BWT WEEK 2

TASK 4

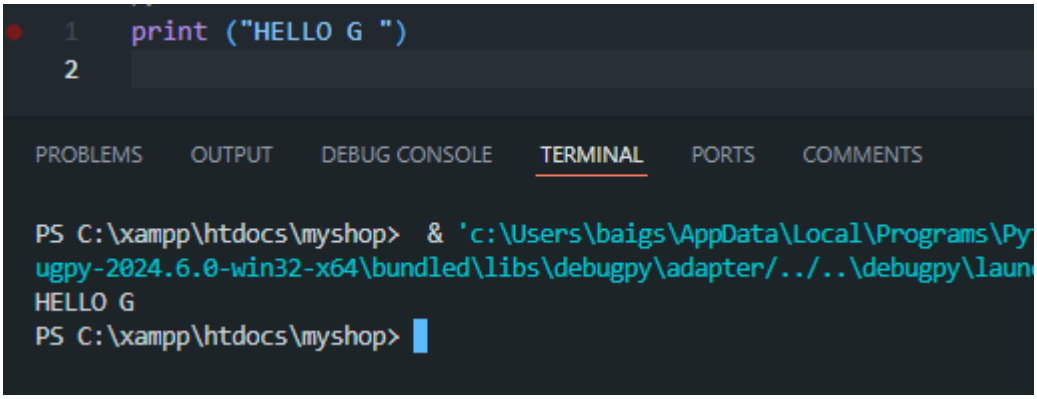
SHERAZ BIN TAHIR

MAIL: BAIGS543@GMAIL.COM

ALL ABOUT PYTHON

INTRODUCTION, SYNTAX, VARIABLES, CONDITIONS AND OPERATORS

1. Printing Hello



2. Syntax

In the case of Python, the syntax is too much simple. In other languages we use ";" to end a statement but in Python, we don't use it.

To comment on a statement, we use "#" and for multiline comments, we use triple quotes """ or '''.

```
# print(2+3)
# print(3-2)
# print(6/2)
# print(6//2)
```

Syntax of conditions, functions, and operators is also totally different from other languages which we will discuss and practice along with these topics.

For input, we write **input()**. In parenthesis, we write anything related to the task we are performing.

```
sheraz_age=input("what is your age? ")
```

3. VARIABLES

In python, we don't need to declare variables, they are dynamically typed.

There are a few rules which need to be followed for naming a variable

- Start with a letter or underscore
- contain letters, numbers, and underscores
- Case-sensitive
- Avoid reserved keywords

```
x = "hello g"
print(x)
print(type(x))

X = "hi"
print(X)

y=5
print(y)
print(type(y))
```

```
hello g
<class 'str'>
hi
5
<class 'int'>
```

Here you can see, there is no declaration of variable. It's also clear from datatypes.
X and x are declared separately and the output is also different (case sensitive).

4. CONDITIONS

The syntax of conditions in Python is as follows
If – elif – else

You can see this in the following code.

```
sheraz_age=input("Age of Sheraz ? ")
sheraz_age=int(sheraz_age)
school_age=6

if sheraz_age==school_age:
    print("he can go to school")
elif sheraz_age > school_age:
    print("he should join higher school")
else:
    print("you should take care of sheraz")
```

In other languages, we use else if but in Python we use elif.
if one condition is fulfilled, a task related to that will be performed otherwise moving to the next.

```
Age of Sheraz ? 12
he should join higher school
```

5. Operators

```
# Addition
print(2+3)
# substration
print(3-2)
# Division
print(6/2)
# Floor Division
print(6//2)
# Remainder
print(7%2)
# Multiplication
print(2*3)
# Power
print(2**3)
```

```
5
1
3.0
3
1
6
8
```

Besides this, we also have comparison operators. (==, !=, >,<, =>, =<)

```python
# COMPARISON OPERATORS
name = "Sheraz"
age = 25
height = 180  # height in cm

# Equal to (==)
if age == 25:
    print(name + " is 25 years old.")

# Not equal to (!=)
if height != 170:
    print(name + " is not 170 cm tall.")

# Greater than (>)
if age > 18:
    print(name + " is older than 18.")

# Less than (<)
if height < 200:
    print(name + " is shorter than 200 cm.")

# Greater than or equal to (>=)
if age >= 25:
    print(name + " is at least 25 years old.")

# Less than or equal to (<=)
if height <= 180:
    print(name + " is at most 180 cm tall.")
```

```
Sheraz is 25 years old.
Sheraz is not 170 cm tall.
Sheraz is older than 18.
Sheraz is shorter than 200 cm.
Sheraz is at least 25 years old.
Sheraz is at most 180 cm tall.
```