**Que 1 : Using re.search() and re.match() functions in Python’s re module for pattern**

**matching.**

import re

text = "Hello, my number is 12345."

# re.match() checks from the beginning of the string

result\_match = re.match(r"Hello", text)

if result\_match:

print("Match found with re.match():", result\_match.group())

else:

print("No match found with re.match()")

# re.search() checks anywhere in the string

result\_search = re.search(r"\d+", text)

if result\_search:

print("Match found with re.search():", result\_search.group())

else:

print("No match found with re.search()")

**Que 2 : Difference between search and match.**

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| **Feature** | **re.match()** | **re.search()** |
| **Where it looks** | Only at the **beginning** of the string | Anywhere in the string |
| **When it matches** | Pattern must match **from the start** | Pattern can match **at any position** |
| **Use case** | Check if a string **starts with** a pattern | Check if a string **contains** a pattern |
| **Example** | re.match("cat", "cat in a hat") → ✅ match re.match("cat", "The cat in a hat") → ❌ no match | re.search("cat", "cat in a hat") → ✅ match re.search("cat", "The cat in a hat") → ✅ match |