Task 22: Compulsory Task 1: 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.
Text classification: this model allows an email platform to categorise a user's inbox by, for example, directing emails that the model defines as not useful or potentially harmful to a 'junk' email folder. This can be achieved by analysing the content of the email and the sender's address. In the same way, it can also sort emails into personal, work and other categories using the text classification model.

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.
Automated essay evaluation[1]: this can also be known as **automated essay scoring**; this model works by evaluating an essay submitted by a student based on factors such as syntax, relevance, coherence and structure, amongst other factors, to produce an overall grade for the essay thus greatly reducing the workload and time expense for a professor.

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: this model allows a doctor to extract information from answers provided by a patient to improve efficiency of a diagnosis. It can cross-reference information more quickly and accurately with known conditions and patient records, reducing chances of human error. Preethi Raghavan, on her website suggests that "central to such a world is a medical question answering system that processes natural language questions asked by physicians and finds answers to the questions from all sources in a patient's record."[2]

[1] https://csuepress.columbusstate.edu/cgi/viewcontent.cgi?article=1330&context=theses_dissertations
[2] https://www.nlpsummit.org/ehr-question-answering/