LAB # 03

Console Input and Output

OBJECTIVE

To Taking Input from user and controlling position.

EXERCISE

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

Code 01:

```
Lab 3.py ×
1 print("Hello\b World!")
```

Output:

```
Shell ×
>>> %Run 'Lab 3.py'
 Hell World!
>>>
```

The Syntax error is when we \b in the code it backspaces the “o” in the “Hello World!” so this is the syntax error.

Code 02:

```
Lab 3.py * ×
1 first_number = str(input("Enter first number: "))
2 second_number = str(input("Enter first number: "))
3 sum = (first_number + second_number)
4 print("Addition of two number is: ", sum)
```

Output:

```
Shell ×
>>> %Run 'Lab 3.py'
  Enter first number: 2
  Enter first number: 2
  Addition of two number is:  22
>>>
```

The Syntax error is when we use “str” in the code it covert int into string the sum variable in the equation is concatenate not sum the value so this is the syntax error.

Code 03:

```
Lab 3.py ×
1 age = 23
2 message = "Happy" + age + "Birthday"
3 print(mesage)
```

Output:

```
Shell ×
>>> %Run 'Lab 3.py'
  Traceback (most recent call last):
    File "C:\Users\BINARY\OneDrive\Desktop\Thonny Task\Lab 3.py", line 2, in <module>
      message = "Happy" + age + "Birthday"
  TypeError: can only concatenate str (not "int") to str
>>>
```

In Python we don't add int with string so this is the Syntax Error.
Solution of Error:

Code:

```
Lab 3.py ×
1 age = 23
2 message = "Happy" , age , "Birthday"
3 print(message)
```

We use "," to separate the variables. And all set!!!

Output:

```
Shell ×
>>> %Run 'Lab 3.py'
  ('Happy', 23, 'Birthday')
>>>
```

B. What would be the output of the following programs.

Code 04:

Lab 3.py ×

```
1 a = 5
2 print("a = ", a, sep='0', end=",")
```

Output:

Shell ×

```
>>> %Run 'Lab 3.py'
  a = 05,
>>>
```

Code 05:

Lab 3.py ×

```
1 name = input("Enter Employee Name: ")
2 salary = input("Enter salary: ")
3 company = input("Enter Company name: ")
4 print("Printing Employee Details")
5 print("Name" ,  "\tSalary" , "Company")
6 print(name, salary, company)
```

Output:

```
Shell ×
>>> %Run 'Lab 3.py'
 Enter Employee Name: Abdullah
 Enter salary: 75000
 Enter Company name: Microsoft
 Printing Employee Details
 Name      Salary Company
 Abdullah 75000 Microsoft
```

Code 06:

```
Lab 3.py ×
1 n1 = int(input('"Enter n1 value: '))
2 n2 = int(input('Enter n2 value: '))
3 print(n1 + n2)
```

Output:

```
Shell ×
>>> %Run 'Lab 3.py'
 "Enter n1 value: 2
 Enter n2 value: 2
 4

>>>
```

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.

Code 07:

```
Lab 3.py ×
1  print("Bio Data")
2  Name = input("Enter your Name: ")
3  Date_of_Birth = input("Enter your Date of Birth (YYYY,MM,DD): ").split()
4  Roll_no = input("Enter your Roll no: ")
5  Section = input("Enter your Section: ")
6  Matric_Obt_Percent = eval(input("Enter your Matric Obtained Marks: "))
7  Intermediate_Obt_Percent = eval(input("Enter your Intermediate Obtained Marks: "))
8  Matric_Percentage = Matric_Obt_Percent / 550 * 100
9  Intermediate_Percentage = Intermediate_Obt_Percent / 550 * 100
10 print("\nBio Details\n")
11 print("Name is : ", Name, "\nDate_of_Birth is : ", Date_of_Birth, "\nRoll_no is : ", Roll_no,
12     "\nSection is : ", Section, "\nMatric_Percentage is : ", Matric_Percentage, "%" ,
13     "\nIntermediate_Percentage is : ", Intermediate_Percentage, "%"
14     )
```

Output:

```
Shell ×
Bio Data
Enter your Name: Abdullah
Enter your Date of Birth (YYYY,MM,DD): 2005 12 14
Enter your Roll no: 024
Enter your Section: A
Enter your Matric Obtained Marks: 440
Enter your Intermediate Obtained Marks: 250

Bio Details

Name is :  Abdullah
Date_of_Birth is :  ['2005', '12', '14']
Roll_no is :  024
Section is :  A
Matric_Percentage is :  80.0 %
Intermediate_Percentage is :  45.45454545454545 %
```

2. Write a program that asks the user what kind of food they would like. Print a message about that food, such as “Let me see if I can find you a Chow Mein”. Food name must be in uppercase. (hint: use upper () for food name)

Code 08:

```
Lab 3.py ×
1  food = input("What kind of food would you like? ")
2  food_upper = food.upper()
3  print(f"Let me see if I can find you a {food_upper}.")
```

Output:

```
Shell ×
>>> %Run 'Lab 3.py'
What kind of food would you like? Chowmein
Let me see if I can find you a CHOWMEIN.
```

3. Take the marks of 5 courses from the user and calculate the average and percentage, display the result:
   Each course=50
   marks Total marks= course1+course2+course3+course4+course5
   average=Total marks/5
   percentage= (Total marks x 100)/250

Code 09:

```
Lab 3.py * ×
course1 = float(input("Enter marks for Course 1 (out of 50): "))
course2 = float(input("Enter marks for Course 2 (out of 50): "))
course3 = float(input("Enter marks for Course 3 (out of 50): "))
course4 = float(input("Enter marks for Course 4 (out of 50): "))
course5 = float(input("Enter marks for Course 5 (out of 50): "))
total_marks = course1 + course2 + course3 + course4 + course5
average = total_marks / 5
percentage = (total_marks * 100) / 250
print("\n--- Result ---")
print(f"Total Marks: {total_marks}/250")
print(f"Average Marks: {average}")
print(f"Percentage: {percentage}%")
```

Output:

```
Shell ×
%Run 'Lab 3.py'
Enter marks for Course 1 (out of 50): 45
Enter marks for Course 2 (out of 50): 45
Enter marks for Course 3 (out of 50): 35
Enter marks for Course 4 (out of 50): 25
Enter marks for Course 5 (out of 50): 39

--- Result ---
Total Marks: 189.0/250
Average Marks: 37.8
Percentage: 75.6%
```