Smartphone Usage Analytics

Presented by:

Mohammed Ayaz Maniar (019)
Ruchin Patel (037)

Dataset

Dataset preprocessing:

- Merge data of all users
- Removed unwanted packages

Final Data:

- App usage data of 16 individuals
- Include start date_time and duration
- For most people data: is of July-sept month

After preprocessing:
Total rows: 54038

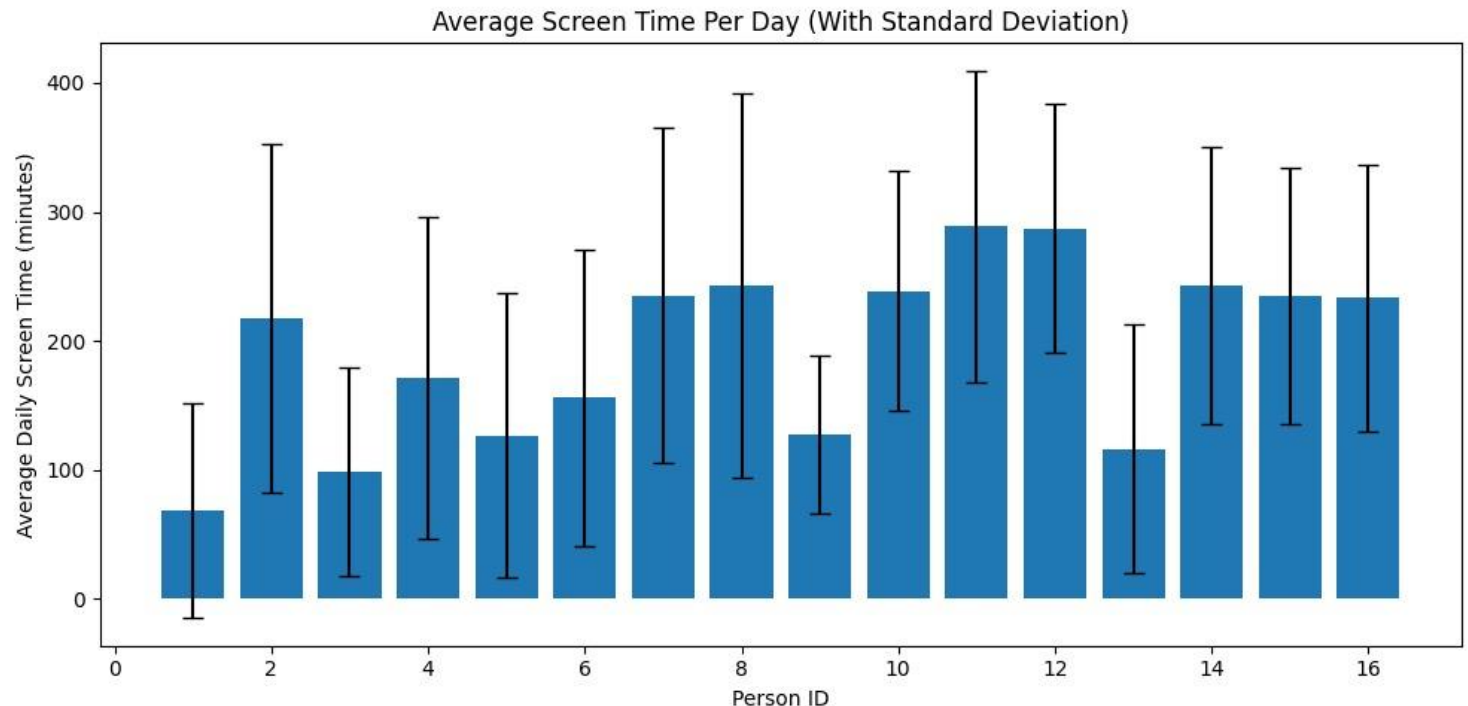|	A	B	C	D	E
1	person_id	start_dt	end_dt	event_nam	usage_sec
2	1	8/1/2022 14:27	8/1/2022 14:28	GPay	29
3	1	8/1/2022 14:30	8/1/2022 14:31	Instagram	52
4	1	8/1/2022 14:32	8/1/2022 14:32	GPay	35
5	1	8/1/2022 14:39	8/1/2022 14:40	Instagram	65
6	1	8/1/2022 14:42	8/1/2022 14:46	YouTube	252
7	1	8/1/2022 14:46	8/1/2022 15:00	YouTube	824
8	1	8/1/2022 17:17	8/1/2022 17:17	WhatsApp	44
9	1	8/1/2022 17:21	8/1/2022 17:35	YouTube	870
10	1	8/1/2022 17:35	8/1/2022 17:38	YouTube	167
11	1	8/1/2022 17:38	8/1/2022 17:39	GPay	75
12	1	8/1/2022 17:40	8/1/2022 17:48	YouTube	529
13	1	8/1/2022 19:44	8/1/2022 19:50	YouTube	365
14	1	8/1/2022 19:57	8/1/2022 19:57	WhatsApp	5
15	1	8/1/2022 19:59	8/1/2022 19:59	WhatsApp	21

Average Daily Screen Time per User

- Shows average hours spent daily by each user.
- Error bars represent variation (standard deviation).
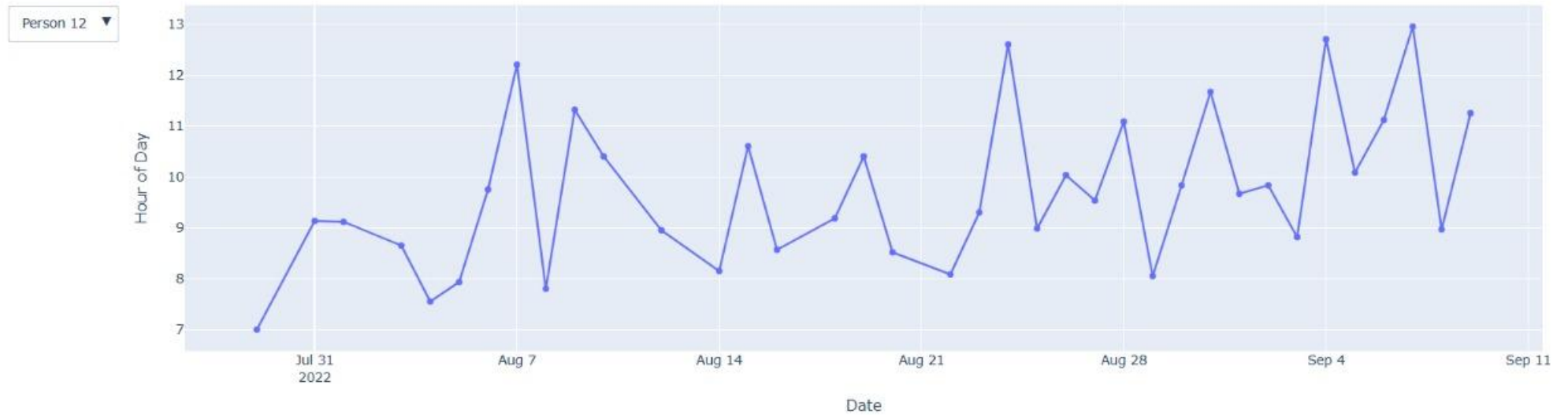- Heavy users can be easily identified.

Insight:
Users **11** and **12** have the highest average screen-time.

Average Screen Time Per Day (With Standard Deviation)

Sleep Wake Cycle

Wake Time Line Plot — Person 12

Insight:
Person 12 shows consistent wake-up between **8AM–11AM**,
indicating healthy and stable sleep patterns.

Hourly Usage Pattern

- Displays total usage across each hour of the day.
- Activity is lowest between **2 AM – 6 AM**.
- Peaks occur during **8 PM – 11 PM**.

Insight:

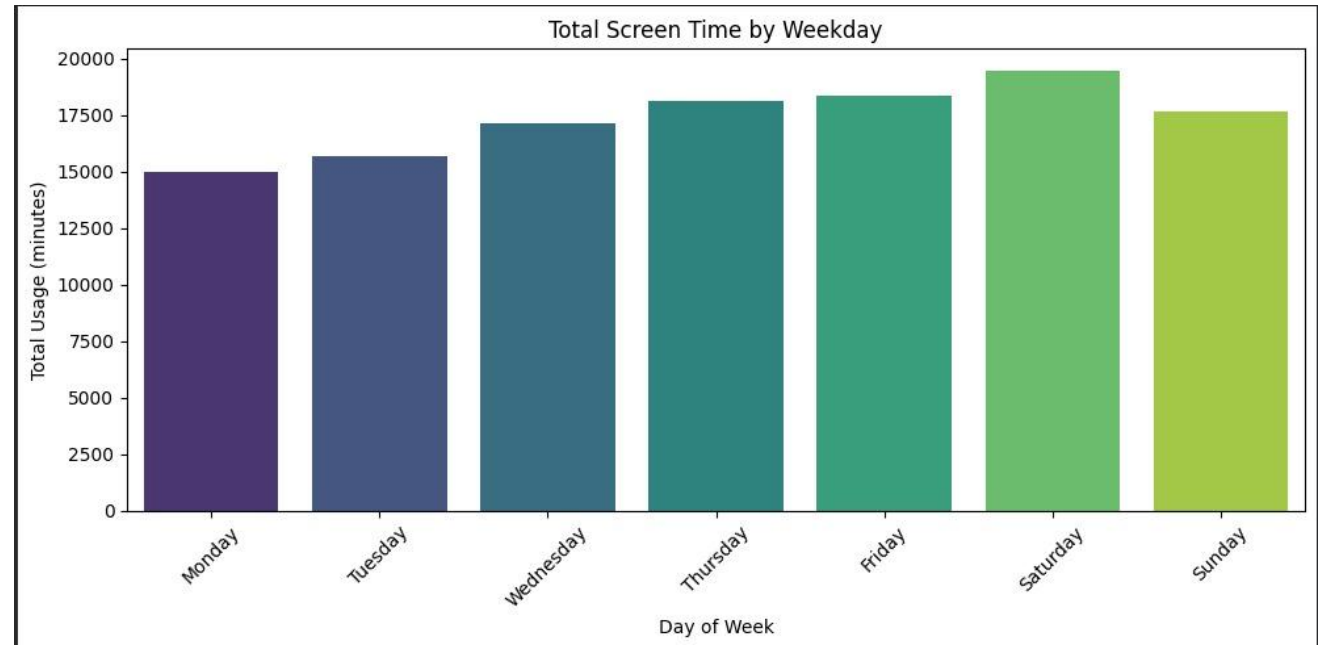Evenings dominate — likely due to entertainment and social apps.

Hourly Screen Time (Peak Hours Highlighted)

Weekly Usage Pattern

- **Content:**
- Users are most active on **Saturdays**.
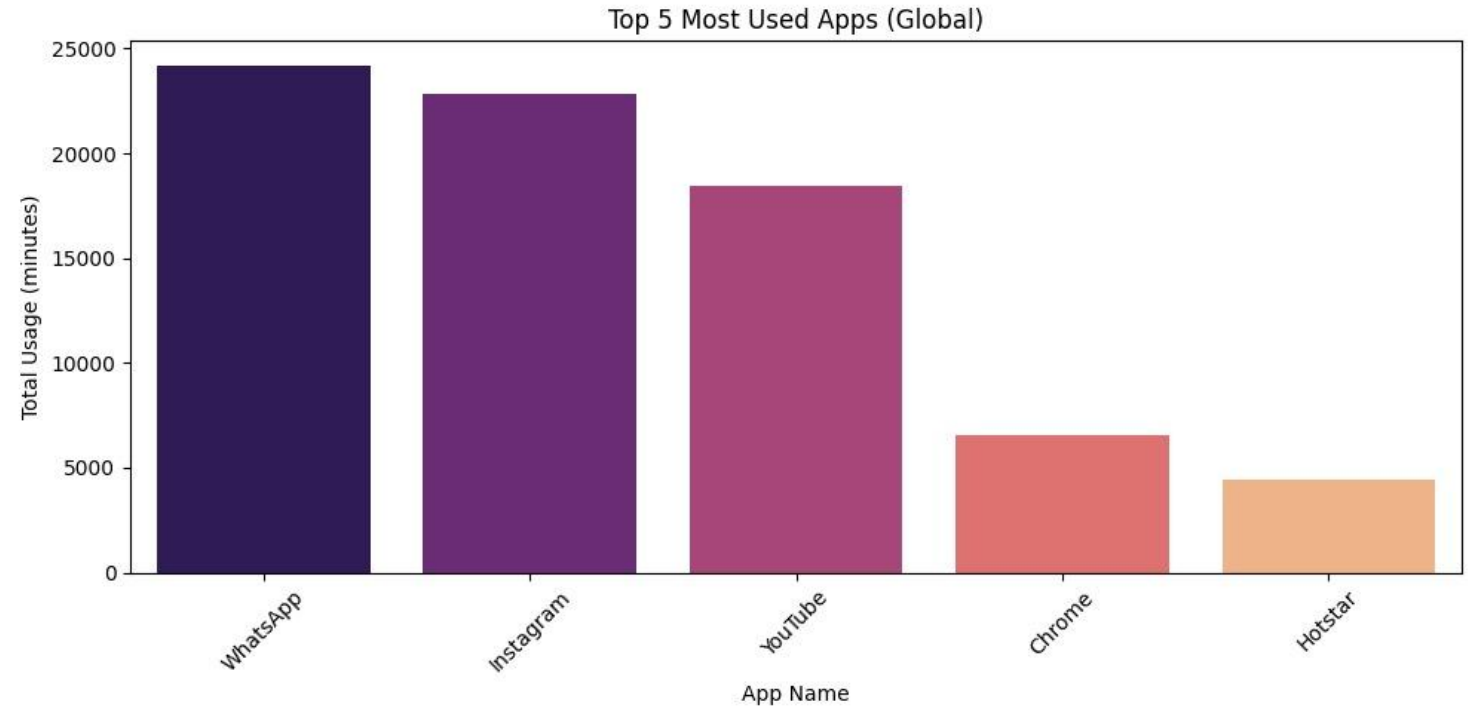- Monday & Tuesday show relatively less engagement.

Insight:
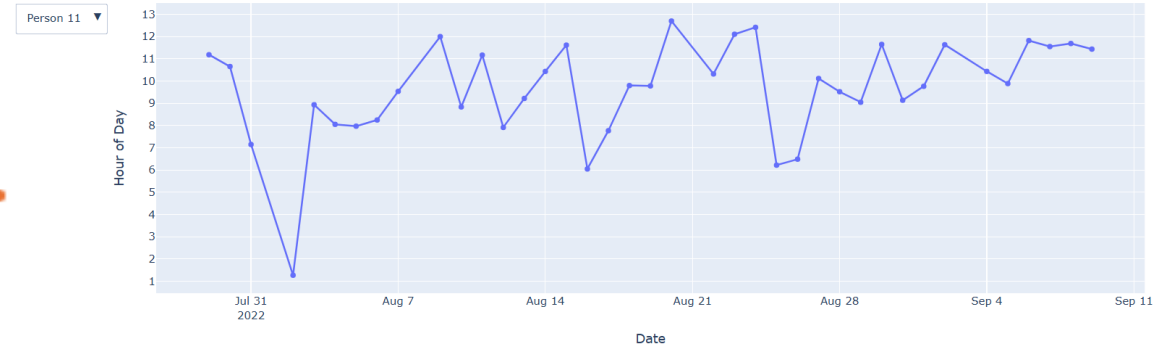Leisure time drives higher screen-time on weekends.
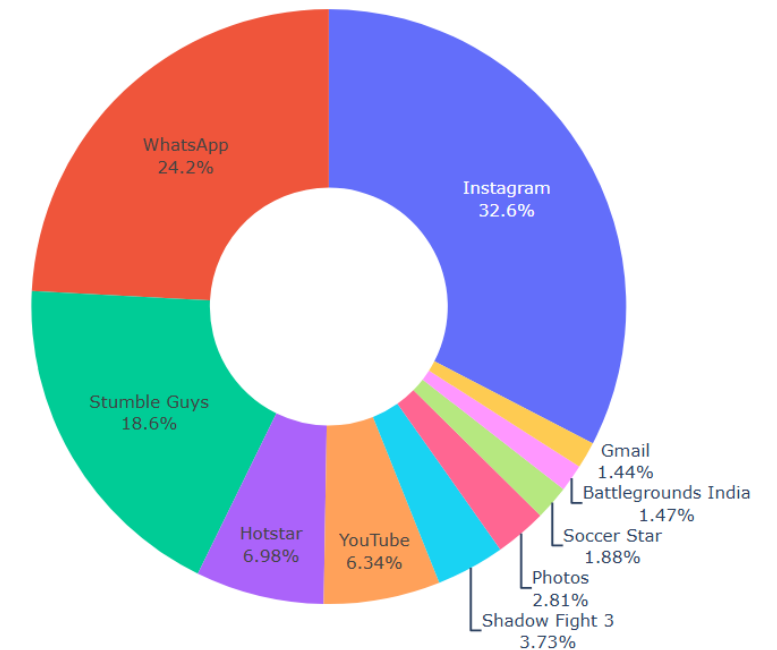
Top 5 Most Used Apps (Global)

- **Content:**
- Global app ranking by total screen time.
- Social & media apps dominate usage share.

Top 5 Most Used Apps (Global)

Individual User Usage

- Individual-level insights reveal unique patterns
- For example, Person 11 spends the most time on Instagram, followed by WhatsApp and gaming apps like Stumble Guys.

Key Findings & Insights

🎬 📱 Social media & video streaming dominate total usage.

⌚ 🏙️ Peak screen-time in evenings and weekends.

🛏️ 💤 Sleep detection aligns with regular daily cycles.

👥 High inter-user variation — possible lifestyle correlation.

Future Scope

PREDICT NEXT-DAY USAGE USING ML MODELS.

CLUSTER USERS BY DIGITAL HABITS.

CORRELATE SCREEN-TIME WITH PRODUCTIVITY OR MOOD.

Thank You