**AI-POWERED SPAM CLASSIFIER**

**Artificial Intelligence Phase ~ 3**

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*app.py*

*from* flask *import* Flask, render\_template, request  
*import* openai  
  
COMPLETIONS\_MODEL = "gpt-3.5-turbo"  
  
openai.api\_key = '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'  
  
  
*def* get\_response\_of\_text(prompt):  
 prompt = f"""you are a helpful assistant, answer the following question: {prompt}"""  
  
 answer = openai.ChatCompletion.create(  
 model=COMPLETIONS\_MODEL,  
 messages=[  
 {  
 "role": "system",  
 "content": prompt  
 }  
 ]  
 )["choices"][0]["message"]["content"].strip(" \n")  
  
 *return* answer  
  
  
*def* page\_not\_found():  
 *return* render\_template('404.html'), 404  
  
  
app = Flask(\_\_name\_\_)  
app.register\_error\_handler(404, page\_not\_found)  
  
  
@app.route('/', methods=['POST', 'GET'])  
*def* index():  
 *if* request.method == 'POST':  
 prompt = request.form['prompt']  
 answer = get\_response\_of\_text(prompt)  
 *return* answer  
 *return* render\_template('index.html')  
  
  
*if* \_\_name\_\_ == '\_\_main\_\_':  
 app.run(debug=*True*)

Aiapi.py

*from* app *import* \*  
  
*def* get\_response\_of\_text(prompt):  
  
 prompt = f"""you are a helpful assistant, answer the following question: {prompt}"""  
  
 answer = openai.Completion.create(  
 prompt=prompt,  
 temperature=1,  
 max\_tokens=500,  
 top\_p=1,  
 frequency\_penalty=0,  
 presence\_penalty=0,  
 model=COMPLETIONS\_MODEL  
 )["choices"][0]["text"].strip(" \n")  
  
 *return* answer

index.html

<!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">  
 <meta *name*="description" *content*="Demonstration of ChatGPT API in a Python Flask Application. A Skolo Online course.">  
  
 <title>OpenAI Chatbot</title>  
 <link *rel*="shortcut icon" *type*="image/x-icon" *href*="{{ url\_for('static', filename='images/openai.png') }}">  
 <link *href*="https://cdn.jsdelivr.net/npm/bootstrap@5.3.0-alpha1/dist/css/bootstrap.min.css" *rel*="stylesheet"  
 *integrity*="sha384-GLhlTQ8iRABdZLl6O3oVMWSktQOp6b7In1Zl3/Jr59b6EGGoI1aFkw7cmDA6j6gD" *crossorigin*="anonymous">  
 <link *rel*="preconnect" *href*="https://fonts.googleapis.com">  
 <link *rel*="preconnect" *href*="https://fonts.gstatic.com" *crossorigin*>  
 <link *href*="https://fonts.googleapis.com/css2?family=Manrope:wght@300;400;600&display=swap" *rel*="stylesheet">  
 <link *rel*="stylesheet" *href*="https://drive.google.com/uc?export=view&id=1yTLwNiCZhIdCWolQldwq4spHQkgZDqkG">  
 <style>  
 body {  
 font-family: 'Manrope', sans-serif;  
 margin: 0 auto 40px;  
 }  
  
 .skeleton1 {  
 min-height: 18px;  
 padding: 10px;  
 border-radius: 4px;  
 background-color: #e2e5e7;  
 width: 70%;  
 background-image: linear-gradient(90deg, rgba(255, 255, 255, 0), rgba(255, 255, 255, 0.5), rgba(255, 255, 255, 0));  
 background-size: 40px 100%;  
 background-repeat: no-repeat;  
 background-position: left -40px top 0;  
 animation: shine 1s ease infinite;  
 }  
  
 .skeleton2 {  
 min-height: 18px;  
 padding: 10px;  
 border-radius: 4px;  
 background-color: #e2e5e7;  
 width: 50%;  
 background-image: linear-gradient(90deg, rgba(255, 255, 255, 0), rgba(255, 255, 255, 0.5), rgba(255, 255, 255, 0));  
 background-size: 40px 100%;  
 background-repeat: no-repeat;  
 background-position: left -40px top 0;  
 animation: shine 1s ease infinite;  
 }  
  
 .skeleton3 {  
 min-height: 18px;  
 padding: 10px;  
  
 border-radius: 4px;  
 background-color: #e2e5e7;  
 width: 60%;  
 background-image: linear-gradient(90deg, rgba(255, 255, 255, 0), rgba(255, 255, 255, 0.5), rgba(255, 255, 255, 0));  
 background-size: 40px 100%;  
 background-repeat: no-repeat;  
 background-position: left -40px top 0;  
 animation: shine 1s ease infinite;  
 }  
  
 @keyframes shine {  
 to {  
 background-position: right -40px top 0;  
 }  
 }  
  
 .center {  
 text-align: center;  
 }  
 </style>  
  
</head>  
  
<body *class*="w-lg-50 w-md-75 w-sm-100 py-3">  
  
 *<!-- Begin page content -->* <main *class*="flex-shrink-0">  
 <div>  
 <br>  
 <br>  
 <div *class*="center">  
 <h1 *class*="mt-3">ChatBot using Python</h1>  
 </div>  
 <p *class*="lead">  
*<!-- This project is created for educational purposes and demonstrates the use of ChatGPT API from OpenAI</p>-->  
<!-- <ul>-->  
<!-- <li>OpenAI API Key, which you can get here: <a href="https://openai.com/product#made-for-developers">OpenAI-->  
<!-- Website</a></li>-->  
<!-- </ul>-->* <div *id*="list-group" *class*="list-group w-auto">  
 </div>  
  
 <div *class*="input-group w-lg-50 w-md-75 w-sm-100 p-3 fixed-bottom" *style*="margin: 0 auto; ">  
 <input *type*="text" *class*="form-control" *id*="chat-input">  
 <div *class*="input-group-append">  
 <button *id*="gpt-button" *style*="background-color: green; color: white; border-radius: 0 5px 5px 0;"  
 *class*="btn">Send Message</button>  
 </div>  
 </div>  
  
  
 </div>  
 </main>  
  
  
 <script *src*="https://code.jquery.com/jquery-3.6.3.min.js"  
 *integrity*="sha256-pvPw+upLPUjgMXY0G+8O0xUf+/Im1MZjXxxgOcBQBXU=" *crossorigin*="anonymous"></script>  
 <script *src*="https://cdn.jsdelivr.net/npm/bootstrap@5.3.0-alpha1/dist/js/bootstrap.bundle.min.js"  
 *integrity*="sha384-w76AqPfDkMBDXo30jS1Sgez6pr3x5MlQ1ZAGC+nuZB+EYdgRZgiwxhTBTkF7CXvN" *crossorigin*="anonymous">  
 </script>  
  
  
 <script>  
 $("#gpt-button").click(function () {  
 var question = $("#chat-input").val();  
 let html\_data = '';  
 html\_data += `<a href="#" class="list-group-item list-group-item-action d-flex gap-3 py-3">  
<img src="https://w7.pngwing.com/pngs/178/595/png-transparent-user-profile-computer-icons-login-user-avatars-thumbnail.png" alt="twbs" width="32" height="32"  
 class="rounded-circle flex-shrink-0">  
<div class="d-flex gap-2 w-100 justify-content-between">  
 <div>  
 <p class="mb-0 opacity-75">${question}</p>  
  
 </div>  
  
 </div>  
  
</a>   
  
<div id="response"></div>  
  
`;  
 $("#chat-input").val("");  
  
 $("#list-group").append(html\_data);  
 $('div#response:last').html(`  
 <!-- code here -->  
 <div class="py-3" id="ok-good">  
 <h2 class="skeleton1">  
 </h2>  
 <h2 class="skeleton2">  
 </h2>  
 <h2 class="skeleton3">  
 </h2>  
 </div>`);  
 if ($("#ok-good").length) { // Check if the div exists  
 $('html, body').animate({  
 scrollTop: $("#ok-good").offset().top // Scroll to the top position of the div  
 }, 100); // Set the duration of the animation (in milliseconds)  
 }  
 // AJAX CALL to SERVER.  
 $.ajax({  
 type: "POST",  
 url: "/",  
 data: {  
 'prompt': question  
 },  
 success: function (data) {  
 let gpt\_data = '';  
 gpt\_data += `<a style="background-color:#f8f9fa;" href="#" class="list-group-item list-group-item-action d-flex gap-3 py-3">  
<img src="{{ url\_for('static', filename='images/openai.png') }}" alt="twbs" width="32" height="32"  
 class="rounded-circle flex-shrink-0">  
<div class="d-flex gap-2 w-100 justify-content-between">  
 <div>  
 <p id="typing-demo" class="mb-0 opacity-75"></p>  
 </div>  
</div>  
</a> <br>`;  
  
  
 $("#list-group").append(gpt\_data);  
 $('div#response:last').html('');  
  
  
 var i = 0;  
 var speed = 30;  
 // var speed = 0;  
  
 function typeWriter() {  
 if (i < data.length) {  
 $("p#typing-demo:last").text($("p#typing-demo:last").text() + data.charAt(i));  
 i++;  
 setTimeout(typeWriter, speed);  
 }  
 }  
  
 typeWriter();  
 }  
  
  
 });  
  
  
 });  
 </script>  
</body>  
  
</html>

Requirements.txt

aiohttp==3.8.4  
aiosignal==1.3.1  
async-timeout==4.0.2  
attrs==23.1.0  
certifi==2022.12.7  
charset-normalizer==3.1.0  
click==8.1.3  
colorama==0.4.6  
config==0.5.1  
Flask==2.2.3  
frozenlist==1.3.3  
idna==3.4  
importlib-metadata==6.6.0  
itsdangerous==2.1.2  
Jinja2==3.1.2  
MarkupSafe==2.1.2  
multidict==6.0.4  
openai==0.27.4  
requests==2.28.2  
tqdm==4.65.0  
urllib3==1.26.15  
Werkzeug==2.2.3  
yarl==1.9.1  
zipp==3.15.0

404.html

<!DOCTYPE *html*>  
<html *lang*="en" *dir*="ltr">  
 <head>  
 <meta *charset*="utf-8">  
 <title>404</title>  
 </head>  
 <body>  
 <div *class*="container">  
 <h1>This is the 404 Page</h1>  
 </div>  
 </body>  
</html>