

Task4 - chatbot

```
import streamlit as st
import requests

# Set your API token and model URL
API_TOKEN = "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"
MODEL_URL = "https://api-inference.huggingface.co/models/Meta-Llama-3.1-8B-Instruct" # Try with a public model first
```

Import the necessary libraries

API_TOKEN : This variable stores the hugging face token which is required to authenticate your requests to the Hugging Face model inference API. It ensures that you have permission to access the model.

MODEL_URL: This variable stores the URL of the model interface that we want to access via Hugging face

```
HEADERS = {
    "Authorization": f"Bearer {API_TOKEN}"
}

st.title("Hugging Face Chatbot")
```

Headers: The Authorization header is set to Bearer followed by the API token (API_TOKEN). This is necessary for authenticating your API requests.

The title will display the title given to the web application webpage

```
user_input = st.text_input("You: ")

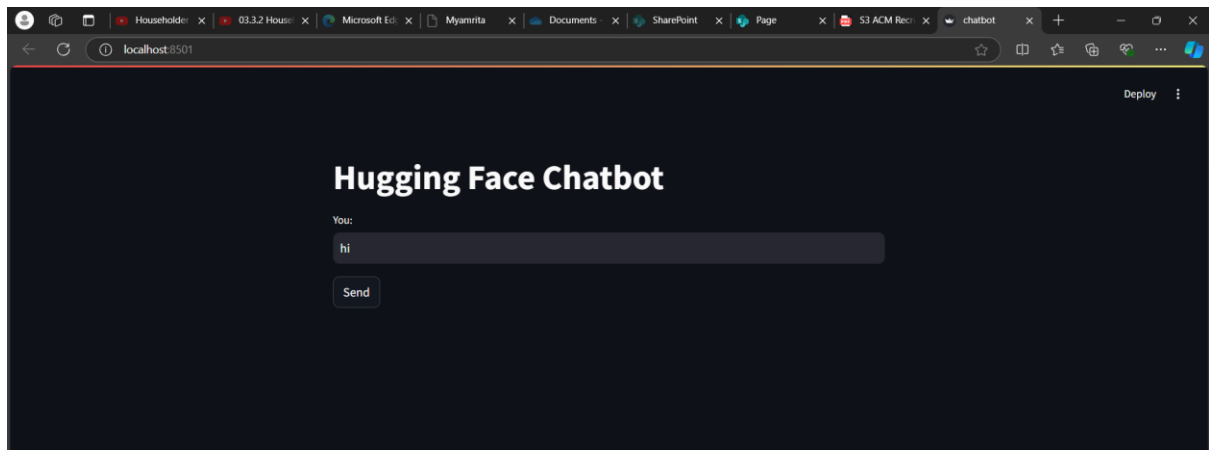
if st.button("Send"):
    if user_input.strip() == "":
        st.write("Please enter a message.")
    else:
        response = requests.post(MODEL_URL, headers=HEADERS, json={"inputs": user_input})
```

Upon pressing send , the program checks whether the input given by the user is empty , if it is then the bot says to enter a message.

If the input is not empty sends an HTTP POST request to the specified model URL (MODEL_URL). The request includes the headers defined earlier (HEADERS) and the user input as a JSON payload with the key "inputs". The requests.post function returns a response object that contains the model's response.

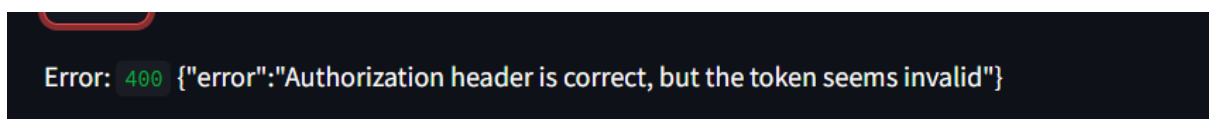
```
if response.status_code == 200:
    output = response.json()
    st.write("Bot:", output)
else:
    st.write("Error:", response.status_code, response.text)
```

If the status code returned is not 200 then the output is displayed by the bot else it shows an error message.



Problems encountered:

Due to the error encountered, I was unable to successfully complete the chatbot integration as planned



I implemented a chatbot interface using Streamlit and attempted to connect it to a Hugging Face model endpoint. The API request is made using the requests library, with the appropriate headers and input data formatted as required. However, I encountered an issue during execution.

Despite rechecking my header details and creating a new token for authentication the error persists.