- Hello teacher and everyone, Today I appreciate you taking the time to come here. My name is Ho Minh Nhut and I am standing here to present about my project. TEXT SUMMARIZATION WITH T5 MODEL

- As you clearly know, with the exponential growth of Technology, a tremendous amount of information is available on the Internet. It is difficult for the users to read and understand the main information. Individually, in the role of the reader, I also prefer to read the summary of articles or news than the entire it in our busy lives. So I choose my topic for text summary with a machine learning model.

- First of all, let me introduce some relevant theories. T5 model is pre-trained based on Transformers. Transformers is a new Novel Neuron Network Architecture for language understanding. Natural languages processing of Transformer aims to solve tasks sequence to sequence while easy handling long distances dependencies.

- In general, Transformers model is based on encoder-decoder architecture. The encoder and decoder consist of 2 layers and 3 layers respectively.

- The early step of the model is text embedding. In this step, the input text is parsed into tokens and each token is converted to a vector via word embedding. After that, positional information is added which provides the transformer with the information where the words are in the input sequence before going to the model.

- In Encoder: it encodes the entire sequence into a fixed-length vector called context vector that contains information on which parts of the inputs are relevant to each other. And then the output encoding are passed to the next encoder as its inputs, as well as to the decoder.

- In decoder: it decodes the encodings output of the encoder layer and draws the relevant relationship to generate the output.

- T5 model stand for Text to Text Transfer Transfromer, is a Transformer based architecture that use Text to Text approach. With T5, Google proposes reframing all NLP tasks into a unified text-totext format where the input and output are always text strings. The text-to-text framework allows us to use the same model, loss

function, and hyperparameters on any NLP task, including machine

translation, document summarization, question answering, and

classification tasks

Text, letter

Description automatically generated