

Model Training (Predictive and Descriptive Analysis)

| Goal | Model Type | Algorithm | Inputs (Features) | Output |
|------------------------------------|----------------|------------------------------------|--|----------------------|
| Predict app popularity (installs) | Regression | Linear Regression, Random Forest | Rating, Reviews, Price, Category, Year | Predicted installs |
| Predict user satisfaction (rating) | Regression | XGBoost | Type, Installs, Reviews, Price | Predicted rating |
| Cluster apps by market behaviour | Clustering | K-Means | Installs, Ratings, Reviews | Market segments |
| Identify review topics | NLP | LDA Topic Modelling | Text reviews | Top concern clusters |
| Classify app success (High vs Low) | Classification | Logistic Regression, Decision Tree | Category, Reviews, Type | Success label |

Tools and Technologies

| Category | Tool | Use |
|---------------|------------------------------|---------------------------------------|
| Data Handling | Python (Pandas, NumPy) | Cleaning and feature engineering |
| Visualization | Seaborn, Plotly, Dash | Interactive graphs |
| Modeling | scikit-learn, XGBoost, spaCy | Regression, classification, NLP |
| Collaboration | GitHub, Google Colab | Code versioning and team tracking |
| Documentation | Google Docs, Notion | Project reports and literature review |