02.Write a python program for Simple Disease Diagnosis System?

PROGRAM:
```python
knowledge_graph = {
    "Common Cold": ["cough", "sore throat", "runny nose", "sneezing"],
    "Flu": ["fever", "cough", "body ache", "chills"],
    "COVID-19": ["fever", "cough", "loss of taste", "difficulty breathing"],
    "Malaria": ["fever", "chills", "headache", "sweating"],
    "Allergy": ["sneezing", "runny nose", "itchy eyes"]
}

all_symptoms = [
    "cough", "sore throat", "runny nose", "sneezing", "fever", "body ache",
    "chills", "loss of taste", "difficulty breathing", "headache", "sweating", "itchy eyes"
]

print("=== Welcome to the Simple Disease Diagnosis System ===")
print("Select the symptoms you are experiencing:")

for i in range(len(all_symptoms)):
    print(str(i + 1) + ". " + all_symptoms[i])

print("\nEnter the numbers of your symptoms separated by commas (e.g., 1,3,5):")
user_input = input("Your symptoms: ")

selected_symptoms = []
numbers = user_input.split(",")
print("numbers",numbers)
for n in numbers:
    n = n.strip()
    if n.isdigit():
        print("Value of n:",n)
        index = int(n)
        if 1 <= index <= len(all_symptoms):
            symptom = all_symptoms[index - 1]
            if symptom not in selected_symptoms:
                selected_symptoms.append(symptom)

if len(selected_symptoms) == 0:
    print("\nNo valid symptoms selected. Please enter correct numbers only.")
else:
    print("\nChecking possible diseases...\n")
    for disease in knowledge_graph:
        #print("disease :",disease)
        disease_symptoms = knowledge_graph[disease]
        #print("disease symptom:", disease_symptoms)
        match_count = 0
        for symptom in selected_symptoms:
            if symptom in disease_symptoms:
                match_count = match_count + 1

        if match_count > 0:
            print(disease, " --> matched ", match_count, "symptoms.")
```

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OUTPUT:
=== Welcome to the Simple Disease Diagnosis System ===
Select the symptoms you are experiencing:
1. cough
2. sore throat
3. runny nose
4. sneezing
5. fever
6. body ache
7. chills
8. loss of taste
9. difficulty breathing
10. headache
11. sweating
12. itchy eyes

Enter the numbers of your symptoms separated by commas (e.g., 1,3,5):
Your symptoms: 1
numbers ['1']
Value of n: 1

Checking possible diseases...

Common Cold --> matched 1 symptoms.
Flu --> matched 1 symptoms.
COVID-19 --> matched 1 symptoms.