

To categorize the NLP applications for the given use cases, Here's the categorization for each use case:

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

Category: Text Classification

Explanation: This use case involves categorizing emails into different folders based on their content or attributes. It requires classifying the emails into predefined categories (work, friends, promotions, important) by analysing the text.

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.

Category: Automatic summarization

Explanation: This use case involves automatically grading or scoring essays based on predefined criteria. The model analyses the content, structure, language, and other aspects of the essay to determine an appropriate grade.

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 a probable diagnosis for the doctor to weigh and make decisions.

Category: Question-Answering

Explanation: This use case involves a question-answering model tailored for medical diagnosis. It assists doctors by asking questions and utilizing the patients' answers to provide a probable diagnosis. The model helps doctors in decision-making by narrowing down potential diagnoses based on the information provided.