# Problem 1: Convert the following sentence to uppercase, lowercase, title case, and capitalize it.

sentence = "programming with Python is Fun and Exciting!"

# Add your code here

# Problem 2: Remove specified characters from the given string and strip leading/trailing whitespaces.

input\_str = "###---example---text---###"

characters\_to\_remove = "-#"

# Add your code here

# Problem 3: Print a file path using a raw string and include your username and project name.

username = "user123"

project\_name = "my\_project"

# Add your code here

# Problem 4: Create a string with a mix of single and double quotes, including an escaped character.

mixed\_quotes = 'This is a string with "double quotes" and \'single quotes\'.'

# Add your code here

# Problem 5: Count the occurrences of the word "Python" in the given text.

text = "Python programming is versatile, and Python developers are in demand."

# Add your code here

# Problem 6: Find the index of the word "Exciting" in the given sentence.

sentence = "Programming with Python is Fun and Exciting!"

# Add your code here

# Problem 7: Check if all characters in the text are alphanumeric, letters, digits, lowercase, and uppercase.

text = "MyPassword123"

# Add your code here

# Problem 8: Repeat the above check for a different 'text' variable.

text = "special\_characters@123"

# Add your code here