Annexure II

PROJECT SYNOPSIS REPORT

ON

NEXT WORD PREDICTION

SUBMITTED

TO

DEPARTMENT OF COMPUTER SCIENCE AND
ENGINEERING

FOR

INTEGRATED PROJECT (CS203)

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Problem Statement

Several people find it difficult to use appropriate words while typing anything. Develop a next word predictor which suggests appropriate words to complete a sentence easily.

Title of project

Next Word Predictor

Objective & Key Learnings

- To enable the student to understand the concept of NLP and Deep Learning.
- To understand the difference in outputs by several frameworks like BERT, XLNET, XLM-Roberta, BART, ELECTRA and ROBERTA.
- To ensure that the user won't find difficulties to use appropriate words by using the suggestions given by the word predictor.

Options available to execute the project

Requirements to execute the project :-

- Anaconda Spyder IDE
- NLP frameworks
- Understanding of Deep Learning
- HTML, CSS and JavaScript for Frontend

This project can also be executed using :-

- Jupiter Notebook
- PyCharm

Advantages and Disadvantages

Advantages :-

- increases writing fluency, allowing users to generate more writing
- provide auditory support to confirm word selection
- support vocabulary development and increase variety and complexity of words used in writing
- reduce the number of keystrokes needed and reduce writing fatigue
- provide spelling assistance

Disadvantages :-

- word prediction does not correct grammar
- the list of words that appear onscreen might distract the user and cause interruption their thinking and flow

References

- https://www.w3schools.com/ - for frontend development
- NxtWord web application - to see the working of a next word predictor
- https://github.com/ - to go through various projects developed by R and Python which gave a decent idea about the development