

**Netaji Subhash Engineering College**  
**Department of Computer Science & Engineering**  
**B. Tech CSE 2<sup>nd</sup> Year 3<sup>rd</sup> Semester**  
**2021-2022**

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**Name of the Course:** IT Workshop

**Course Code:** PCC-CS393

**Name of the Student:** Sanjoy Saha

**Class Roll No.:** 3

**University Roll No.:** 10900120003

**Date of Experiment:** 22/10/2021

**Date of Submission:** 28/10/2021

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▪ **Assignment No.:** 9

**Problem Statement:** Write a program to sort three numbers using if-elif-else.

**Python Code:**

```
a = float(input("Enter a: "))
b = float(input("Enter b: "))
c = float(input("Enter c: "))

if a > b:
    a,b = b,a
elif a > c:
    a,c = c,a
else:
    b,c = c,b

print (a, "<", b, "<", c)
```

### Sample Output(s):

```
PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE Code + - [ ] [X] ^ >
Windows PowerShell
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Try the new cross-platform PowerShell https://aka.ms/pscore6

PS C:\Users\lenovo\Desktop\Python lab assignment> python -u "c:\Users\
lenovo\Desktop\Python lab assignment\Assignment 9.py"
Enter a: 3
Enter b: 4
Enter c: 5
3.0 < 5.0 < 4.0
PS C:\Users\lenovo\Desktop\Python lab assignment> 
```

#### ▪ Assignment No.: 10

**Problem Statement:** Write a program to calculate simple interest with the following conditions:

- If the principal amount is less than 2,00,000 the interest rate is 10%.
- If the principal amount is 2,00,000 -10,00,000 the interest rate is 12%.
- If the principal amount is greater than 10,00,000 the interest rate is 15%.

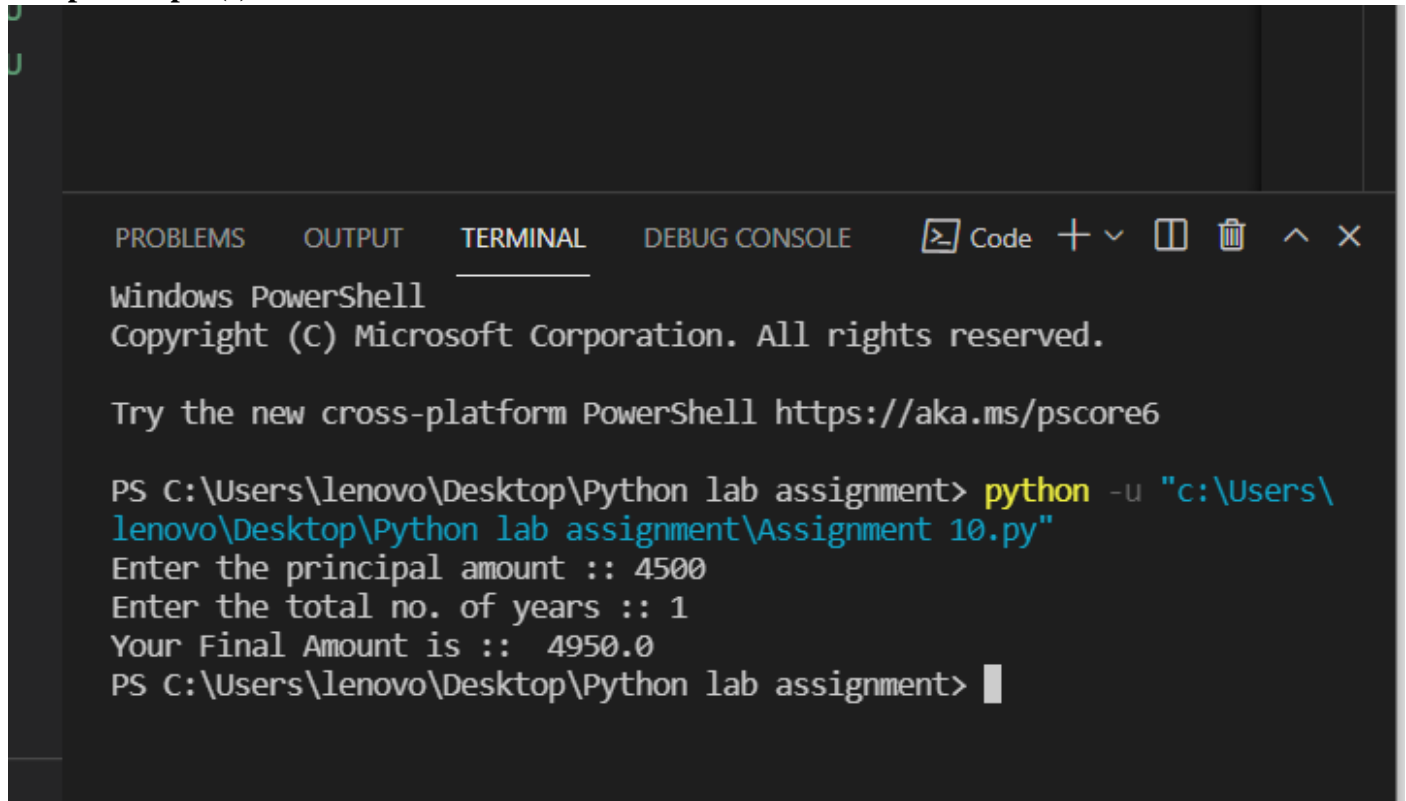
#### Python Code:

```
p=int(input("Enter the principal amount :: "))

t=int(input("Enter the total no. of years :: "))
if(p<200000):
    si = p*0.1*t
    amt=p+si
elif(p<1000000):
    si = p*0.12*t
    amt = p+si
else:
    si = p*0.15*t
    amt = p+si

print("Your Final Amount is :: ",amt)
```

### Sample Output(s):



The screenshot shows a Windows PowerShell terminal window. The title bar includes tabs for PROBLEMS, OUTPUT, TERMINAL (which is active), and DEBUG CONSOLE. There are also icons for Code, a plus sign, a minus sign, a window icon, a trash icon, and up/down arrows. The terminal text is as follows:

```
Windows PowerShell
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PS C:\Users\lenovo\Desktop\Python lab assignment> python -u "c:\Users\lenovo\Desktop\Python lab assignment\Assignment 10.py"
Enter the principal amount :: 4500
Enter the total no. of years :: 1
Your Final Amount is :: 4950.0
PS C:\Users\lenovo\Desktop\Python lab assignment> |
```

- Assignment No.: 11 a

**Problem Statement:** 11. Write a program to print the following patterns:

- a) 1  
2, 3  
4, 5, 6  
7, 8, 9, 10  
11, 12, 13, 14, 15

### Python Code:

```
n=int(input("Enter the limit :: "))
c=0
for i in range(1,n+1):
    for j in range(i):
        c+=1
        print(c," ",end="")
    print()
```

### Sample Output(s):

```
PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE Code + - [ ] [ ] ^ X
Windows PowerShell
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PS C:\Users\lenovo\Desktop\Python lab assignment> python -u "c:\Users\lenovo\Desktop\Python lab assignment\Assignment 11 a.py"
Enter the limit :: 5
1
2 3
4 5 6
7 8 9 10
11 12 13 14 15
PS C:\Users\lenovo\Desktop\Python lab assignment> |
```

## Assignment No.: 11 b

### Problem Statement: b)

```
* * * * *
* * * * *
* * * *
* * *
*
```

### Python Code:

```
n=int(input("Enter the limit :: "))
c=0
for i in reversed(range(n)):
    if(i%2!=0):
        print(" "*c, "*" * i)
        c+=1
```

### OUTPUT –

```
PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE Code + - [ ] [ ] ^ X
Windows PowerShell
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PS C:\Users\lenovo\Desktop\Python lab assignment> python -u "c:\Users\lenovo\Desktop\Python lab assignment\Assignment 11 b.py"
Enter the limit :: 11
*****
*****
*****
***
*

PS C:\Users\lenovo\Desktop\Python lab assignment> |
```

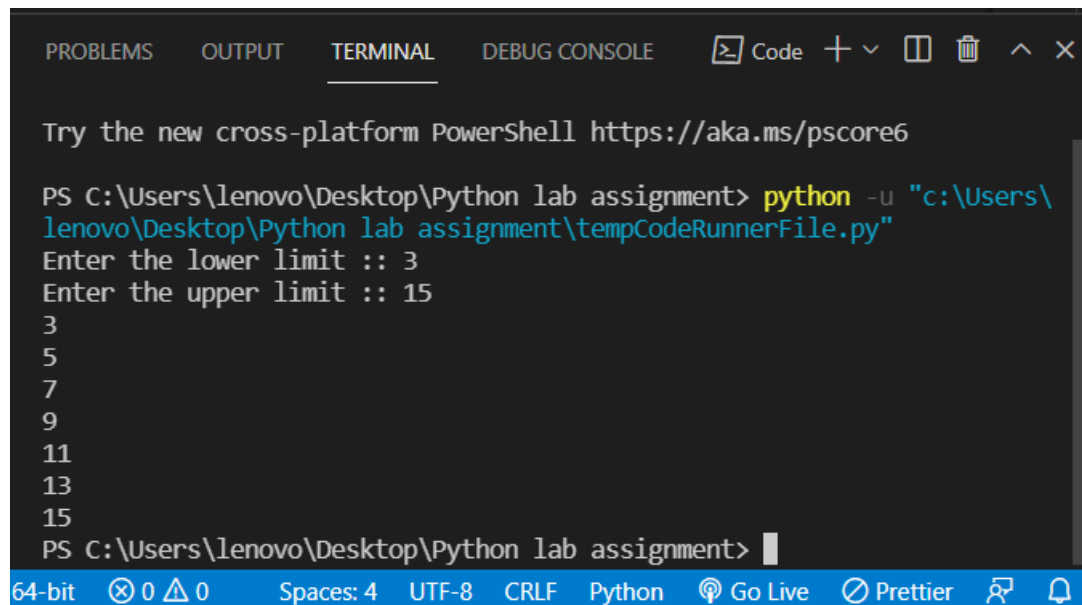
## ▪ Assignment No.: 12

**Problem Statement:** Write a program using a while loop to print all the odd numbers within a given range.

**Python Code:**

```
l=int(input("Enter the lower limit :: "))
u=int(input("Enter the upper limit :: "))
for i in range(1,u+1):
    if(i%2!=0):
        print(i)
```

**Sample Output(s):**



The screenshot shows a code editor with a terminal window. The terminal displays the following text:

```
Try the new cross-platform PowerShell https://aka.ms/pscore6

PS C:\Users\lenovo\Desktop\Python lab assignment> python -u "c:\Users\lenovo\Desktop\Python lab assignment\tempCodeRunnerFile.py"
Enter the lower limit :: 3
Enter the upper limit :: 15
3
5
7
9
11
13
15
PS C:\Users\lenovo\Desktop\Python lab assignment>
```

The code editor interface includes tabs for PROBLEMS, OUTPUT, TERMINAL, and DEBUG CONSOLE. The TERMINAL tab is active. The status bar at the bottom shows 64-bit, 0 errors, 0 warnings, Spaces: 4, UTF-8, CRLF, Python, Go Live, Prettier, and a bell icon.

## ▪ Assignment No.: 13

**Problem Statement:** Write a program to compute the GCD of two integer numbers.

**Python Code:**

```
a=int(input("Enter The 1st no. : "))
b=int(input("Enter the 2nd no. : "))
i=1
while(i <= a and i <= b):
    if (a %i == 0 and b % i == 0):
        gcd = i
        i = i+ 1
    print("GCD is - ",gcd)
```

**Sample Output(s):**

```
Windows PowerShell
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PS C:\Users\lenovo\Desktop\Python lab assignment> python -u "c:\Users\
lenovo\Desktop\Python lab assignment\Assignment 13.py"
Enter The 1st no. : 13
Enter the 2nd no. : 26
GCD is - 13
█
```

7 64-bit ⓘ 0 ▲ 0 Spaces: 4 UTF-8 CRLF Python 🔗 Go Live 🔗 Prettier 🔗 🔔

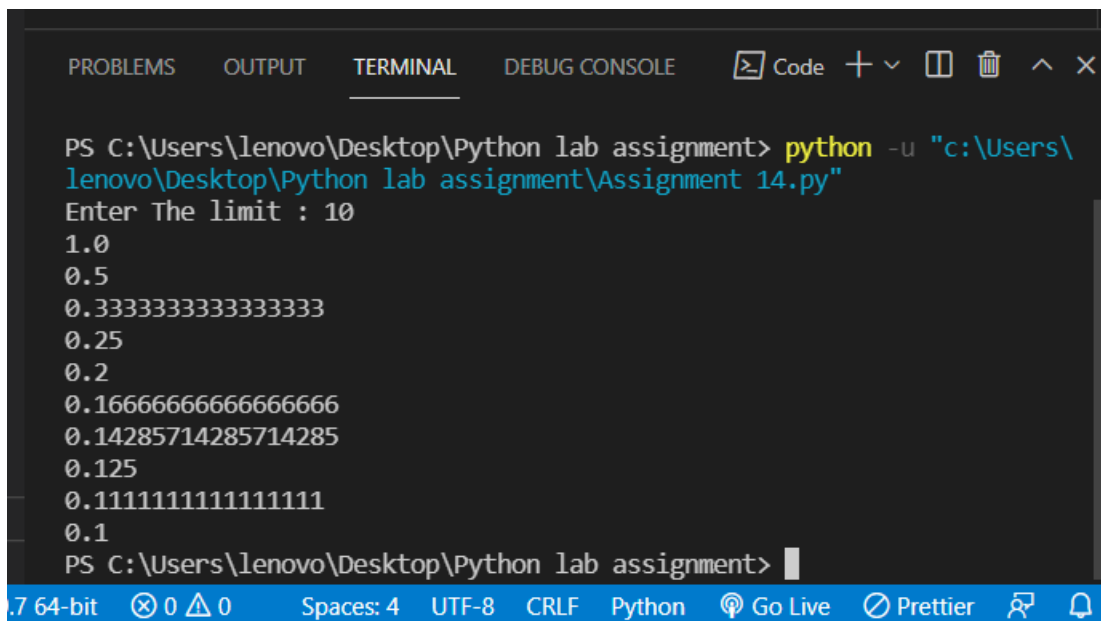
## ▪ Assignment No.: 14

**Problem Statement:** Write a program to print the decimal equivalents of  $1/2$ ,  $1/3$ ,  $1/4$ , .. ,  $1/10$  using for loop.

**Python Code:**

```
n=int(input("Enter The limit : "))
for i in range(1,n+1):
    print(1/i)
```

**Sample Output(s):**



```
PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE Code + - [] {} ^ X
PS C:\Users\lenovo\Desktop\Python lab assignment> python -u "c:\Users\lenovo\Desktop\Python lab assignment\Assignment 14.py"
Enter The limit : 10
1.0
0.5
0.3333333333333333
0.25
0.2
0.16666666666666666
0.14285714285714285
0.125
0.11111111111111111
0.1
PS C:\Users\lenovo\Desktop\Python lab assignment>
```

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