Compulsory Task 1

The type of NLP application applies for each of the following use-cases:

a. A model that allocates which mail folder an email should be sent to (work, friends, promotions, important), like Gmail's inbox tabs.

This case will apply a text classification method, where the NLP model classifies emails into different categories or folders based on their content. This involves training a model on labeled examples of emails assigned to specific folders (e.g., work, friends, promotions, important), and then using the trained model to predict the appropriate folder for incoming emails.

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.

The model can be trained on a dataset of essays with their corresponding grades, using techniques such as supervised learning like Linear Regression o evaluate and score the essays.

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 diagnoses for the
doctor to weigh and make decisions.

The model can be designed to interact with doctors, asking relevant questions about the patients' symptoms, medical history, and other pertinent information. Based on the patient's responses, the model can provide probable diagnoses or suggestions to the doctor, assisting them in their decision-making process. One of the ways to do it is by using decision trees.