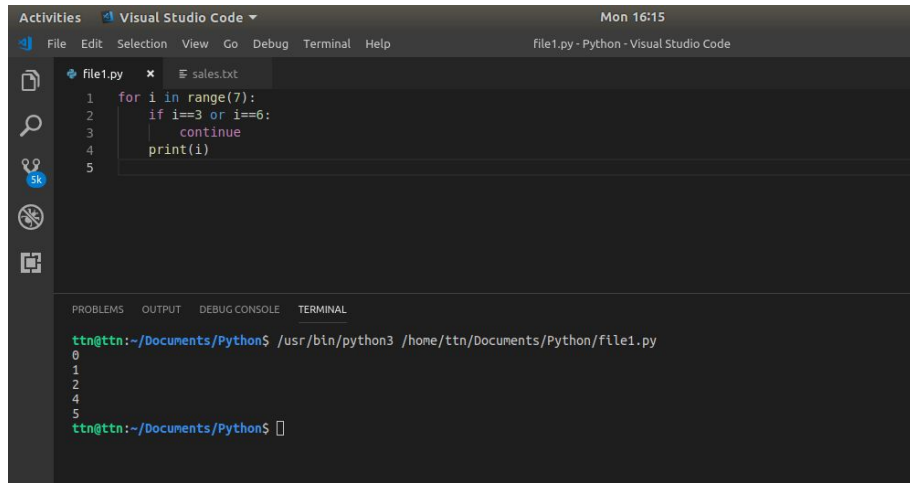


1. Write a Python program that prints all the numbers from 0 to 6 except 3 and 6.

Note : Use 'continue' statement.



The screenshot shows the Visual Studio Code editor with a file named 'file1.py'. The code is as follows:

```
1 for i in range(7):
2     if i==3 or i==6:
3         continue
4     print(i)
5
```

The terminal output shows the execution of the program, which prints the numbers 0, 1, 2, 4, and 5, skipping 3 and 6.

```
ttn@ttn:~/Documents/Python$ /usr/bin/python3 /home/ttn/Documents/Python/file1.py
0
1
2
4
5
ttn@ttn:~/Documents/Python$
```

2. Write a Python program which takes two digits m (row) and n (column) as input and generates a two-dimensional array. The element value in the i-th row and j-th column of the array should be i\*j.

Note:

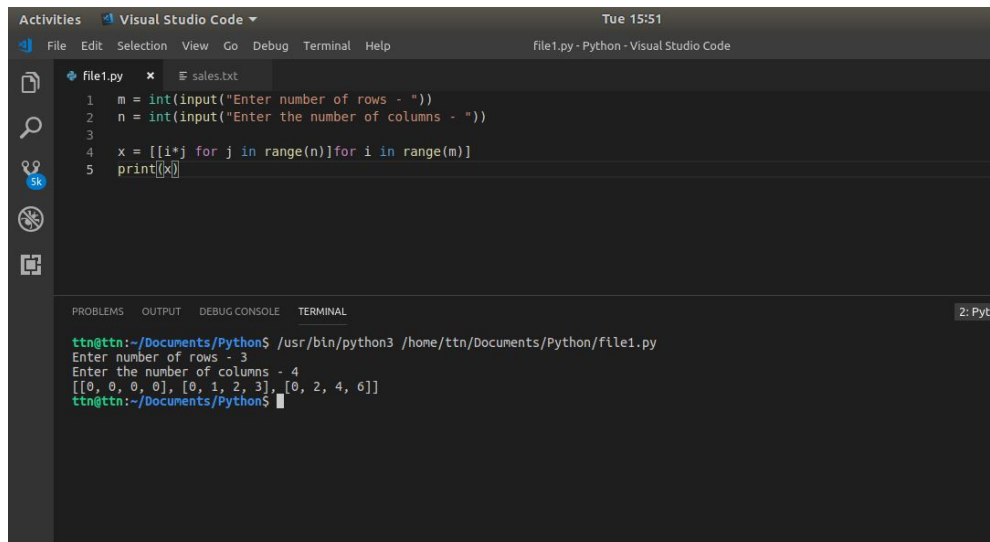
i = 0,1..., m-1

j = 0,1, n-1.

Hint: Use input(), list comprehension, loops, range()

Test Data : Rows = 3, Columns = 4

Expected Result : [[0, 0, 0, 0], [0, 1, 2, 3], [0, 2, 4, 6]]



The screenshot shows the Visual Studio Code editor with a file named 'file1.py'. The code is as follows:

```
1 m = int(input("Enter number of rows - "))
2 n = int(input("Enter the number of columns - "))
3
4 x = [[i*j for j in range(n)] for i in range(m)]
5 print(x)
```

The terminal output shows the execution of the program, where the user enters 3 for rows and 4 for columns, resulting in the expected 2D array.

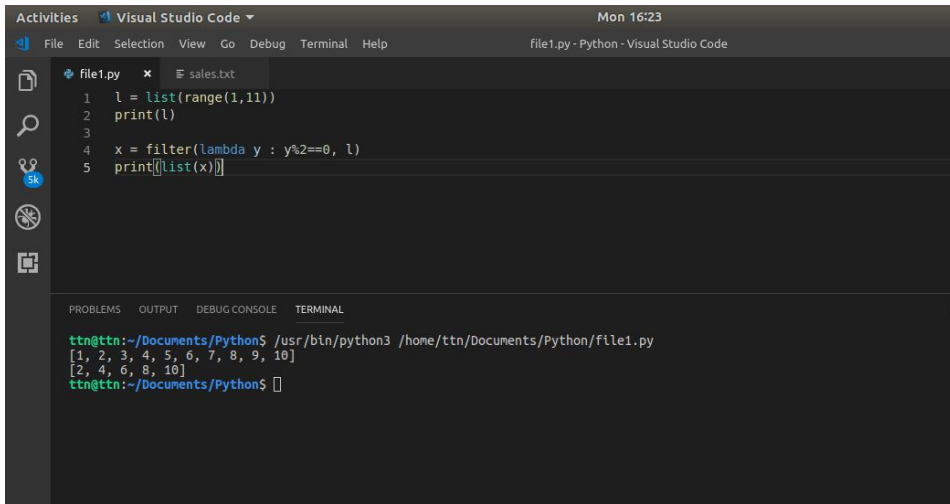
```
ttn@ttn:~/Documents/Python$ /usr/bin/python3 /home/ttn/Documents/Python/file1.py
Enter number of rows - 3
Enter the number of columns - 4
[[0, 0, 0, 0], [0, 1, 2, 3], [0, 2, 4, 6]]
ttn@ttn:~/Documents/Python$
```

3. Write a program which can filter even numbers in a list by using filter function. The list is: [1,2,3,4,5,6,7,8,9,10].

Hints:

Use filter() to filter some elements in a list.

Use lambda to define anonymous functions.

A screenshot of the Visual Studio Code editor. The top bar shows 'Activities', 'Visual Studio Code', and the time 'Mon 16:23'. The menu bar includes 'File', 'Edit', 'Selection', 'View', 'Go', 'Debug', 'Terminal', and 'Help'. The file explorer on the left shows 'File1.py' and 'sales.txt'. The editor window displays a Python script in 'File1.py':

```
1 l = list(range(1,11))
2 print(l)
3
4 x = filter(lambda y : y%2==0, l)
5 print([list(x)])
```

The bottom panel shows the 'TERMINAL' tab with the following output:

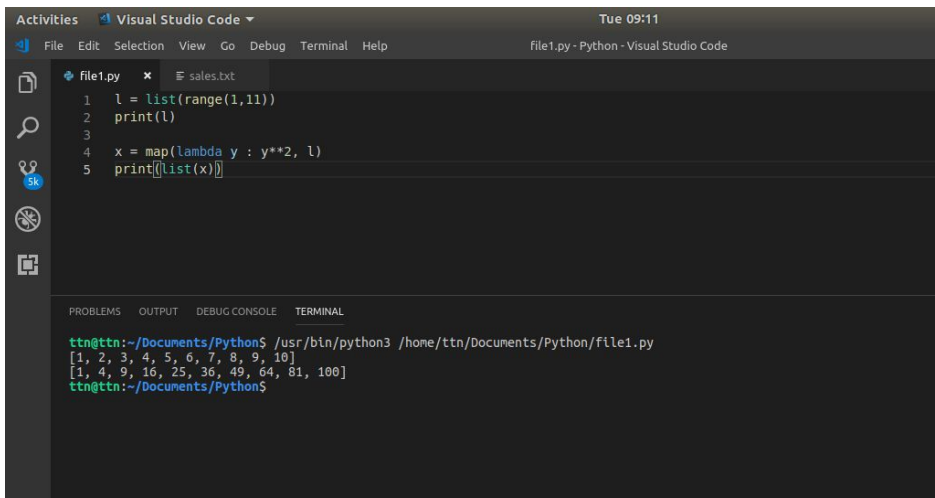
```
ttn@ttn:~/Documents/Python$ /usr/bin/python3 /home/ttn/Documents/Python/file1.py
[1, 2, 3, 4, 5, 6, 7, 8, 9, 10]
[2, 4, 6, 8, 10]
ttn@ttn:~/Documents/Python$
```

4. Write a program which can map() to make a list whose elements are square of elements in [1,2,3,4,5,6,7,8,9,10].

Hints:

Use map() to generate a list.

Use lambda to define anonymous functions.

A screenshot of the Visual Studio Code editor. The top bar shows 'Activities', 'Visual Studio Code', and the time 'Tue 09:11'. The menu bar includes 'File', 'Edit', 'Selection', 'View', 'Go', 'Debug', 'Terminal', and 'Help'. The file explorer on the left shows 'File1.py' and 'sales.txt'. The editor window displays a Python script in 'File1.py':

```
1 l = list(range(1,11))
2 print(l)
3
4 x = map(lambda y : y**2, l)
5 print([list(x)])
```

The bottom panel shows the 'TERMINAL' tab with the following output:

```
ttn@ttn:~/Documents/Python$ /usr/bin/python3 /home/ttn/Documents/Python/file1.py
[1, 2, 3, 4, 5, 6, 7, 8, 9, 10]
[1, 4, 9, 16, 25, 36, 49, 64, 81, 100]
ttn@ttn:~/Documents/Python$
```

5. Write a python function using \*args parameters to print name and age from list of students.

Test data: [{"name": "abhi", "age": 22}, {"name": "vikas", "age": 21}]

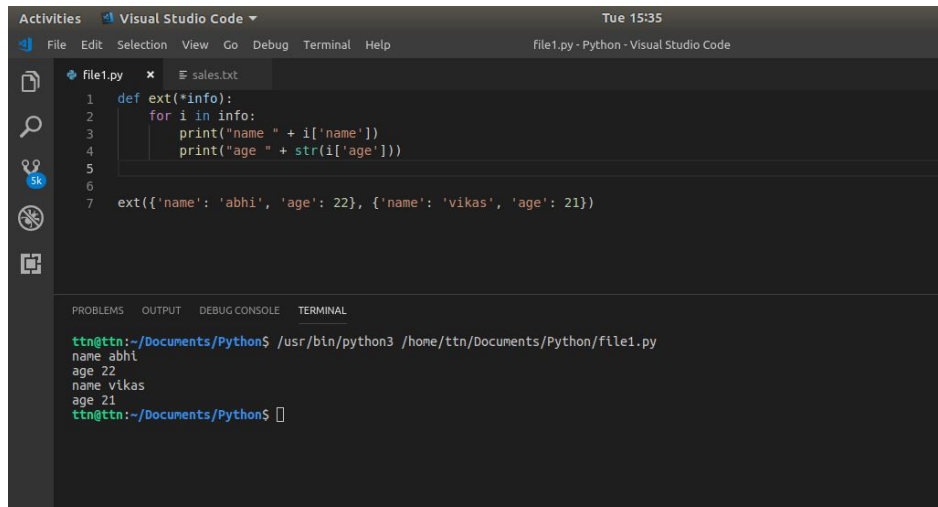
Expected result:

name abhi

age 22

name vikas

age



The image shows a Visual Studio Code window with a Python file named `file1.py` open. The code defines a function `ext(*info)` that iterates over a list of dictionaries and prints the 'name' and 'age' of each person. The function is called with two dictionaries: `{'name': 'abhi', 'age': 22}` and `{'name': 'vikas', 'age': 21}`. The terminal at the bottom shows the command `python3 /home/ttn/Documents/Python/file1.py` being executed, resulting in the output: `name: abhi`, `age: 22`, `name: vikas`, and `age: 21`.

```
1 def ext(*info):
2     for i in info:
3         print("name " + i['name'])
4         print("age " + str(i['age']))
5
6
7 ext({'name': 'abhi', 'age': 22}, {'name': 'vikas', 'age': 21})
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

```
ttn@ttn:~/Documents/Python$ /usr/bin/python3 /home/ttn/Documents/Python/file1.py
name: abhi
age: 22
name: vikas
age: 21
ttn@ttn:~/Documents/Python$
```