# CREATING CHATBOT USING PYTHON

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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**

## 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.

## 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.**

## Responses:

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

## Integration:

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

## 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**](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.