

FREE PYTHON | EVERYONE LEARN TECH

THIS IS THE EVERYONE LEARN TECH'S PYTHON COURSE THE INSTRUCTOR
OF THIS COURSE IS SHAMEEL



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N.Umer shameel

Enter your name:

.....Ammar.....

SUBJECTS IN THIS COURSE

1. INTRODUCTION
2. HOW TO INSTALL PYTHON
3. HOW TO PRINT HELLO WORLD IN PYTHON
4. BASIC OF PYTHON
 - VARIABLES
 - DATA TYPE
 - STRING
 - ARRAY
 - GET USER INPUT
 - IF ELSE ELIF
 - NESTED IF
 - LOOP
 - DICTIONARY
 - FUNCTIONS
 - A SAMPLE CALCULATOR

WHAT IS PYTHON

- Python is high level, interpreted, powerful programming language
- It created by Guido van Rossum in 1991

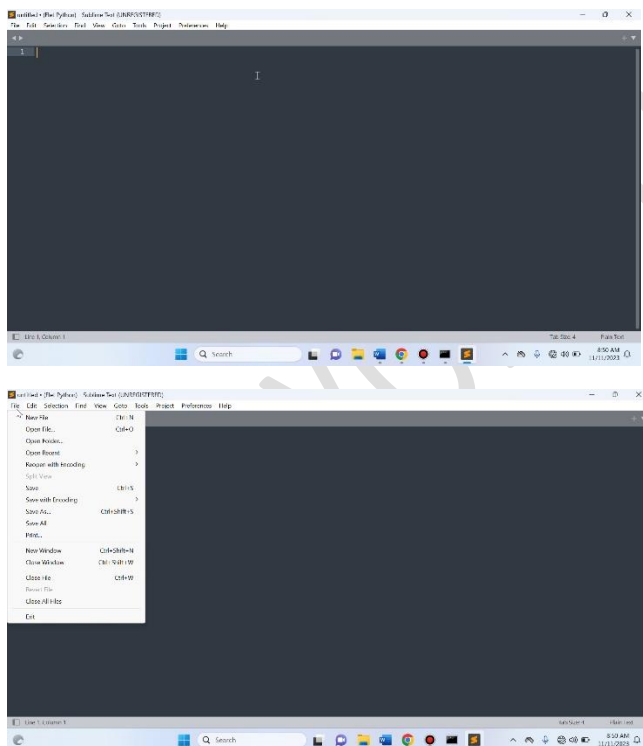
HOW TO INSTALL PYTHON

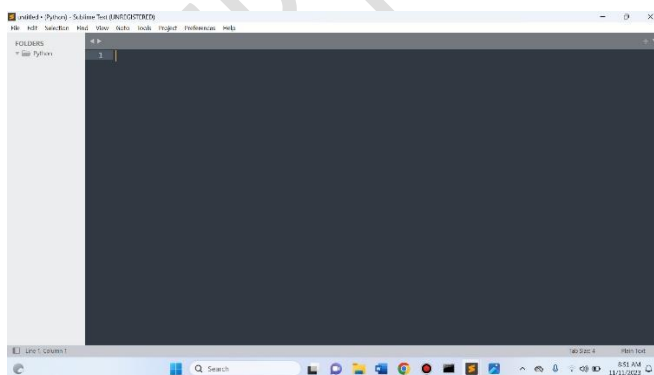
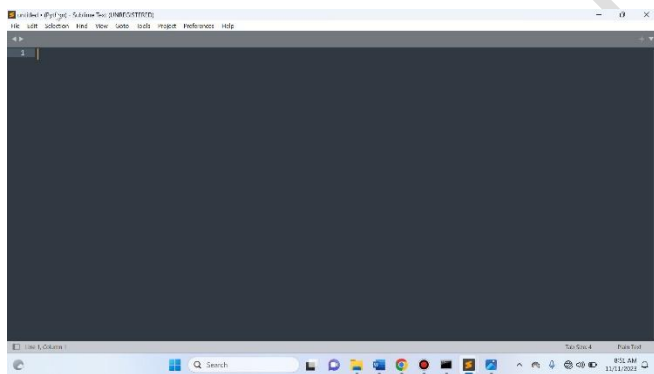
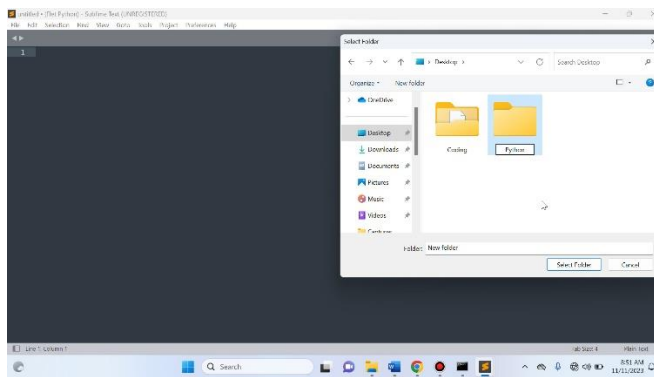
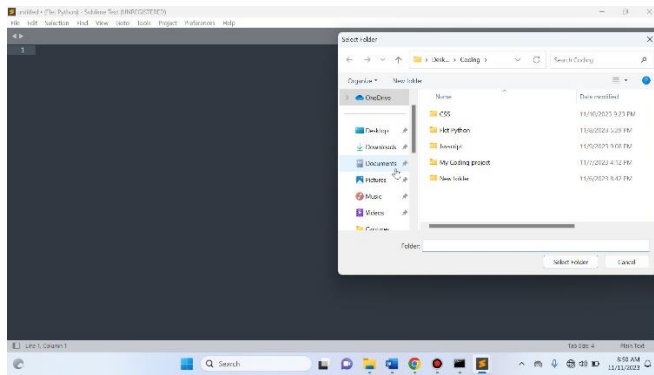
- To install first of all visit this site(<https://www.python.org>) and go to download and download the setup for your os such as windows, mac , linux
- Then run the setup before press install button your can see in below "ADD PYTHON TO PATH" so click that button
- Then we are going to use a code editor for code in python so you can use some code editor
 - Python idle
 - Py charm
 - Visual studio code
 - Pulsar
 - Sublime text editor
 - Notepad / Notepad ++

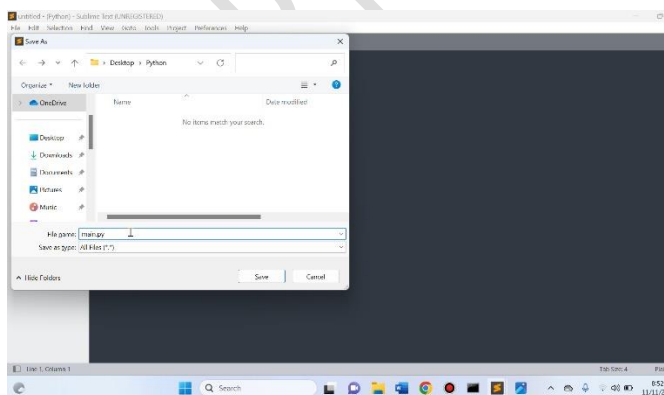
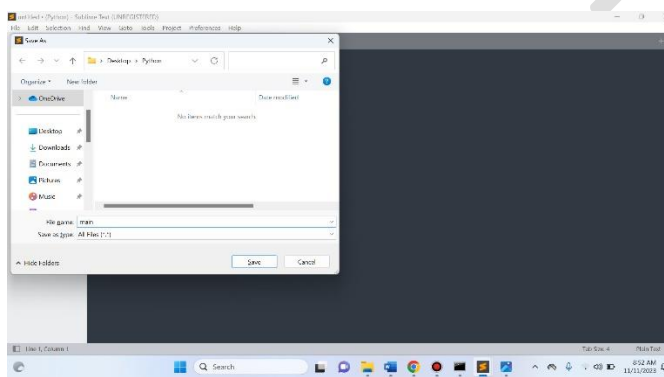
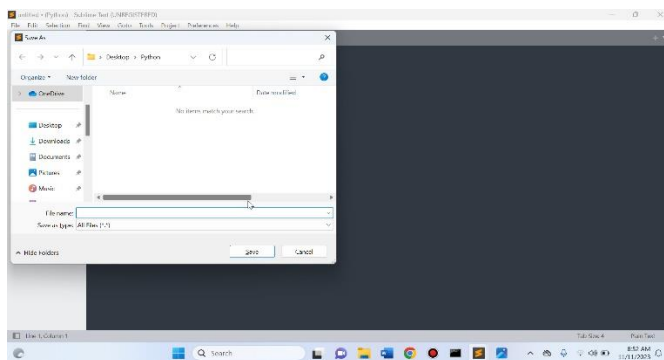
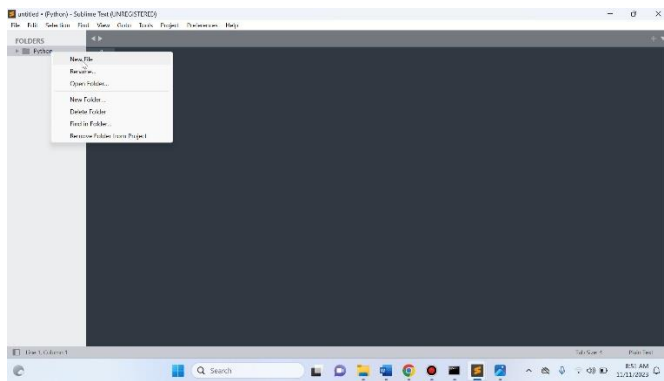
Noted("I am using sublime text editor for it")

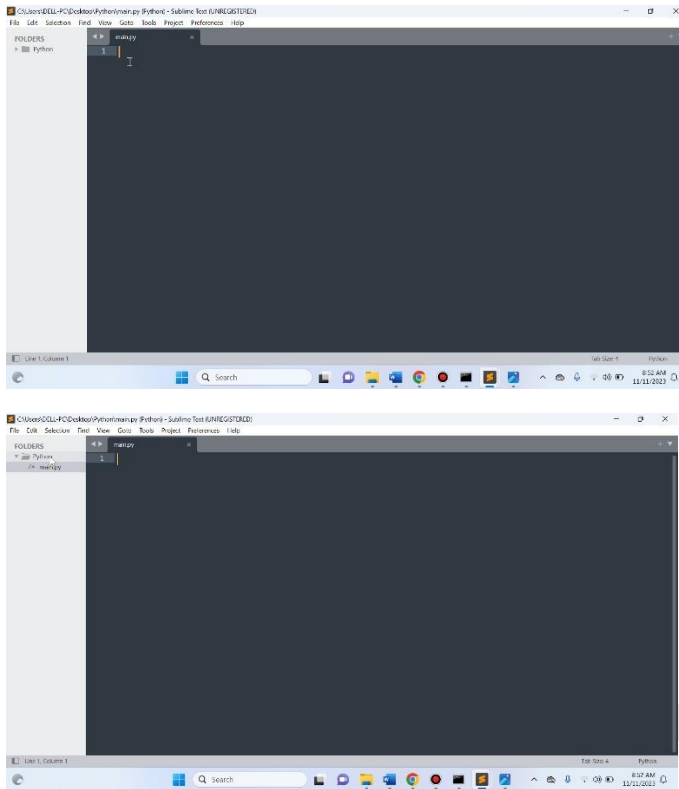
If you want to install sublime text editor go to this site(<https://www.sublimetext.com>)

So we are going to create a python file do this process



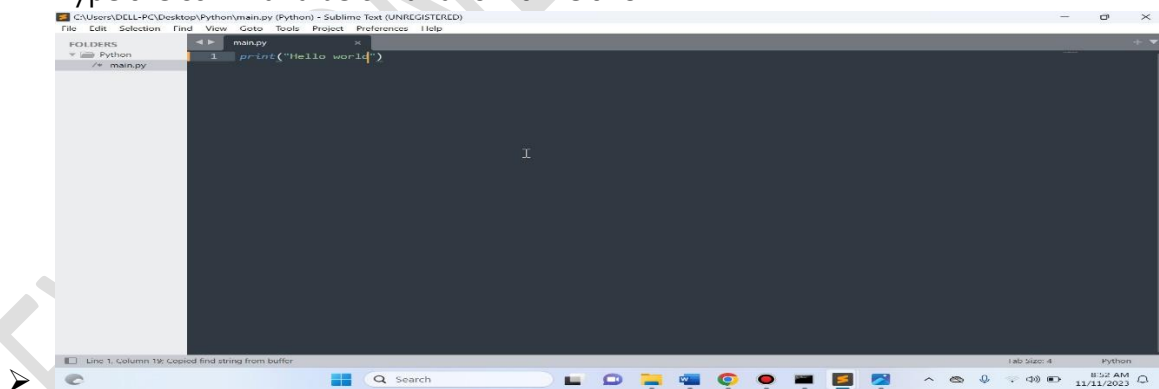






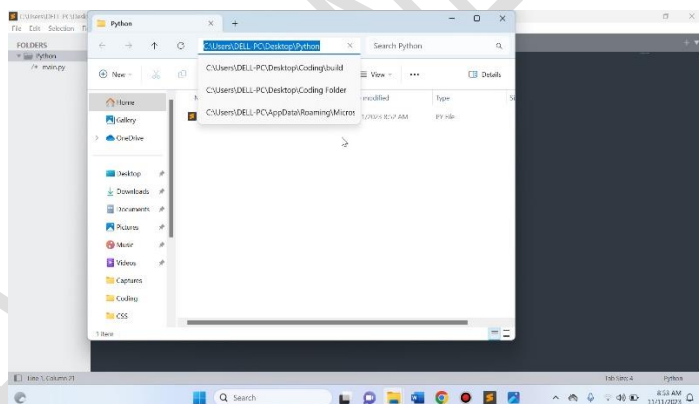
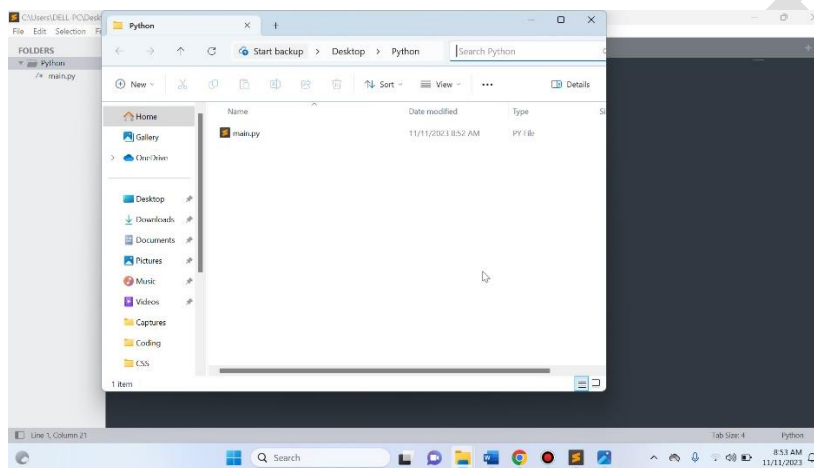
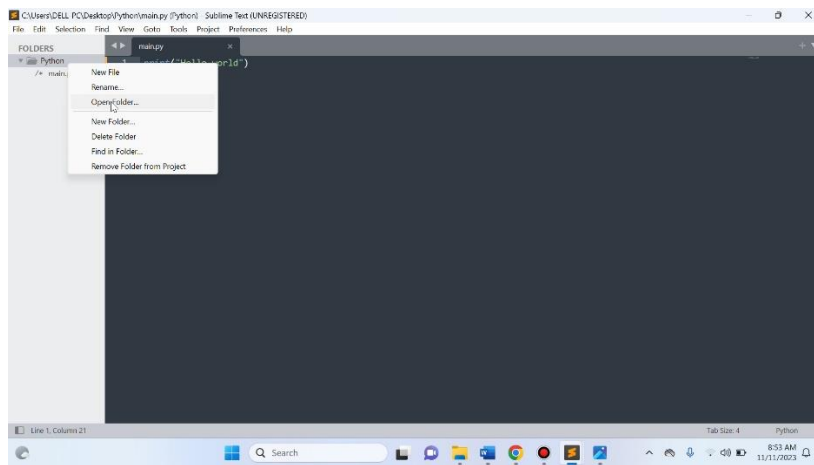
HOW TO PRINT HELLO WORLD IN PYTHON

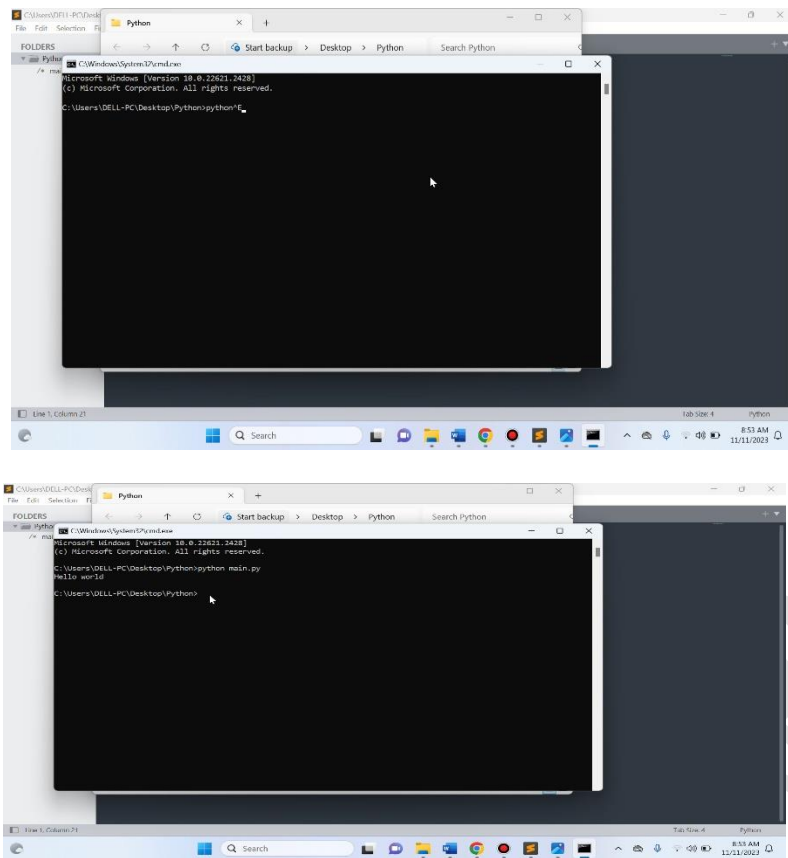
- To print hello world You can type like this (`print("Hello world")`) here and example of this
- Type the command below and run it like this



```
print("Hello world")
```

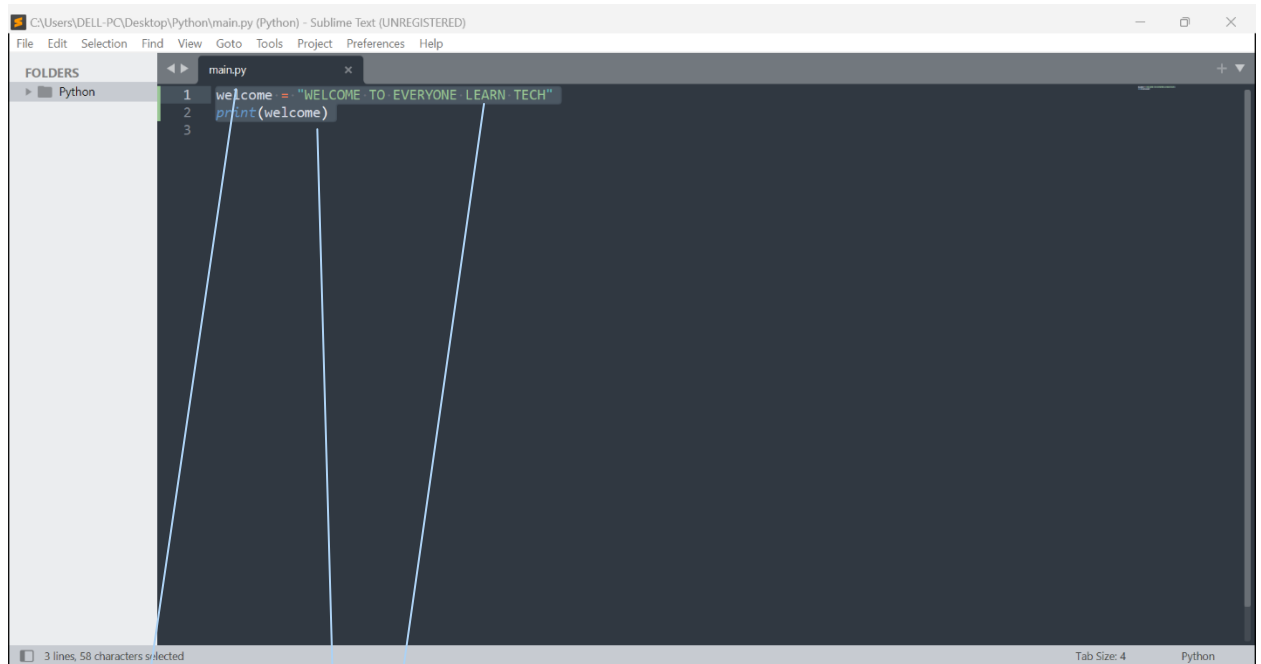
- Then open your cmd and follow this steps





VARIABLES

- It is the one of the easiest topic in python
- What is variable it simple you can imagine we are calling a person in his name like that we are printing a value with a variable name
- How to create a variable follow this step
- So I am going to print "WELCOME TO EVERYONE LEARN TECH" using a variable
- The variable name of this value is "Welcome"
- And the value is "WELCOME TO EVERYONE LEARN TECH"
- So lets do it



This is the variable name

This is the value

So we are printing this with the variable name

Data type

Data type is such a easy topic in python so lets learn that

So what are the data types in python:

- String
- Integer
- Boolean
- Float

String:- You can use the ("","") for print a string value data

Integer:-You can print the number like this (3,4)

Boolean:-You can use (true or false for it)

Flot :- It is (3.23) very simple like this

You can see the type of the Data type use this type lets see

```
string = "Welcome"
integer = 12
boolean = True
floatdatatype = 3.35
print(string)
print(integer)
print(boolean)
print(floatdatatype)
print(type(string))
print(type(integer))
print(type(boolean))
print(type(floatdatatype))
```

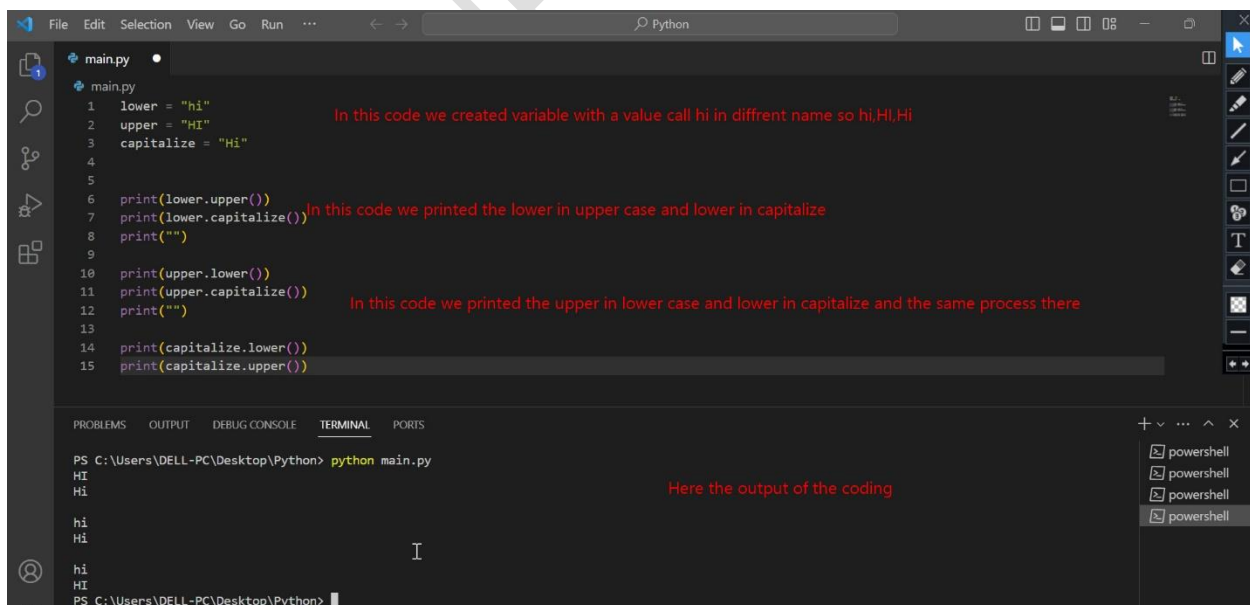
String

String is the easiest topic in our python you can imagine that string is a sentence

You can print it in python

We can also convert a lowercase value to upper case and uppercase value to lowercase

Now lets see:



The screenshot shows a Python IDE with a file named `main.py`. The code defines three variables: `lower = "hi"`, `upper = "HI"`, and `capitalize = "Hi"`. It then prints the results of `lower.upper()`, `lower.capitalize()`, `upper.lower()`, and `upper.capitalize()`. The terminal output shows the results of these operations: `HI`, `Hi`, `hi`, and `Hi`.

```
1 lower = "hi"
2 upper = "HI"
3 capitalize = "Hi"
4
5
6 print(lower.upper())
7 print(lower.capitalize())
8 print("")
9
10 print(upper.lower())
11 print(upper.capitalize())
12 print("")
13
14 print(capitalize.lower())
15 print(capitalize.upper())
```

PS C:\Users\DELL-PC\Desktop\Python> python main.py

HI

Hi

hi

Hi

PS C:\Users\DELL-PC\Desktop\Python>

But you cannot print a paragraph using the `'''` or `''` this ones you can only use `"""` this one for your coding

Your task is print this symbol

```
|-----|  
|         |  
|         |  
|-----|
```

```
print("""  
Welcome to my coding  
This is my coding  
""")  
  
paragraph = """  
Coding is very easy  
"""  
print(paragraph)
```

✓ Now how to print a variable with a sentence like this `print("Welcome",user)`

```
user = "shameel"  
print("Welcome",user)  
print("Welcome "+user)  
print(f'welcome {user}')print(f"welcome {user}")
```

○ The output is:

```
Welcome shameel  
Welcome shameel  
welcome shameel  
welcome shameel
```

Arrays

Arrays we can divide it in 3 types

- List []
- Tuple ()
- Set { }

Now we are going to see the list

```
users= ['shameel','x','y','z']  
print(users)
```

You can create a list like this The output of list is:

```
['shameel','x','y','z']
```

So If you want to create a list [] use the square brackets

Now how to print the value call shameel in array

Note:-The array contains value 0-some thing so you should call the 0 if you want get the first value of the array

Code:-

```
users= ['shameel','x','y','z']  
print(users[0])
```

Output:-

```
shameel
```

If you want to call the second value x you type like this print(users[1])

Now How to append a data in List You can type like this the command

```
users= ['shameel','x','y','z']  
users.append("Coding")  
print(users)
```

Use this command

Output:-

```
['shameel', 'x', 'y', 'z', 'Coding']
```

But If your going to update first value to I mean shameel to Programmer You can use this command

```
users= ['shameel','x','y','z']  
users[0] = "Programmer"  
print(users)
```

The output is:

```
users= ['Programmer', 'x', 'y', 'z']
```

Now we are going to see tuple ()

- ✓ You cannot append some thing in tuple it is fixed
So lets do some programme

The code is here and output:

```
users= ('shameel','x','y','z')  
print(users)
```

```
('shameel', 'x', 'y', 'z')
```

But if you append some thing it will show ad error

This is the error if you append

Traceback (most recent call last):

File "C:\Users\DELL-PC\Desktop\Python\main.py",
line 2, in <module>

```
users.append("Coding")
```

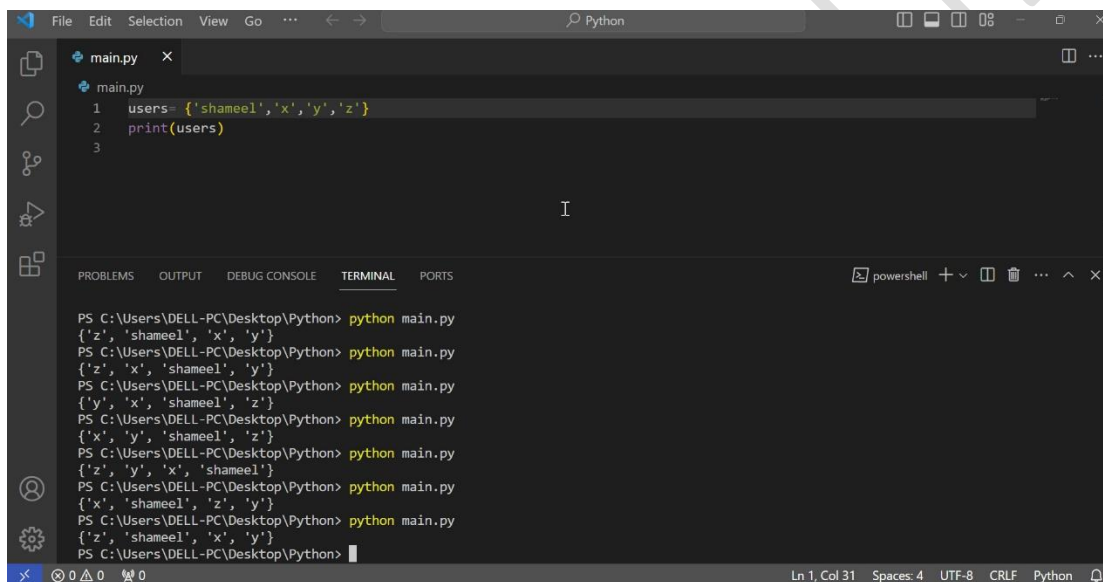
```
^^^^^^^^^^^^^^^^
```

AttributeError: 'tuple' object has no attribute 'append'

Now we are going to set {}

- ✓ It is a updated version of tuple and the tuple and updated version of list
- ✓ So the noted point we are using curly brackets for it {} So it is same like tuple but if run the code the output should be different it means it won't come in the order

Here the code:



```
main.py x
main.py
1 users= {'shameel','x','y','z'}
2 print(users)
3

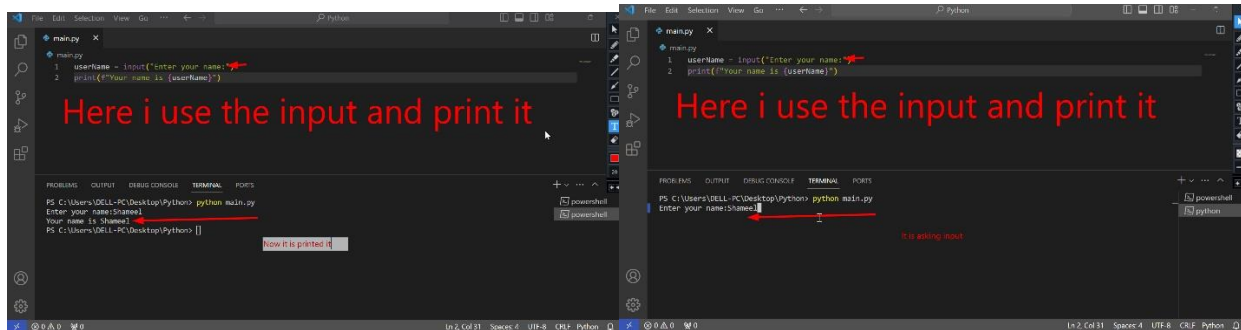
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
PS C:\Users\DELL-PC\Desktop\Python> python main.py
{'z', 'shameel', 'x', 'y'}
PS C:\Users\DELL-PC\Desktop\Python> python main.py
{'z', 'x', 'shameel', 'y'}
PS C:\Users\DELL-PC\Desktop\Python> python main.py
{'y', 'x', 'shameel', 'z'}
PS C:\Users\DELL-PC\Desktop\Python> python main.py
{'x', 'y', 'shameel', 'z'}
PS C:\Users\DELL-PC\Desktop\Python> python main.py
{'z', 'y', 'x', 'shameel'}
PS C:\Users\DELL-PC\Desktop\Python> python main.py
{'x', 'shameel', 'z', 'y'}
PS C:\Users\DELL-PC\Desktop\Python> python main.py
{'z', 'shameel', 'x', 'y'}
PS C:\Users\DELL-PC\Desktop\Python>
```

So you can see when I run the code many time the value is changing here

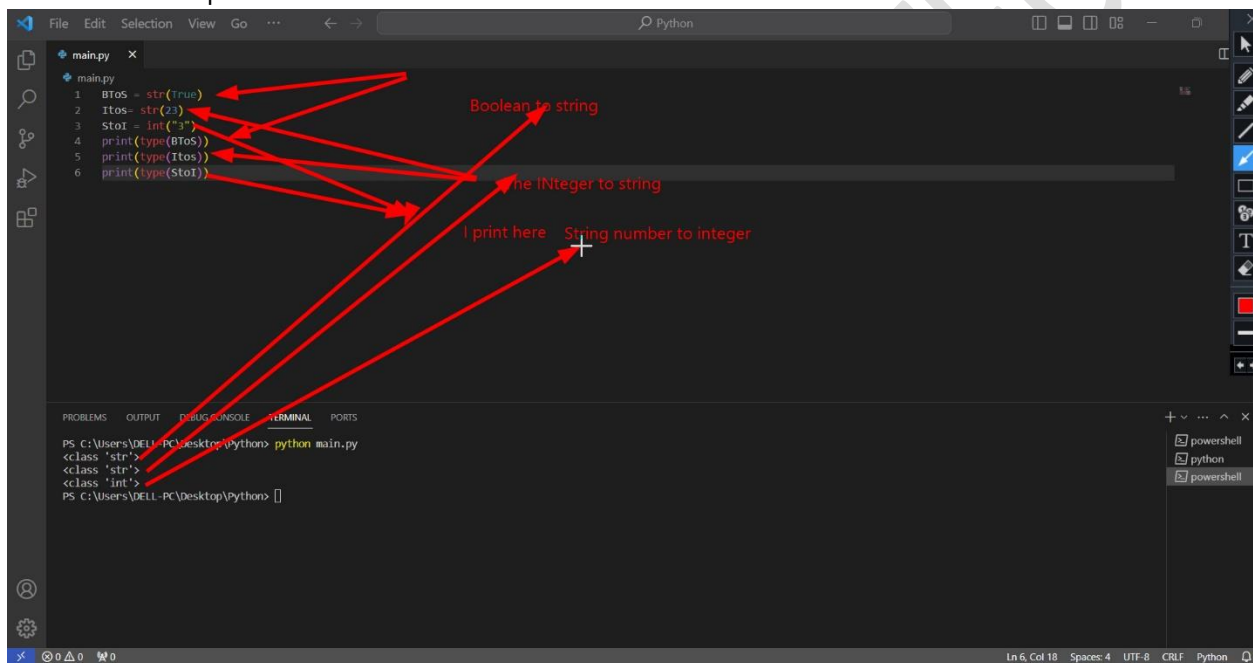
But you cannot use the append also here it should throw and error to it

GET USER INPUT

- If you want to get a user input using python you can use this input("Enter the number:") Lets do



In this input concept you can convert a integer to string and convert Boolean or anything to string just to string and if you enter a number as a string you can also convert it as a integer but not the letters here some example



IF ELSE ELIF AND NESTED IF

So we are going to learn if else elif now we are going to do a project

- In this project we store a variable and if the variable data is bigger than 10 we print it is bigger or same print same else it is small Lets do But here I didn't use the input

```
number = 10
if number > 10:
    print(f"Your number {number} is bigger than 10 ")

elif number == 10:
    print(f"Your number {number} is equal to 10 ")
```

```
else:  
    print(f"Your number {number} is smaller than 10 ")
```

The outputs are here:

```
1 number = 10  
2 if number > 10:  
3     print("Your number (number) is bigger than 10 ")  
4  
5 elif number == 10:  
6     print("Your number (number) is equal to 10 ")  
7  
8 else:  
9     print("Your number (number) is smaller than 10 ")  
10
```

PS C:\Users\DELL-PC\Desktop\Python> python main.py
Your number 10 is equal to 10
PS C:\Users\DELL-PC\Desktop\Python>

```
1 number = 11  
2 if number > 10:  
3     print("Your number (number) is bigger than 10 ")  
4  
5 elif number == 10:  
6     print("Your number (number) is equal to 10 ")  
7  
8 else:  
9     print("Your number (number) is smaller than 10 ")  
10
```

PS C:\Users\DELL-PC\Desktop\Python> python main.py
Your number 11 is bigger than 10
PS C:\Users\DELL-PC\Desktop\Python>

```
1 number = 2  
2 if number > 10:  
3     print("Your number (number) is bigger than 10 ")  
4  
5 elif number == 10:  
6     print("Your number (number) is equal to 10 ")  
7  
8 else:  
9     print("Your number (number) is smaller than 10 ")  
10
```

PS C:\Users\DELL-PC\Desktop\Python> python main.py
Your number 2 is smaller than 10
PS C:\Users\DELL-PC\Desktop\Python>

So Practice This loop Now we are going to see the Nested if

- The project is we are asking I want apple which apple American or orange which orange Japan orange or anything else

The image shows a Python IDE with a code editor and a terminal window. The code is a Python script named `main.py` that asks the user for a fruit and then for a number to select a specific fruit. The code is annotated with red arrows and text explaining the logic.

```

1 print("""
2 We have
3 1.Apple
4 2.Orange
5 """)
6 Fruit = input("Enter the fruits:")
7 if Fruit == "Apple":
8     print("""
9 We have
10 1.American apple
11 2.Japan Apple
12 """)
13
14     item = int(input("Enter the number of this food:"))
15     if item == 1:
16         print("You bought the American apple")
17     elif item == 2:
18         print("You bought the japanees apple")
19     else:
20         print("It is not here")
21 elif Fruit == "Orange":
22     print("""
23 We have
24 1.American Orange
25 2.Japan Orange
26 """)
27     item = int(input("Enter the number of this food:"))
28     if item == 1:
29         print("You bought the American orange")
30     elif item == 2:
31         print("You bought the japanees orange")
32     else:
33         print("It is not here")
34 else:
35     print("Nothing here")
36

```

Annotations in the image:

- Here i printed it (points to line 1)
- I asked the What fruit do you want some thing (points to line 6)
- If the fruit is equal to Apple so it print a Value (points to line 7)
- Then asking a Input in a integer value you know the suppose user enter a string value it show and error (points to line 14)
- IF IT IS 1 YOU BOUGHT AMERICAN (points to line 16)
- OR IT IS 2 SHOW YOU BOUGHT THE JAPANEES ELSE WE HAVEN'T IT (points to line 18)
- HERE IF THE FOOD IS ORANGE AND THE SAME PROCESS IN THE APPLE (points to line 22)
- else Nothing here (points to line 35)

The terminal window shows the execution of the script. The user enters 'Apple' and then '1', resulting in the output: 'You bought the American apple'.

```

PS C:\Users\DELL-PC\Desktop\Python> python main.py
We have
1.Apple
2.Orange
Enter the fruits:
Enter the fruits:Apple
We have
1.American apple
2.Japan Apple
Enter the number of this food:1
You bought the American apple
PS C:\Users\DELL-PC\Desktop\Python>

```

```
PS C:\Users\DELL-PC\Desktop\Python> python main.py
We have
1.Apple
2.Orange
Enter the fruits:Orange
We have
1.American Orange
2.Japan Orange
Enter the number of this food:
PS C:\Users\DELL-PC\Desktop\Python>
We have
1.Apple
2.Orange
Enter the number of this food:1
You bought the American orange
PS C:\Users\DELL-PC\Desktop\Python> python main.py
2.Japan Orange
Enter the number of this food:1
You bought the American orange
PS C:\Users\DELL-PC\Desktop\Python>
We have
1.Apple
2.Orange
Enter the fruits:Dragon fruit
Nothing here
PS C:\Users\DELL-PC\Desktop\Python>
```

So here I checked if the item value is equal to integer 1 so it continue or user enter a string some like "idsi" it throw an error so this is the main code here

LOOPS (FOR LOOP WHILE LOOP)

It is a important topic in python so lets learn

We can simple use a for loop in this method

It just for basic in intermediate book we will see the loops and array very advance

So here some code for it

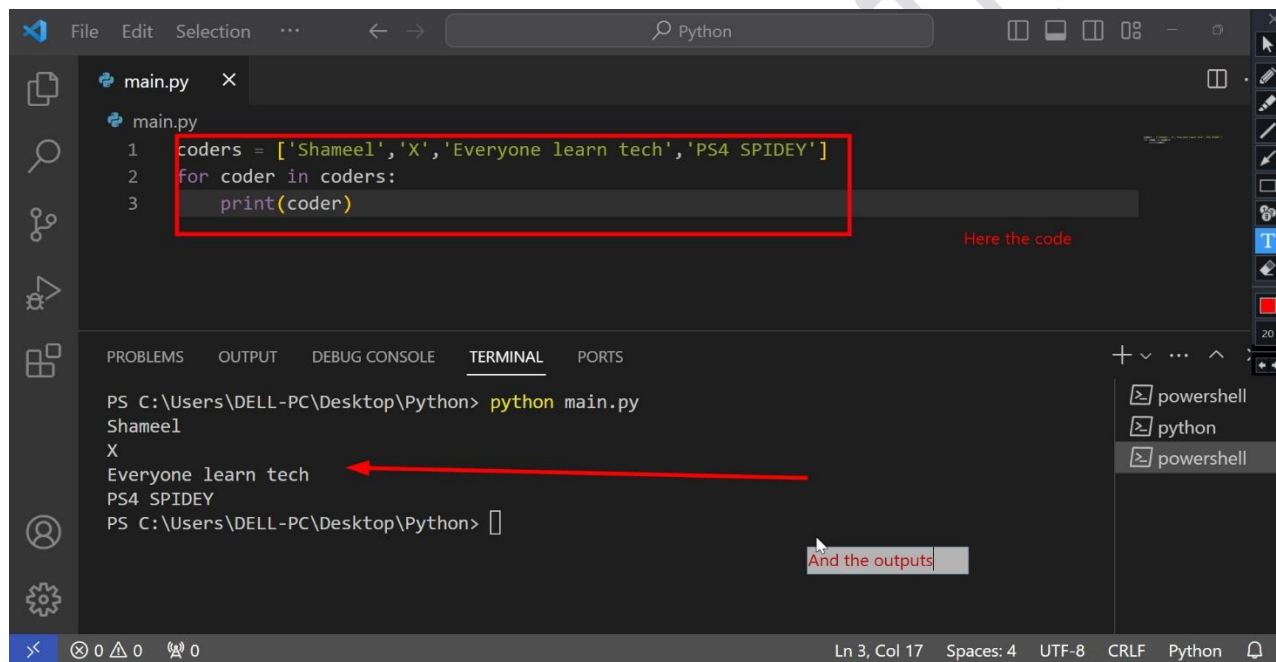
In this code it printed 0-9

```
for i in range(10):
    print(i)
```

the Output is:

0
1
2
3
4
5
6
7
8
9

Ok now I have a array in the code so I want to print the value line by line you can use it loop for it so lets see



The screenshot shows the Visual Studio Code editor with a file named `main.py` open. The code in the editor is:

```
1 coders = ['Shameel','X','Everyone learn tech','PS4 SPIDEY']
2 for coder in coders:
3     print(coder)
```

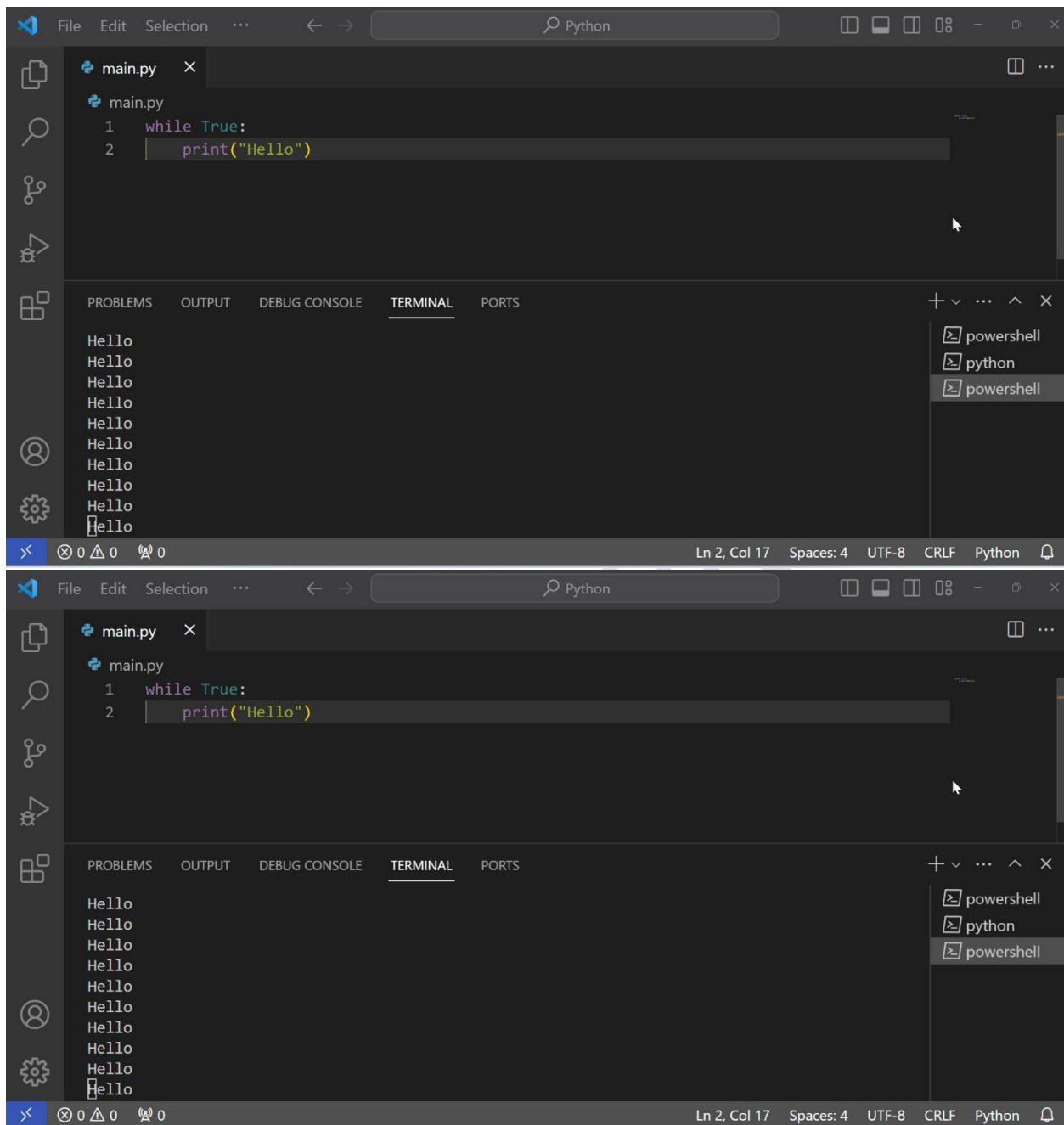
The code is highlighted with a red box. Below the editor, the TERMINAL panel shows the command `python main.py` and its output:

```
PS C:\Users\DELL-PC\Desktop\Python> python main.py
Shameel
X
Everyone learn tech
PS4 SPIDEY
PS C:\Users\DELL-PC\Desktop\Python>
```

A red arrow points from the text "And the outputs" to the output in the terminal. The status bar at the bottom indicates "Ln 3, Col 17 Spaces: 4 UTF-8 CRLF Python".

Now while loop :

You can enter condition like if elif in while loop and you can use the True for it so it will continue it is a interesting topic LETS SEE:



The image displays two screenshots of the Visual Studio Code (VS Code) editor interface, showing a Python script being executed in a terminal. The script, named `main.py`, contains a `while True:` loop that prints the word "Hello" repeatedly. The terminal output shows the word "Hello" printed multiple times, indicating the script is running continuously. The VS Code interface includes a sidebar with icons for Explorer, Search, Source Control, Run and Debug, and Settings. The main editor area shows the `main.py` file with the following code:

```
1 while True:
2     print("Hello")
```

The terminal panel at the bottom shows the output of the script, with the word "Hello" printed repeatedly. The status bar at the bottom indicates the current line and column (Ln 2, Col 17), the number of spaces (4), the encoding (UTF-8), the line ending (CRLF), and the language (Python).

The code is running now the coding is I have a value if the value smaller than 10 the code should be run else it stop lets do

```
1 num = 0
2 while num < 10:
3     print(num)
4     num=num+1
5 else:
6     print("IT IS OVER")
```

YOU CAN SEE THE 0 IS SMALLER THAN 10 SO IT IS RUNNING

BUT HERE I PUT THE NUM = NUM+1 SO THE NUMBER ADD BY 1 IN EVERY MOVE

FINALLY WHEN NUMBER ADD BY ONE NOW THE NUMBER EQUAL TO 10 SO IT WILL OFF THAT IS THE CODE

IT IS OVER

DICTIONARY

Now we are going to learn about dictionary is a interesting topic in python ok what is dictionary most of us thing dictionary has meaning for many words but here it same but some different ok lets learn we are going to do a application with the help of dictionary the app is user enter a input so if the word in the dictionary we print ok first lets learn dictionary

Now lets code:

```
1 mydictionary = {
2     'name': 'Shameel',
3     'age': 34,
4     'country': 'Srilanka'
5 }
6 print(mydictionary)
7 print(mydictionary['name'])
8 print(mydictionary['age'])
9 print(mydictionary['country'])
```

Syntax of dictionary you can see here

Here how to create a dictionary

Print a whole dictionary with example with name and value of name

Print the value of name

value of country

value of age

PS C:\Users\DELL-PC\Desktop\Python> python main.py

{'name': 'Shameel', 'age': 34, 'country': 'Srilanka'}

Shameel

34

Srilanka

PS C:\Users\DELL-PC\Desktop\Python>

you can see the output of this dictionary

Also you can enter multiple value so this project is I have a user and so we have a dictionary about him and we are calling him Now a example the dictionary contain name,age,city,phonenumber,food and the food contain favorite and dislike food Lets code:

```
1 mydictionary = {  
2     'name': "Shameel",  
3     'age': 34,  
4     'country': "Srilanka",  
5     'food': {  
6         'fav': "Apple",  
7         'dis': "Orange"  
8     }  
9 }  
10  
11 print(mydictionary)  
12 print(mydictionary['name'])  
13 print(mydictionary['age'])  
14 print(mydictionary['country'])  
15 print(mydictionary['food'])  
16 print(mydictionary['food']['fav'])  
17 print(mydictionary['food']['dis'])
```

Here you can see the extra value and our printing method

So we created a simple dictionary inside a dictionary

Now see how we printed it

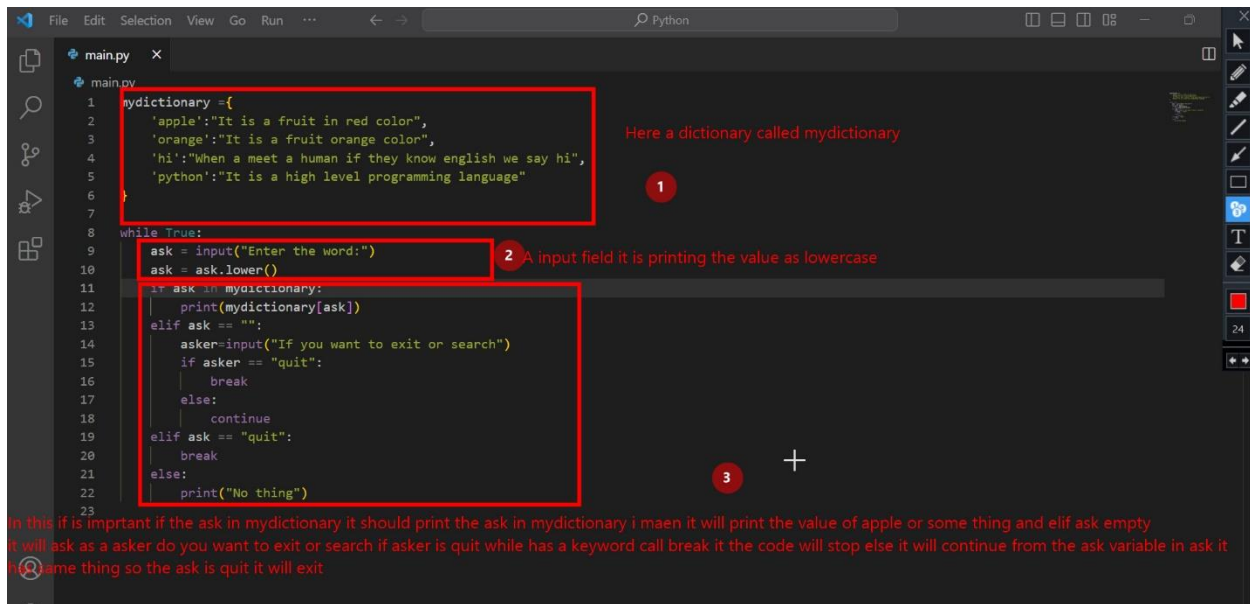
Output:

```
PS C:\Users\DELL-PC\Desktop\Python> python main.py  
{'name': 'Shameel', 'age': 34, 'country': 'Srilanka', 'food': {'fav': 'Apple', 'dis': 'Orange'}}  
Shameel  
34  
Srilanka  
{ 'fav' : 'Apple', 'dis' : 'Orange' }  
Apple  
Orange  
PS C:\Users\DELL-PC\Desktop\Python>
```

So you can see the output

Now we are going to do our final project:

Coding:



```
1 mydictionary = {
2     'apple': "It is a fruit in red color",
3     'orange': "It is a fruit orange color",
4     'hi': "When a meet a human if they know english we say hi",
5     'python': "It is a high level programming language"
6 }
7
8 while True:
9     ask = input("Enter the word:")
10    ask = ask.lower()
11    if ask in mydictionary:
12        print(mydictionary[ask])
13    elif ask == "":
14        asker = input("If you want to exit or search")
15        if asker == "quit":
16            break
17        else:
18            continue
19    elif ask == "quit":
20        break
21    else:
22        print("No thing")
23
```

Annotations in the image:

- 1: Here a dictionary called mydictionary
- 2: A input field it is printing the value as lowercase
- 3: +

In this if is imprtant if the ask in mydictionary it should print the ask in mydictionary i maen it will print the value of apple or some thing and elif ask empty it will ask as a asker do you want to exit or search if asker is quit while has a keyword call break it the code will stop else it will continue from the ask variable in ask it h@me thing so the ask is quit it will exit

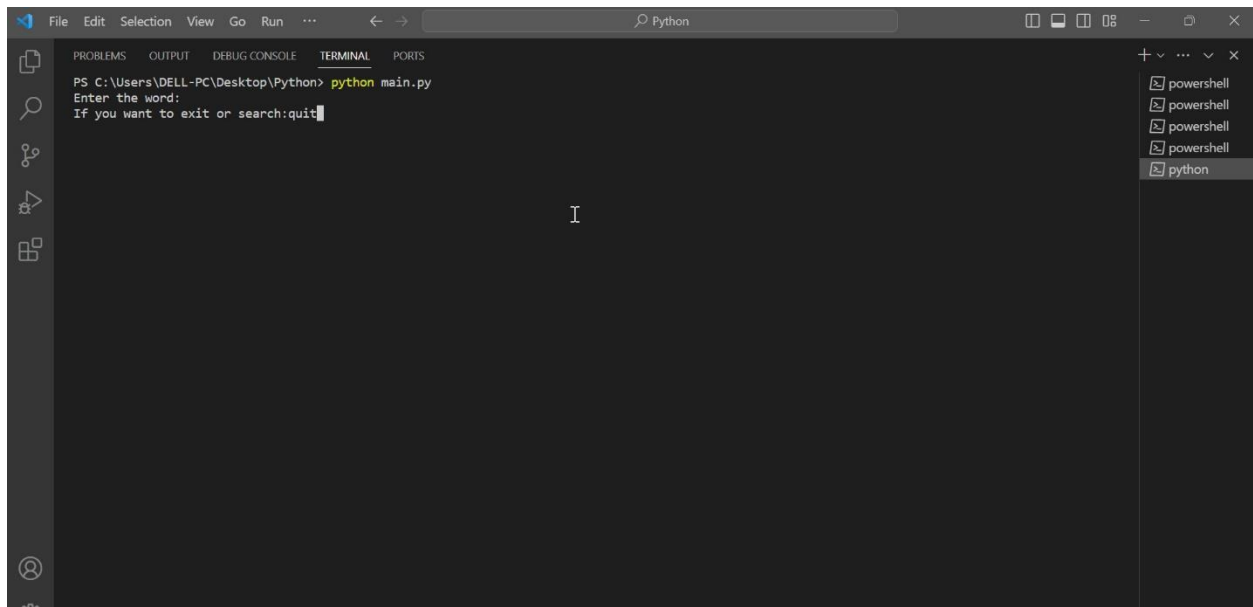
Output:

This screenshot shows a Visual Studio Code terminal window. The top menu bar includes File, Edit, Selection, View, Go, Run, and a search icon. The breadcrumb navigation shows 'Python'. The terminal tabs are PROBLEMS, OUTPUT, DEBUG CONSOLE, **TERMINAL**, and PORTS. The terminal content shows a PowerShell prompt 'PS C:\Users\DELL-PC\Desktop\Python>' followed by the command 'python main.py'. Below this, the text 'Enter the word:' is displayed with a cursor. The left sidebar contains icons for Explorer, Search, Source Control, Run and Debug, and Extensions. The right sidebar shows a list of terminal instances: four 'powershell' instances and one 'python' instance, which is currently selected.

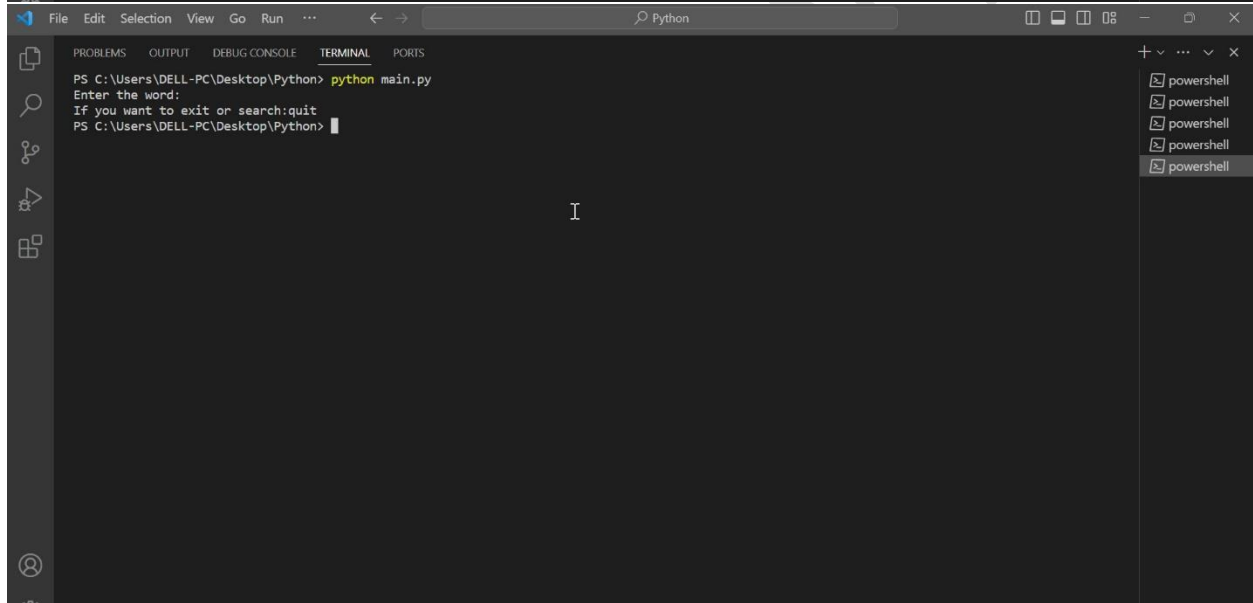
```
PS C:\Users\DELL-PC\Desktop\Python> python main.py
Enter the word:
```

This screenshot shows the same Visual Studio Code terminal window as above, but at a later point in time. The terminal content now shows the output of the script: 'Enter the word:' followed by 'If you want to exit or search' with a cursor. The rest of the interface, including the menu bar, tabs, and sidebars, remains the same.

```
PS C:\Users\DELL-PC\Desktop\Python> python main.py
Enter the word:
If you want to exit or search
```

This screenshot shows a Visual Studio Code terminal window. The terminal has tabs for PROBLEMS, OUTPUT, DEBUG CONSOLE, TERMINAL, and PORTS. The TERMINAL tab is active, displaying the following text:
PS C:\Users\DELL-PC\Desktop\Python> python main.py
Enter the word:
If you want to exit or search:quit
A cursor is positioned at the end of the 'quit' line. On the right side of the terminal, there is a list of open files: powershell, powershell, powershell, powershell, and python. The python file is currently selected.



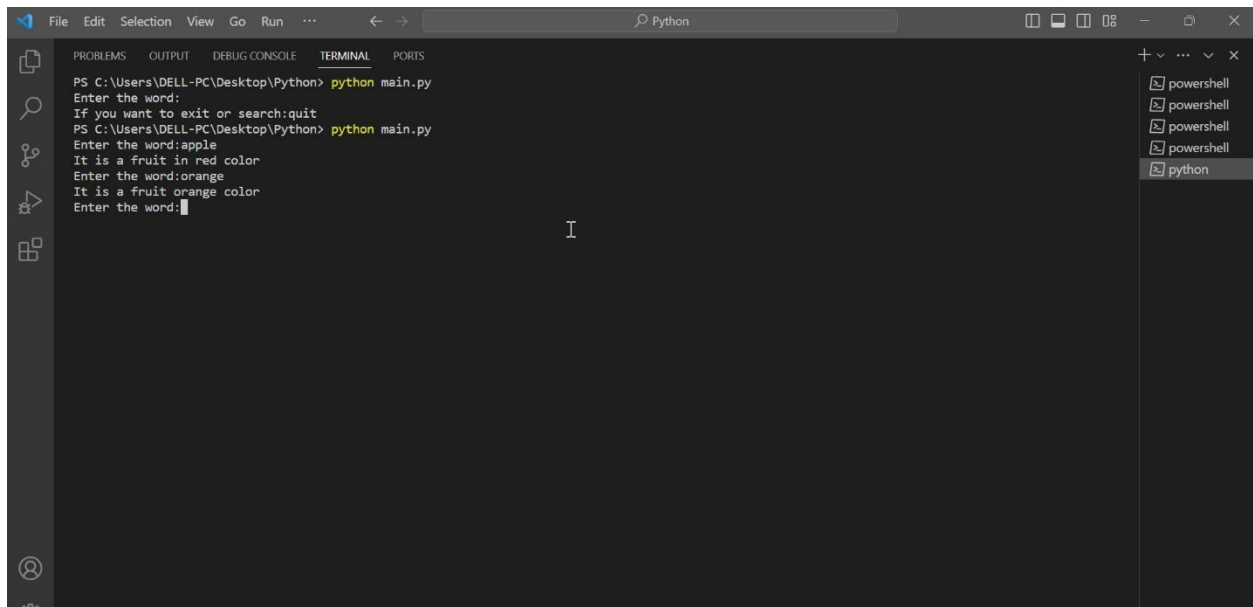
This screenshot shows the same Visual Studio Code terminal window after the execution of the Python script. The terminal output now includes an additional line:
PS C:\Users\DELL-PC\Desktop\Python> python main.py
Enter the word:
If you want to exit or search:quit
PS C:\Users\DELL-PC\Desktop\Python>
The cursor is now at the new prompt line. The file list on the right remains the same, with powershell files listed above the python file.

The screenshot shows a Visual Studio Code window with a terminal open. The terminal has tabs for PROBLEMS, OUTPUT, DEBUG CONSOLE, TERMINAL, and PORTS. The TERMINAL tab is active, showing a PowerShell prompt at C:\Users\DELL-PC\Desktop\Python>. The user has run 'python main.py'. The script prompts for 'Enter the word:', then 'If you want to exit or search:quit', and then 'Enter the word:apple'. The user has entered 'apple' and the cursor is at the end of the line.

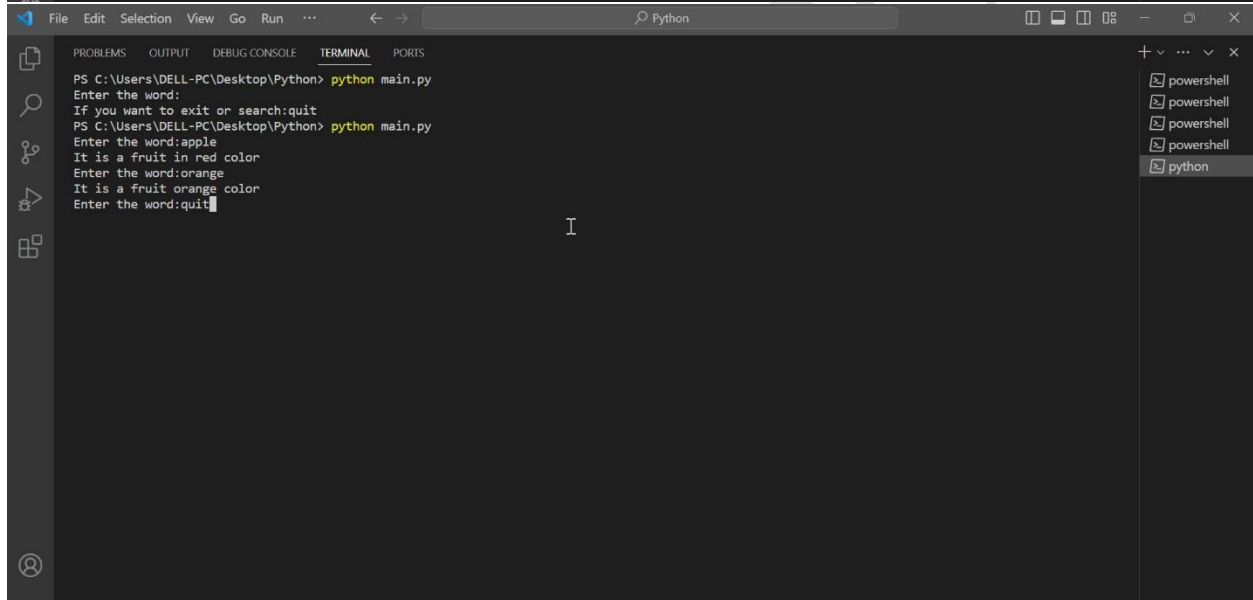
```
PS C:\Users\DELL-PC\Desktop\Python> python main.py
Enter the word:
If you want to exit or search:quit
PS C:\Users\DELL-PC\Desktop\Python> python main.py
Enter the word:apple
```

This screenshot is similar to the first one, but with a search overlay visible. The terminal shows the same initial execution. After the user enters 'apple', the script outputs 'It is a fruit in red color' and prompts 'Enter the word:'. A search overlay is open, displaying 'Search files by name (append : to go to line or @ to go to symbol)'. The overlay lists 'main.py' as a recently opened file. Below this, there are two entries: 'JS java.js' and 'index.html'. The terminal text is partially obscured by the overlay.

```
PS C:\Users\DELL-PC\Desktop\Python> p
Enter the word:
If you want to exit or search:quit
PS C:\Users\DELL-PC\Desktop\Python> python main.py
Enter the word:apple
It is a fruit in red color
Enter the word:
```



```
File Edit Selection View Go Run ... Python
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
PS C:\Users\DELL-PC\Desktop\Python> python main.py
Enter the word:
If you want to exit or search:quit
PS C:\Users\DELL-PC\Desktop\Python> python main.py
Enter the word:apple
It is a fruit in red color
Enter the word:orange
It is a fruit orange color
Enter the word:
```



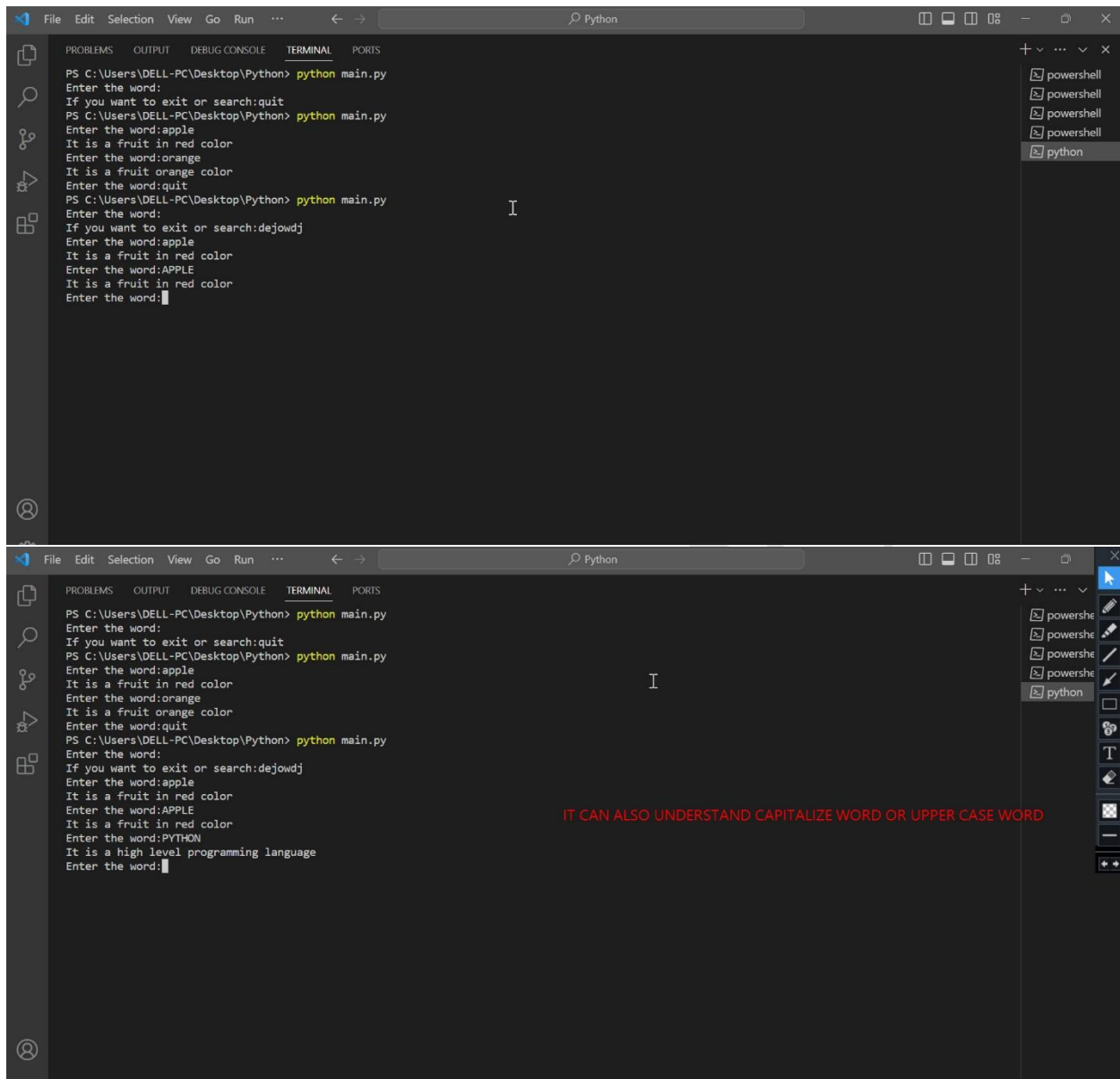
```
File Edit Selection View Go Run ... Python
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
PS C:\Users\DELL-PC\Desktop\Python> python main.py
Enter the word:
If you want to exit or search:quit
PS C:\Users\DELL-PC\Desktop\Python> python main.py
Enter the word:apple
It is a fruit in red color
Enter the word:orange
It is a fruit orange color
Enter the word:quit
```

```
File Edit Selection View Go Run ... Search files by name (append : to go to line or @ to go to symbol)
main.py recently opened x
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL
PS C:\Users\DELL-PC\Desktop\Python> p JS java.js
Enter the word: < index.html
PS C:\Users\DELL-PC\Desktop\Python> python main.py
Enter the word:apple
It is a fruit in red color
Enter the word:orange
It is a fruit orange color
Enter the word:quit
PS C:\Users\DELL-PC\Desktop\Python> python main.py
Enter the word:
If you want to exit or search:[]
```

```
File Edit Selection View Go Run ... Python
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
PS C:\Users\DELL-PC\Desktop\Python> python main.py
Enter the word:
If you want to exit or search:quit
PS C:\Users\DELL-PC\Desktop\Python> python main.py
Enter the word:apple
It is a fruit in red color
Enter the word:orange
It is a fruit orange color
Enter the word:quit
PS C:\Users\DELL-PC\Desktop\Python> python main.py
Enter the word:
If you want to exit or search:dejawdj
```

```
PS C:\Users\DELL-PC\Desktop\Python> python main.py
Enter the word:
If you want to exit or search:quit
PS C:\Users\DELL-PC\Desktop\Python> python main.py
Enter the word:apple
It is a fruit in red color
Enter the word:orange
It is a fruit orange color
Enter the word:quit
PS C:\Users\DELL-PC\Desktop\Python> python main.py
Enter the word:
If you want to exit or search:dejowdj
Enter the word:apple
It is a fruit in red color
Enter the word:
```

```
PS C:\Users\DELL-PC\Desktop\Python> python main.py
Enter the word:
If you want to exit or search:quit
PS C:\Users\DELL-PC\Desktop\Python> python main.py
Enter the word:apple
It is a fruit in red color
Enter the word:orange
It is a fruit orange color
Enter the word:quit
PS C:\Users\DELL-PC\Desktop\Python> python main.py
Enter the word:
If you want to exit or search:dejowdj
Enter the word:apple
It is a fruit in red color
Enter the word:APPLE
```



```
PS C:\Users\DELL-PC\Desktop\Python> python main.py
Enter the word:
If you want to exit or search:quit
PS C:\Users\DELL-PC\Desktop\Python> python main.py
Enter the word:apple
It is a fruit in red color
Enter the word:orange
It is a fruit orange color
Enter the word:quit
PS C:\Users\DELL-PC\Desktop\Python> python main.py
Enter the word:
If you want to exit or search:dejowdj
Enter the word:apple
It is a fruit in red color
Enter the word:APPLE
It is a fruit in red color
Enter the word:IT CAN ALSO UNDERSTAND CAPITALIZE WORD OR UPPER CASE WORD
```

Now we are going to learn Functions

1.Def function

2.Lambda function

In this beginner course we are going to learn Def function

Here an example:

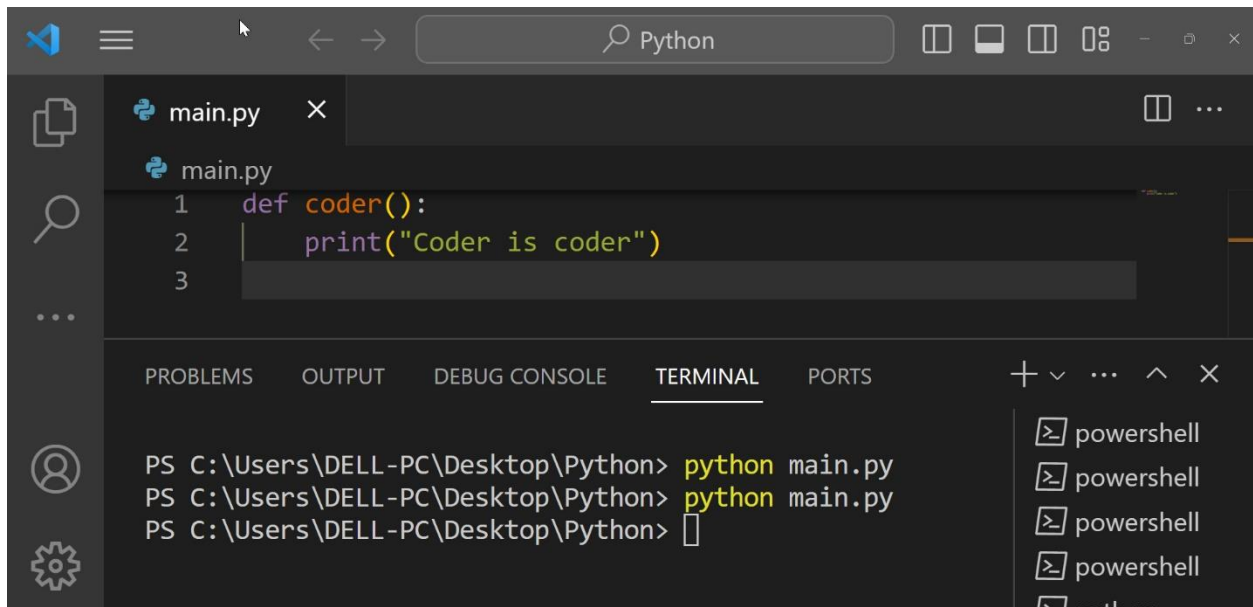
The image shows two screenshots of the Visual Studio Code (VS Code) interface. The top screenshot displays a Python file named `main.py` with the following code:

```
1 def coder():  
2     print("Coder is coder")  
3 coder()
```

A red rectangle highlights the function definition (lines 1 and 2). A red arrow points from the `def` keyword to the text "DEF IS KEYWORD FOR CREATING A DEF FUNCTION". Another red arrow points from the `coder()` call on line 3 to the text "THIS IS CALLING THE FUNCTION IF YOU DOESN'T CALL IT WON'T SHOW ANYTHING". The text "HERE WE CREATED FUNCTION" is also visible in red.

The bottom screenshot shows the same VS Code interface with the `TERMINAL` panel open. The terminal output shows the command `python main.py` being executed, resulting in the output `Coder is coder`. The terminal prompt is `PS C:\Users\DELL-PC\Desktop\Python>`. A dropdown menu on the right side of the terminal shows options: `powershell`, `python`, and `powershell`.

Now what happen if didn't call the function



The screenshot shows a code editor with a file named `main.py`. The code inside is:

```
1 def coder():  
2     print("Coder is coder")  
3
```

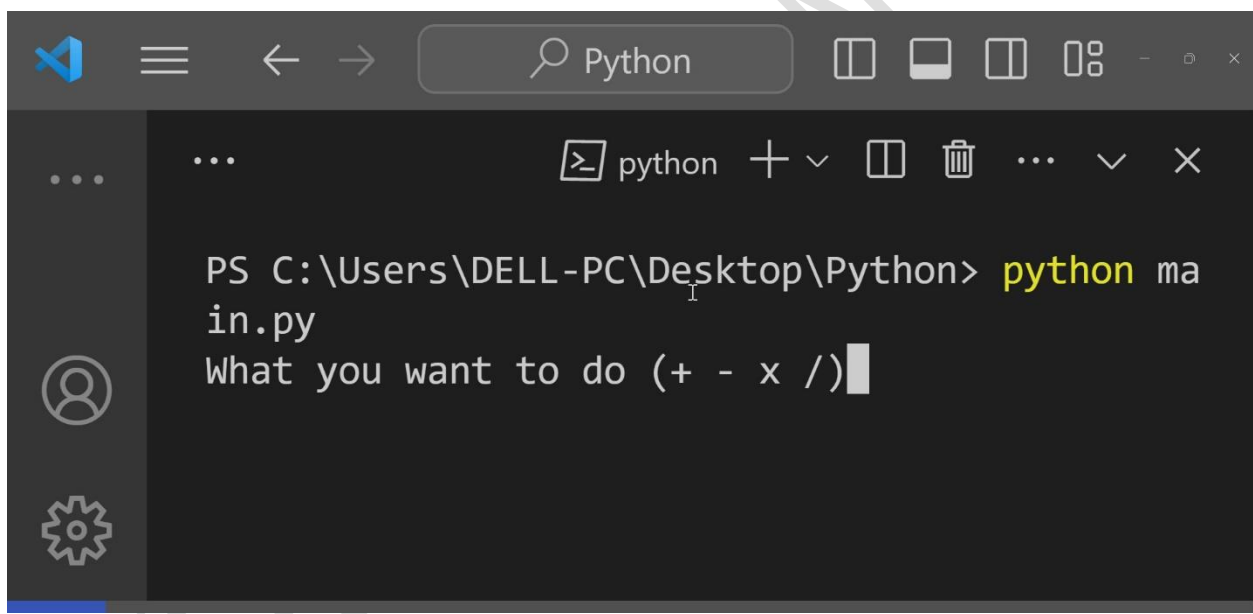
Below the code editor is a terminal window with the following commands and output:

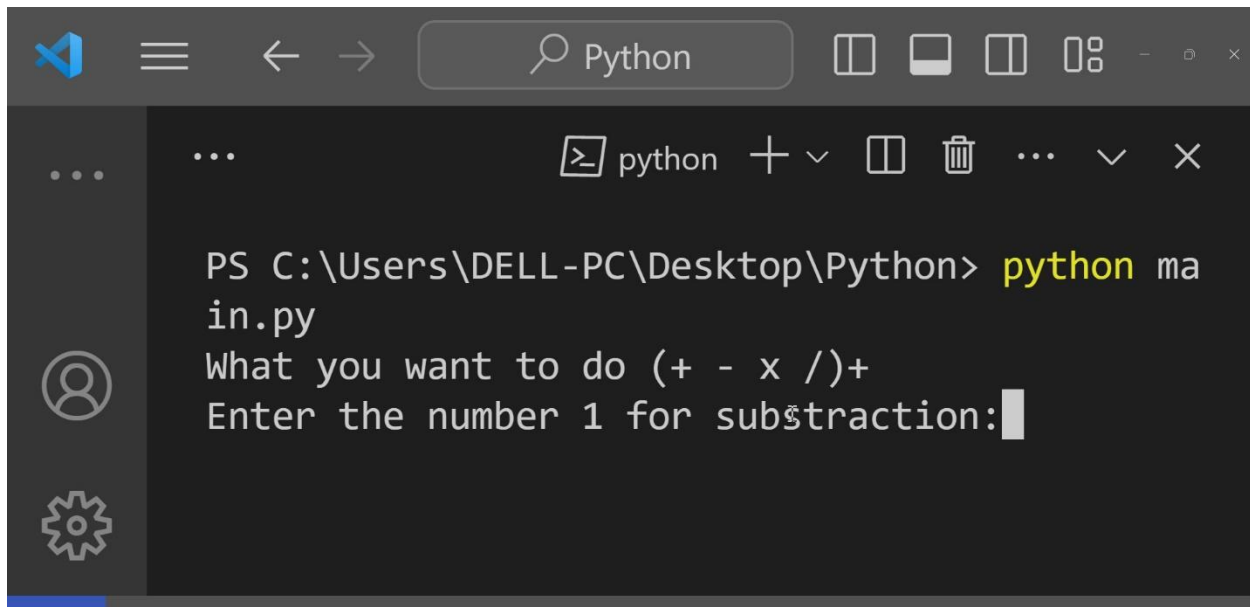
```
PS C:\Users\DELL-PC\Desktop\Python> python main.py  
PS C:\Users\DELL-PC\Desktop\Python> python main.py  
PS C:\Users\DELL-PC\Desktop\Python>
```

The terminal output shows the command prompt and the execution of the `python main.py` command twice, with no visible output from the script.

We will learn the intermediate concept in intermediate book

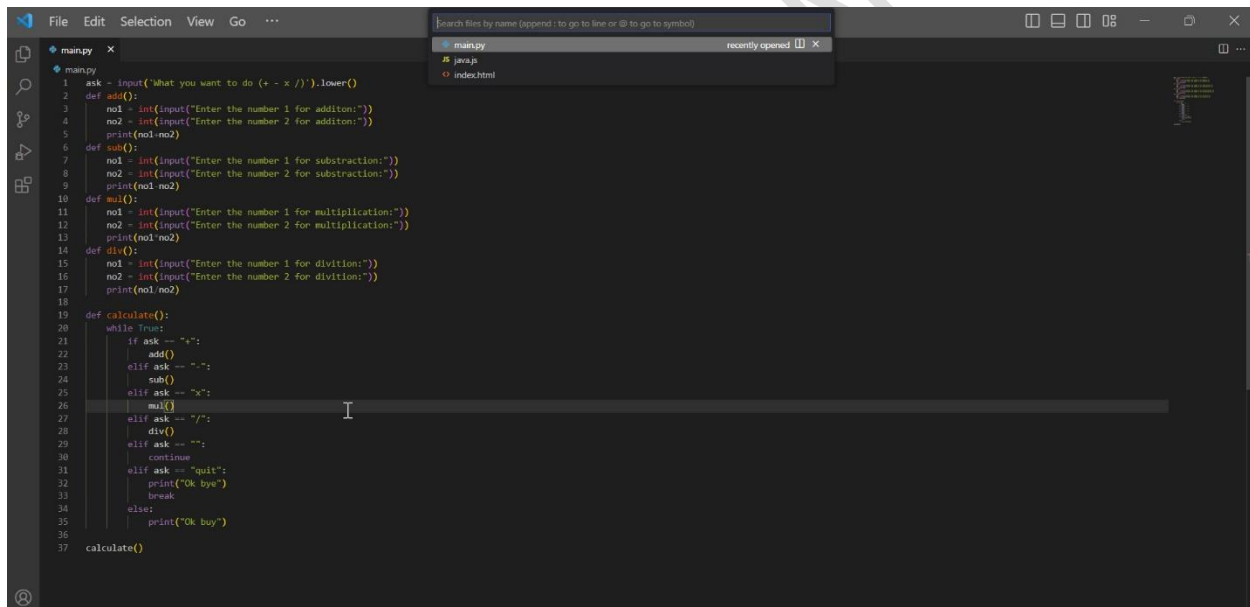
NOW WE ARE GOING TO DO A SIMPLE CALCUALTOR





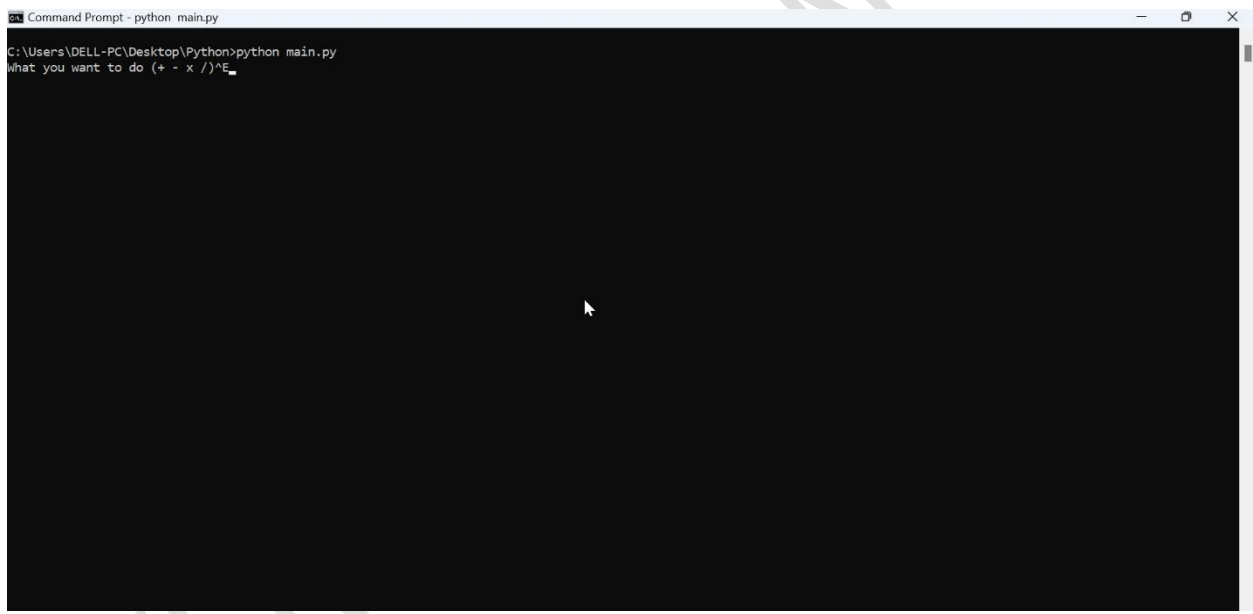
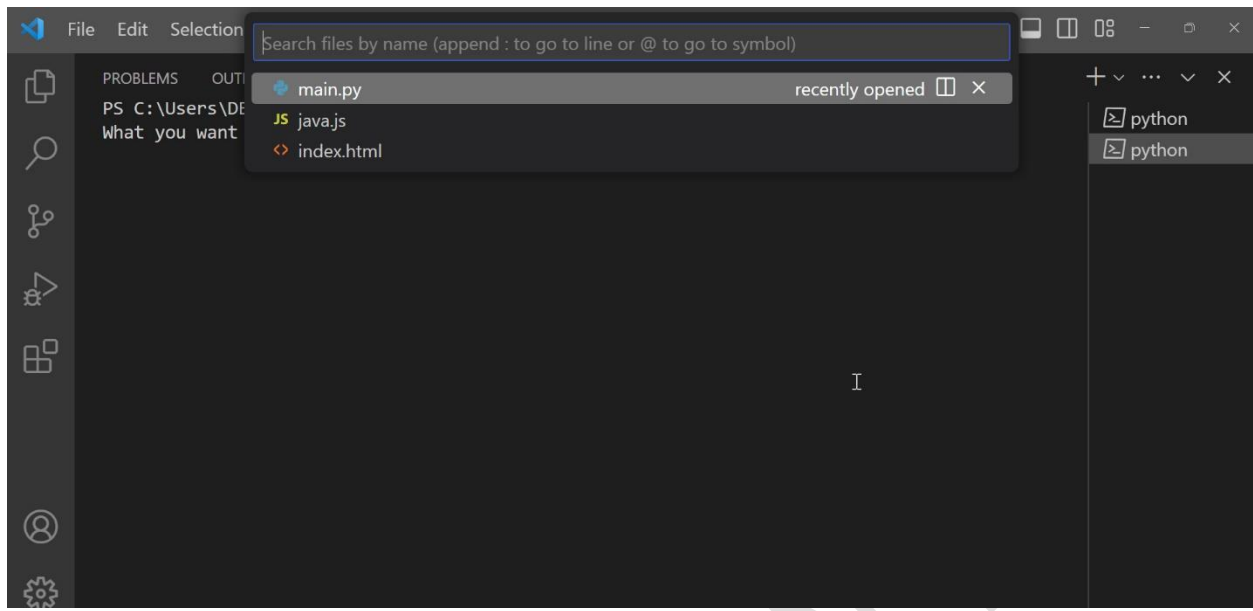
A terminal window with a dark background. The title bar shows the Visual Studio Code icon, a menu icon, and navigation arrows. The address bar contains a search icon and the text "Python". The toolbar includes icons for file explorer, run and debug, source control, and a search icon. The terminal text shows the command `python main.py` being executed in the directory `C:\Users\DELL-PC\Desktop\Python>`. The program prompts the user with "What you want to do (+ - x /)+", and the user has entered "1" for subtraction. The prompt "Enter the number 1 for subtraction:" is followed by a cursor.

```
PS C:\Users\DELL-PC\Desktop\Python> python main.py
What you want to do (+ - x /)+
Enter the number 1 for subtraction:
```



A code editor window showing the source code of `main.py`. The title bar includes "File", "Edit", "Selection", "View", and "Go" menus. A search bar at the top right says "Search files by name (append : to go to line or @ to go to symbol)". The Explorer sidebar on the left shows the file structure with `main.py`, `javajs`, and `index.html`. The Run and Debug sidebar is also visible. The code defines functions for addition, subtraction, multiplication, and division, and a `calculate()` function that uses a `while` loop to handle user input. The cursor is positioned on line 26, which is the `mul()` function call within the `while` loop.

```
1 ask = input("what you want to do (+ - x /)").lower()
2 def add():
3     no1 = int(input("Enter the number 1 for addition:"))
4     no2 = int(input("Enter the number 2 for addition:"))
5     print(no1+no2)
6 def sub():
7     no1 = int(input("Enter the number 1 for subtraction:"))
8     no2 = int(input("Enter the number 2 for subtraction:"))
9     print(no1-no2)
10 def mul():
11     no1 = int(input("Enter the number 1 for multiplication:"))
12     no2 = int(input("Enter the number 2 for multiplication:"))
13     print(no1*no2)
14 def div():
15     no1 = int(input("Enter the number 1 for division:"))
16     no2 = int(input("Enter the number 2 for division:"))
17     print(no1/no2)
18
19 def calculate():
20     while True:
21         if ask == "+":
22             add()
23         elif ask == "-":
24             sub()
25         elif ask == "x":
26             mul()
27         elif ask == "/":
28             div()
29         elif ask == "":
30             continue
31         elif ask == "quit":
32             print("Ok bye")
33             break
34         else:
35             print("Ok buy")
36
37 calculate()
```



```
Command Prompt - python main.py
C:\Users\DELL-PC\Desktop\Python>python main.py
What you want to do (+ - x /)+
Enter the number 1 for additon:^E_
```

```
Command Prompt - python main.py
C:\Users\DELL-PC\Desktop\Python>python main.py
What you want to do (+ - x /)+
Enter the number 1 for additon:10
Enter the number 2 for additon:^E_
```

```
Command Prompt - python main.py
C:\Users\DELL-PC\Desktop\Python>python main.py
What you want to do (+ - x /)+
Enter the number 1 for additon:10
Enter the number 2 for additon:20
```

```
Command Prompt - python main.py
C:\Users\DELL-PC\Desktop\Python>python main.py
What you want to do (+ - x /)+
Enter the number 1 for additon:10
Enter the number 2 for additon:20
```

EVER

```
Command Prompt - python main.py
C:\Users\DELL-PC\Desktop\Python>python main.py
What you want to do (+ - x /)^E_
```

```
Command Prompt - python main.py
C:\Users\DELL-PC\Desktop\Python>python main.py
What you want to do (+ - x /)^+
Enter the number 1 for additon:
```

```
Command Prompt - python main.py
C:\Users\DELL-PC\Desktop\Python>python main.py
What you want to do (+ - x /)+
Enter the number 1 for additon:10
Enter the number 2 for additon:^E_
```

```
Command Prompt
C:\Users\DELL-PC\Desktop\Python>python main.py
What you want to do (+ - x /)+
Enter the number 1 for additon:10
Enter the number 2 for additon:20
30
C:\Users\DELL-PC\Desktop\Python>
```

```
Command Prompt - python main.py
C:\Users\DELL-PC\Desktop\Python>python main.py
What you want to do (+ - x /)+
Enter the number 1 for additon:10
Enter the number 2 for additon:20
30

C:\Users\DELL-PC\Desktop\Python>python main.py
What you want to do (+ - x /)-
Enter the number 1 for subtraction:
```

```
Command Prompt - python main.py
C:\Users\DELL-PC\Desktop\Python>python main.py
What you want to do (+ - x /)+
Enter the number 1 for additon:10
Enter the number 2 for additon:20
30

C:\Users\DELL-PC\Desktop\Python>python main.py
What you want to do (+ - x /)-
Enter the number 1 for subtraction:12
Enter the number 2 for subtraction:^E
```



```
Command Prompt

C:\Users\DELL-PC\Desktop\Python>python main.py
What you want to do (+ - x /)+
Enter the number 1 for addition:10
Enter the number 2 for addition:20
30

C:\Users\DELL-PC\Desktop\Python>python main.py
What you want to do (+ - x /)-
Enter the number 1 for subtraction:12
Enter the number 2 for subtraction:2
10

C:\Users\DELL-PC\Desktop\Python>
```

```
Command Prompt - python main.py

C:\Users\DELL-PC\Desktop\Python>python main.py
What you want to do (+ - x /)+
Enter the number 1 for addition:10
Enter the number 2 for addition:20
30

C:\Users\DELL-PC\Desktop\Python>python main.py
What you want to do (+ - x /)-
Enter the number 1 for subtraction:12
Enter the number 2 for subtraction:2
10

C:\Users\DELL-PC\Desktop\Python>python main.py
What you want to do (+ - x /)x
Enter the number 1 for multiplication:10
Enter the number 2 for multiplication:10
100
```

```
Command Prompt

C:\Users\DELL-PC\Desktop\Python>python main.py
What you want to do (+ - x /)+
Enter the number 1 for addition:10
Enter the number 2 for addition:20
30

C:\Users\DELL-PC\Desktop\Python>python main.py
What you want to do (+ - x /)-
Enter the number 1 for subtraction:12
Enter the number 2 for subtraction:2
10

C:\Users\DELL-PC\Desktop\Python>python main.py
What you want to do (+ - x /)*
Enter the number 1 for multiplication:10
Enter the number 2 for multiplication:2
20

C:\Users\DELL-PC\Desktop\Python>
```

```
Command Prompt - python main.py

C:\Users\DELL-PC\Desktop\Python>python main.py
What you want to do (+ - x /)+
Enter the number 1 for addition:10
Enter the number 2 for addition:20
30

C:\Users\DELL-PC\Desktop\Python>python main.py
What you want to do (+ - x /)-
Enter the number 1 for subtraction:12
Enter the number 2 for subtraction:2
10

C:\Users\DELL-PC\Desktop\Python>python main.py
What you want to do (+ - x /)*
Enter the number 1 for multiplication:10
Enter the number 2 for multiplication:2
20

C:\Users\DELL-PC\Desktop\Python>python main.py
What you want to do (+ - x /)/
Enter the number 1 for division:20
Enter the number 2 for division:2
```

```
Command Prompt

C:\Users\DELL-PC\Desktop\Python>python main.py
What you want to do (+ - x /)+
Enter the number 1 for addition:10
Enter the number 2 for addition:20
30

C:\Users\DELL-PC\Desktop\Python>python main.py
What you want to do (+ - x /)-
Enter the number 1 for subtraction:12
Enter the number 2 for subtraction:2
10

C:\Users\DELL-PC\Desktop\Python>python main.py
What you want to do (+ - x /)*
Enter the number 1 for multiplication:10
Enter the number 2 for multiplication:2
20

C:\Users\DELL-PC\Desktop\Python>python main.py
What you want to do (+ - x /)/
Enter the number 1 for division:20
Enter the number 2 for division:2
10.0

C:\Users\DELL-PC\Desktop\Python>
```

```
Command Prompt

C:\Users\DELL-PC\Desktop\Python>python main.py
What you want to do (+ - x /)+
Enter the number 1 for addition:10
Enter the number 2 for addition:20
30

C:\Users\DELL-PC\Desktop\Python>python main.py
What you want to do (+ - x /)-
Enter the number 1 for subtraction:12
Enter the number 2 for subtraction:2
10

C:\Users\DELL-PC\Desktop\Python>python main.py
What you want to do (+ - x /)*
Enter the number 1 for multiplication:10
Enter the number 2 for multiplication:2
20

C:\Users\DELL-PC\Desktop\Python>python main.py
What you want to do (+ - x /)/
Enter the number 1 for division:20
Enter the number 2 for division:2
10.0

C:\Users\DELL-PC\Desktop\Python>python main.py
What you want to do (+ - x /)quit
Ok buy

C:\Users\DELL-PC\Desktop\Python>^E_
```

Thanks for learning this book guys we will continue the part I mean intermediate in few days bye...