**INTEGRATING CHATBOT WITH FLASK**

**CODE**

**from flask import Flask, render\_template, request**

**import pandas as pd**

**from sklearn.feature\_extraction.text import TfidfVectorizer**

**from sklearn.svm import LinearSVC**

**app = Flask(\_\_name\_\_)**

**data = pd.read\_csv('your\_dataset.csv')e**

**questions = data['Question'].tolist()**

**answers = data['Answer'].tolist()**

**vectorizer = TfidfVectorizer()**

**X = vectorizer.fit\_transform(questions)**

**y = answers**

**model = LinearSVC()**

**model.fit(X, y)**

**def chatbot\_response(user\_input):**

**input\_vector = vectorizer.transform([user\_input])**

**predicted\_answer = model.predict(input\_vector)**

**return predicted\_answer[0]**

**# Flask Routes**

**@app.route('/')**

**def index():**

**return render\_template('index.html')**

**@app.route('/get\_response', methods=['POST'])**

**def get\_response():**

**user\_input = request.form['user\_input']**

**response = chatbot\_response(user\_input)**

**return render\_template('index.html',user\_input=user\_input, bot\_response=response)**

**if \_\_name\_\_ == '\_\_main\_\_':**

**app.run(debug=True)**

**INDEX.HTML CODE**

**<!DOCTYPE html>**

**<html lang="en">**

**<head>**

**<meta charset="UTF-8">**

**<meta http-equiv="X-UA-Compatible" content="IE=edge">**

**<meta name="viewport" content="width=device-width, initial-scale=1.0">**

**<title>Chatbot</title>**

**</head>**

**<body>**

**<h1>Chatbot</h1>**

**<form action="/get\_response" method="post">**

**<label for="user\_input">You:</label>**

**<input type="text" id="user\_input" name="user\_input" required>**

**<input type="submit" value="Send">**

**</form>**

**<div>**

**<p>You: {{ user\_input }}</p>**

**<p>Chatbot: {{ bot\_response }}</p>**

**</div>**

**</body>**

**</html>**