Google App Store Dataset Analytics

Author- Varun Kumar Singh

Objective:

Finding key metrics and factors and show the meaningful relationships between attributes present in the dataset..

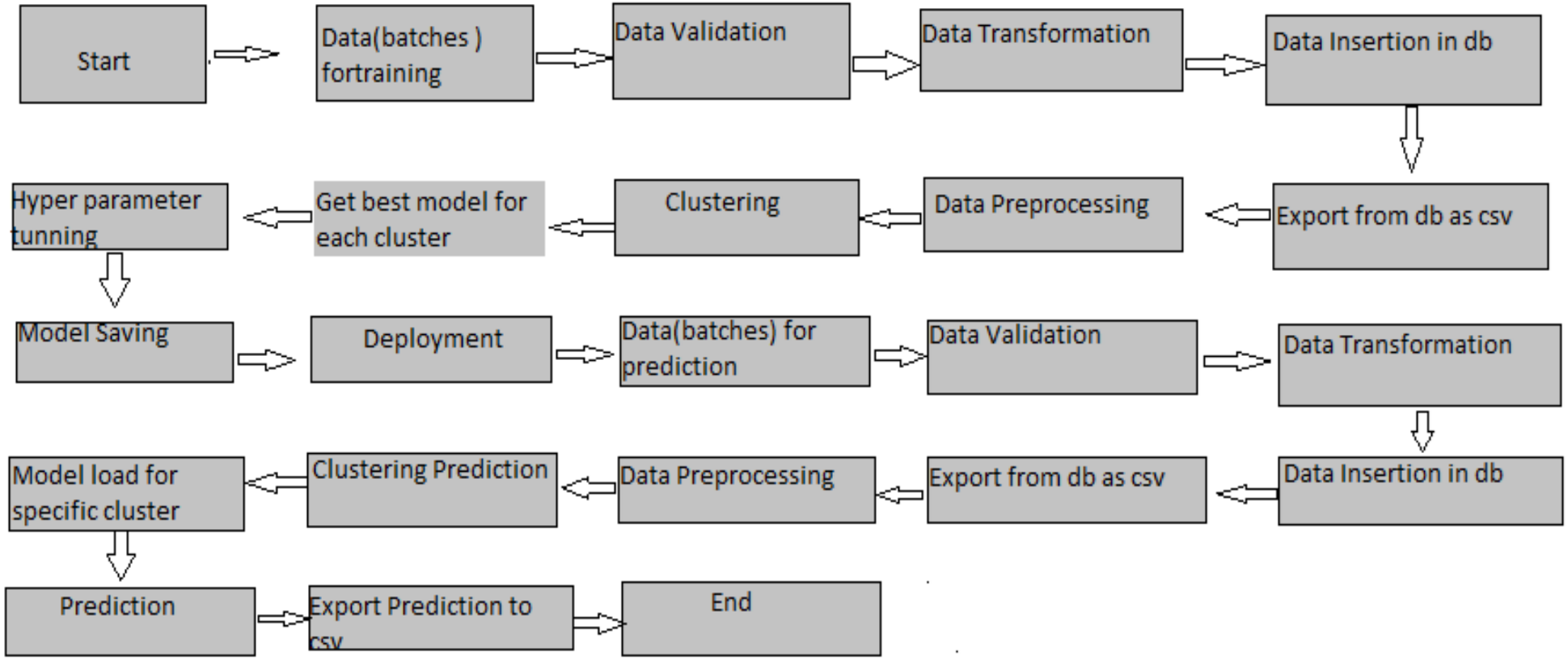
Benefits:

- Most famous app in the category
- Average app size
- Relation between category and reviews.
- Installs in every category.
- Content rating and count.
- Top genre and their number of installs.
- Distribution of rating.
- Ratio of paid and free apps in each category
- Sentiment review count in each category.

Data Sharing Agreement :

- Sample file name (Googleplaystore, Googleplaystore_user_review)
- Dataset has 10841 rows and 13 columns.
- Column names(App, Category, Reviews, Size, Installs, Type, Price, Content rating, Genres, Last updated, Current ver and Android ver.)
- Column data type(Object, Float64 and int64)

Architecture



Data Validation and Data Transformation :

- Name Validation - Validation of files name as per the DSA.
- Number of Columns – Validation of number of columns present in the files.
- Name of Columns - The name of the columns is validated and should be the same as given in the schema file.
- Data type of columns - The data type of columns is given in the schema file. It is validated when we insert the files into Database. If the datatype is wrong, then it is transformed using Python libraries such as Pandas and NumPy.
- Null values in columns - If any of the columns in a file have all the values as NULL or missing it is filled or cleaned by python code and its libraries.

Model Training:

- Data Export from Database:

  The accumulated data from database is exported in csv format for model training

- Data Preprocessing
  - Performing EDA to get insight of data like identifying distribution , outliers ,trend among data etc.
  - Check for null values in the columns. If present impute the null values.
  - Encode the categorical values with numeric values.
  - Perform Standard Scalar to scale down the values.

Q & A:

Q1) What's the source of data?

The data for EDA process is provided by the company.

Q 2) What was the type of data?

The data was the combination of numerical and Categorical values combined in csv format.

Q 3) What's the complete flow you followed in this Project?

Refer slide 5th for better Understanding

Q 4) After the File validation what you do with incompatible file or files which didn't pass the validation?

Files like these are moved to the Achieve Folder and a list of these files has been shared with the client and we removed the bad data folder.

Q 5) How logs are managed?

We are using different logs as per the steps that we follow in validation and modeling like File validation log , Data Insertion ,Model Training log , prediction log etc.

Q 6) What techniques were you using for data pre-processing?

- Removing unwanted attributes
- Visualizing relation of independent variables with each other and output variables
- Checking and changing Distribution of continuous values
- Removing outliers
- Cleaning data and imputing if null values are present.
- Converting categorical data into numeric values.
- Scaling the data