# Tittle: Mobile Device Usage and User Behavior Dataset

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**ABOUT DATASET :**

This dataset provides a comprehensive analysis of mobile device usage patterns and user behavior classification. It contains 700 samples of user data, including metrics such as app usage time, screen-on time, battery drain, and data consumption. Each entry is categorized into one of five user behavior classes, ranging from light to extreme usage, allowing for insightful analysis and modeling.

**KEY FEATURES:**

* User ID : Unique identifier for each user.
* Device Model : Model of the user's smartphone.
* Operating System : The OS of the device (iOS or Android)
* App Usage Time : Daily time spent on mobile applications, measured in minutes.
* Screen On Time: Average hours per day the screen is active.
* Battery Drain: Daily battery consumption in mAh.
* Number of Apps Installed: Total apps available on the device.
* Data Usage: Daily mobile data consumption in megabytes.
* Age : Age of the user.
* Gender : Gender of the user (Male or Female).
* User Behavior Class: Classification of user behavior based on usage patterns (1 to 5).

**PROBLEM STATEMENT:**

1. Analyzing mobile user behavior patterns
2. Building predictive models for app usage
3. Conducting research on mobile technology and user engagement
4. Developing insights into battery and data consumption trends
5. Top 5 Category Sales Percentage
6. Gender Wise Custom Distribution
7. Which was the best year for sales
8. Top Selling Product by Category
9. Bottom Selling Product by Category

**Data Preprocessing**

1. **Data Cleaning**: Handle missing values and ensure data consistency.
2. **Normalization**: Normalize numeric features if required.
3. **Encoding Categorical Variables**: Encode categorical variables using one-hot encoding or label encoding.

**Implementation Steps**

1. **Data Ingestion**: Load the dataset into a data analysis environment (e.g., Python).
2. **Preprocessing**: Clean and prepare the data for analysis.
3. **Exploratory Data Analysis (EDA)**: Conduct EDA to understand data distribution and initial patterns.
4. **Visualization**: Create visualizations to communicate insights effectively (e.g., genre distribution, yearly trends, rating distributions).
5. **Reporting**: Summarize findings in reports or dashboards for stakeholders.

**DATASET:**

# Mobile Device Usage and User Behavior Dataset

**Technologies:**

Pandas, Matplotlib , Seaborn , Numpy

MS-Office

**Software Requirements:**

**Operating System**: Windows

**IDLE**: Jupyter Notebook, VS Code

**Hardware Requirements:**

**RAM**: Minimum 4GB, recommended 8GB

**Processor**: Minimum Intel i3, recommended Intel i5