**PROJECT: CREATE A CHATBOT IN PYTHON**

**Building The Chatbot by Integrating It into A Web App Using Flask.**

**Flask**

Flask is a micro web framework written in Python. It's often referred to as a microframework because it does not require particular tools or libraries. It has no database abstraction layer, form validation, or any other components where pre-existing third-party libraries provide common functions.

Flask is designed to keep the core of the application simple and scalable. Instead of an abstraction layer for database support, Flask supports extensions to add such capabilities to the application.

Flask allows developers to build lightweight web applications quickly and easily. It was developed by Armin Ronacher, leader of the International Group of Python Enthusiasts (POCCO). It is based on the WSGI toolkit and Jinja2 templating engine.

**Integrating it into a web app using Flask**

To install flask

* pip install flask

To import flask in python

* From flask import Flask, render\_template, request
* @app.route('/')

def index():

return render\_template('index.html')

**Create an index page using html**

<!DOCTYPE html>

<html>

<head>

<title>Chatbot Web App</title>

<link rel="stylesheet" href="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/css/bootstrap.min.css">

</head>

<body>

<div class="container mt-5">

<div class="row">

<div class="col-md-6 offset-md-3">

<div class="card">

<div class="card-header">Chatbot</div>

<div class="card-body" id="chat-container">

<div class="chat" id="chat"></div>

</div>

<div class="card-footer">

<input type="text" id="user-input" class="form-control" placeholder="Type a message...">

<button class="btn btn-primary btn-block mt-3" onclick="sendMessage()">Send</button>

</div>

</div>

</div>

</div>

</div>

<script>

function sendMessage() {

var user\_input = document.getElementById('user-input').value;

var chat\_container = document.getElementById('chat-container');

var chat = document.getElementById('chat');

var user\_message = document.createElement('div');

user\_message.className = 'alert alert-primary mt-2 text-right';

user\_message.innerHTML = user\_input;

chat.appendChild(user\_message);

chat\_container.scrollTop = chat\_container.scrollHeight;

var xhr = new XMLHttpRequest();

xhr.open('POST', '/chat', true);

xhr.setRequestHeader('Content-Type', 'application/x-www-form-urlencoded');

xhr.onreadystatechange = function () {

if (xhr.readyState === XMLHttpRequest.DONE && xhr.status === 200) {

var response = JSON.parse(xhr.responseText)['response'];

var chatbot\_message = document.createElement('div');

chatbot\_message.className = 'alert alert-secondary mt-2';

chatbot\_message.innerHTML = response;

chat.appendChild(chatbot\_message);

chat\_container.scrollTop = chat\_container.scrollHeight;

}

};

xhr.send('user\_input=' + encodeURIComponent(user\_input));

}

</script>

</body>

</html>

This is the basic index page we can design or modify index page using CSS