

**Python Workshop Series**

**Department of Computer Science – OUSL**

**Activity 05**

The activity given is as follows.

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Write a Python program that creates a multiplication table for a given number and stores the results in an array. The program should:

1. Ask the user to input a number for which the multiplication table will be created.
  2. Use an array to store the results of the multiplication table from 1 to 10.
  3. Display the array and print each multiplication result in a readable format.
- 

1. Entire code runs inside a *while loop*
2. The number to input must be taken. Code goes follow.

```
input_number = input("the number: ")
```

3. A way to stop the program must be set up.

```
if input_number == 'q' or input_number == 'Q':  
    break
```

4. One to ten consecutive numbers are created and stored in an array.

```
elif input_number.isdigit():  
    one_to_ten_array = [i for i in range(1,11)]
```

5. The input number is stored in an array ten times.

```
input_number_array = [int(input_number) for j in range(1,11)]
```

6. Multiplication is performed using above two arrays and is assigned into another array.

```
multiplication = [one_to_ten_array[k]*input_number_array[k] for k in range(0,10)]
```

7. The readable format is done using the following code.

```
for p in range(0,10):
```

```
    if p == 0:
```

```
        print("The Readable Math Table\n-----")
```

```
        print(f"{one_to_ten_array[p]} x {input_number_array[p]} =  
{multiplication[p]}\n")
```

*This block is intentionally left blank*

## Final Code:

```
#18/1/2025
#This is the code for activity 5 of python workshop @ OUSL
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while True:

    print("-----\nTHE MATH TABLE\npress q to quit\n-----")

    input_number = input("the number: ")

    if input_number == 'q' or input_number == 'Q':
        break
    elif input_number.isdigit():
        one_to_ten_array = [i for i in range(1,11)]
        #print(one_to_ten_array)

        input_number_array = [int(input_number) for j in range(1,11)]
        #print(input_number_array)

        multiplication = [one_to_ten_array[k]*input_number_array[k] for k in range(0,10)]
        print(f"\nThe Array of Multiplication Table\n-----
\n{multiplication}\n")

        for p in range(0,10):
            if p == 0:
                print("The Readable Math Table\n-----")
                print(f"{one_to_ten_array[p]} x {input_number_array[p]} = {multiplication[p]}\n")
            else:
                print("Invalid input! Please try again.")
```

```
Q_01_Activity_05.py - D:\GitHubProjects\Python_Workshop_Series_OUSL\Q_01_Activity_05.py (3.13.1)
File Edit Format Run Options Window Help
#18/1/2025
#This is the code for activity 5 of python workshop @ OUSL
#All rights reserved
|
while True:

    print("-----\nTHE MATH TABLE\npress q to quit\n-----")

    input_number = input("the number: ")

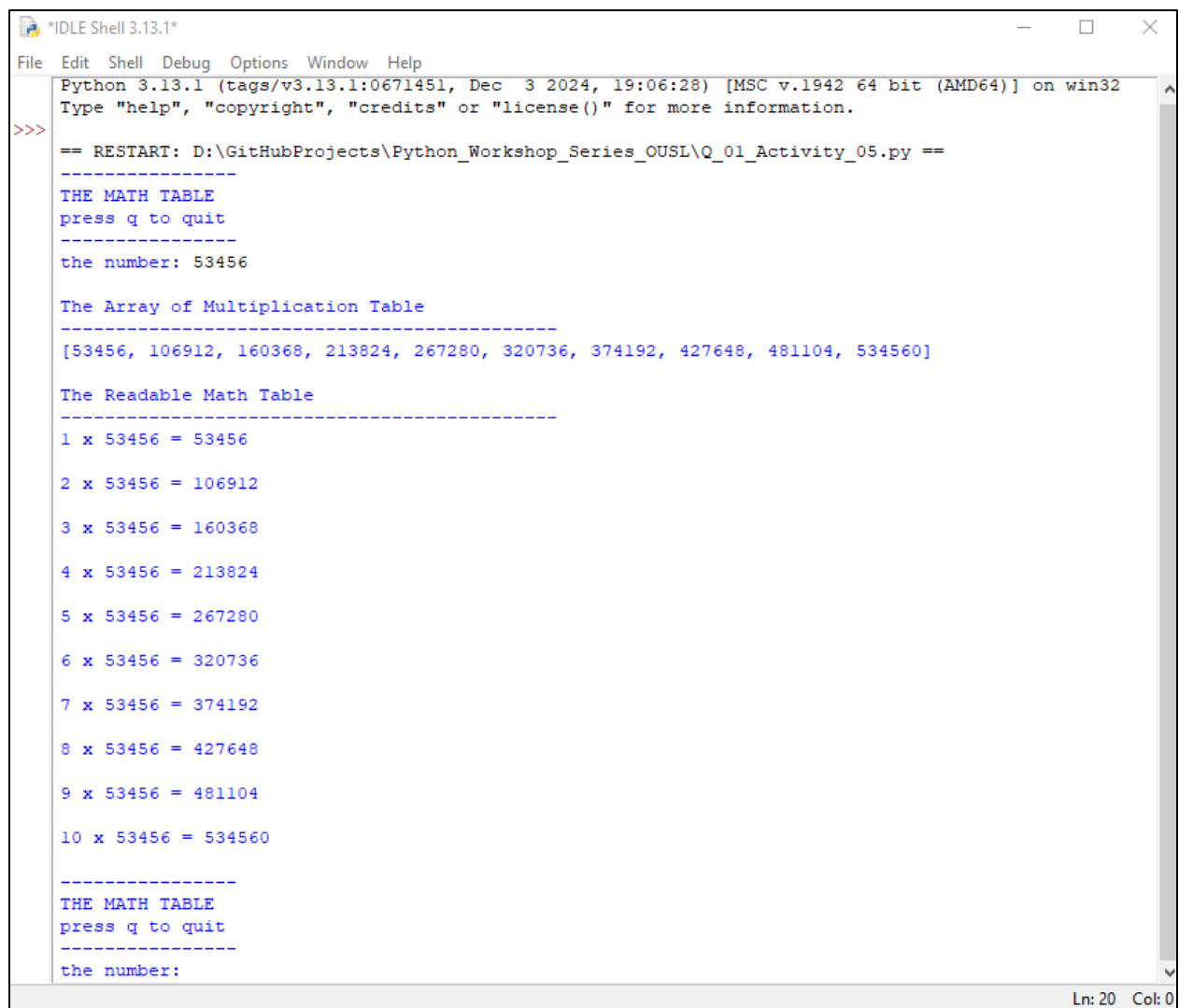
    if input_number == 'q' or input_number == 'Q':
        break
    elif input_number.isdigit():
        one_to_ten_array = [i for i in range(1,11)]
        #print(one_to_ten_array)

        input_number_array = [int(input_number) for j in range(1,11)]
        #print(input_number_array)

        multiplication = [one_to_ten_array[k]*input_number_array[k] for k in range(0,10)]
        print(f"\nThe Array of Multiplication Table\n-----\n{multiplication}\n")

        for p in range(0,10):
            if p == 0:
                print("The Readable Math Table\n-----")
                print(f"{one_to_ten_array[p]} x {input_number_array[p]} = {multiplication[p]}\n")
            else:
                print("Invalid input! Please try again.")
```

Ln: 4 Col: 0



```
*IDLE Shell 3.13.1*
File Edit Shell Debug Options Window Help
Python 3.13.1 (tags/v3.13.1:0671451, Dec 3 2024, 19:06:28) [MSC v.1942 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
== RESTART: D:\GitHubProjects\Python_Workshop_Series_OUSL\Q_01_Activity_05.py ==
-----
THE MATH TABLE
press q to quit
-----
the number: 53456

The Array of Multiplication Table
-----
[53456, 106912, 160368, 213824, 267280, 320736, 374192, 427648, 481104, 534560]

The Readable Math Table
-----
1 x 53456 = 53456
2 x 53456 = 106912
3 x 53456 = 160368
4 x 53456 = 213824
5 x 53456 = 267280
6 x 53456 = 320736
7 x 53456 = 374192
8 x 53456 = 427648
9 x 53456 = 481104
10 x 53456 = 534560

-----
THE MATH TABLE
press q to quit
-----
the number:
```

**Dear sir/madam, please visit repositories for more information:**

[https://github.com/loachana/Python\\_Workshop\\_Series\\_OUSL.git](https://github.com/loachana/Python_Workshop_Series_OUSL.git)