| **Project Title** | **Product Review Analysis - FlipKart/Amazon** |
| --- | --- |
| **Technologies** | **Machine Learning & NLP** |
| **Domain** | **FMCG** |

**Problem Statement:**

Customer reviews & feedback are crucial for any product in the market. Product reviews & feedback from customers play a pivotal role in enriching the product's quality & alongside meet the market expectations. It is easy for any seller to get reviews through one-one conversations with customers if the product is sold in offline stores, but it is difficult to retrieve & analyse the same reviews if the same product is sold online.

E-commerce is one of the booming industries & is a one-stop destination for various sellers to market & sell their products online to attract a larger market. Given a set of customer reviews of each category (camera, battery, display, value for money, performance) for a mobile that is live on an e-commerce platform like (Flipkart/Amazon. etc):

1) Categorize & analyse the reviews to calculate the percentage of positive & negative reviews.

2) Calculate the total rating on a scale of 5 for each category.

3)Create a Ranking table for each Mobile phone based on each category and overall ranking.

**Approach:**

The classical machine learning tasks like Data Exploration, Data Cleaning, Feature Engineering, Model Building and Model Testing. Use Natural Language Processing for analysing the reviews.

**Results:**

Develop a machine learning model to analyse & calculate the percentage of positive & negative reviews. Model should also result in a total rating score on a scale of 5.

**Dataset:**

Sample Dataset\_Link: [Data set](https://docs.google.com/spreadsheets/d/1Ys4y0KGXDffHyXzpcnvDeqEG_Yt0ugr7wRV5_hxCF2E/edit?usp=sharing)

**About Dataset**

Dataset contains the product reviews pertaining different categories like camera, battery, display, value for money, performance.

**Note:**

After completion of all the task you need to create a PowerPoint presentation

That should contain the:

1. Problem Statement

2. Tools Used

3. Approaches

4. EDA Insights

5. Best ML Model

6. Evaluation Metrics of Model

7. Future Development