DATA ANALYTICS REPORT

EXPLORATORY DATA ANALYSIS OF ADVERTISING CAMPAIGNS ON TECH PLATFORMS

Campaign Trends, Performance & Audience Behavior

TOOLS USED

Python, Pandas, Matplotlib, Seaborn & Plotly

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PROBLEM STATEMENT & OBJECTIVE

Problem Statement:

The Digital Advertising landscape features thousands of campaigns across diverse platforms and formats, making it challenging to identify trends, understand audience engagement and determine which campaigns achieve the greatest impact.

Objective:

To explore the digital advertising campaign performance dataset and uncover patterns, insights, and trends that can help marketers and businesses optimize their campaigns and improve ROI.

EDA WORKFLOW

For this analysis, a structured workflow was followed, involving data collection, understanding, cleaning, exploration, and summarization of insights to allow a clear understanding of the dataset and its trends.

01 Data Collection

- Gathered the Google Play Store dataset from Kaggle

02 Data Understanding & Anomaly Detection

- Looked at data distributions
- Found missing values, outliers, and unusual patterns

03 Data Cleaning & Treatment

- Fixed missing or incorrect values
- Standardized formats for consistency

04 Exploratory Analysis

- Univariate Analysis: eg. Platform, Device_Type, Audience Category etc.
- Bivariate Analysis: Impressions vs Clicks
- Multivariate Analysis: Conversion Rate vs Creative Format vs Device

05 Insights & Reporting

- Summarized patterns and trends
- Highlighted key findings for developers and businesses

KEY QUESTIONS EXPLORED

- Which categories dominate the Play Store, and where is competition highest?
- What is the distribution of Free vs Paid apps across categories and ratings?
- Who are the target audiences of apps (content rating distribution)?
- How do app sizes vary, and what is the optimal size range?
- How do app ratings behave across categories, review volumes, and time?
- What monetization models work best by category and audience?

DATA OVERVIEW

The dataset provides key information about Google Play Store apps, including ratings, reviews, installs, price, category, and type. Additional details like content rating, genres, app size, last update, and Android version capture app characteristics and trends.

Data Source: Kaggle

Dataset Size

10000
Records

41
Features

Campaign Diversity

70,53,92,230
Impressions

6
Platforms

6
industry Verticals