Name : Mohammad Sayeed Kazi
Roll no: 56
Batch : C2

Assignment 6

1. Write a Python program to read a user's first and last name, create a nickname by slicing and concatenating parts of both names, search for a specific letter in the full name, and display the result using string formatting.

Code:

```
first, last = "Mohammad", "Sayeed"
nick = first[:3] + last[-3:]
full = first + " " + last
print(f"Full Name: {full}\nNickname: {nick}\nIs 'a' present? {'Yes' if 'a' in full.lower() else 'No'}")
```

```
Full Name: Mohammad Sayeed
Nickname: Moheed
Is 'a' present? Yes
```

2. Write a program to process the string "PythonProgrammingBasics", extract specific parts using slicing, join them using concatenation, check if a substring exists, and display the formatted result.

Code:

```
s = "PythonProgrammingBasics"
p1, p2, p3 = s[:6], s[6:17], s[-6:]
print(f"{p1}, {p2}, {p3}\nCombined: {p1+' '+p3}\n'Pro' in string? {'Yes' if 'Pro' in s else 'No'}")
```

```
Python, Programming, Basics
Combined: Python Basics
'Pro' in string? Yes
```

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3. Write a program to accept city and state names, generate a short code using slicing and concatenation, search for a character in the city name, and print all information using string formatting.

```
city, state = "Mumbai", "Maharashtra"
code = city[:3].upper() + state[:3].upper()
print(f"{city}, {state}\nCode: {code}\n'a' in city? {'Yes' if 'a' in city.lower() else 'No'}")
```

```
Mumbai, Maharashtra
Code: MUMMAH
'a' in city? Yes
```

4. Develop a program that reads an email address, extracts the username before '@', concatenates it with a new domain, checks for digits in the username, and displays the formatted new email.

Code:

```
email = "sayeed123@gmail.com"
u = email.split('@')[0]
new = u + "@outlook.com"
print(f"Old: {email}\nNew: {new}\nDigits? {'Yes' if any(ch.isdigit() for ch in u) else 'No'}")
```

```
Old: sayeed123@gmail.com
New: sayeed123@outlook.com
Digits? Yes
```

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5. Write a Python program that takes a word, reverses it using slicing, concatenates it with the original, searches for a matching character, and formats the output for display.

Code:

```
w = "Python"
r = w[::-1]
c = w + r
print(f"{w}, {r}\nCombined: {c}\n't' present? {'Yes' if 't' in c.lower() else 'No'}")
```

```
Python, nohtyP
Combined: PythonnohtyP
't' present? Yes
```

6. Write a program using the string "Knowledge is power" to extract specific words with slicing, join them to form a new sentence, search for a given word, and print the formatted sentence.

```
s = "Knowledge is power"
w1 = s[:9]      # 'Knowledge'
w2 = s[10:12]   # 'is'
w3 = s[13:]     # 'power'
new_sentence = w1 + " gives " + w3
word = "power"
print(f"New Sentence: {new_sentence}")
print(f"Is '{word}' present? {'Yes' if word in s else 'No'}")
```

```
New Sentence: Knowledge gives power
Is 'power' present? Yes
```

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7. Write a Python program that accepts two words, extracts specific portions using slicing, concatenates them into a phrase, searches for "ing", and displays the result in a formatted manner.

```
w1, w2 = "Running", "Coding"

part = w1[:4] + w2[-3:]

print(f"Phrase: {part}")

print(f"Contains 'ing'? {'Yes' if 'ing' in part else 'No'}")
```

```
Phrase: Running
Contains 'ing'? Yes
```

8. Write a program that accepts two sentences, extracts parts from both using slicing, combines them, searches for a common substring, and prints a formatted comparison message.

```
s1 = "Python is fun"

s2 = "Learning is great"

part = s1[:6] + s2[-5:]

common = "is"

print(f"Combined: {part}")

print(f"Common substring '{common}' found? {'Yes' if common in s1 and common in s2 else 'No'}")
```

```
Combined: Pythongreat
Common substring 'is' found? Yes
```

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9. Write a Python program to accept a movie name and release year, create a short movie code using slicing and concatenation, check for a specific word in the movie name, and format the final output.

```
movie = "Inception"
year = "2010"
code = movie[:3].upper() + year[-2:]
word = "In"
print(f"Movie: {movie} ({year})")
print(f"Code: {code}")
print(f"Contains '{word}'? {'Yes' if word in movie else 'No'}")
```

```
Movie: Inception (2010)
Code: INC10
Contains 'In'? Yes
```

10. Write a Python program to generate a simple password by slicing and concatenating parts of a user's name and birth year, search for digits in it, and display the password using formatted output.

```
name = "Sayeed"
birth_year = "2004"
password = name[:3] + birth_year[-2:]
print(f"Generated Password: {password}")
print(f"Contains digits? {'Yes' if any(ch.isdigit() for ch in password) else 'No'}")
```

```
Generated Password: Say04
Contains digits? Yes
```

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11. Write a program that accepts a college name and department, creates a department code using slicing and concatenation, searches for the word "Tech", and prints the formatted details.

```
college = "Techno College"

department = "Computer Tech"

code = college[:4].upper() + department[:3].upper()

print(f"College: {college}\nDepartment: {department}\nCode: {code}")

print(f"Contains 'Tech'? {'Yes' if 'Tech' in department else 'No'}")
```

```
College: Techno College
Department: Computer Tech
Code: TECHCOM
Contains 'Tech'? Yes
```

12. Write a Python program that reads a product name and category, forms a label using sliced parts, searches for a specific substring, and prints the final label using string formatting.

```
product = "Laptop"

category = "Electronics"

label = product[:3].upper() + category[-4:].upper()

substring = "top"

print(f"Label: {label}")

print(f"Contains '{substring}'? {'Yes' if substring in product.lower() else 'No'}")
```

```
Label: LAPNICS
Contains 'top'? Yes
```

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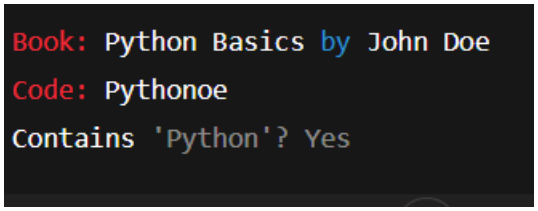
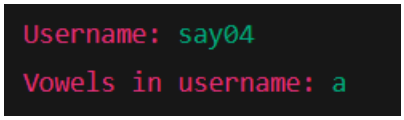
13. Write a program to input a book title and author name, slice and join parts of both, search for a word in the title, and display the information in a single formatted string.

```
title = "Python Basics"

author = "John Doe"

code = title[:6] + author[-3:]

word = "Python"

print(f"Book: {title} by {author}\nCode: {code}\nContains '{word}'? {'Yes' if word in title else 'No'}")
```



14. Write a Python program to create a social media username by slicing and concatenating parts of a user's name and year of birth, search for vowels in it, and display the formatted username

```
name = "Sayeed"

year = "2004"

username = name[:3].lower() + year[-2:]

vowels = [v for v in username if v in 'aeiou']

print(f"Username: {username}")

print(f"Vowels in username: {', '.join(vowels) if vowels else 'None'}")
```



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15. Write a program that accepts a company name, forms a domain name by slicing and concatenation, checks whether "AI" exists in the name, and prints the formatted domain details

```
company = "OpenAI Technologies"

domain = company[:5].lower() + ".com"

print(f"Company: {company}\nDomain: {domain}")

print(f"Contains 'AI'? {'Yes' if 'AI' in company else 'No'}")
```