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GENERATIVE AI INTERNSHIP REPORT (MLSA INTERNSHIP)

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PROJECT-1 "A BASIC TEXT GENERATOR"

PROJECT-2 "SENTIMENT ANALYSIS MODEL USING AI BUILDER"

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INTRODUCTION TO GENERATIVE AI

Generative AI

Generative AI represents a breakthrough in artificial intelligence that goes beyond simple pattern recognition. These sophisticated systems dive deep into vast datasets, analyzing intricate relationships to create fresh, neverbefore-seen content - whether it's text, speech, or visual art. Unlike traditional AI that merely predicts outcomes from existing data, generative AI acts as a creative force, crafting unique outputs even when given identical inputs. Think of it as an artist that learns from countless masterpieces but creates its own original work every time.

Two types of Generative AI model:-

- 1. NLP(Natural Language Processing)
- 2. Text to Image

PROJECT-1 "A BASIC TEXT GENERATOR"

It is an AI Model which takes the text as input from the user and produces a human-like text as an output based on the user prompt.

It is a Python Program that is based on the predefined model "GPT-2".

Working:-

- 1. It uses the "transformers" library to load the pretrained model like "GPT-2"
- 2. The model defines a function that takes the prompt and maximum length as input.
- 3. The function converts the input into small tokens which are further converted into ID's for the model to easily process the input.
- 4. It then passes the ID of various tokens through various NLP's layers and generates different output tokens which are then converted into

human-like text and then are displayed as generated text.

API and Libraries Required:-

1. Transformers

- a. GPT2LMHeadModel
- b.GPT2Tokenizer

2.Torch(PyTorch)

a. It is used for running the neural network model.

Benefits:-

- 1. It automates text generation
- 2. It reduces time

Applications:-

1. It is used in Marketing, E-mail templates, etc...

PROJECT-2 SENTIMENT ANALYSIS TOOL

Overview:-

Sentiment Analysis Tool is used to automatically determine the sentiment of the text input by the user. It determines whether the text is neutral, positive or negative on the basis of probability.

This Tool is built using AI Builder of Power Automate Microsoft.

WORKING

- **1.** This tool is built by using the pre-built in sentiment analysis tool in the AI Builder of Power Automate.
- 2. The user need to add the prompt to the model.

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3.The model then determines the text sentiment based on probability.

For E.g.:-I am happy

Output:- positive-1, negative-0, neutral-0

4. The output obtained is then stored in an Excel sheet.

Requirenments:-

- 1. Microsoft Power Platform
- 2. Requires Text Data for Analysis
- 3. Power Automate Flow

Outcomes:-

- 1. It automates Sentiment Tracking.
- 2. It is used in marketing and analysing feedback

CONCLUSION

Generative AI, represents a significant leap in artificial intelligence capabilities, offering both exciting opportunities and important challenges to address as the technology continues to develop and be applied in various domains.