

## Requirements for Bug Report Classification

This document outlines the dependencies required to run the bug report classification script in a Jupyter Notebook environment.

### 1. System Requirements

- **Operating System:** Windows, macOS, or Linux
- **Python Version:** 3.8 or later
- **Jupyter Notebook:** Recommended for running the script interactively

### 2. Required Python Libraries

To ensure smooth execution, install the following dependencies:

```
pip install pandas numpy nltk scikit-learn seaborn matplotlib
```

#### Library Details

Library	Version (Recommended)	Description
pandas	>=1.3.0	Data manipulation and analysis
numpy	>=1.21.0	Numerical computing
nltk	>=3.6.0	Natural Language Processing toolkit
scikit-learn	>=1.0.0	Machine learning algorithms
seaborn	>=0.11.0	Data visualization
matplotlib	>=3.4.0	Plotting library

### 3. Additional Setup Instructions

#### Installing Jupyter Notebook

If Jupyter is not installed, use the following command:

```
pip install notebook
```

#### Verifying Installation

Run the following commands in Python to check if all dependencies are correctly installed:

```
import pandas as pd
```

```
import numpy as np
import nltk
import sklearn
import seaborn as sns
import matplotlib.pyplot as plt
print("All dependencies are installed correctly!")
```

#### **4. Running the Script in Jupyter Notebook**

1. Open the terminal or command prompt and type:
2. `jupyter notebook`
3. Navigate to the directory where the script is stored.
4. Open the notebook and run the cells sequentially.

This document ensures that the environment is set up correctly for bug report classification.