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Netflix

Dataset Analysis

**Dataset Overview**

1. **Source:** The dataset used for this analysis was generated using Mockaroo, a data generation tool that simulates realistic data for analysis purposes.
2. **Attributes:** The dataset contains multiple attributes, including User ID, Username, Subscription Date, Preferred Genres, Total Watch Time, Account Status, Device Type, and more. These attributes provide insights into user behavior and preferences on the Netflix platform.
3. **Data Size:** The dataset comprises 1000 records, offering a substantial sample for analyzing user engagement trends and patterns.
4. **Purpose:** The primary objective of this analysis is to examine user engagement levels, content preferences, and streaming habits to derive meaningful insights that can enhance user experience and business strategies.

**Attributes**

* **user\_id:** A unique numerical identifier assigned to each user in the dataset.
* **username:** The display name chosen by users while setting up their accounts.
* **subscription\_date:** The date on which the user subscribed to the Netflix service.
* **watched\_genres:** A list of the genres that users prefer to watch, including categories like Action, Comedy, Sci-Fi, Horror, and Drama.
* **watched\_duration:** The total number of hours a user has spent watching content on Netflix.
* **account\_status:** The current status of a user's account, which can be Active, Inactive, or Suspended.
* **device\_type:** The type of device used to access Netflix, such as a Tablet, Smartphone, Smart TV, or Laptop.
* **recommendation\_score:** A numerical rating assigned by Netflix’s algorithm to suggest content to users based on their watch history.
* **watched\_movies:** The total number of movies a user has watched on the platform.
* **language\_preference:** The preferred language selected by the user for watching content.
* **age\_group:** The age category a user falls into, such as Teenager, Young Adult, Adult, or Senior.
* **watched\_series:** The total number of series episodes watched by the user.

**Dashboard Overview**

* **Created using:** The dashboard was developed using Tableau, a powerful data visualization tool that enables interactive data exploration.
* **Key Visuals:**
  + **Watch Time by Genre (Bar Chart):** A visualization representing the total watch time for each genre, helping identify the most popular content types among users.
  + **Subscription Trends (Bubble Chart):** A graphical representation showing subscription patterns over time, indicating user growth and retention trends.
  + **Account Status Distribution (Pie Chart):** A pie chart that displays the proportion of active, inactive, and suspended accounts, highlighting user retention issues.
  + **Device Usage (Bar Chart):** A bar chart illustrating the distribution of device types used by users to stream content, revealing platform preferences.
* **Interactive Filters:** The dashboard includes filters that allow users to explore the data dynamically based on Age Group, Device Type, and Account Status, making it easier to analyze trends across different demographics.

**Key Insights**

* **Popular Genres:** Sci-Fi and Horror emerge as the most-watched genres, suggesting a strong audience preference for these categories.
* **Device Preference:** A significant portion of users access Netflix via Smartphones, indicating the importance of mobile-friendly experiences.
* **User Growth:** The number of active users has increased substantially in recent years, reflecting a growing subscriber base and the effectiveness of Netflix’s content strategy.
* **Engagement Levels:** Older age groups tend to have lower engagement levels compared to younger users, which may indicate the need for more targeted content for mature audiences.
* **Impact of Recommendations:** Users with higher recommendation scores tend to have longer watch durations, suggesting that Netflix’s recommendation engine plays a crucial role in user engagement.

**Conclusion & Recommendations**

* **Subscription Growth & Retention:** While Netflix continues to attract new subscribers, retaining users remains a critical factor for long-term success. The company should focus on improving retention strategies.
* **Enhancing Recommendations:** By refining its recommendation algorithms, Netflix can better match content to user preferences, thereby increasing engagement and watch time.
* **Targeted Content for Older Users:** Since older age groups exhibit lower engagement, Netflix can develop personalized content and marketing strategies to cater to their interests.
* **Improving Mobile Experience:** Given the high number of mobile users, optimizing the mobile app for a seamless streaming experience can significantly enhance user satisfaction and retention.
* **Future Work:** In future analyses, leveraging AI-driven insights can provide deeper predictions on user behavior, enabling more personalized content recommendations and marketing strategies.