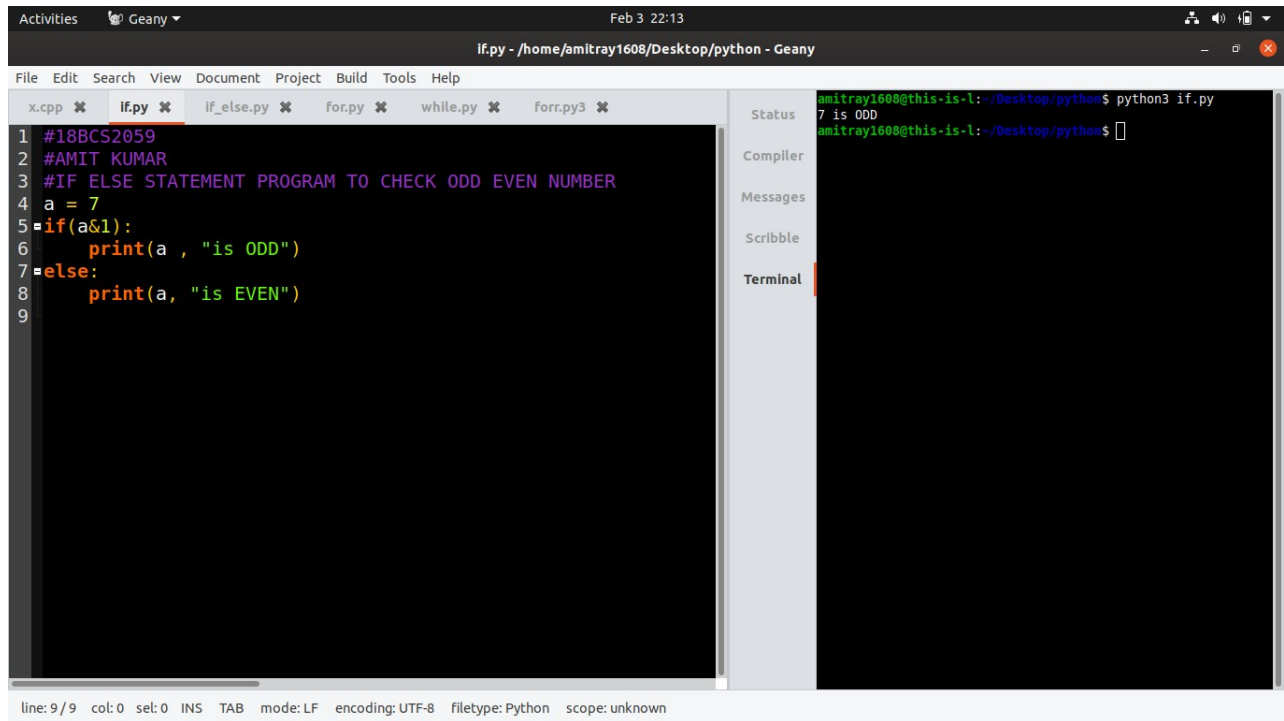


AIM : PROGRAMS TO DEMONSTRATE THE USE OF IF ELSE IF AND ELSE STATEMENT, FOR AND WHILE LOOP.

1. IF ELSE STATEMENT IMPLEMENTATION:



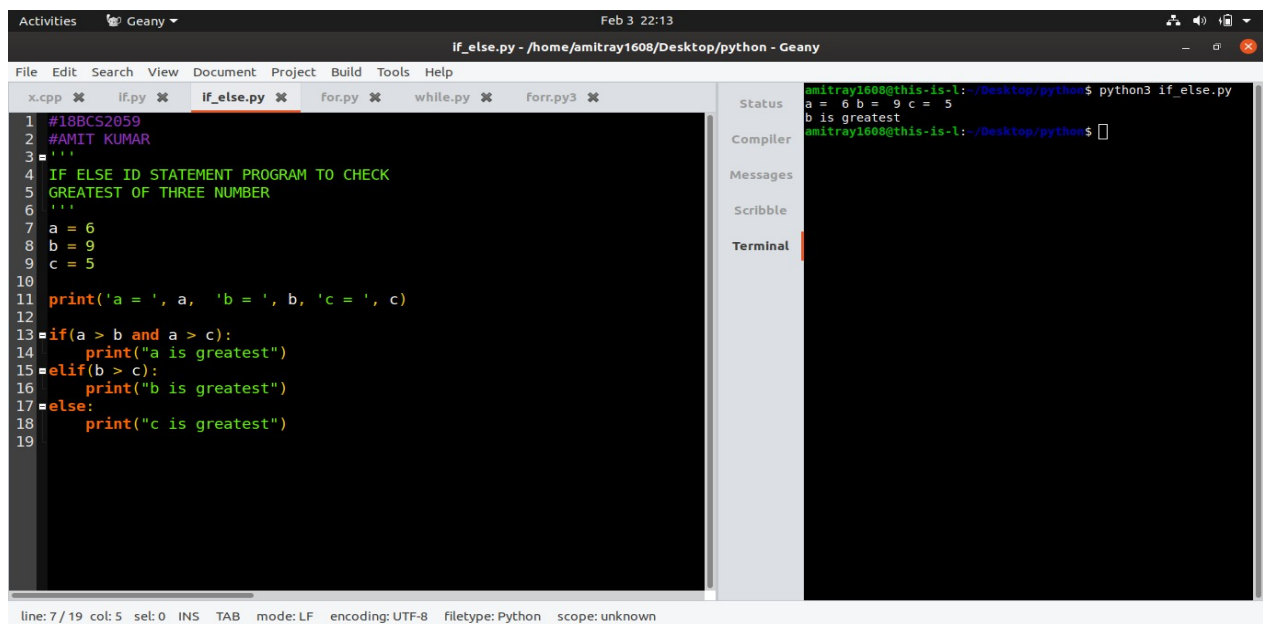
The screenshot shows the Geany IDE with a file named `if.py` open. The code is as follows:

```
1 #18BCS2059
2 #AMIT KUMAR
3 #IF ELSE STATEMENT PROGRAM TO CHECK ODD EVEN NUMBER
4 a = 7
5 if(a%2):
6     print(a , "is ODD")
7 else:
8     print(a, "is EVEN")
9
```

The terminal output shows the execution of the program:

```
amitray1608@this-is-l: ~/Desktop/python$ python3 if.py
7 is ODD
amitray1608@this-is-l: ~/Desktop/python$
```

2. IF ELSE IF STATEMENT IMPLEMENTATION:



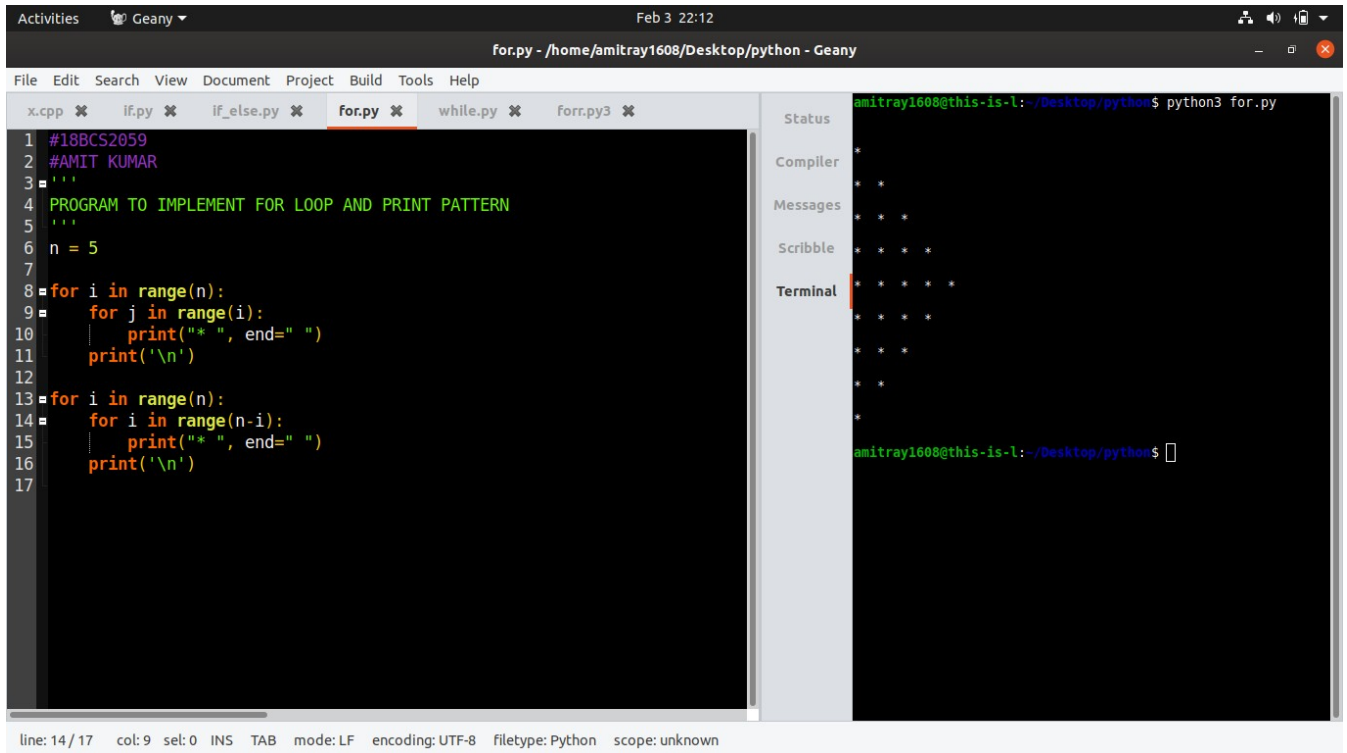
The screenshot shows the Geany IDE with a file named `if_else.py` open. The code is as follows:

```
1 #18BCS2059
2 #AMIT KUMAR
3 '''
4 IF ELSE IF STATEMENT PROGRAM TO CHECK
5 GREATEST OF THREE NUMBER
6 '''
7 a = 6
8 b = 9
9 c = 5
10
11 print('a = ', a, 'b = ', b, 'c = ', c)
12
13 if(a > b and a > c):
14     print("a is greatest")
15 elif(b > c):
16     print("b is greatest")
17 else:
18     print("c is greatest")
19
```

The terminal output shows the execution of the program:

```
amitray1608@this-is-l: ~/Desktop/python$ python3 if_else.py
a = 6 b = 9 c = 5
b is greatest
amitray1608@this-is-l: ~/Desktop/python$
```

3. FOR LOOP IMPLEMENTATION:



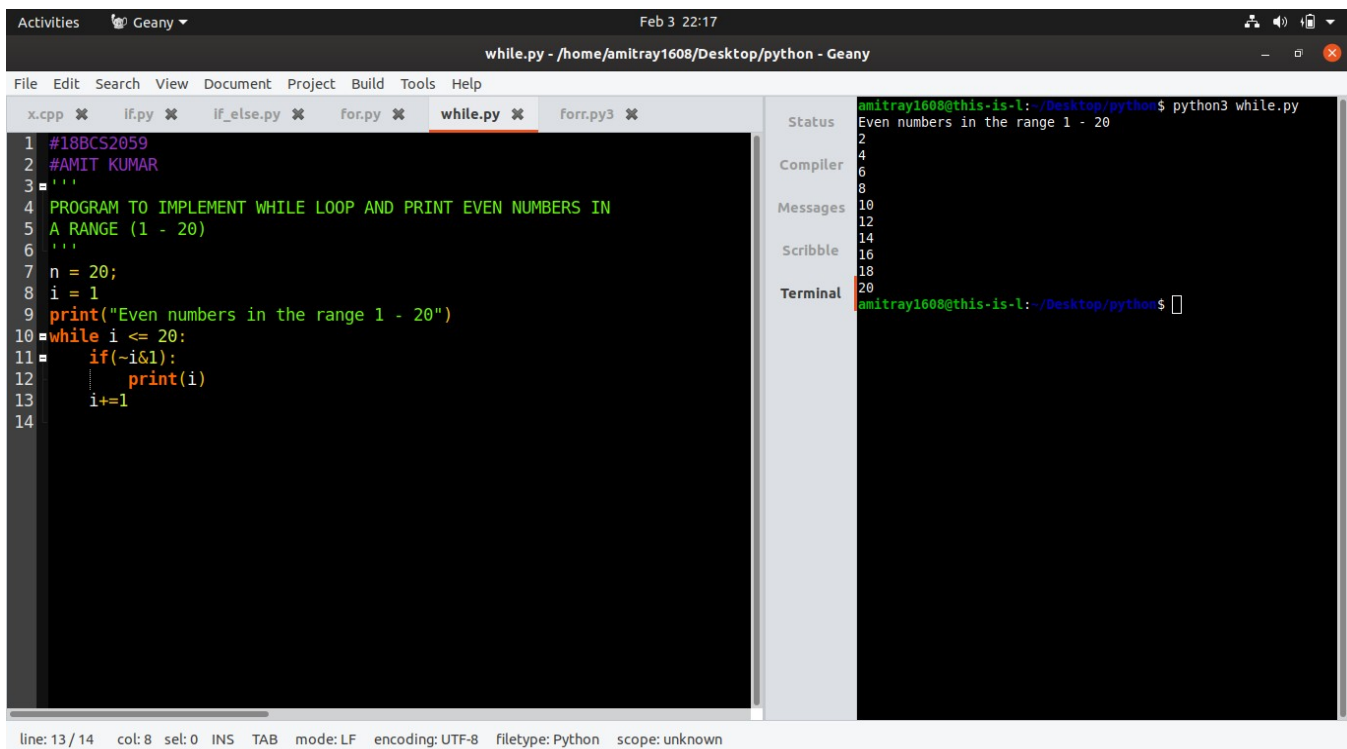
The screenshot shows the Geany IDE with a file named `for.py` open. The code implements a nested for loop to print a pattern of asterisks. The output in the terminal shows a 5x5 grid of asterisks.

```
1 #18BCS2059
2 #AMIT KUMAR
3 '''
4 PROGRAM TO IMPLEMENT FOR LOOP AND PRINT PATTERN
5 '''
6 n = 5
7
8 for i in range(n):
9     for j in range(i):
10         print("* ", end=" ")
11     print('\n')
12
13 for i in range(n):
14     for i in range(n-i):
15         print("* ", end=" ")
16     print('\n')
```

Terminal output:

```
amitray1608@this-is-l:~/Desktop/python$ python3 for.py
*
* *
* * *
* * * *
* * * * *
*
* *
* * *
* * * *
* * * * *
```

4. WHILE LOOP IMPLEMENTATION:



The screenshot shows the Geany IDE with a file named `while.py` open. The code implements a while loop to print even numbers in the range 1 to 20. The output in the terminal shows the even numbers from 2 to 20.

```
1 #18BCS2059
2 #AMIT KUMAR
3 '''
4 PROGRAM TO IMPLEMENT WHILE LOOP AND PRINT EVEN NUMBERS IN
5 A RANGE (1 - 20)
6 '''
7 n = 20;
8 i = 1
9 print("Even numbers in the range 1 - 20")
10 while i <= 20:
11     if (~i&1):
12         print(i)
13     i+=1
14
```

Terminal output:

```
amitray1608@this-is-l:~/Desktop/python$ python3 while.py
Even numbers in the range 1 - 20
2
4
6
8
10
12
14
16
18
20
```