**PROJECT INDEX**

1.Introduction

* Project goals and objectives
* Overview of recommendation systems

2. Data Understanding

* Overview of datasets used (books, users, ratings)
* Data attributes and their roles

3. Data Preprocessing

* Cleaning and filtering steps
* Handling missing values and duplicates

4. Feature Engineering

* Content-based filtering: using metadata, NLP
* Collaborative filtering: Matrix factorization (SVD)
* Association rules (optional)

5. Model Development

* Explanation of chosen algorithms (e.g., SVD, association rule mining)
* Model training process and code snippets

6. Model Evaluation

* Metrics used (RMSE, Precision, Recall)
* Cross-validation and error analysis

7. Deployment on Heroku

* Preparing the environment (requirements, Profile)
* Git commands and Heroku setup
* Verifying the deployment

8. Results and Testing

* Testing recommendations
* User interface or frontend for testing (if needed)

9. Future Improvements

* Ideas for scaling the model
* Additional features and next steps