SENTIMENT MINING OF AMAZON PRODUCT REVIEWS

CMPE-256 Term project

Under the Guidance of – Prof M.Eirinaki

Team Senti-Map - GitHub

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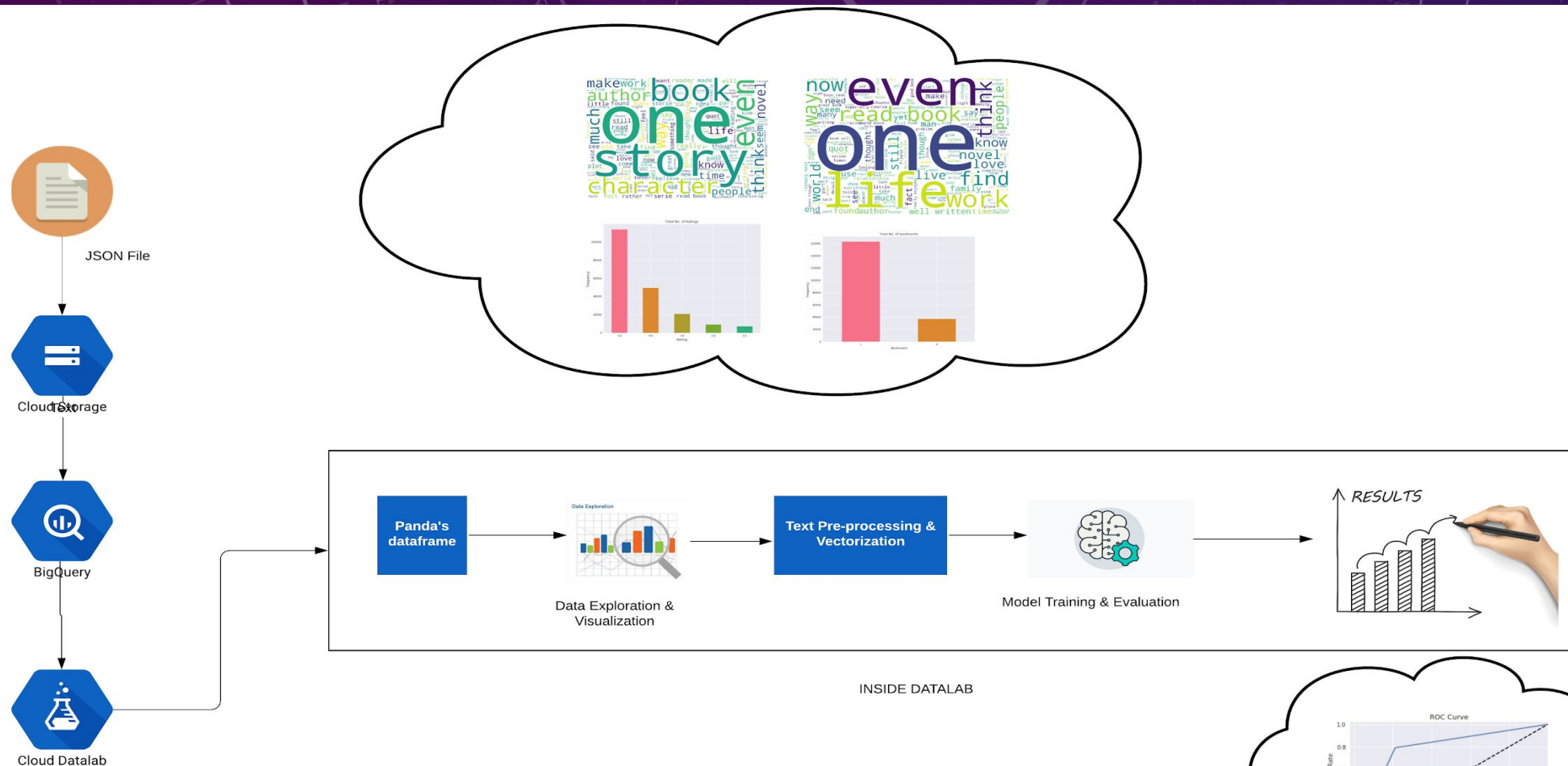# DATASET

PROBLEM SOLVED

REVIEWS

8.9 M
Records
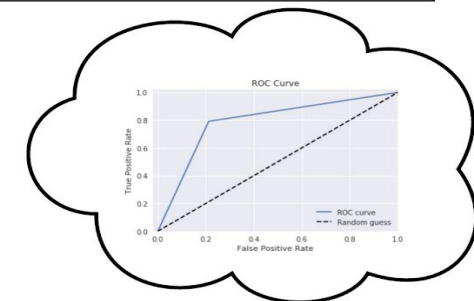
Size: 10 GB

22 M
Records

Size: 874 MB

Predict User Sentiment Using
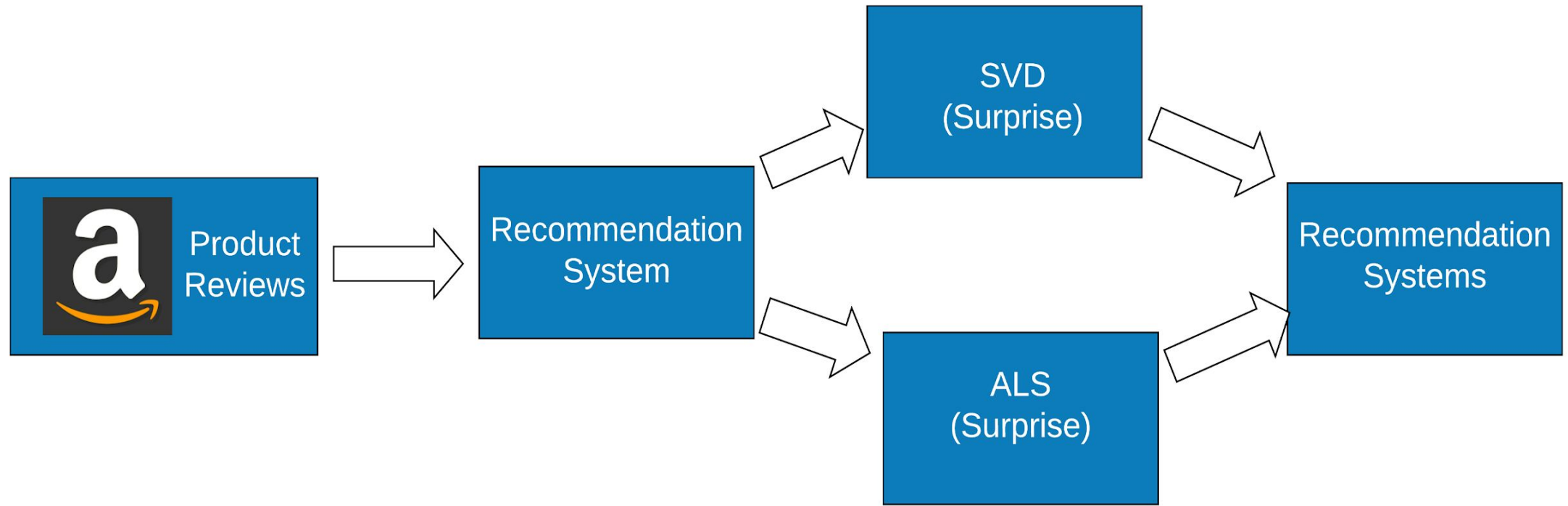Reviews

Recommend items to users

ARCHITECTURE - 1

Module 1 System Architecture
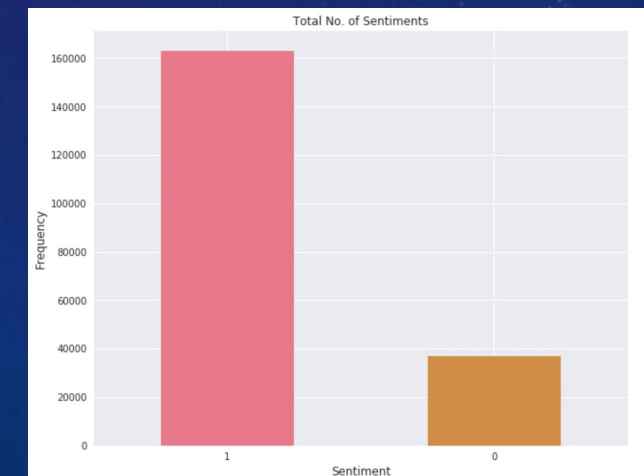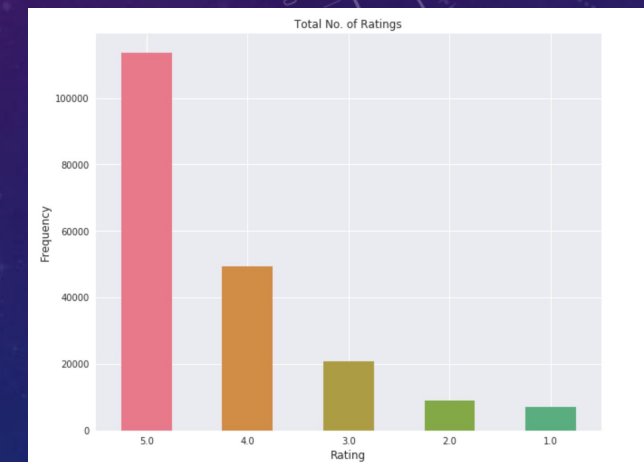
ARCHITECTURE - 2
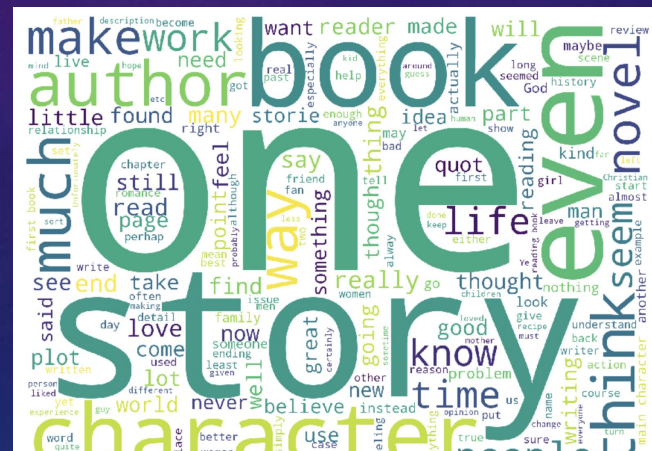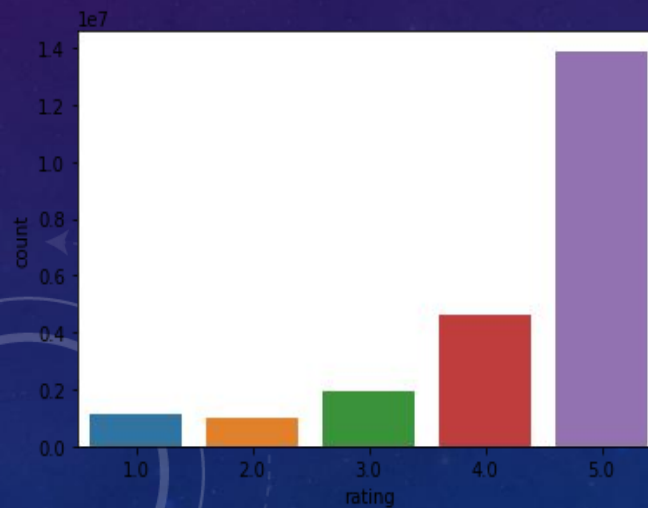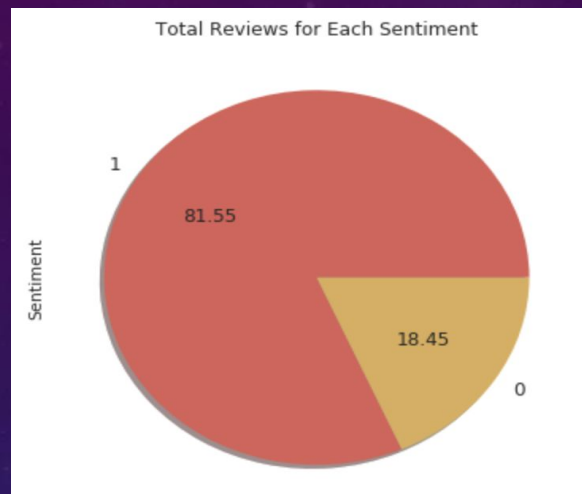

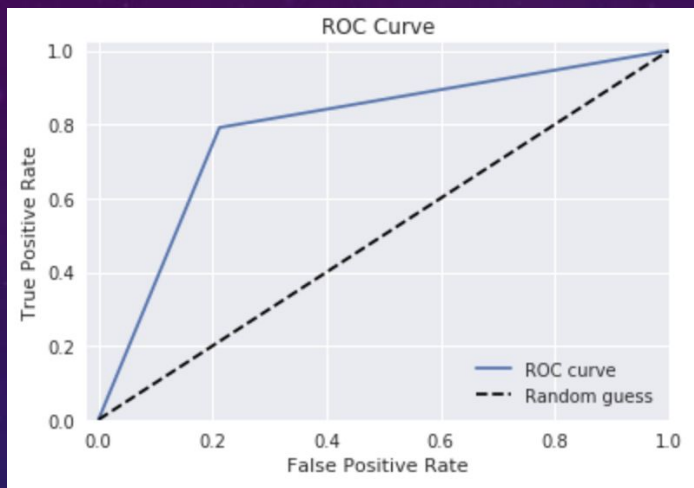Module 2- System Architecture

SOLUTIONS

SENTIMENT ANALYSIS

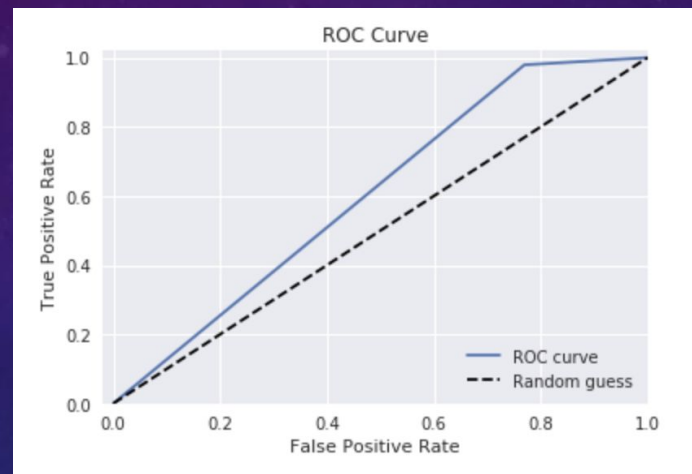- Text- Processing
- TF-IDF
- Classification

RECOMMENDER SYSTEM

- Singular Value Decomposition
- Alternating Least Squares
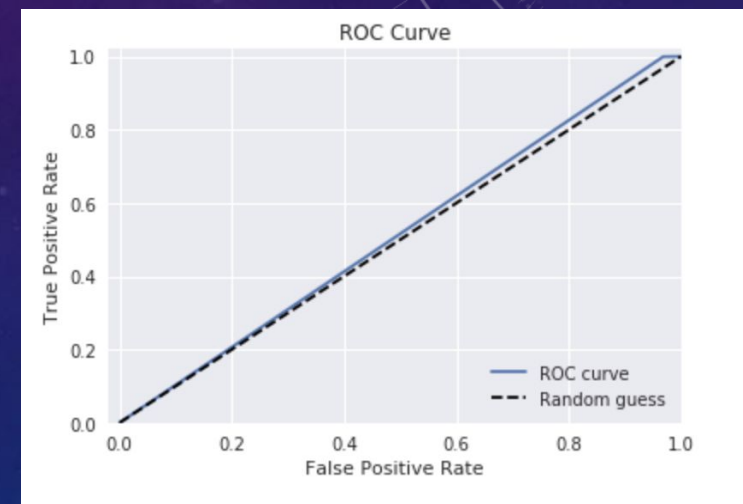
VISUALIZATIONS

EVALUATIONS & RESULTS

ROC Curve for Logistic Regression

ROC Curve for Random Forests

ROC Curve for Multinomial Naive Bayes

CONCLUSIONS

Module 1

- Very large dataset
- Imbalanced Dataset
- Inconsistent Google Datalab session
- Data Visualization, Word Cloud, Text-Clustering, Model Training & Evaluations

Module 2

- Google Colab crashed for dataset > 1M
- Faced issues while implementing Apache Spark
- ALS & SVD both performed well for sample size of 1M
- ALS was faster on dataset size of 10M

Thank you for listening!

QUESTIONS?
ALWAYS
WELCOME!