

Programming for Artificial Intelligence



SUPERIOR UNIVERSITY

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Class:

BSAI

Section:

4B

Course:

Programming for Artificial Inteligence

Submitted to:

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Lab 7

Cooking App

Objectives

- Develop a user-friendly interface for searching recipes.
- Implement a backend using Flask to process user queries.
- Fetch recipe details (title, image, instructions) from the Spoonacular API.
- The user enters a recipe name in the search bar.
- The app sends a request to the Spoonacular API using the `complexSearch` endpoint with `titleMatch` to find recipes by name.
- The webpage displays the recipe's title, image, and step-by-step instructions.

Tools and Technologies

- **Backend:** Flask (Python)
- **Frontend:** HTML, CSS
- **API Integration:** Spoonacular API

Code

App.py

```
import requests
from flask import Flask, render_template, request

app = Flask(__name__)

API_KEY = "e33d3804f67244eea60b870fc609fc57" # Replace with your API Key
SEARCH_URL = "https://api.spoonacular.com/recipes/complexSearch"
DETAIL_URL = "https://api.spoonacular.com/recipes/{}/information"

@app.route("/", methods=["GET", "POST"])
def search_recipes():
    recipes = []
```

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```

if request.method == "POST":
    query = request.form["recipe_name"]
    params = {
        "titleMatch": query,
        "number": 5,
        "apiKey": API_KEY,
        "addRecipeInformation": True # Ensures we get correct image & details
    }
    response = requests.get(SEARCH_URL, params=params)

    if response.status_code == 200:
        data = response.json()
        for item in data.get("results", []):
            recipe_id = item["id"]
            detail_response = requests.get(DETAIL_URL.format(recipe_id), params={"apiKey":
API_KEY})

            if detail_response.status_code == 200:
                details = detail_response.json()
                recipes.append({
                    "title": details["title"],
                    "image": details.get("image", "https://via.placeholder.com/200"), # Correct Image
                    "instructions": details.get("instructions", "No instructions available."),
                })

    return render_template("index.html", recipes=recipes)

if __name__ == "__main__":
    app.run(debug=True)

```

Templates\index.html

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Recipe Finder</title>
  <style>
    body {
      font-family: Arial, sans-serif;
      text-align: center;
      margin: 20px;
      background-color: #f4f4f4;
    }
  </style>
  <body>
    <div class="container">
      <h1>Recipe Finder</h1>
      <div class="form">
        <input type="text" value="Search for a recipe" />
        <input type="button" value="Search" />
      </div>
      <div class="results">
        <div class="recipe">
          <h2>Recipe 1</h2>
          <p>Recipe 1 description</p>
          <div class="ingredients">
            <h3>Ingredients</h3>
            <ul>
              <li>Ingredient 1</li>
              <li>Ingredient 2</li>
            </ul>
          </div>
          <div class="instructions">
            <h3>Instructions</h3>
            <p>Instruction 1</p>
            <p>Instruction 2</p>
            <p>Instruction 3</p>
          </div>
        </div>
        <div class="recipe">
          <h2>Recipe 2</h2>
          <p>Recipe 2 description</p>
          <div class="ingredients">
            <h3>Ingredients</h3>
            <ul>
              <li>Ingredient 1</li>
              <li>Ingredient 2</li>
            </ul>
          </div>
          <div class="instructions">
            <h3>Instructions</h3>
            <p>Instruction 1</p>
            <p>Instruction 2</p>
            <p>Instruction 3</p>
          </div>
        </div>
      </div>
    </div>
  </body>
</html>
```

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```
}
h1 {
  color: #333;
}
form {
  margin-bottom: 20px;
}
input {
  padding: 10px;
  width: 250px;
  font-size: 16px;
  border: 1px solid #ccc;
  border-radius: 5px;
}
button {
  padding: 10px 15px;
  font-size: 16px;
  border: none;
  background-color: #28a745;
  color: white;
  border-radius: 5px;
  cursor: pointer;
}
button:hover {
  background-color: #218838;
}
ul {
  list-style-type: none;
  padding: 0;
}
li {
  border: 1px solid #ddd;
  padding: 15px;
  margin: 10px auto;
  width: 60%;
  border-radius: 8px;
  background: #fff;
  box-shadow: 2px 2px 10px rgba(0, 0, 0, 0.1);
}
img {
  border-radius: 5px;
  width: 200px;
  height: auto;
  margin: 10px 0;
```

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```
}
p {
  text-align: left;
  width: 80%;
  margin: 0 auto;
  line-height: 1.6;
}
</style>
</head>
<body>
  <h1>Find Recipes by Ingredient</h1>
  <form method="POST">
    <input type="text" name="recipe_name" placeholder="Enter recipe name" required>
    <button type="submit">Search</button>
  </form>

  {% if recipes %}
    <h2>Recipe Results</h2>
    <ul>
      {% for recipe in recipes %}
        <li>
          <h3>{{ recipe.title }}</h3>
          <br>
          <strong>Instructions:</strong>
          <p>{{ recipe.instructions | safe }}</p> <!-- FIXED: Properly renders HTML -->
        </li>
      {% endfor %}
    </ul>
    {% elif error_message %}
      <p>{{ error_message }}</p>
    {% endif %}
  </body>
</html>
```

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Output:

Animal Herd Detection YOLO x spoonacular recipe and food AI x Recipe Finder x Programming-for-artificial-intelli x +

127.0.0.1:5000


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Find Recipes by Ingredient

Enter recipe name [Search](#)

Recipe Results

Palak Gosht



Instructions:


1. Boil palak in water , sieve and keep aside.
2. Fry onion in oil till golden brown.

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Animal Herd Detection YOLO x spoonacular recipe and food AI x Recipe Finder x Programming-for-artificial-intelli x +

127.0.0.1:5000

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Instructions:

1. Boil palak in water , sieve and keep aside.
2. Fry onion in oil till golden brown.
3. Add meat and fry for 2-3 minutes, then add tomatoes, garlic, ginger and spices and fry for 5-7 minutes.
4. Then add water i(1-2cup) and cook on medium flame till meat is tender.
5. Now add boiled palak and cook for 5 minutes then add fresh coriander and green chillies and simmer till oil separates out.
6. Delicious Palak gosht is ready
7. Serve with roti or boiled rice.

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