

Practical

1) demonstrate code for FOR-LOOP and RANGE.

```
demo.py - C:/Users/student/Desktop/demo.py (3.10.5)
File Edit Format Run Options Window Help
dept="computer engineering"
print(dept)
i=0
for ch in dept:
    print("character {} is present at index {}".format(ch,i))
    i=i+1
|
```

```
===== RESTART: C:/Users/student/Desktop/demo.py =====
computer engineering
character c is present at index 0
character o is present at index 1
character m is present at index 2
character p is present at index 3
character u is present at index 4
character t is present at index 5
character e is present at index 6
character r is present at index 7
character  is present at index 8
character e is present at index 9
character n is present at index 10
character g is present at index 11
character i is present at index 12
character n is present at index 13
character e is present at index 14
character e is present at index 15
character r is present at index 16
character i is present at index 17
character n is present at index 18
character g is present at index 19
|
```

```
demo.py - C:/Users/student/Desktop/demo.py (3.10.5)
File Edit Format Run Options Window Help
departments="cse","it","civil","chemical"
i=1
print("department list is as below")
for dept in departments:
    print(i,dept)
    i=i+1
```

```
demo.py - C:/Users/student/Desktop/demo.py (3.10.5)
File Edit Format Run Options Window Help
samplerange=range(10)
print(samplerange)
range(0, 10)

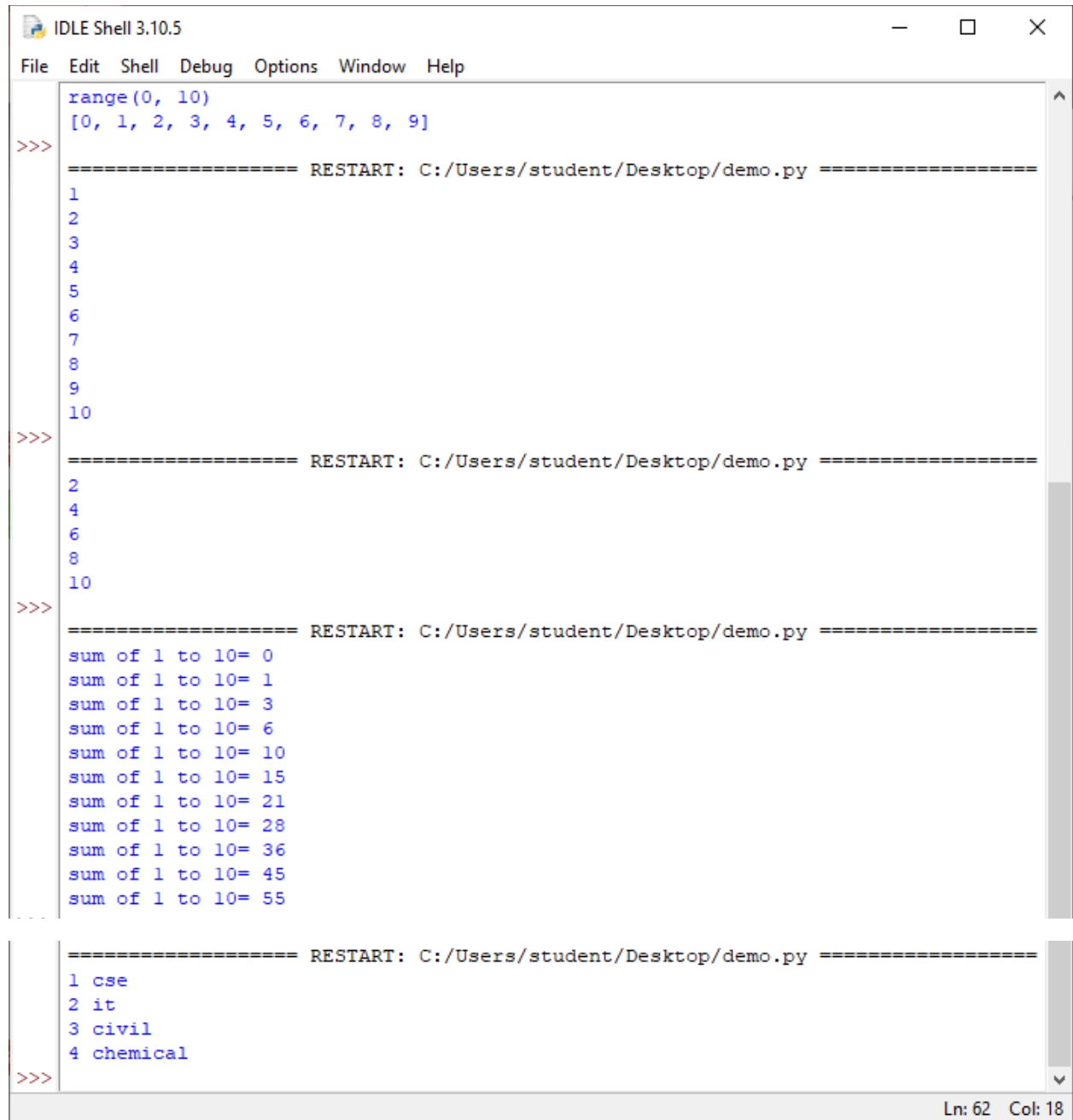
samplelist=list(samplerange)
print(samplelist)
```

```
demo.py - C:/Users/student/Desktop/demo.py (3.10.5)
File Edit Format Run Options Window Help
for i in range(2,11,2):
    print(i)
```

```
demo.py - C:/Users/student/Desktop/demo.py (3.10.5)
File Edit Format Run Options Window Help
sum=0
for i in range(0,11):
    sum=sum+i
    print("sum of 1 to 10=", sum)
```

```
demo.py - C:/Users/student/Desktop/demo.py (3.10.5)
File Edit Format Run Options Window Help
departments="cse","it","civil","chemical"
for i in range(len(departments)):
    print(i+1,departments[i])
```

```
===== RESTART: C:/Users/student/Desktop/demo.py =====
computer engineering
character c is present at index 0
character o is present at index 1
character m is present at index 2
character p is present at index 3
character u is present at index 4
character t is present at index 5
character e is present at index 6
character r is present at index 7
character  is present at index 8
character e is present at index 9
character n is present at index 10
character g is present at index 11
character i is present at index 12
character n is present at index 13
character e is present at index 14
character e is present at index 15
character r is present at index 16
character i is present at index 17
character n is present at index 18
character g is present at index 19
>>>
===== RESTART: C:/Users/student/Desktop/demo.py =====
department list is as below
1 cse
2 it
3 civil
4 chemical
>>>
===== RESTART: C:/Users/student/Desktop/demo.py =====
range(0, 10)
[0, 1, 2, 3, 4, 5, 6, 7, 8, 9]
>>>
===== RESTART: C:/Users/student/Desktop/demo.py =====
1
```



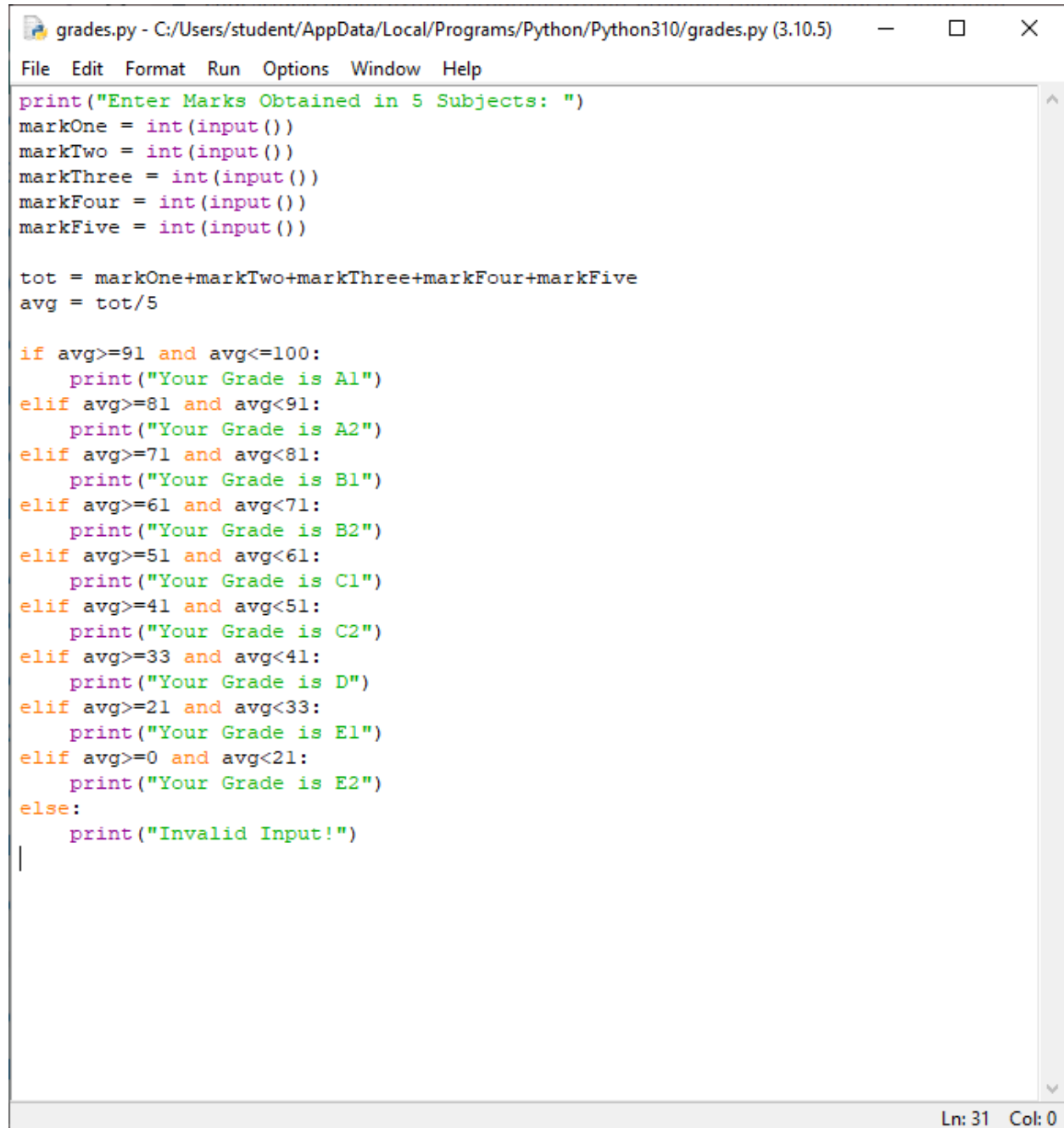
The screenshot shows the IDLE Shell 3.10.5 window. The menu bar includes File, Edit, Shell, Debug, Options, Window, and Help. The shell area displays the execution of a Python script named demo.py, which has been restarted multiple times. The first execution shows the output of range(0, 10) as [0, 1, 2, 3, 4, 5, 6, 7, 8, 9]. Subsequent restarts show the output of a loop printing numbers 1 through 10, and then a loop printing the sum of 1 to 10 for each number from 0 to 9. The final restart shows the output of a list containing 'cse', 'it', 'civil', and 'chemical'.

```
IDLE Shell 3.10.5
File Edit Shell Debug Options Window Help

range(0, 10)
[0, 1, 2, 3, 4, 5, 6, 7, 8, 9]
>>>
===== RESTART: C:/Users/student/Desktop/demo.py =====
1
2
3
4
5
6
7
8
9
10
>>>
===== RESTART: C:/Users/student/Desktop/demo.py =====
2
4
6
8
10
>>>
===== RESTART: C:/Users/student/Desktop/demo.py =====
sum of 1 to 10= 0
sum of 1 to 10= 1
sum of 1 to 10= 3
sum of 1 to 10= 6
sum of 1 to 10= 10
sum of 1 to 10= 15
sum of 1 to 10= 21
sum of 1 to 10= 28
sum of 1 to 10= 36
sum of 1 to 10= 45
sum of 1 to 10= 55
...
===== RESTART: C:/Users/student/Desktop/demo.py =====
1 cse
2 it
3 civil
4 chemical
>>>
```

Ln: 62 Col: 18

2)PRINT GRADES OF STUDENTS ACCORDING TO THEIR GRADES.



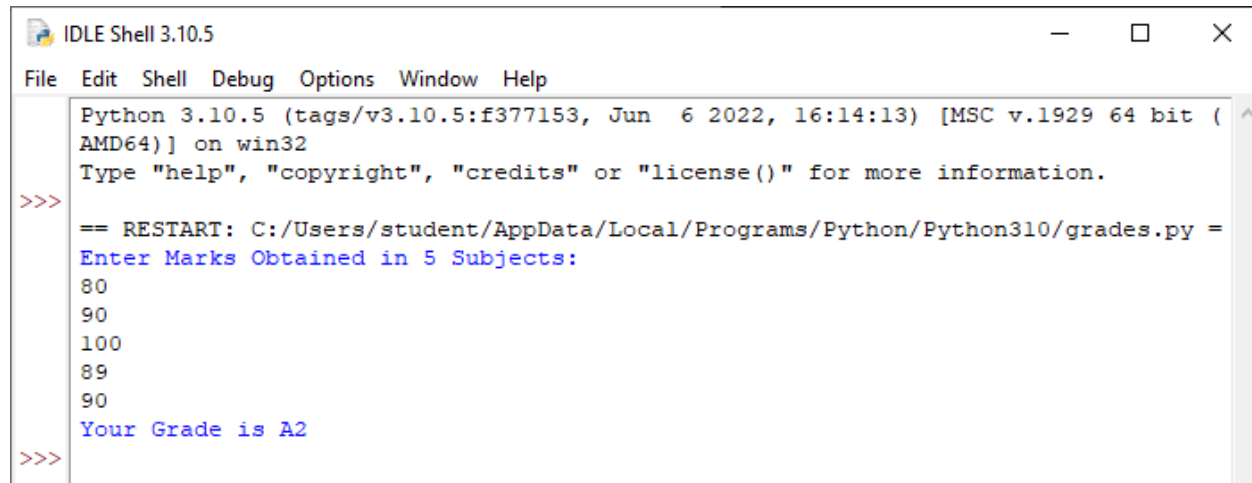
```
grades.py - C:/Users/student/AppData/Local/Programs/Python/Python310/grades.py (3.10.5)
File Edit Format Run Options Window Help

print("Enter Marks Obtained in 5 Subjects: ")
markOne = int(input())
markTwo = int(input())
markThree = int(input())
markFour = int(input())
markFive = int(input())

tot = markOne+markTwo+markThree+markFour+markFive
avg = tot/5

if avg>=91 and avg<=100:
    print("Your Grade is A1")
elif avg>=81 and avg<91:
    print("Your Grade is A2")
elif avg>=71 and avg<81:
    print("Your Grade is B1")
elif avg>=61 and avg<71:
    print("Your Grade is B2")
elif avg>=51 and avg<61:
    print("Your Grade is C1")
elif avg>=41 and avg<51:
    print("Your Grade is C2")
elif avg>=33 and avg<41:
    print("Your Grade is D")
elif avg>=21 and avg<33:
    print("Your Grade is E1")
elif avg>=0 and avg<21:
    print("Your Grade is E2")
else:
    print("Invalid Input!")
|
```

Ln: 31 Col: 0



```
Python 3.10.5 (tags/v3.10.5:f377153, Jun 6 2022, 16:14:13) [MSC v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
== RESTART: C:/Users/student/AppData/Local/Programs/Python/Python310/grades.py =
Enter Marks Obtained in 5 Subjects:
80
90
100
89
90
Your Grade is A2
>>>
```