Problems and background

Problem Statement:
In light of the dynamic landscape of mobile applications, this analysis aims to glean insights pertinent to future business strategies and mobile app development. Spanning from June 2012 to February 2019, this study leverages historical data sourced from the Google Play store to understand trends in mobile app categories, usability, and user expectations.

Background:
The proliferation of mobile apps has revolutionised the digital landscape, necessitating a deeper understanding of user preferences and market dynamics. To address this, the dataset encompasses crucial metrics including app names, categories, Android versions, ratings, reviews, instals, app size, last update, and current version.

Project scope

This project entails analysing historical data from the Google Play store (June 2012 - February 2019) to derive insights for future mobile app strategies. It involves data collection, cleaning, and EDA to understand trends in app categories, Android versions, ratings, and instals. Key objectives include identifying the most utilised Android version, popular app categories, apps with 5-star ratings, and the top 10 highest-rated apps. Insights will be presented through visualisations and reports to guide stakeholders in strategic decision-making and business growth.

Methodology

1. **Data sources: This is collected from the kaggle platform.**

2. **Data wrangling: Understand and clean the collected data, including data understanding, cleaning, merging, and manipulation.**

3. **Data analysis: Analyse the dataset to identify trends and patterns in mobile app availability, usability, and user expectations.**

4. **Data visualisation: Visualise the findings to communicate insights effectively and aid in decision-making processes.**

Technical Processes

- Formulas used: Min, Sum, Max, Average, Vlookup, Count, Filter, Pivot table, Graphs
- Pandas Data Cleaning

Business Concepts Used

Market Understanding:Analysing market trends, competitors, and consumer preferences to gain insights into the target audience and industry dynamics.

Customer Demographic:Understanding the demographic profile of customers, including age, gender, location, and interests, to tailor products and services effectively.

Customer Behaviour:Examining customer interactions, purchasing patterns, and engagement metrics to identify trends, preferences, and areas for improvement.

Customer Retention:Implementing strategies to retain existing customers by enhancing satisfaction, addressing grievances, and providing personalised experiences.

New Customer Acquisition: Developing initiatives to attract new customers through targeted marketing campaigns, promotions, and product innovations.

Recommended Analysis:

Q.1 **Which is the most used Android Version?**

→ Among the various Android versions, "4.1 and up" emerges as the most prevalent, with a count of 2451 occurrences. This suggests that a significant number of Android devices are running on this particular version.

Q.2 **Which all categories of mobile apps are existing from this dataset?**

→ Within the realm of mobile app categories, "FAMILY" stands out as the most abundant, boasting a count of 1972 instances. This prevalence indicates a considerable presence of family-oriented applications within the dataset, showcasing a significant user interest in this category.

Q.3 **Which is the most installed category of mobile apps from this dataset?**

→ The "GAME" category stands out as the most installed, representing approximately 20.93% of total installations.
→ Following "GAME," the "COMMUNICATION" category holds a significant share of instals, with 19.48%.
→ "PRODUCTIVITY" apps rank third in popularity, comprising 8.46% of total installations.
→ "SOCIAL" and "TOOLS" categories also garner substantial attention, with 8.39% and 6.83% of instals, respectively.
→ Other categories in the top 10 include "FAMILY," "PHOTOGRAPHY," "NEWS_AND_MAGAZINES," "TRAVEL_AND_LOCAL," and "VIDEO_PLAYERS," each contributing to the diverse app landscape based on user preferences and interests.

Q.4 How many total categories are there?

→ There are a total of 33 categories.

Q.5 Which are the top 10 mobile apps based on Ratings?

→ The top 10 mobile apps based on ratings are determined by the count of ratings received by users. ROBLOX holds the highest rating count, indicating its popularity among users. Following closely behind are apps like CBS Sports App, ESPN, and 8 Ball Pool, which also boast a significant number of ratings. These ratings reflect user satisfaction and engagement with these apps, making them prominent choices in the mobile app landscape.

Q.6 Which apps have got 5-star ratings?

→ A total of 271 applications have received 5-star ratings.

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