User Manual for Bug Report Classification Tool

Setup Instructions

1. Install Python 3.6+.

2. Install dependencies (see `requirements.pdf`).

3. Ensure dataset files are placed in the `datasets/` folder.

Running the Script

To execute the classification tool, run the following command in the terminal:

```
python main.py
```

Modifying Parameters

The script processes a dataset chosen from:

- pytorch

- tensorflow

- keras

- incubator-mxnet

- caffe

Change the dataset by modifying this line (line 71) in `main.py`:

```
project = 'tensorflow'
```

Expected Output

The script prints the following metrics:

- Accuracy

- Precision

- Recall

- F1-score

- AUC (Area Under Curve)

Results are saved as a CSV file in the root directory

Saving the Model

To save the trained model, uncomment the following lines in `main.py`:

```
import joblib
joblib.dump(clf, 'xgboost_bug_report_model.pkl')
joblib.dump(tfidf, 'tfidf_vectorizer.pkl')
```