1. **Write a program that demonstrates how to use regular expressions in Python to match and search for patterns in text.**

**Aim:**

To write a program that demonstrates how to use regular expressions in Python to match and search for patterns in text.

**Code:**

import re

def match\_and\_search\_patterns():

"""Function to demonstrate regex match and search"""

text = input("Enter the text: ")

pattern = input("Enter the pattern to search: ")

match = re.match(pattern, text)

if match:

print(f"Match found: {match.group()}")

else:

print("No match found at the beginning of the text.")

search = re.search(pattern, text)

if search:

print(f"Pattern found: {search.group()} at position {search.start()}-{search.end()}.")

else:

print("Pattern not found in the text.")

match\_and\_search\_patterns()

**Input:**

Enter the text: The quick brown fox jumps over the lazy dog.

Enter the pattern to search: jumps

**Output:**

No match found at the beginning of the text.

Pattern found: jumps at position 20-25.

