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Practical-8

Aim: Write program using sets

- Write a Python program to clear a set
- Write a Python program to find maximum and the minimum value in a set
- Write a Python program to find the length of a set

a. Write a Python program to clear a set

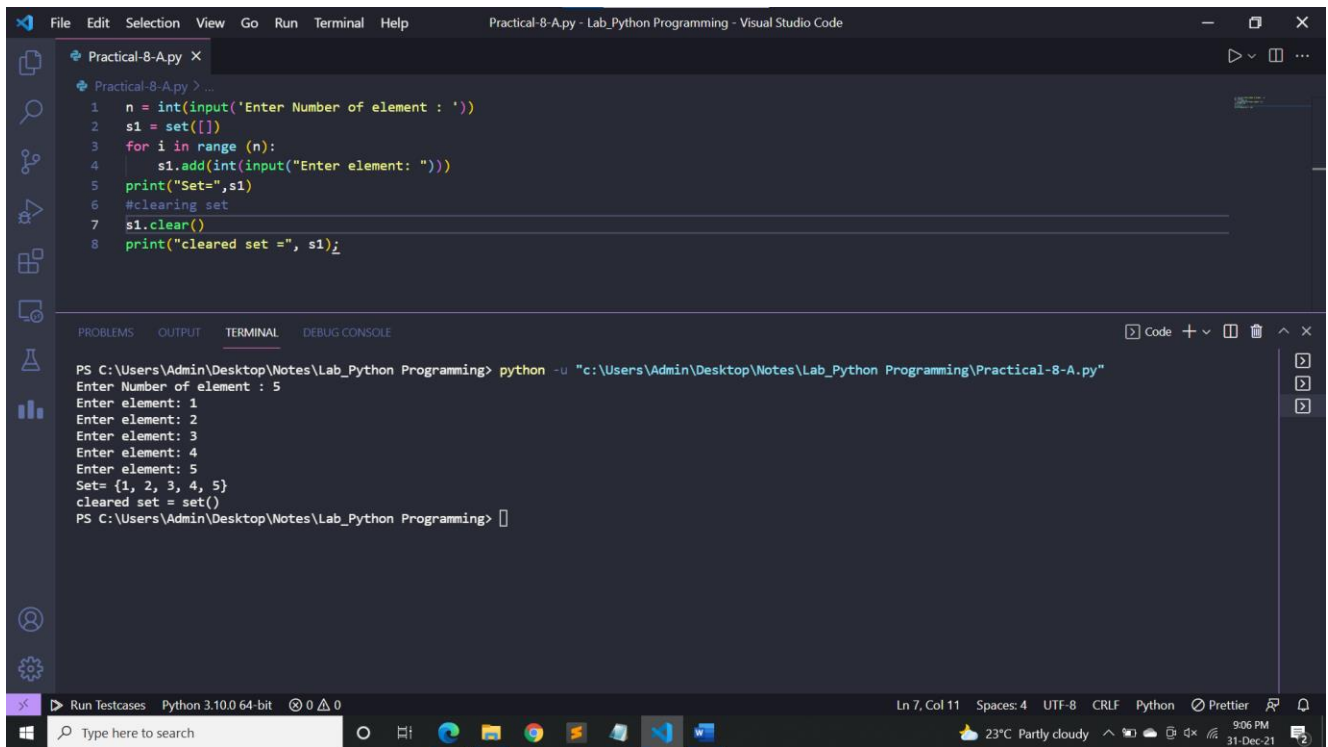
Program:

```
n = int(input('Enter Number of element : '))
s1 = set([])
for i in range (n):
    s1.add(int(input("Enter element: ")))
print("Set=",s1)
#clearing set
s1.clear()
print("cleared set =", s1);
```

Output:

```
Enter Number of element : 5
Enter element: 1
Enter element: 2
Enter element: 3
Enter element: 4
Enter element: 5
Set= {1, 2, 3, 4, 5}
cleared set = set()
```

Screenshot:



The screenshot shows a Visual Studio Code window with a file named 'Practical-8-A.py'. The code in the editor is as follows:

```
1 n = int(input('Enter Number of element : '))
2 s1 = set([])
3 for i in range (n):
4     s1.add(int(input("Enter element: ")))
5 print("Set=",s1)
6 #clearing set
7 s1.clear()
8 print("cleared set =", s1);
```

The terminal at the bottom shows the execution of the program:

```
PS C:\Users\Admin\Desktop\Notes\Lab_Python Programming> python -u "c:\Users\Admin\Desktop\Notes\Lab_Python Programming\Practical-8-A.py"
Enter Number of element : 5
Enter element: 1
Enter element: 2
Enter element: 3
Enter element: 4
Enter element: 5
Set= {1, 2, 3, 4, 5}
cleared set = set()
PS C:\Users\Admin\Desktop\Notes\Lab_Python Programming>
```

b. Write a Python program to find maximum and the minimum value in a set

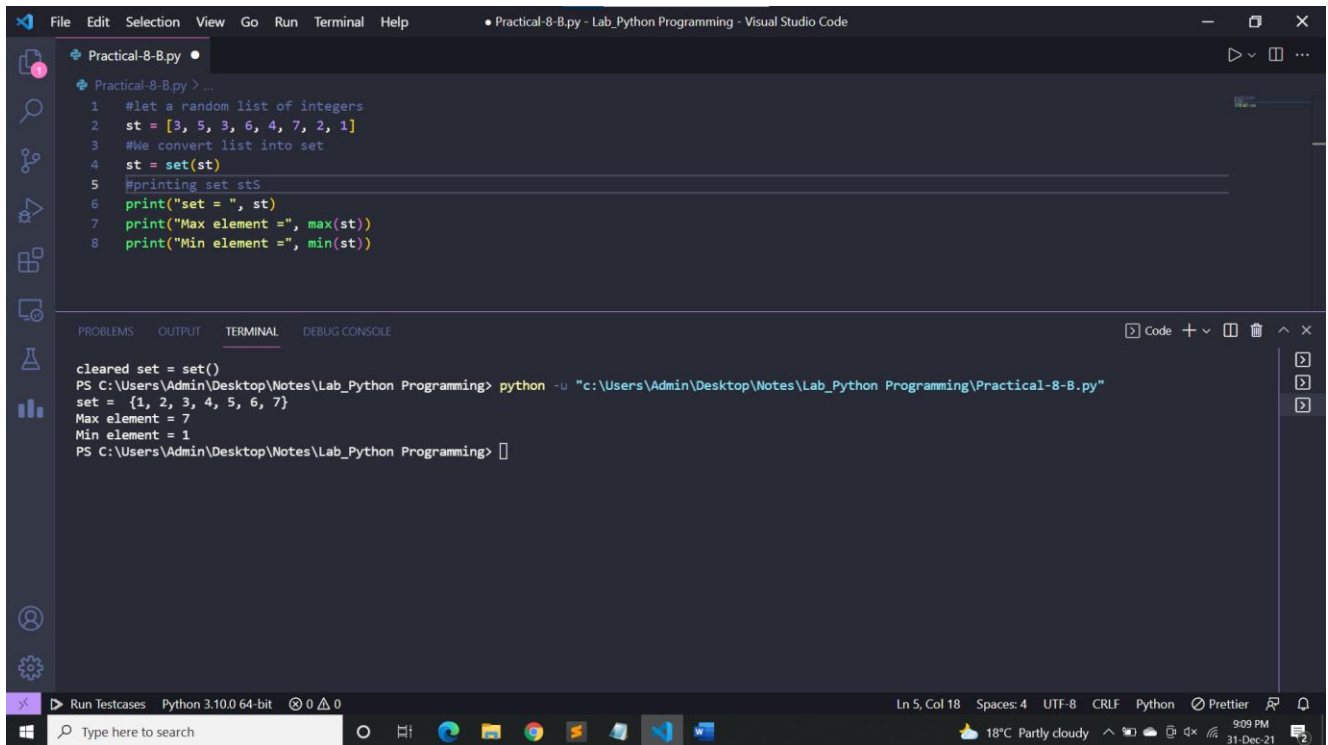
Program:

```
#let a random list of integers
st = [3, 5, 3, 6, 4, 7, 2, 1]
#We convert list into set
st = set(st)
#printing set st
print("set = ", st)
print("Max element =", max(st))
print("Min element =", min(st))
```

Output:

```
set = {1, 2, 3, 4, 5, 6, 7}
Max element = 7
Min element = 1
```

Screenshot:



The screenshot shows the Visual Studio Code interface. The editor window displays a file named 'Practical-8-B.py' with the following Python code:

```
1 #let a random list of integers
2 st = [3, 5, 3, 6, 4, 7, 2, 1]
3 #We convert list into set
4 st = set(st)
5 #printing set stS
6 print("set = ", st)
7 print("Max element =", max(st))
8 print("Min element =", min(st))
```

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

```
cleared set = set()
PS C:\Users\Admin\Desktop\Notes\Lab_Python Programming> python -u "c:\Users\Admin\Desktop\Notes\Lab_Python Programming\Practical-8-B.py"
set = {1, 2, 3, 4, 5, 6, 7}
Max element = 7
Min element = 1
PS C:\Users\Admin\Desktop\Notes\Lab_Python Programming>
```

c. Write a Python program to find the length of a set

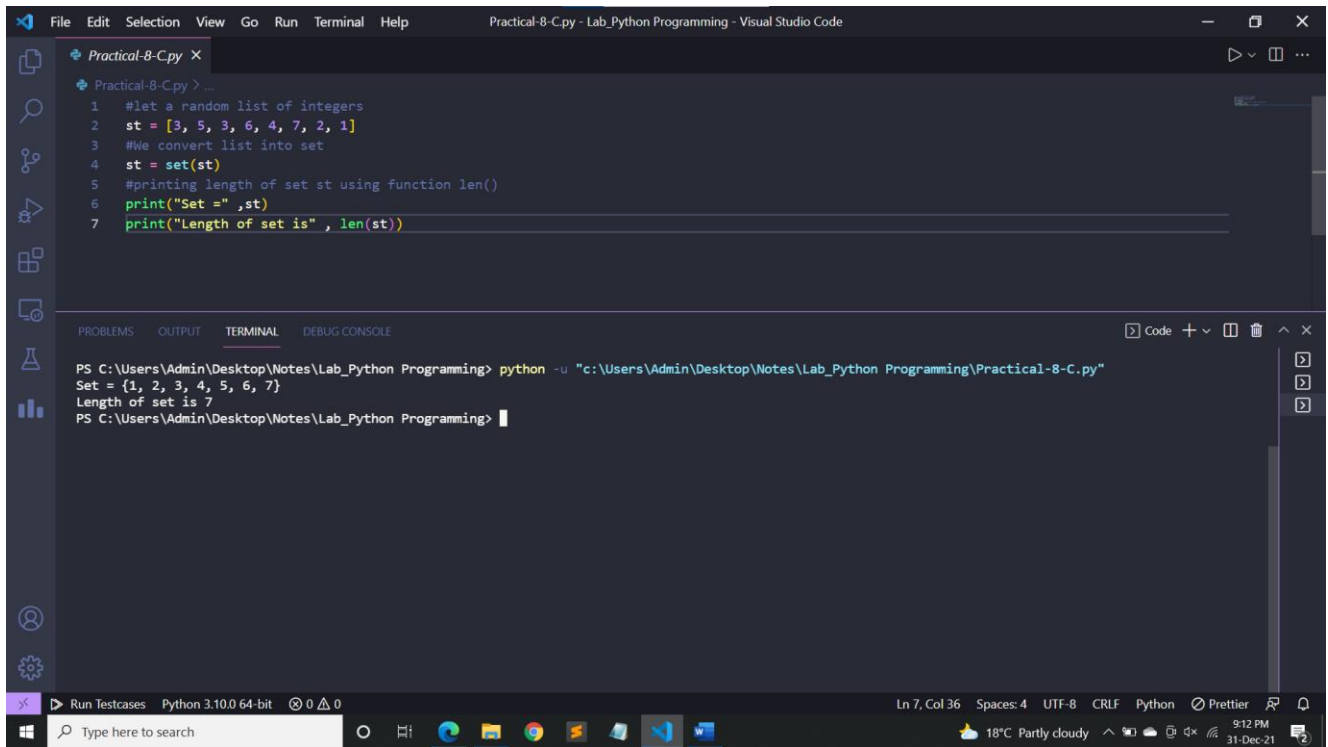
Program:

```
#let a random list of integers
st = [3, 5, 3, 6, 4, 7, 2, 1]
#We convert list into set
st = set(st)
#printing length of set st using function len()
print("Set =" ,st)
print("Length of set is" , len(st))
```

Output:

```
Set = {1, 2, 3, 4, 5, 6, 7}
Length of set is 7
```

Screenshot:



The screenshot displays the Visual Studio Code interface with a file named 'Practical-8-C.py' open. The code in the editor is as follows:

```
1 #let a random list of integers
2 st = [3, 5, 3, 6, 4, 7, 2, 1]
3 #we convert list into set
4 st = set(st)
5 #printing length of set st using function len()
6 print("Set =" ,st)
7 print("Length of set is" , len(st))
```

Below the editor, the 'TERMINAL' panel shows the command prompt output:

```
PS C:\Users\Admin\Desktop\Notes\Lab_Python Programming> python -u "c:\Users\Admin\Desktop\Notes\Lab_Python Programming\Practical-8-C.py"
Set = {1, 2, 3, 4, 5, 6, 7}
Length of set is 7
PS C:\Users\Admin\Desktop\Notes\Lab_Python Programming>
```

The status bar at the bottom indicates the current line and column as 'Ln 7, Col 36', and the file encoding as 'UTF-8'.

Result: I have studied Set in Python and successfully performed practical-8.