LAB#03

Console Input and Output

Objective

Taking input from user and controlling output position

Exercise

A. Point out the errors or undefined/missing syntax, if any, in the following python programs.

1. `print("Hello \b World!")`

   - **Error:** No, this will not throw an error. The `\b` is an escape sequence that represents a backspace character. It will remove the space before "World!".

2.

```
first_number = str(input("Enter first number"))
second_number = str(input("Enter second number"))
sum = (first_number + second_number)
print("Addition of two number is:", sum)
```

- **Error:** No, this will not throw an error. However, it will not perform numerical addition. It will concatenate the two input strings. For example, if you enter "5" and "10," the output will be "510," not "15."

3.

```
age = 23
message = "Happy " + age + "rd Birthday!"
print(message)
```

- **Error:** Yes, this will throw a `TypeError`. You cannot directly concatenate a string ("Happy ") with an integer (`age`). You need to convert the integer `age` to a string using `str(age)`.

Escape Sequences in Programming

```
84 print("She said, \"It's a \\'wonderful\\\' day!\"")
85 print("Line 1\nLine 2")
86 print("Backspace test: abc\bdef")
87 print("Tabbed output:\tItem1\tItem2")
88 print("End of line.")
```

```
>>> %Run main.py
She said, "It's a \'wonderful\' day!"
Line 1
Line 2
Backspace test: abdef
Tabbed output:  Item1    Item2
End of line.
```

B. Print the output of the followings.

```
# Task 01
e_name = input("Enter your name here: ")
salary = input("Enter your salary here: ")
c_name = input("Enter your company name here: ")
print(f"{e_name}\n{salary}\n{c_name}")
```

```
# Task 02
a = 5
print("a =", a, sep=" ", end=", Shaheer")
print("a=", a)
```

```
>>> %Run main.py

  Enter your name here: Shaheer Jamal
  Enter your salary here: 750000
  Enter your company name here: SJC Group of Technologies
  Shaheer Jamal
  750000
  SJC Group of Technologies

  a = 5, Shaheera= 5
```

C. Write Python programs for the following:

1. Write a program to print a student's bio data having his/her Date of birth, Roll no, Section, Percentage and grade of matriculation and Intermediate. All the fields should be entered from the console at run time.

```
name = input("Enter your name here: ")
dob = input("Enter your DOB here[DD/MM/YYYY]: ")
rn = int(input("Enter your Roll# here[1/2/3]: "))
sec = input("Enter your Section[A/B/C]: ")
mp = float(input("Enter your Matric Percentage here: "))
ip = float(input("Enter your Inter Percentage here: "))
```

```
>>> %Run main.py

  Enter your name here: Shaheer Jamal
  Enter your DOB here[DD/MM/YYYY]: 01/01/2030
  Enter your Roll# here[1/2/3]: 17
  Enter your Section[A/B/C]: A
  Enter your Matric Percentage here: 95
  Enter your Inter Percentage here: 90
```

Output:

```
Shaheer Jamal's DOB is 01/01/2030
Shaheer Jamal's Roll# is 17
Shaheer Jamal's section is A
Shaheer Jamal's Matric percentage is 95.0
Shaheer Jamal's Intermediate's percentage is 90.0
```

3. Take the marks of 5 courses from the user and calculate the average and percentage, display the result:

```
# Task 03
m1 = float(input("Enter the marks of course 01: "))
m2 = float(input("Enter the marks of course 02: "))
m3 = float(input("Enter the marks of course 03: "))
m4 = float(input("Enter the marks of course 04: "))
m5 = float(input("Enter the marks of course 05: "))
```

```
"""ec = 50
tm = m1+m2+m3+m4+m5
avg = tm / 5
percentage = (tm*100)/250
print(f"The percentage of student is: {percentage}")"""
```

Output:

```
>>> %Run main.py

  Enter the marks of course 01: 45
  Enter the marks of course 02: 42
  Enter the marks of course 03: 43
  Enter the marks of course 04: 39
  Enter the marks of course 05: 37
  The percentage of student is: 82.4
```