**Architecture Document - Android App Market Analysis**

**Overview**

The Architecture Document outlines the structure and components of the Android App Market Analysis project. This document provides insights into how data was processed, analyzed, and visualized to gain valuable insights from the Google Play Store dataset.

**Project Components**

1. **Data Collection:**
   * The dataset of 10k Play Store apps was sourced from Kaggle.
2. **Jupyter Notebook Environment:**
   * The analysis was performed in Jupyter Notebook using Python.
3. **Python Libraries:**
   * Key libraries utilized include Pandas, NumPy, Matplotlib, and Seaborn.

**Data Flow**

1. **Data Loading:**
   * The dataset was loaded into the analysis environment using Pandas.
2. **Data Cleaning:**
   * Data cleaning steps included handling missing values, converting data types, and standardizing values.
3. **Exploratory Data Analysis (EDA):**
   * Exploring data distribution, correlations, and generating visualizations to uncover insights.
4. **Sentiment Analysis:**
   * Incorporating sentiment analysis using the "googleplaystore\_user\_reviews.csv" dataset.

**Interaction Flow**

1. **Data Loading and Preprocessing:**
   * The dataset "googleplaystore.csv" was loaded into Pandas DataFrames.
2. **Data Cleaning and EDA:**
   * Data underwent cleaning, including addressing missing values and anomalies.
   * EDA was performed through correlation analysis and visualizations.
3. **Sentiment Analysis:**
   * Integrating user reviews data from "googleplaystore\_user\_reviews.csv."
   * Preprocessing sentiment data for analysis.
4. **Visualization and Reporting:**
   * Visualizations were generated using Matplotlib and Seaborn.
   * Insights from analysis were presented using bar plots, heatmaps, and distribution plots.

**Deployment Strategy**

* The analysis was conducted within the Jupyter Notebook environment.
* No deployment strategy was pursued as the analysis was conducted for insights and not for application development.

**Scalability and Future Enhancements**

* The analysis can be expanded by incorporating additional datasets for a more comprehensive understanding.
* Future enhancements may include creating a web-based dashboard for interactive visualization.