Building an initial deep learning prototype for the Automated Review Rating system

Daily task:

Tuesday (29/7/25)

Data collection

- Collected a dataset of 2 lakh rows.
- Clean the data (remove nulls, duplicates, non-English reviews).
- Create balanced and imbalanced dataset
- Visualization of both dataset
- Save both dataset

Wednesday (30/7/25)

Data preprocessing

- Split both datasets into training and test sets
- Preprocess text (lowercasing, stopwords removal,lemmatization)
- Tokenize the dataset
- embedding

Thursday (31/7/25)

Model A training (Balanced dataset)

- Define deep learning model
- Train Model A on balanced data
- Save the trained model
- Evaluate on imbalanced dataset
- Record Accuracy, Precision, Recall, F1-Score, Confusion Matrix

Friday (1/8/25)

Model B training (Imbalanced dataset)

- Define deep learning model
- Train Model B on imbalanced data
- Save the trained model
- Evaluate on balanced dataset
- Record Accuracy, Precision, Recall, F1-Score, Confusion Matrix

Monday (2/8/25)

Build Flask UI

- UI should contain input review and it should show prediction for model A and B

Tuesday (3/8/25)

Documentation

- Process
- Model details
- Evaluation result
- UI flow
- Updating Readme

Wednesday (4/8/25)

Final review and pushing to git hub

- Final testing of Flask UI
- Push entire project to GitHub