User Guide: Bug Report Classification Tool

Files in the Repository:

- Run first Bug_Report_Classification_Bert.ipynb: Focused training and evaluation for DistilBERT.
- NB+SVM_+XG+DistilBERT.ipynb: Runs classical ML models + DistilBERT.
- tensorflow.csv / pytorch.csv: Example datasets (place in /data folder).
- results/*.csv: Output performance logs.
- requirements.pdf, replication.pdf, manual.pdf: Supporting documentation.

How to Use:

1. Install the dependencies listed in requirements.pdf.
2. Place the dataset file (tensorflow.csv or pytorch.csv) into the project directory.
3. Open the notebooks in Jupyter or Google Colab.
4. Run all cells in order.
5. Results will be printed in the output and saved to CSV files under /results.

Output:

- Average metrics across 10 runs (Accuracy, Precision, Recall, F1, AUC, Log Loss)
- Confusion matrices
- CSV logs for all models