

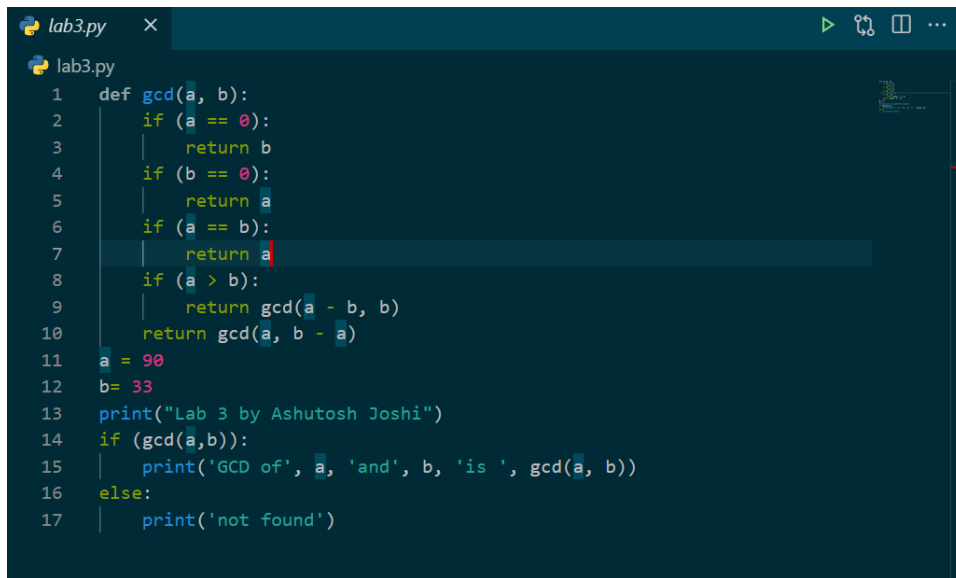
KNC 402 Python Lab

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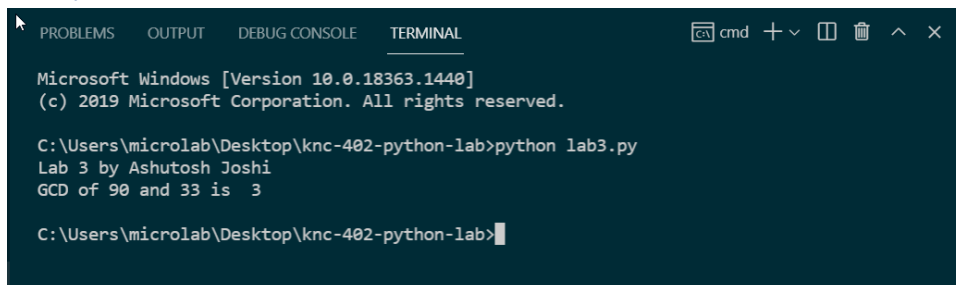
Check all files here at [github](#)

Practical 3



```
lab3.py
1 def gcd(a, b):
2     if (a == 0):
3         return b
4     if (b == 0):
5         return a
6     if (a == b):
7         return a
8     if (a > b):
9         return gcd(a - b, b)
10    return gcd(a, b - a)
11 a = 90
12 b = 33
13 print("Lab 3 by Ashutosh Joshi")
14 if (gcd(a,b)):
15     print('GCD of', a, 'and', b, 'is ', gcd(a, b))
16 else:
17     print('not found')
```

Output



```
Microsoft Windows [Version 10.0.18363.1440]
(c) 2019 Microsoft Corporation. All rights reserved.

C:\Users\microlab\Desktop\knc-402-python-lab>python lab3.py
Lab 3 by Ashutosh Joshi
GCD of 90 and 33 is 3

C:\Users\microlab\Desktop\knc-402-python-lab>
```

Practical 4

```
lab4.py x
lab4.py > [?] file
1 file = open("lab4.txt", "r", encoding="utf-8")
2 frequent_word = ""
3 frequency = 0
4 words = []
5 print("Lab 4 by Ashutosh Joshi")
6 # Traversing file line by line
7 for line in file:
8     line_word = line.lower().replace(',', '').replace('.', '').split(" ");
9     for w in line_word:
10         words.append(w);
11
12 # Finding the max occurred word
13 for i in range(0, len(words)):
14     count = 1;
15     for j in range(i+1, len(words)):
16         if(words[i] == words[j]):
17             count = count + 1;
18     if(count > frequency):
19         frequency = count;
20         frequent_word = words[i];
21
22 print("Most repeated word: " + frequent_word)
23 print("Frequency: " + str(frequency))
24 file.close();
```

Output

```
C:\Users\microlab\Desktop\knc-402-python-lab>python lab4.py
Lab 4 by Ashutosh Joshi
Most repeated word: the
Frequency: 366
```

Practical 5

```
lab5.py x
lab5.py > ...
1 print("Lab 5 by Ashutosh Joshi")
2 n=int(input()) #Number whose Square root is to be found
3 l=float(input()) #Tolerance Level
4 x=n
5 while(1):
6     root=0.5*(x+(n/x))
7     if(abs(root-x)<l):
8         break
9     x=root
10 print(root)
```

Output

```
C:\Users\microlab\Desktop\knc-402-python-lab>python lab5.py
Lab 5 by Ashutosh Joshi
225
0.01
15.000001132796916
```