PROJECT OVERVIEW



Project Name

Create a chatbot in Python

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Overview

Creating a chatbot in Python involves several steps, and it's important to decide on the chatbot's purpose and functionality before starting. Here's a high-level overview of the process:

1. Define the Purpose

Determine what your chatbot will do (e.g., answer questions, provide recommendations, simulate conversation).

2. Choose a Framework or Library:

You can use libraries like NLTK, spaCy, or frameworks like Rasa or ChatterBot to simplify the development.

3. Data Collection and Preprocessing:

Gather and preprocess the data your chatbot will use for training or responses.

3 . Natural Language Processing (NLP):

Implement NLP techniques for tasks like tokenization, part-of-speech tagging, and named entity recognition.

4. Training (if applicable):

If your chatbot uses machine learning, train your model with relevant datasets.

Dialog Management:

Implement logic for managing conversations, tracking context, and handling user inputs.

5. User Interface:

Decide on the user interface (e.g., command-line, web interface) for users to interact with

6. Integration with External Services (if needed):

If your chatbot needs to fetch data from external sources or APIs, implement these integrations.

Program

```
import numpy as np # linear algebra
import pandas as pd # data processing, CSV file I/O (e.g. pd.read_csv)
import os
for dirname, _, filenames in os.walk('/kaggle/input'):
 for filename in filenames:
    print(os.path.join(dirname, filename))
import re
from nltk.corpus import stopwords
import tensorflow as tf
from tensorflow import keras
from keras.preprocessing.text import Tokenizer
from keras.preprocessing.sequence import pad_sequences
import matplotlib.pyplot as plt
import seaborn as sns
sns.set_style("whitegrid")
from keras.layers import Input, Embedding, Bidirectional, LSTM, Dense, Concatenate
from keras.models import Model
Output
 question answer
O 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.