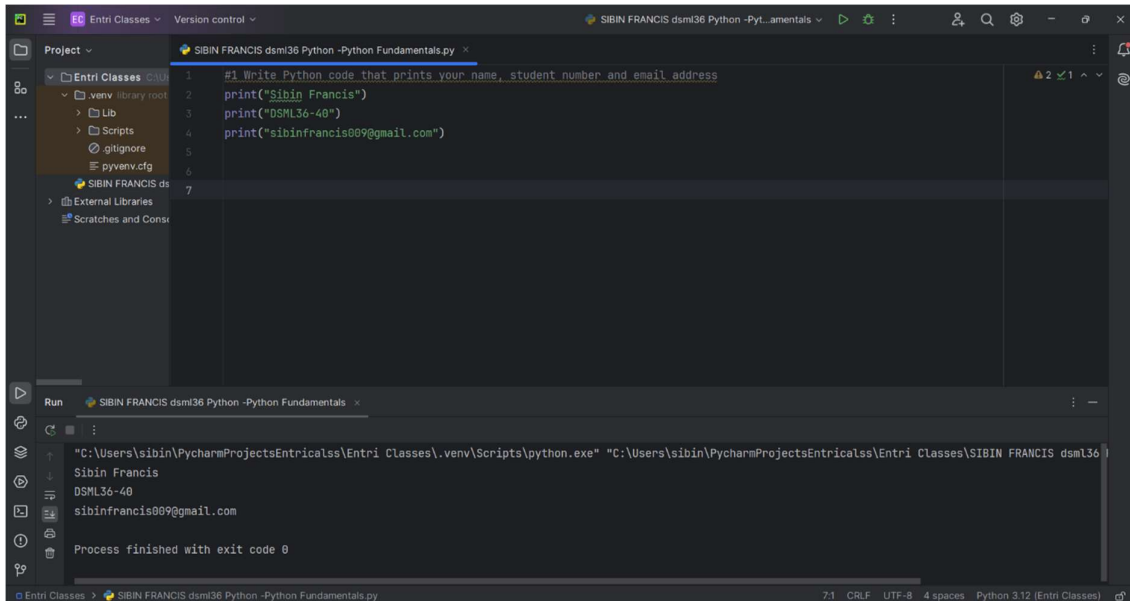


# Python Fundamentals

- Python code that prints your name, student number and email address



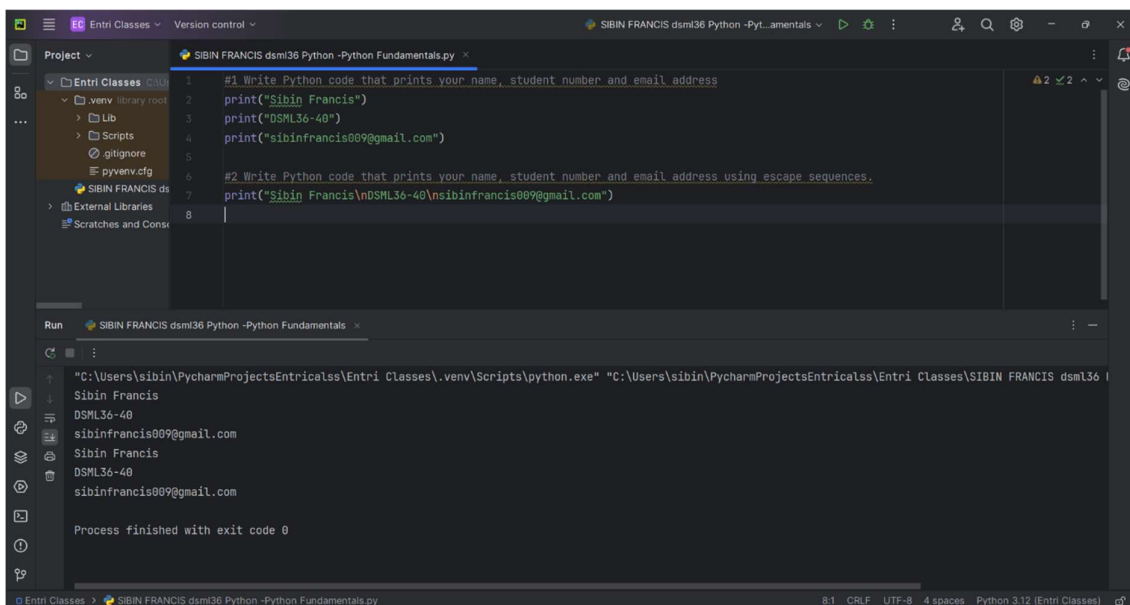
The screenshot shows the PyCharm IDE with a project named 'Entri Classes'. The file explorer on the left shows the project structure. The main editor displays a Python file named 'SIBIN FRANCIS dsmi36 Python -Python Fundamentals.py'. The code in the file is as follows:

```
1 #1 Write Python code that prints your name, student number and email address
2 print("Sibin Francis")
3 print("DSML36-40")
4 print("sibinfrancis009@gmail.com")
5
6
7
```

The Run console at the bottom shows the output of the script:

```
"C:\Users\sibin\PycharmProjects\Entri Classes\.venv\Scripts\python.exe" "C:\Users\sibin\PycharmProjects\Entri Classes\SIBIN FRANCIS dsmi36 Python -Python Fundamentals.py"
Sibin Francis
DSML36-40
sibinfrancis009@gmail.com
Process finished with exit code 0
```

- Python code that prints your name, student number and email address using escape sequ.



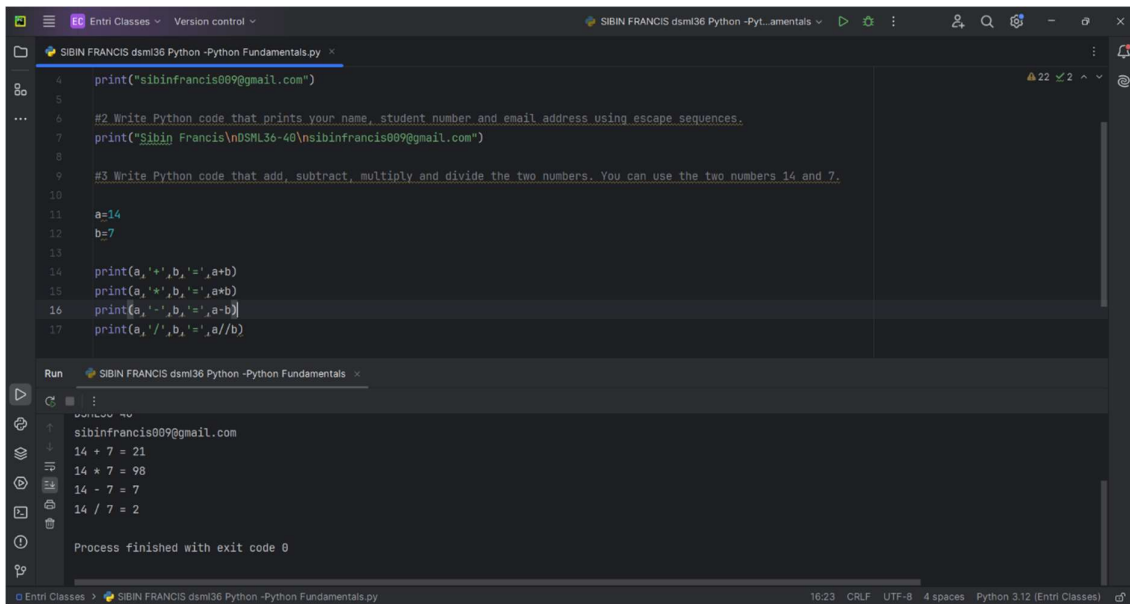
The screenshot shows the PyCharm IDE with the same project and file as the previous image. The code in the file is as follows:

```
1 #1 Write Python code that prints your name, student number and email address
2 print("Sibin Francis")
3 print("DSML36-40")
4 print("sibinfrancis009@gmail.com")
5
6 #2 Write Python code that prints your name, student number and email address using escape sequences.
7 print("Sibin Francis\nDSML36-40\nsibinfrancis009@gmail.com")
8
```

The Run console at the bottom shows the output of the script:

```
"C:\Users\sibin\PycharmProjects\Entri Classes\.venv\Scripts\python.exe" "C:\Users\sibin\PycharmProjects\Entri Classes\SIBIN FRANCIS dsmi36 Python -Python Fundamentals.py"
Sibin Francis
DSML36-40
sibinfrancis009@gmail.com
Sibin Francis
DSML36-40
sibinfrancis009@gmail.com
Process finished with exit code 0
```

- Python code that add, subtract, multiply and divide the two numbers 14 and 7.

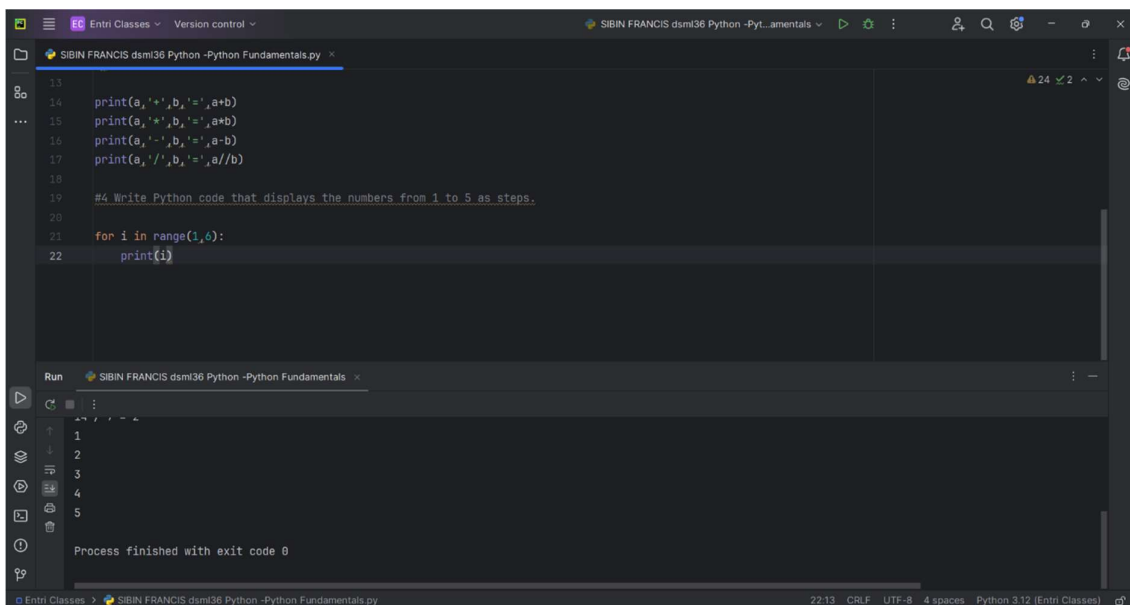


```
4 print("sibinfrancis009@gmail.com")
5
6 #2 Write Python code that prints your name, student number and email address using escape sequences.
7 print("Sibin Francis\\nDSML36-40\\nsibinfrancis009@gmail.com")
8
9 #3 Write Python code that add, subtract, multiply and divide the two numbers. You can use the two numbers 14 and 7.
10
11 a=14
12 b=7
13
14 print(a,'+',b,'=',a+b)
15 print(a,'*',b,'=',a*b)
16 print(a,'-',b,'=',a-b)
17 print(a,'/',b,'=',a/b)
```

Run SIBIN FRANCIS dsml36 Python -Python Fundamentals

```
↑ sibinfrancis009@gmail.com
↓ 14 + 7 = 21
14 * 7 = 98
14 - 7 = 7
14 / 7 = 2
Process finished with exit code 0
```

- Python code that displays the numbers from 1 to 5 as steps.

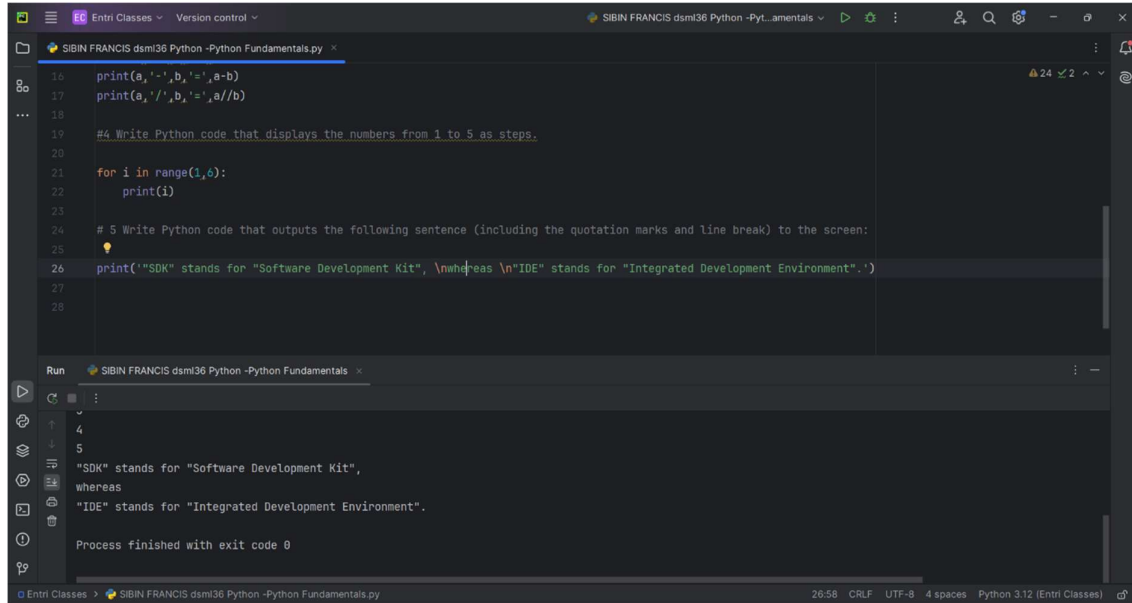


```
13
14 print(a,'+',b,'=',a+b)
15 print(a,'*',b,'=',a*b)
16 print(a,'-',b,'=',a-b)
17 print(a,'/',b,'=',a/b)
18
19 #4 Write Python code that displays the numbers from 1 to 5 as steps.
20
21 for i in range(1,6):
22     print(i)
```

Run SIBIN FRANCIS dsml36 Python -Python Fundamentals

```
↑ 1
↓ 2
3
4
5
Process finished with exit code 0
```

## ➤ Python code that outputs the following sentence



The screenshot shows a Python IDE with a file named 'Python Fundamentals.py'. The code includes a loop printing numbers 1 to 5, a comment about writing code to display numbers, and a print statement that outputs a sentence about SDK and IDE. The Run console shows the output of the code, including the sentence and the exit code 0.

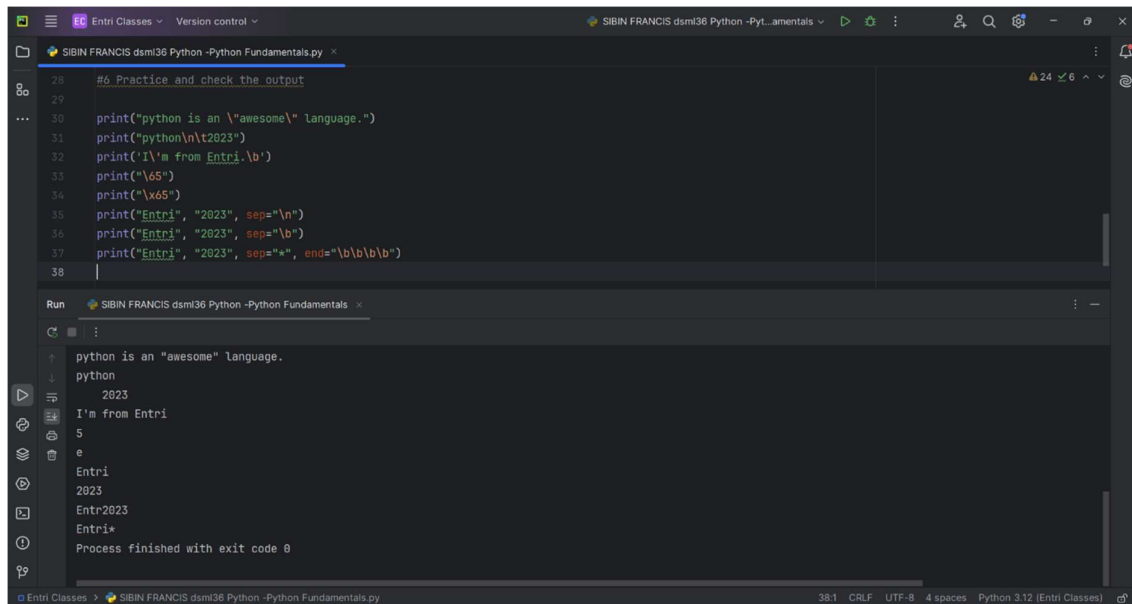
```
16 print(a, '-', b, '=', a-b)
17 print(a, '/', b, '=', a//b)
18
19 #4 Write Python code that displays the numbers from 1 to 5 as steps.
20
21 for i in range(1,6):
22     print(i)
23
24 # 5 Write Python code that outputs the following sentence (including the quotation marks and line break) to the screen:
25
26 print('SDK" stands for "Software Development Kit", \n\nwhereas \n\nIDE" stands for "Integrated Development Environment".')
```

Run SIBIN FRANCIS dsml36 Python -Python Fundamentals

```
4
5
"SDK" stands for "Software Development Kit",
whereas
"IDE" stands for "Integrated Development Environment".

Process finished with exit code 0
```

## ➤ Practiced and check the output



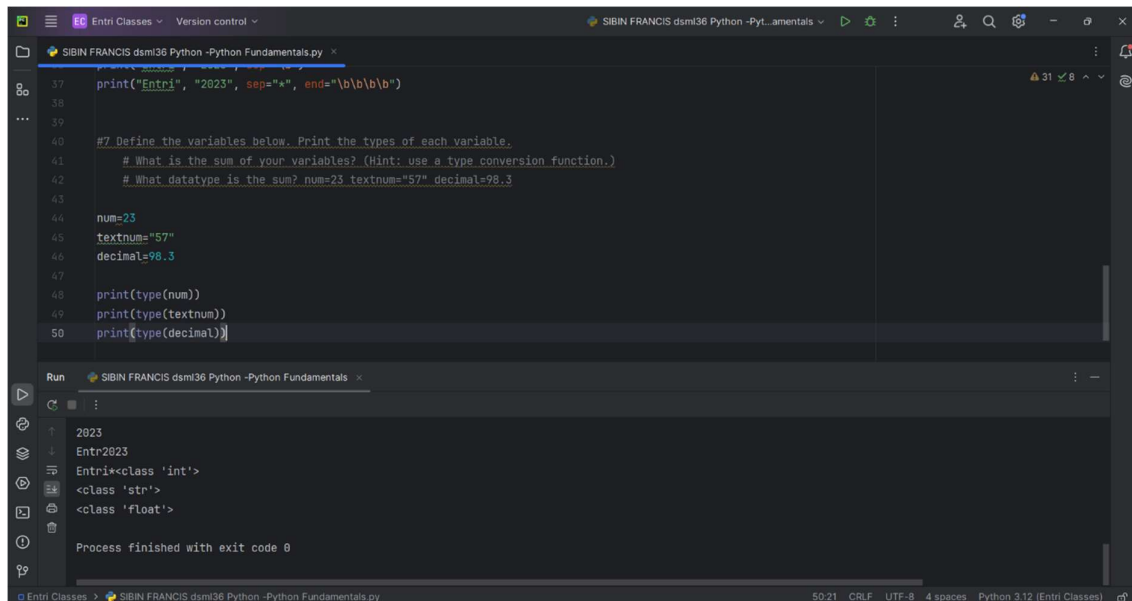
The screenshot shows a Python IDE with a file named 'Python Fundamentals.py'. The code includes a comment about practicing and checking the output, followed by several print statements using various string formatting techniques like escape characters, raw strings, and format specifiers. The Run console shows the output of the code, including the sentence and the exit code 0.

```
28 #6 Practice and check the output
29
30 print("python is an \"awesome\" language.")
31 print("python\n\t2023")
32 print('I\'m from Entrj.\b')
33 print("\65")
34 print("\x65")
35 print("Entrj", "2023", sep="\n")
36 print("Entrj", "2023", sep="\b")
37 print("Entrj", "2023", sep="*", end="\b\b\b\b")
38
```

Run SIBIN FRANCIS dsml36 Python -Python Fundamentals

```
python is an "awesome" language.
python
  2023
I'm from Entrj
5
e
Entrj
2023
Entr2023
Entr*
Process finished with exit code 0
```

## ➤ Defined the variables and print the types of each variable.



The screenshot shows a Python IDE with a file named 'Python Fundamentals.py'. The code defines three variables: 'num' (23), 'textnum' ('57'), and 'decimal' (98.3). It then prints the type of each variable. The output in the Run console shows the types: 'int' for 'num', 'str' for 'textnum', and 'float' for 'decimal'.

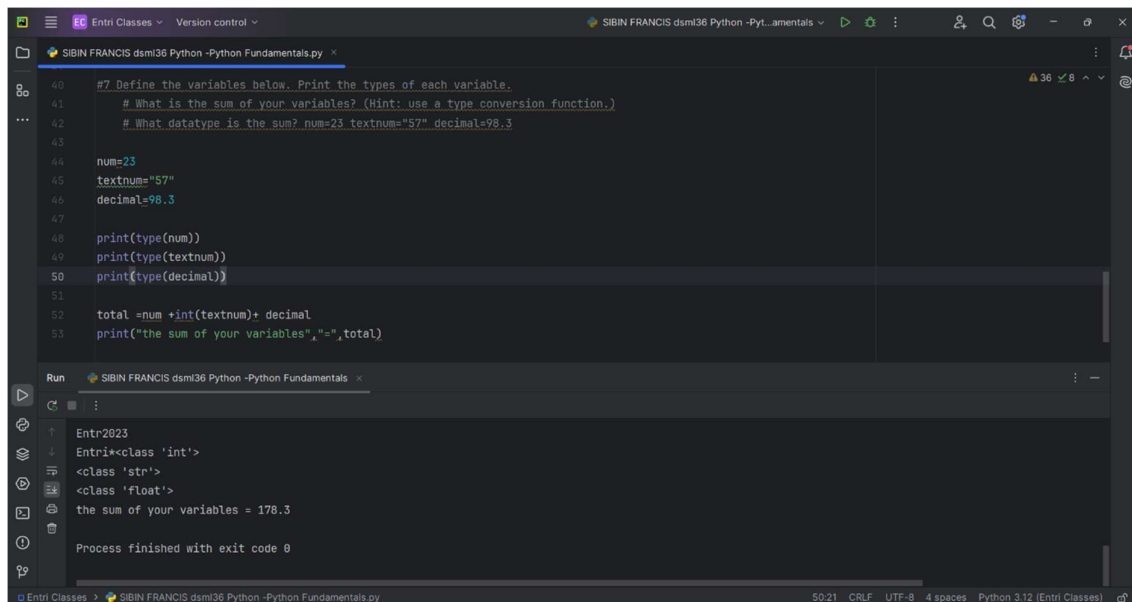
```
37 print("Entri", "2023", sep=" ", end="\n\n")
38
39
40 #7. Define the variables below. Print the types of each variable.
41 # What is the sum of your variables? (Hint: use a type conversion function.)
42 # What datatype is the sum? num=23 textnum="57" decimal=98.3
43
44 num=23
45 textnum="57"
46 decimal=98.3
47
48 print(type(num))
49 print(type(textnum))
50 print(type(decimal))
```

Run

```
2023
Entri2023
Entri<class 'int'>
<class 'str'>
<class 'float'>

Process finished with exit code 0
```

## ➤ sum of your variables



The screenshot shows the same Python IDE with the same variable definitions, but now it also calculates the sum of the variables. The code adds 'num' and 'textnum' (converted to an integer) to 'decimal'. The output in the Run console shows the sum: 'the sum of your variables = 178.3'.

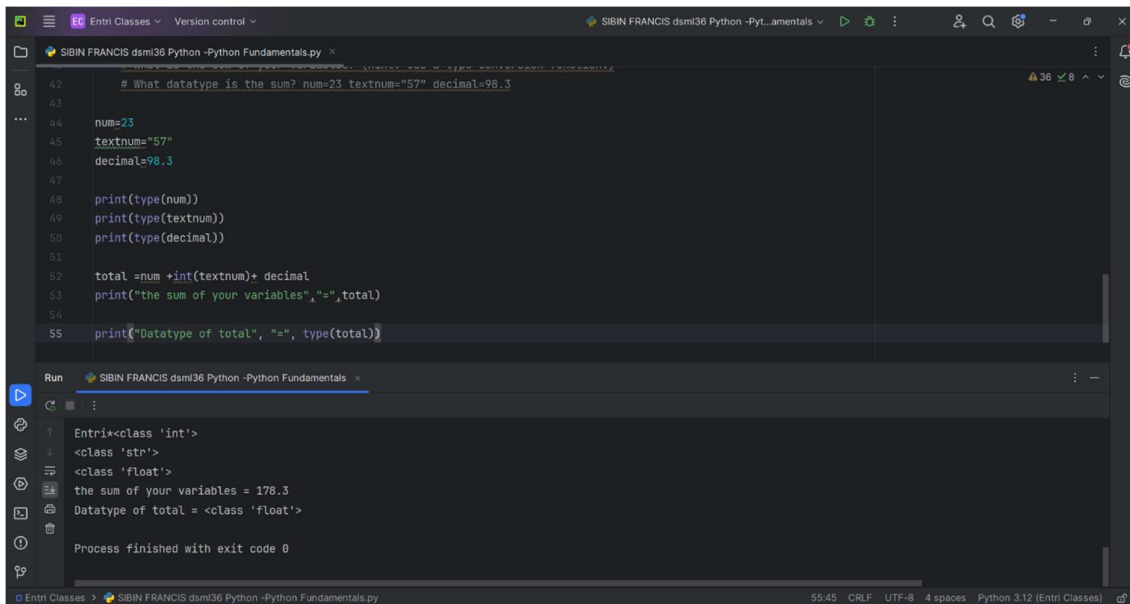
```
40 #7. Define the variables below. Print the types of each variable.
41 # What is the sum of your variables? (Hint: use a type conversion function.)
42 # What datatype is the sum? num=23 textnum="57" decimal=98.3
43
44 num=23
45 textnum="57"
46 decimal=98.3
47
48 print(type(num))
49 print(type(textnum))
50 print(type(decimal))
51
52 total = num + int(textnum) + decimal
53 print("the sum of your variables", "=", total)
```

Run

```
2023
Entri2023
Entri<class 'int'>
<class 'str'>
<class 'float'>
the sum of your variables = 178.3

Process finished with exit code 0
```

➤ datatype of the sum (num=23 textnum="57" decimal=98.3)



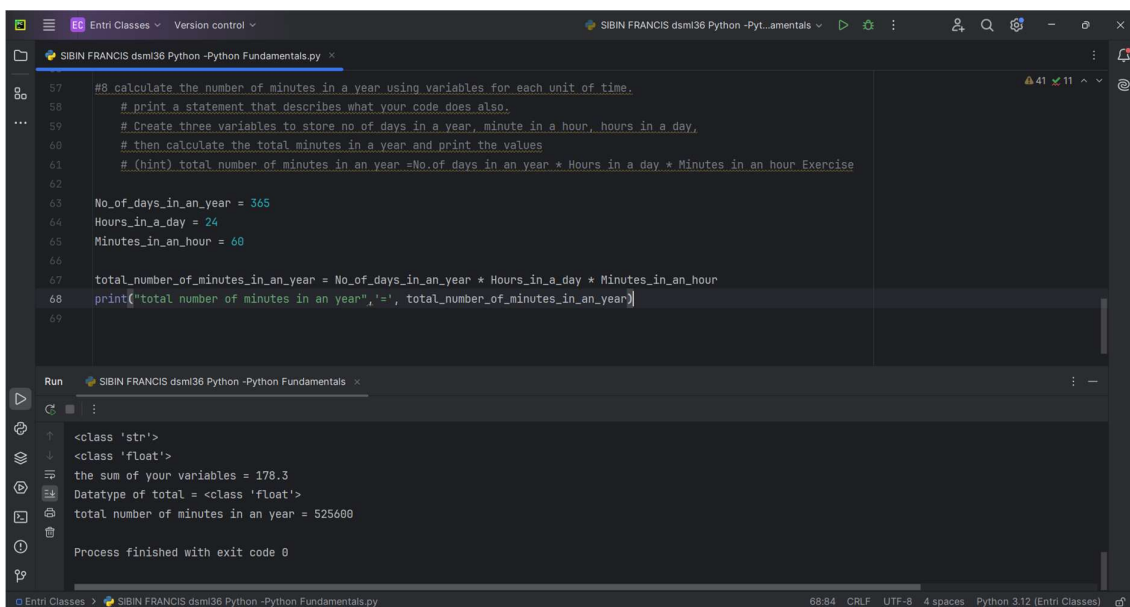
```
42 # What datatype is the sum? num=23 textnum="57" decimal=98.3
43
44 num=23
45 textnum="57"
46 decimal=98.3
47
48 print(type(num))
49 print(type(textnum))
50 print(type(decimal))
51
52 total = num + int(textnum) + decimal
53 print("the sum of your variables", "=", total)
54
55 print("Datatype of total", "=", type(total))
```

Run

```
↑ Entri<class 'int'>
↓ <class 'str'>
  <class 'float'>
the sum of your variables = 178.3
Datatype of total = <class 'float'>

Process finished with exit code 0
```

➤ calculated the number of minutes in a year using variables for each unit of time



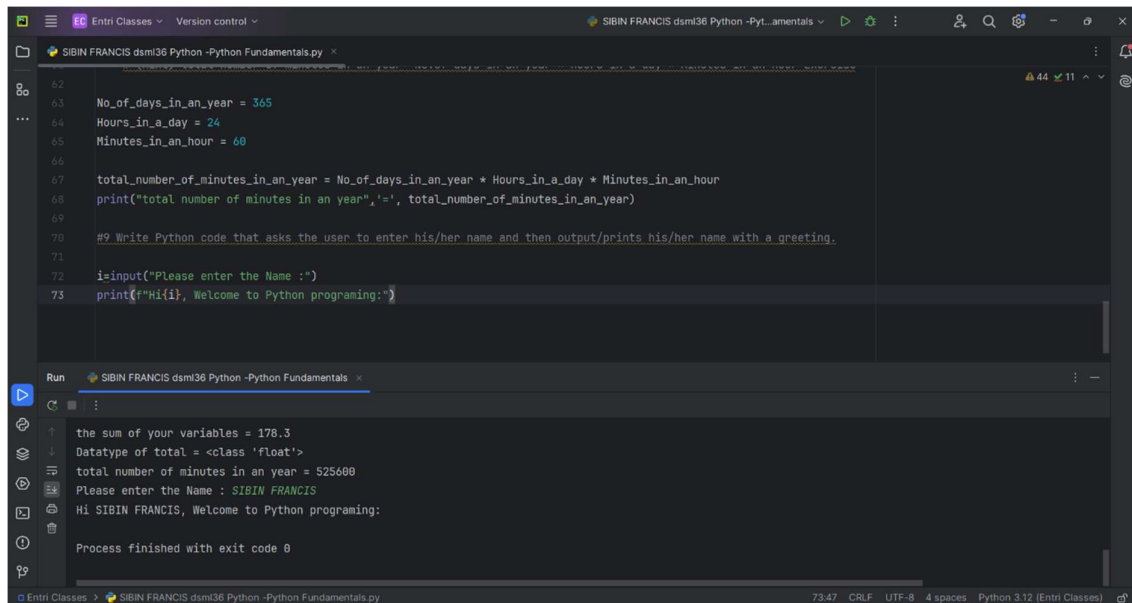
```
57 #8 calculate the number of minutes in a year using variables for each unit of time.
58 # print a statement that describes what your code does also.
59 # Create three variables to store no. of days in a year, minute in a hour, hours in a day,
60 # then calculate the total minutes in a year and print the values
61 # (hint) total number of minutes in an year = No. of days in an year * Hours in a day * Minutes in an hour Exercise
62
63 No_of_days_in_an_year = 365
64 Hours_in_a_day = 24
65 Minutes_in_an_hour = 60
66
67 total_number_of_minutes_in_an_year = No_of_days_in_an_year * Hours_in_a_day * Minutes_in_an_hour
68 print("total number of minutes in an year", "=", total_number_of_minutes_in_an_year)
69
```

Run

```
↑ <class 'str'>
↓ <class 'float'>
the sum of your variables = 178.3
Datatype of total = <class 'float'>
total number of minutes in an year = 525600

Process finished with exit code 0
```

- Python code that asks the user to enter his/her name and then output/prints his/her name with a greeting.

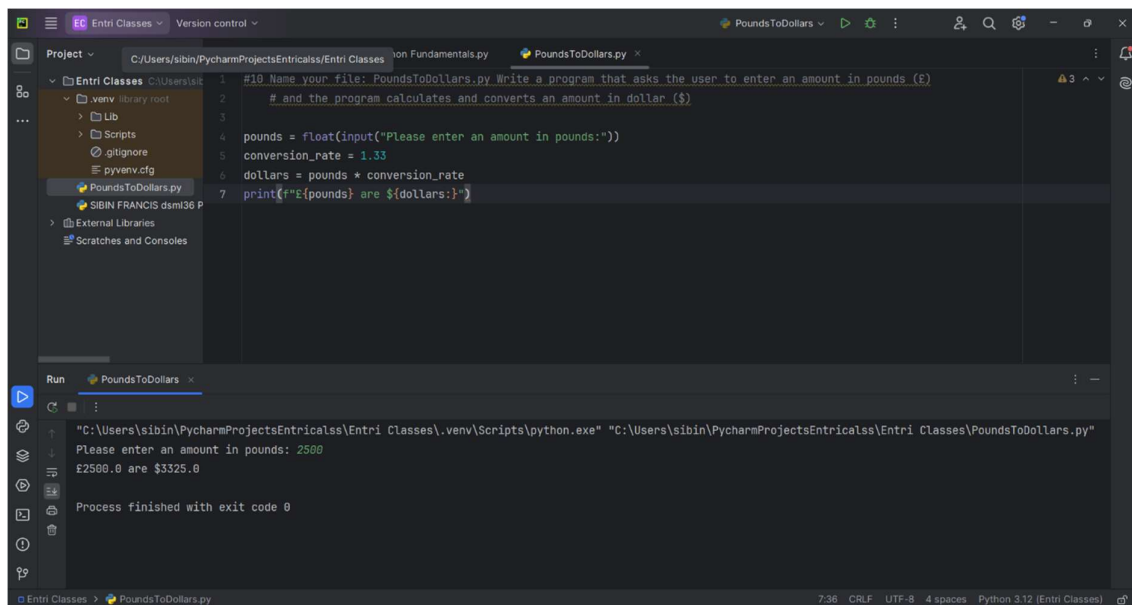


```
62
63 No_of_days_in_an_year = 365
64 Hours_in_a_day = 24
65 Minutes_in_an_hour = 60
66
67 total_number_of_minutes_in_an_year = No_of_days_in_an_year * Hours_in_a_day * Minutes_in_an_hour
68 print("total number of minutes in an year", '=', total_number_of_minutes_in_an_year)
69
70 #9 Write Python code that asks the user to enter his/her name and then output/prints his/her name with a greeting.
71
72 i=input("Please enter the Name :")
73 print(f"Hi{i}, Welcome to Python programing:")
```

Run SIBIN FRANCIS dsmi36 Python -Python Fundamentals

```
↑ the sum of your variables = 178.3
↓ Datatype of total = <class 'float'>
total number of minutes in an year = 525600
Please enter the Name : SIBIN FRANCIS
Hi SIBIN FRANCIS, Welcome to Python programing:
Process finished with exit code 0
```

- Program that asks the user to enter an amount in pounds (£) and the program calculates and converts an amount in dollar (\$)



```
1 #10 Name your file: PoundsToDollars.py Write a program that asks the user to enter an amount in pounds (£)
2 # and the program calculates and converts an amount in dollar ($)
3
4 pounds = float(input("Please enter an amount in pounds:"))
5 conversion_rate = 1.33
6 dollars = pounds * conversion_rate
7 print(f"£{pounds} are ${dollars}")
```

Run PoundsToDollars

```
↑ "C:\Users\sibin\PycharmProjects\Entricalss\Entrti Classes\.venv\Scripts\python.exe" "C:\Users\sibin\PycharmProjects\Entricalss\Entrti Classes\PoundsToDollars.py"
Please enter an amount in pounds: 2500
£2500.0 are $3325.0
Process finished with exit code 0
```