Compulsory Task 2

Google auto response features are not publicly disclosed but likely uses the combination of Machine learning technique and Natural language processing. Below predictions are the reference taken from the similar methodology articles. Some of the key points to consider for Gmail auto responses are

1.NLP Techniques: Natural Language Processing techniques are applied to the content of incoming emails to extract key information, such as the main topic, sentiment, and important details. NLP algorithms handle tasks like tokenization, part-of-speech tagging, named entity recognition, and sentiment analysis. These techniques provide a deeper understanding of the email content, facilitating accurate suggestions and some of the advanced NLP algorithm like Googles BERT (Bidirectional Encoder Representations from Transformers) could potentially be utilized. Recurrent Neural Networks (RNNs) are a type of neural network commonly used in NLP tasks. They can capture sequential dependencies in text data and generate contextually relevant responses. Variants like Long Short-Term Memory (LSTM) or Gated Recurrent Units (GRUs) are often employed to handle longer sequences.

2.Rule-Based Systems: This system define specific rules, templates, or patterns based on common email scenarios, keywords, or user preferences. Rule-based approaches help generate more tailored suggestions that align with specific contexts or requirements. Seq2Seq models use an encoder-decoder architecture and are widely used for tasks like machine translation and text generation.

3.Ranking and Selection: The generated response suggestions are ranked based on various factors such as relevance, coherence, and user preferences. Machine learning algorithms or heuristics can be utilized to determine the best suggestions. The highest-ranked suggestions are presented to the user for selection.