Task 22 - Capstone Project (NLP): Compulsory Task 1

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Use Cases	NLP Applications	Reason
a. A model that allocates which mail folder an email should be sent to (work, friends, promotions, important), like Gmail's inbox tabs.	● Text Classification ● Sentiment Analysis	● Applying Text Classification to analyse all the available text that appears from an email received such as (i) sender email address, (ii) email subject, (ii) email content. It can identify the overall context of the email. ● Together with Sentiment Analysis, it can determine the tonality of text within the email, possible scenarios are (i) a family email using a warm and friendly tone, (ii) a use of formal English representing a business conversation, (iii) a use of exciting call-to-action with price offer keywords in a promotional email
b. A model that helps decide what grade to award to an essay question. This can be used by a university professor who grades a lot of classes or essay competitions.	● Automatic Summarization	● Automatic Summarization can efficiently help to summarize the essays received so the professor can look at these summaries to categorize them briefly into different grades and then further evaluate the special cases for an in-depth review of these works. ● However, it is important to understand the model's limitations or potential discrepancies to ensure the grading fairness
c. A model that provides assistive technology for doctors to provide their diagnosis. Remember, doctors ask questions, so the model will use the patients' answers to provide probable diagnosis for the doctor to weigh and make decisions	● Question Answering	● Question Answering can facilitate doctors to extract relevant information from a medical information database. ● Doctors can input patients' symptoms and any other conditions that they may have, and the model could extract any potential disease that is relevant to the situation. It may also look at patients' medical history as a reference. ● The model may also support the medication suggestions before the doctors spend additional time discussing them further with the pharmacists.