Assignments:

1. String Manipulation:
   - Write a Python program that takes a user's full name as input and prints it in uppercase.

2. Numeric Calculation:
   - Create a program that calculates the area of a rectangle. The length and width should be taken as user input.

3. String Formatting:
   - Write a Python program that asks the user for their name and age, then prints a formatted greeting message.

4. Conversion and Output:
   - Take two numbers as input and print their sum, product, and the result of dividing the first number by the second.

5. Conditional String Output:
   - Write a program that takes a user's favorite color as input and prints a message based on whether the color is "Blue."

6. List Manipulation:
   - Create a program that takes a sentence as input and prints the list of unique words in the sentence.

7. Numeric Precision:
   - Write a program that takes a floating-point number as input and prints it rounded to two decimal places.

8. Random Number Generation and Output:
   - Generate a random number between 1 and 100. Ask the user to guess the number and print whether their guess is correct or not.

9. Data Type Conversion:
   - Create a program that converts a user-entered integer to a binary string and prints it.

10. Advanced String Formatting:
    - Write a program that prompts the user for their first and last names and prints a formatted message with initials and uppercase last name.

Answers:

1. String Manipulation:
```python
user_name = input("Enter your full name: ")
uppercase_name = user_name.upper()
print("Uppercase Name:", uppercase_name)
```

```

2. Numeric Calculation:
```python
length = float(input("Enter the length of the rectangle: "))
width = float(input("Enter the width of the rectangle: "))
area = length * width
print("Area of the rectangle:", area)
```

3. String Formatting:
```python
user_name = input("Enter your name: ")
user_age = int(input("Enter your age: "))
greeting = f"Hello, {user_name}! You are {user_age} years old."
print(greeting)
```

4. Conversion and Output:
```python
num1 = float(input("Enter the first number: "))
num2 = float(input("Enter the second number: "))

sum_result = num1 + num2
product_result = num1 * num2
division_result = num1 / num2

print(f"Sum: {sum_result}, Product: {product_result}, Division: {division_result}")
```

5. Conditional String Output:
```python
favorite_color = input("Enter your favorite color: ")
if favorite_color.lower() == "blue":
    print("Great choice! Blue is fantastic.")
else:
    print("Nice! Other colors are wonderful too.")
```

6. List Manipulation:
```python
sentence = input("Enter a sentence: ")
words = sentence.split()
unique_words = list(set(words))
print("Unique Words:", unique_words)
```

7. Numeric Precision:
```

```python
float_number = float(input("Enter a floating-point number: "))
rounded_number = round(float_number, 2)
print("Rounded Number:", rounded_number)
```

8. Random Number Generation and Output:
```python
import random

random_number = random.randint(1, 100)
user_guess = int(input("Guess the number (between 1 and 100): "))

if user_guess == random_number:
    print("Congratulations! Your guess is correct.")
else:
    print(f"Sorry, the correct number was {random_number}. Try again!")
```

9. Data Type Conversion:
```python
user_number = int(input("Enter an integer: "))
binary_representation = bin(user_number)
print("Binary Representation:", binary_representation)
```

10. Advanced String Formatting:
```python
first_name = input("Enter your first name: ")
last_name = input("Enter your last name: ")

initials = f"{first_name[0].upper()}.{last_name.upper()}"
formatted_message = f"Hello, {initials}! Welcome."
print(formatted_message)
```