## CZ4045 Natural Language Processing Project - Group 12

## Sentiment Application Installation Guide

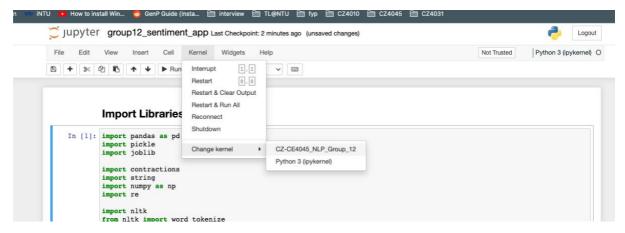
- 1. Navigate to the project root directory "CZ-CE4045\_NLP\_Group\_12/"
- 2. Install dependencies in listed in Pipfile using **pipenv** and activate virtual environment.

```
pipenv shell # activate virtual environment
pipenv install # install dependencies in virtual environment
```

3. Run "jupyter notebook" and open "group12\_sentiment\_app.ipynb"

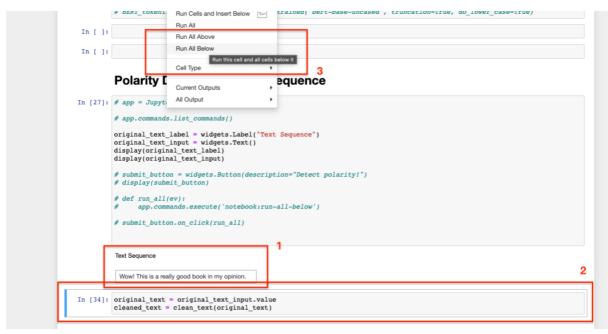
```
jupyter notebook
```

4. Switch Jupyter kernel to the activated virtual environment.



5. Run all notebook cells for the first time.

6. Input your desired text sequence, select the next cell and run all remaining cells to view the results of polarity detection by the trained models. (Note: If the UI is not showing properly, you could also input the text sequence manually.)



```
Polarity Detection on Text Sequence

In [43]: # app = JupyterFrontEnd()

# app.commands.list_commands()

original_text_label = widgets.Label("Text Sequence")
original_text_input = widgets.Text()
display(original_text_label)
display(original_text_label)
display(original_text_input)

# submit_button = widgets.Button(description="Detect polarity!")
# display(submit_button)

# def run_all(ev):
# app.commands.execute('notebook:run-all-below')

# submit_button.on_click(run_all)

In [44]: original_text = "This book is really lovely and easy to read"
cleaned_text = clean_text(original_text)
```

## Google BERT Dependencies Issue

Some dependencies that are required by the Google BERT model are not able to be installed in a **pipenv** virtual environment, therefore we ommitted it in this application.

## Viewing other notebooks

Except for the **group12\_sentiment\_app.ipynb** notebook, other Python notebooks are for read purpose only.