CREATING CHATBOT USING PYTHON

TEAM MEMBER

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Phase-2 Innovation

Project:Creating Chatbot Using Python

OBJECTIVE:

The objective of this project is to create a chatbot in Python that provides exceptional customer service, answering user queries on a website or application. The objective is to deliver high-quality support to users, ensuring a positive user experience and customer satisfaction.

Phase 1: Problem Definition and Design Thinking

1.Design Thinking:

Define the scope of the chatbot's abilities, including: - Answering common questions related to diabetes. - Providing guidance on managing health and diabetes risk. - Directing users to appropriate resources for further information and support.

2.User Interface:

Determine integration points for the chatbot (website, app). - Design a user-friendly interface for seamless interactions with the chatbot

Natural Language Processing (NLP):

Implement NLP techniques to understand and process user input in a conversational manner.

PYTHON PROGRAM:

```
import tensorflow as tf
import numpy as np
import pandas as pd
import matplotlib.pyplot as plt
import seaborn as sns
from tensorflow.keras.layers import TextVectorization
```

```
import re,string
from tensorflow.keras.layers import LSTM,Dense,Embedding,Dropout,LayerNormalizatin
df=pd.read_csv("C:\Users\Sundhar\Downloads\archive (1)\dialogs.txt" ',sep='\t',
names=['question','answer'])
print(f'Dataframe size: {len(df)}')
df.head()
```

OUTPUT:

	Question	answer
0	hi, how are you doing?	i'm fine. how about yourself?
1	i'm fine. how about yourself?	i'm pretty good. thanks for asking.
2	i'm pretty good. thanks for asking.	no problem. so how have you been?
3	no problem. so how have you been?	i've been great. what about you?
4	i've been great. what about you?	i've been good. i'm in school right now.

4. Responses:

- ❒ **Plan responses for the chatbot, including: - Accurate answers to diabetes-related queries. - Suggestions for lifestyle changes. - Assistance in accessing medical resources.**

5. Integration:

- ❒ **Decide how the chatbot will be integrated with the website or app, ensuring a smooth user experience.**

6. Testing and Improvement:

- ❒ **Continuously test the chatbot's performance through real user interactions. - Gather user feedback and data to refine the chatbot's responses and capabilities.**

DATSOURCE :

Dataset Link: https://www.kaggle.com/datasets/grafstor/simple-dialogs-for-chatbot

CONCLUSION:

In Phase 1, We have to summarizes the problem, design thinking considerations, and dataset information for developing the AI-powered diabetes prediction system. It provides a structured framework for the initial phase of the project.