National College of Ireland

Configuration Manual

Sentiment Analysis using Capsules Network

MSc in Data Analytics

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MSc Project Submission Sheet
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Configuration Manual

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1 Introduction

This configuration manual covers all of the procedures necessary to replicate the proposed Sentiment Analysis using Capsules Network implementation. This paper also includes the hardware specifications and system requirements that were utilized in the study.

2 System Requirements

2.1 System Configuration

Below Figure, depicts the setup of the Dell system utilized in the study. The system is equipped with an Intel Core i5-8250U CPU, 8 GB of RAM, and a 500 GB hard drive. The computer system is Windows 10.

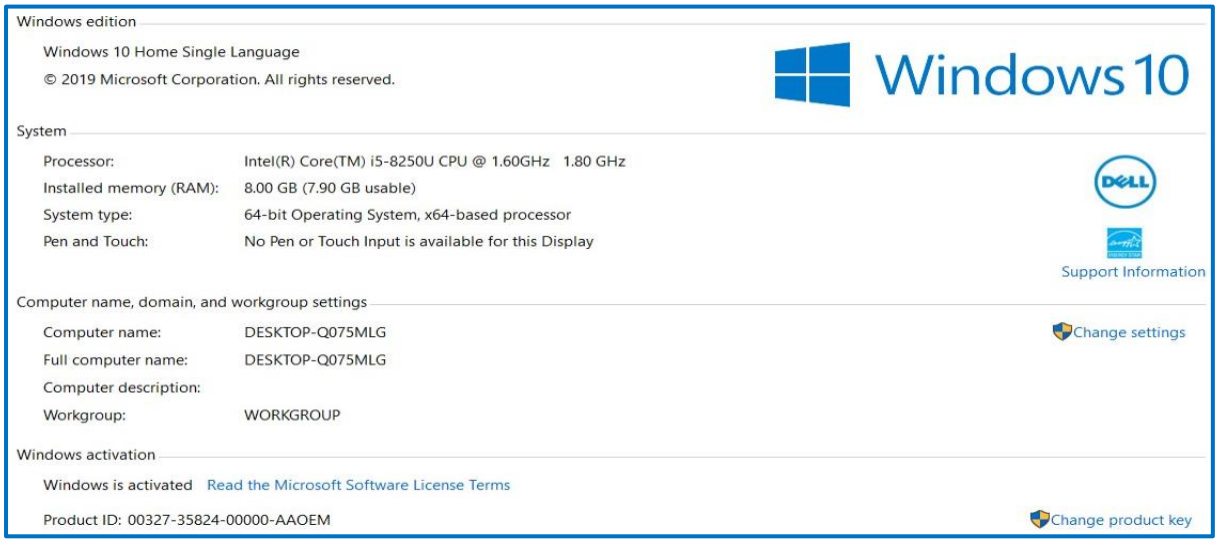

Figure 1: System Configuration

2.2 Software Configuration

Google Collaboratory is used to carry out the project. The following section summarizes all of the procedures involved in downloading and installing the required modules.

3 Environment Setup

3.1 Google Collaboratory Notebook

The system's configuration proved insufficient to run deep learning models. As a result, Google Collaboratory is utilized to execute all of the project's deep learning models effectively. To create a Google Collaboratory, follow the steps below (collab).

1. Open this link in Google Chrome window will appear.

2. Log in with a Gmail account.
3. Click on **File** and then **Upload Notebook** to use the existing Jupiter notebooks from artifacts.
4. Next click on **File** again and select **locate in drive**.
5. Download dataset provided in link for software category and upload it on the same path got from step 4.
6. Change the runtime type of the notebook after it has been created to TPU. To do so, go to Runtime and afterwards Change Runtime Type.

7. Then select **TPU** and click on Save button from dropdown.

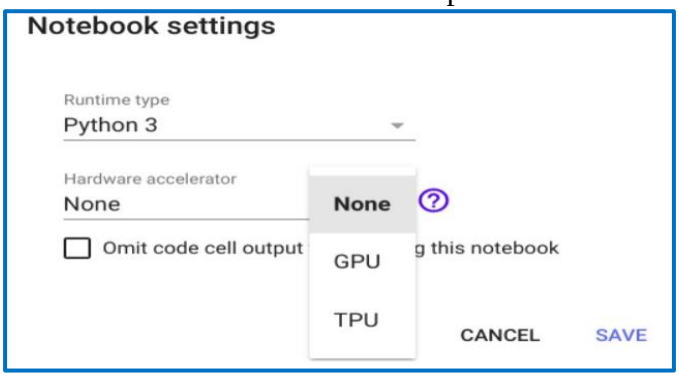

Figure 4: Runtime Settings

8. Next, select Connect to hosted runtime from the Connect button's dropdown menu.

9. Then go to runtime and click on run all.

10. After clicking on run all, in the first cell and second cell, user input is required so directions are set in the notebook itself.

11. Run below cell of code in collab and access the link by clicking on it and get the code enter in input section.

Figure 9: Code to Mount Drive

12. Next follow the instruction on consent page to access your drive files.

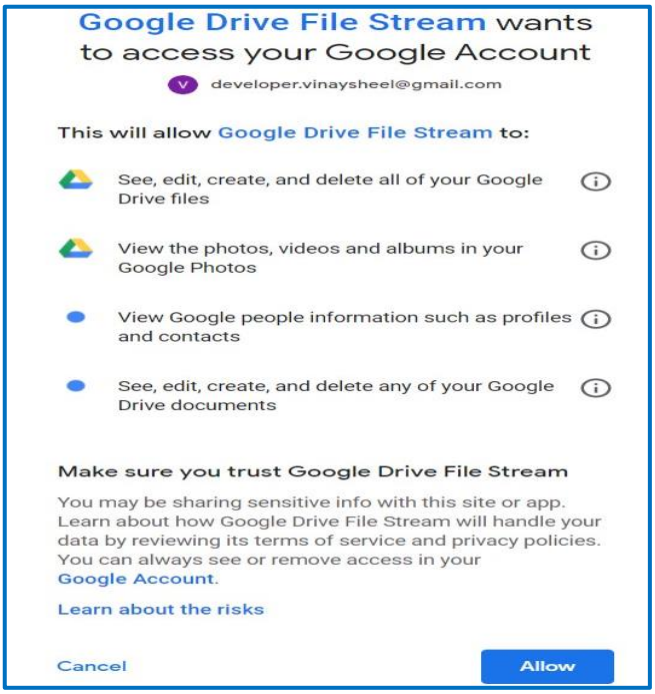

Figure 10 : Consent Page

13. In next step copy the code and paste in the drobox provide and hit enter.

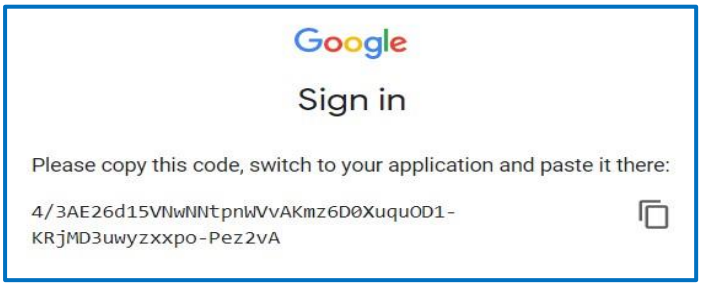

Figure 11: Authorization Code

14. Google Drive is now mounted for accessing the files.

15. Now for uninstalling TensorFlow version 2.5, user input is required. For that, type “y” in the cell user input and then hit enter.

16. Now all cell are in execution mode and wait for it to get execute.

17. Once execution is over jump to last cell and note the evaluation matrix.