In a file called nlp_1.pdf, categorise which 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.

Categorisation: Text Classification

The model in this use-case is responsible for categorising emails into different folders based on their content. This involves analysing the text of the email and assigning it to one of the predefined categories (work, friends, promotions, important). This task falls under the category of text classification, as it involves assigning predefined labels to text documents.

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.

Categorisation: Automated Essay Scoring

The model in this use-case is used to determine the grade or score for an essay question. It is designed to assist university professors or essay competition organizers in evaluating large volumes of essays. This task falls under the category of automated essay scoring, where the model assesses the quality and coherence of the essay and provides a corresponding grade or score.

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.

Categorisation: Question-Answering/Assistive Diagnosis

The model in this use-case assists doctors in providing diagnoses based on patients' answers to questions. It involves analysing the patients' responses and generating probable diagnoses for the doctors to consider and make decisions. This falls under the category of question-answering systems in the context of medical diagnosis, where the model understands the questions (in this case, patients' answers) and provides relevant responses or diagnoses based on its knowledge and training.