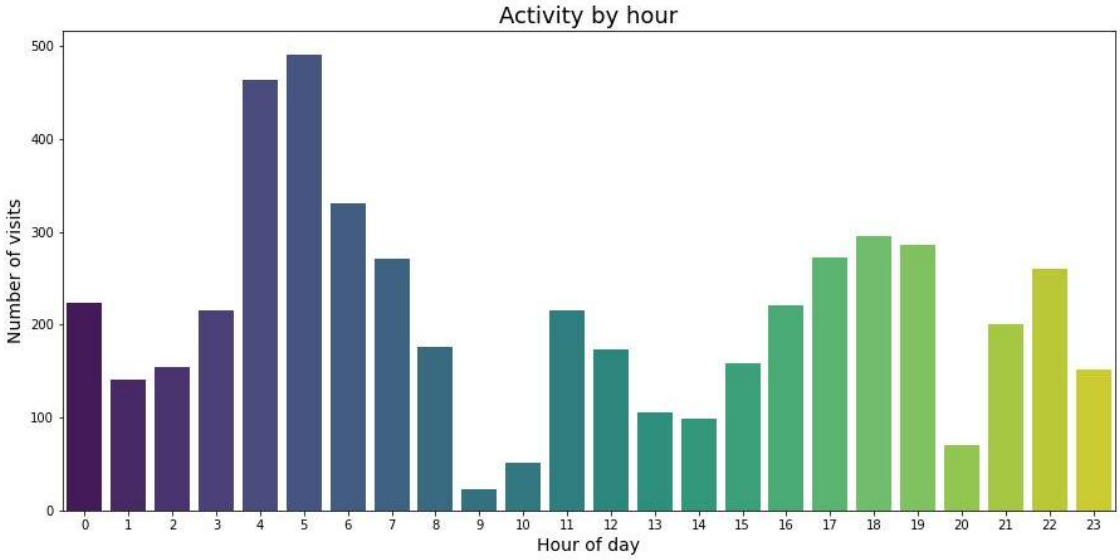
3. Key findings & visual insights

➢ Visits over time



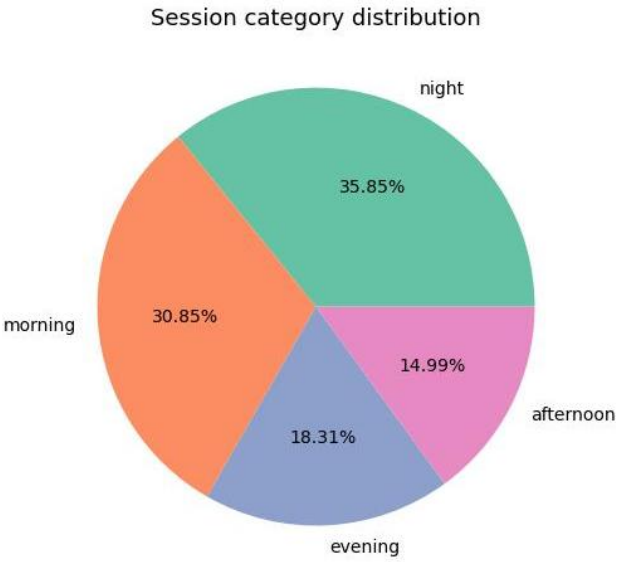
Overall decent browsing activity with slight variations is observed throughout the month, but with spikes on two particular dates. Indicates sudden rise in user behavior, might be due to offers in e-commerce websites, or extreme incident (may be stock-market crash) or certain work-related task.

➢ Activity by hour



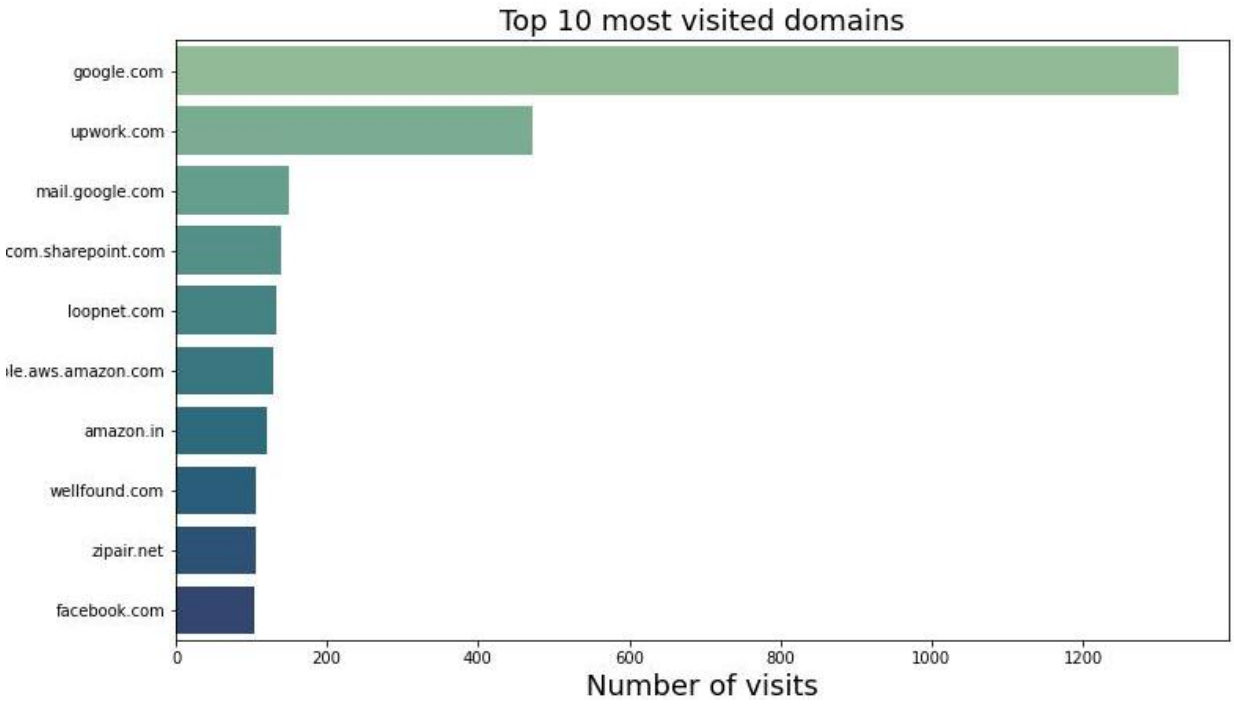
Most visits occurred around 5am, with other frequent visits around 6pm and 10pm. It suggests both morning-focused productive work and casual browsing in the evening and early night.

➢ Session category



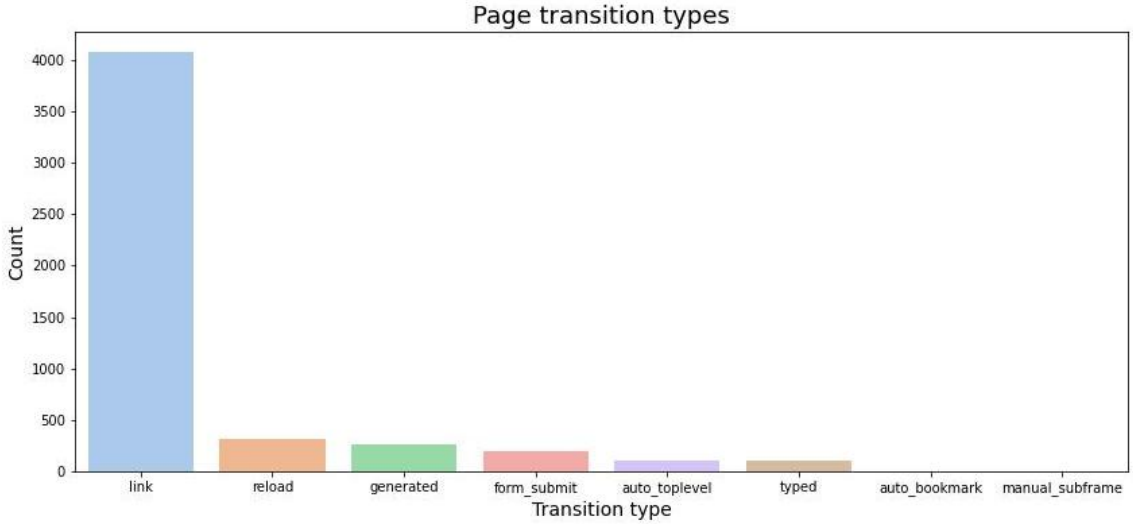
Morning and the night sessions are the most active sessions with 67% coverage in total, along with relatively less browsing trends in the afternoon and evening sessions.

➢ Most visited domains



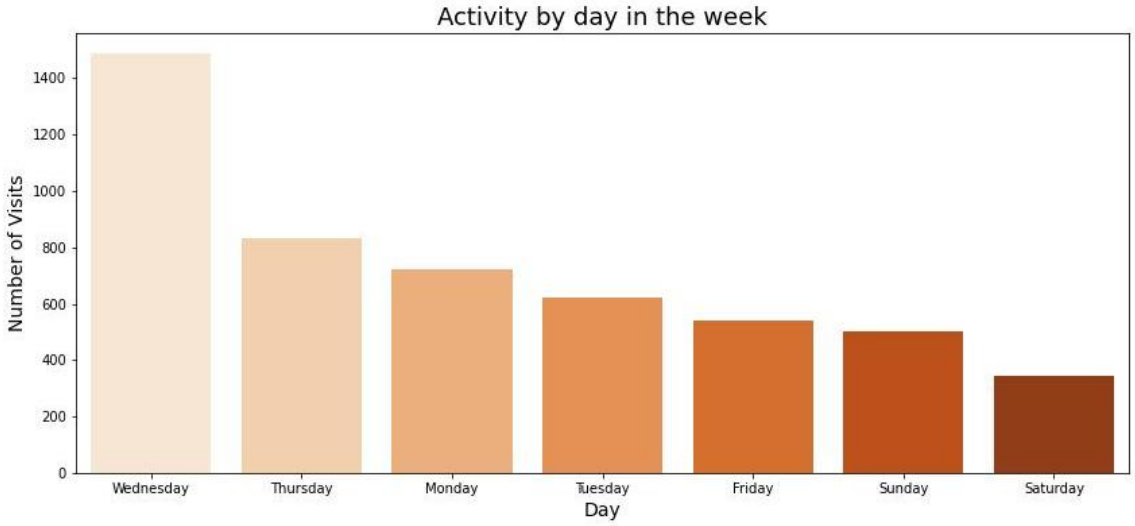
The top 10 most visited domain names are: google, upwork, gmail, sharepoint, loopnet, aws, amazon, wellfound, zipair and facebook. It indicates a combination of browsing habits that primarily includes internet search, job search and work-related activities along with the use of social media platforms.

➢ Page transition types



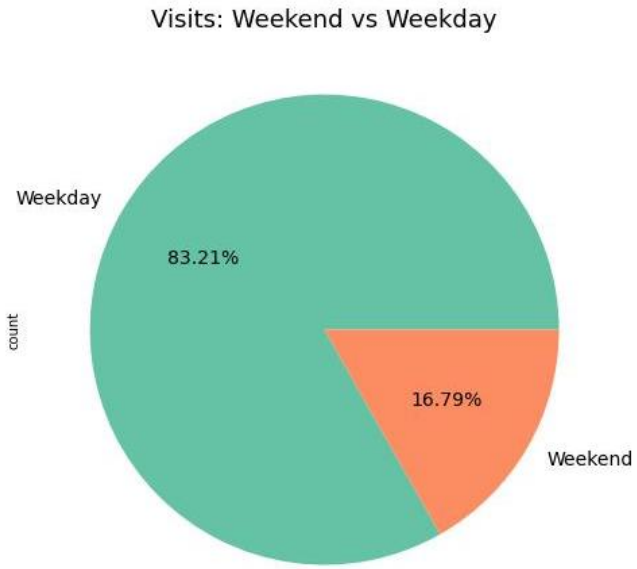
Over 90% of the transitions are initiated by clicks on 'link'. So, it means the browsing habit is mostly content driven, and the trend of manual typing in direct URLs is really less.

➢ Activity by day of week



High engagement is observed in the mid-week (particularly on Wednesday). It means significant browsing on weekdays, possibly work related. And, the weekend browsing activities are much less compared to the weekdays.

- **Browsing activity variations on weekends vs weekdays**



Over 80% of browsing occurred on weekdays, indicating very high engagement on weekdays, most probably due to work, and weekends show significantly reduced browsing activity.

4. Conclusion

The browsing history analysis reveals a structured pattern with more internet activity during weekday mornings and nights, likely tied to work or productivity. Spikes on specific dates suggest responses to external events or tasks. Users mostly follow links rather than typing URLs manually, indicating content-driven behavior. Domain visits and session timing further point toward a blend of professional and casual usage, concentrated around weekdays.

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