PYTHON PROGRAMMING
Assignment # 02

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Question 01

Write a Python program that:
1. Accepts a string, an integer, a float, and a boolean from the user.
2. Initializes variables for each type, and prints them out.
3. Convert the string to uppercase and print it.
4. Check if the integer is even or odd and print the result.
5. Multiply the float by 2 and print the result.

```
#For String

user_input_string = input("Enter a string: ")
user_input_integer = int(input("Enter an Integer:
"))
user_input_bool = bool(input("Enter a bool Value
(True/False): "))
user_input_float = float(input("Enter a float: "))
print("Given string:" , user_input_string)
print("Given Integer Value:" , user_input_integer)
print("Given Boolean Value:" , user_input_bool)
print("Given Float Value:" , user_input_float)
#Converting it to uppercase
print("Given string in uppercase:" ,
user_input_string.upper())
# -------------------- For Integer
-------------------------
def number_check(number):
    if number % 2 == 0:
        print(f"The number you have entered: {number}
is an even number.")
    else:
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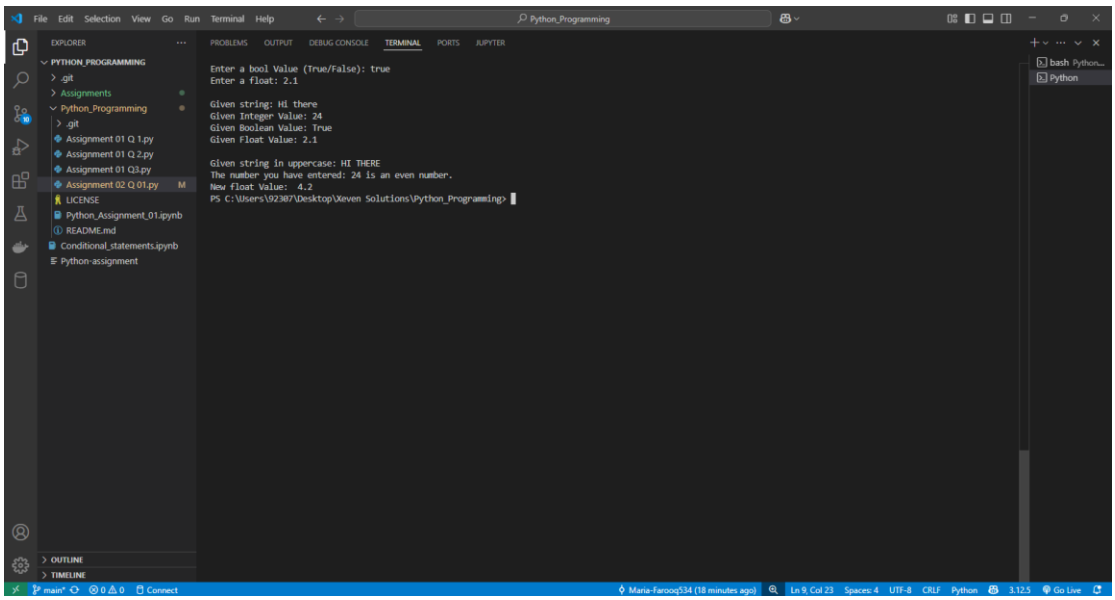
```
        print(f"The number you have entered: {number}
is an odd number."
number_check(user_input_integer)
# ---------------------------- For Float
----------------------------
def float_multiply(num):
    return num*2
print("New float Value: " ,
float_multiply(user_input_float))
```

Output



Question 02

```
# #Question 02
# Question 2: Operators
# Write a Python program that:
# 1. Accepts two numbers as input from the user.
#
2. Performs and prints the result of all arithmetic operations
  (addition, subtraction, multiplication, division,
# modulus, floor division) between these two numbers.
# 3. Uses comparison operators to check if the first number is greater than
the second, and if they are equal.
# 4. Uses logical operators to combine two conditions (e.g., the first number
is greater than the second, and the
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```
# second number is less than 10).

# 1. Accepts two numbers as input from the user.

number1 = int(input("Enter number 1: "))
number2 = int(input("Enter number 2: "))

#
2. Performs and prints the result of all arithmetic operations
  (addition, subtraction, multiplication, division,
# modulus, floor division) between these two numbers.

#Addition
addition = number1 + number1
print(f"{number1} + {number2} is = {addition}")
#Subtraction
subtraction = number1 - number2
print(f"{number1} - {number2} is = {subtraction}")
#Multiplication
multiplication = number1 * number2
print(f"{number1} * {number2} is = {multiplication}")
#Division
division = number1 / number2
print(f"{number1} / {number2} is = {division}")
#Modulus
modulus = number1 % number2
print(f"{number1} % {number2} is = {modulus}")
#Floor division
floor_division = number1 // number2
print(f"{number1} // {number2} is = {floor_division}")

# 3. Uses comparison operators to check if the first number is greater than
the second, and if they are equal.
if number1 >= number2:
    print(f"{number1} is greater than {number2}")
elif number1 == number2:
    print(f"{number1} is equal to {number2}")
else:
    print(f"{number1} is less than {number2}")

# 4. Uses logical operators to combine two conditions (e.g., the first number
is greater than the second, and the
# second number is less than 10).

if number1 > number2 and number2 < 10:
    print(f"{number1} is greater than {number2} and {number2} is less than
10.")
elif number1 > number2 and number2 > 10:
```

```
    print(f"{number1} is greater than {number2} and {number2} is greater
than 10.")
elif number1 < number2 or number2 > 10:
    print(f"{number1} is greater than {number2} and {number2} is greater
than 10.")
elif number1 < number2 and number2 > 10:
    print(f"{number1} is greater than {number2} and {number2} is greater
than 10.")
else:
    print("Condition not met!")
```

Output:

Enter number 1: 11
Enter number 2: 9
11 + 9 is = 22
11 - 9 is = 2
11 * 9 is = 99
11 / 9 is = 1.2222222222222223
11 % 9 is = 2
11 // 9 is = 1
11 is greater than 9
11 is greater than 9 and 9 is less than 10.

Question 03

```
# #Question 3: Loops
# Write a Python program that:
# 1. Accepts a list of integers from the user.
# 2. Loops through the list and prints out each number.
# 3. If a number is greater than 10, skips it using the continue statement.
# 4. Stops the loop if the number is 20 using the break statement.
# 5. After the loop ends, prints a message that the loop ended naturally.
```

```python
# # 1. Accepts a list of integers from the user.

length_of_list = int(input("Enter length of list: "))

integer_list = []

for i in range(1, length_of_list + 1):
    number = int(input(f"Enter number {i} : "))
    integer_list.append(number)

print(f"\nThe list of integers: {integer_list}")
# # 2. Loops through the list and prints out each number.
print(f"The numbers in list are:\n")
for num in integer_list:
    print(num)




# # 3. If a number is greater than 10, skips it using the continue statement.
print("\nSkipping numbers:")
new_list = []
for num in integer_list:
    if num > 10 and num != 20:
        print(f"Skip the number {num} as it is greater than 10.")
        continue
    new_list.append(num)
print(f"\nNew list after skipping numbers greater than 10 is : {new_list}")

# 4. Stops the loop if the number is 20 using the break statement.
for num in new_list:
    if num == 20:
        print(f"Stop the loop as the number is 20")
        break
    print(f"Number: {num}")
    # 5. After the loop ends, prints a message that the loop ended naturally.
else:
    print("The loop ended naturally without encountring 20.")
```

Output:

```
pthon_Programming/assignment_02_Q3.py"
Enter length of list: 5
Enter number 1 : 6
Enter number 2 : 7
Enter number 3 : 12
Enter number 4 : 20
Enter number 5 : 8

The list of integers: [6, 7, 12, 20, 8]
```

The numbers in list are:

6
7
12
20
8

Skipping numbers:
Skip the number 12 as it is greater than 10.

New list after skipping numbers greater than 10 is : [6, 7, 20, 8]
Number: 6
Number: 7
Stop the loop as the number is 20