K.RAMAKRISHNAN

COLLEGE OF TECHNOLOGY

(AN AUTONOMOUS INSTITUTION)

SAMAYAPURAM, TRICHY-621 112

Practical Record Note

Name : <u>MAADHAV.B</u>

Register Number : <u>2303811710421086</u>

Subject code/name : <u>Laboratory</u>

Programme :

Certified that this is a bonafide record of work done by _____ **MAADHAV.B** _____ of _____ Semester in **Python Programming - I Year - II Sem - Project Module** Laboratory during the academic year 2023-2024

His/Her University Register Number is **2303811710421086**

Staff Incharge   **Head of the Department**

Submitted for the Practical exam held on:

Internal Examiner   **External Examiner**
Date: **Date:**

Aim:

Project Module.

Program:

```
CTP28132.py
```

```python
recipes = {
    "Spaghetti Carbonara": ["spaghetti", "eggs", "bacon", "parmesan", "black
pepper"],
    "Tomato Basil Soup": ["tomatoes", "basil", "garlic", "onion", "olive
oil", "vegetable broth"],
    "Grilled Cheese Sandwich": ["bread", "cheese", "butter"],
    "Pancakes": ["flour", "milk", "eggs", "baking powder", "sugar", "salt",
"butter"],
    "Chicken Salad": ["chicken", "lettuce", "tomatoes", "cucumber", "olive
oil", "lemon"],
    "Beef Tacos": ["ground beef", "taco shells", "lettuce", "cheese",
"tomato", "sour cream"],
}

def get_recipes_with_ingredients(user_ingredients, user_dishes):
    recommended_recipes = []
    for dish in user_dishes:
        if dish in recipes:
            ingredients = recipes[dish]
            matching_ingredients = set(user_ingredients) & set(ingredients)
            match_percentage = len(matching_ingredients) / len(ingredients)
            if match_percentage > 0.5:  # Recommend if more than 50% of the
ingredients match
                recommended_recipes.append((dish, match_percentage))
        else:
            print(f"Warning: '{dish}' is not in our recipe list.")
    return sorted(recommended_recipes, key=lambda x: x[1], reverse=True)

def main():
    print("Welcome to the Recipe Recommendation App!")

    # Get user ingredients
    user_input_ingredients = input("Please enter the ingredients you have,
separated by commas: ")
    user_ingredients = [item.strip().lower() for item in
user_input_ingredients.split(",")]

    # Get user desired dishes
    user_input_dishes = input("Please enter the dishes you are interested in,
separated by commas: ")
    user_dishes = [item.strip() for item in user_input_dishes.split(",")]

    recommended_recipes = get_recipes_with_ingredients(user_ingredients,
user_dishes)

    if recommended_recipes:
        print("\nBased on the ingredients you have and your desired dishes,
you can make the following recipes (sorted by match percentage):")
        for recipe, match_percentage in recommended_recipes:
            print(f"- {recipe} ({match_percentage:.0%} match)")
```

Test case - 1
User Output
Hello World
Hello World

Result:

Thus the above program is executed successfully and the output has been verified