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1  # Step 1: Take string input from the user
2  a = input("Enter a string : ")
3
4  # Display the menu of operations for string manipulation
5  print('''
6      1. UPPER          6. index
7      2. lower          7. reverse
8      3. Capitalize     8. startswith
9      4. islower        9. endswith
10     5. isUpper        10. swapcase''')
11
12 # Step 2: Get the user's choice for the operation code
13 b = int(input("Enter the operation Code (between 1 and 10): "))
14
15 # Step 3: Ensure the operation code is valid (between 1 and 10)
16 while b<1 or b>10:
17     print("-"*30)
18     print("Please enter valid operation code (between 1 and 10): ")
19     print("-"*30)
20
21 # Display the menu again for the user to pick a valid operation
22 print('''
23     1. UPPER          6. index
24     2. lower          7. reverse
25     3. Capitalize     8. startswith
26     4. islower        9. endswith
27     5. isUpper        10. swapcase''')
28 b = int(input("Enter the operation Code (between 1 and 10): "))
29
30 # Step 4: Match the user's choice with the corresponding string operation
31 match b:
32     case 1:
33         # Convert the string to uppercase and print
34         print(f"Upper of {a} is :", a.upper())
35     case 2:
36         # Convert the string to lowercase and print
37         print(f"Lower of {a} is :", a.lower())
38     case 3:
39         # Capitalize the first letter of the string and print
40         print(f"Capitalize of {a} is : ", a.capitalize())
41     case 4:
42         # Check if the string is in lowercase
43         checklows = a.islower()
44         if checklows == True:
45             print("Given string is in lower case.")
46         else:
47             print("Given string is not in lower case.")
48     case 5:
49         # Check if the string is in uppercase
50         checkupps = a.isupper()
51         if checkupps == True:
52             print("Given string is in UPPER case.")
53         else:
54             print("Given string is not in UPPER case.")

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55 case 6:
56     # Get the index of a specific letter in the string
57     try:
58         letter = input(f"Enter the letter from \'{a}\' to get index number :")
59         print(f"Index number of {letter} in {a} is : " , a.index(letter))
60     except ValueError:
61         # Handle the case where the letter is not in the string
62         print("Given letter not in the given string.")
63 case 7:
64     # Reverse the string and print
65     print(f"Reverse of {a} is :", a[::-1])
66 case 8:
67     # Check if the string starts with a specific letter
68     letter = input(f"Enter the letter to check (starts with) : ")
69     checkstart = a.startswith(letter)
70     if letter in a:
71         if checkstart == True:
72             print(f"Given String starts with {letter}")
73         else:
74             print(f"Given String does not starts with {letter}")
75     else:
76         print("Given letter not in the given string.")
77
78 case 9:
79     # Check if the string ends with a specific letter
80     letter = input(f"Enter the letter to check (ends with) : ")
81     checkend = a.endswith(letter)
82     if letter in a:
83         if checkend == True:
84             print(f"Given String ends with {letter}")
85         else:
86             print(f"Given String does not ends with {letter}")
87     else:
88         print("Given letter not in the given string.")
89 case 10:
90     # Swap the case of each letter in the string (upper to lower, lower to upper)
91     swapcs = a.swapcase()
92     print(f"After swappingcase : {swapcs}")
93 case _:
94     # If an invalid operation code is somehow entered, display an error message
95     print("Please enter valid Operation Code (between 1 and 10).")
96

```