

Google Play Store Analysis with Python

Introduction:

The Google Play Store Analytics project provides insights into app performance, user behavior, and market trends. It aids app developers, marketers, and business analysts in making data-driven decisions, optimizing app strategies, and improving user engagement.

Background:

The project involves analyzing Google Play Store data through data cleaning, transformation, exploratory data analysis (EDA), sentiment analysis, and interactive dashboard creation. The goal is to extract meaningful insights from the data to support business decisions.

Learning Objectives:

- Utilize Python libraries: Pandas, NumPy, Plotly, and Scikit-learn.
- Perform sentiment analysis using NLTK.
- Create interactive visualizations with Plotly.
- Integrate visualizations into web applications using HTML.

Activities and Tasks:

Data Loading and Cleaning:

- Cleaned Google Play Store data using Pandas.
- Handled missing values, duplicates, and data type inconsistencies to ensure data reliability.

Data Transformation:

- Created new features like log-transformed install counts and categorized ratings.
- Calculated revenue metrics for deeper insights into app performance.

Exploratory Data Analysis (EDA):

- Visualized trends in app categories, ratings, and reviews.
- Highlighted top-performing app categories.

Sentiment Analysis:

- Performed sentiment analysis on user reviews using NLTK.
- Determined sentiment polarity (positive, negative, neutral) and its impact on app metrics.

Interactive Visualization and Dashboard Creation:

- Built dynamic visualizations with Plotly.
- Integrated visualizations into web applications using HTML.
- Designed a user-friendly dashboard for key insights.

Skills and Competencies:

- Data Analysis and Visualization
- Sentiment Analysis

- Dashboard Development
- Python Programming
- Web Application Integration

Challenges and Solutions:

- Data Quality Issues: Addressed missing and inconsistent data by applying cleaning techniques.
- Complex Visualizations: Used advanced Plotly features for better visual representation.

Outcomes and Impact:

- Generated insightful reports supporting app developers and marketers.
- Improved understanding of app market trends.
- Enhanced skills in data analysis, visualization, and sentiment analysis.

Conclusion:

The Google Play Store Analytics project provided a comprehensive learning experience in data analysis, sentiment analysis, and interactive visualization. It strengthened technical skills while contributing valuable insights for decision-making in the app ecosystem.