



B. Tech. (Third-Year)

Department of Computer Science and

Information Technology

"Lab Manual of Python"

Subject Code: CS-506

B. Tech: III Year 5th Sem

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1. Write a python program to display a user entered name followed by Good Afternoon using input() function.

```
name = str(input("Enter your name: "))  
  
print("Good Afternoon", name)  
# this is original code by Satyam Patel
```

Output :

```
Enter your name:  
Satyam  
Good Afternoon Satyam  
PS F:\CT-09 python>
```

2. Write a program to fill in a letter template given below with name and date: a. letter = “ Dear <|Name|> You are selected <|Date|>”

```
letter = ''' Dear <|Name|>  
You are selected  
<|Date|>'''  
  
Name = (input("enter your name: " ))  
Date = (input("enter date: "))  
  
letter = letter.replace("<|Name|>", Name)  
letter = letter.replace("<|Date|>", Date)  
  
print(letter)  
# this is original code by Satyam Patel
```

Output :

```
PS F:\CT-09 python> &  
C:/Users/Administrator/AppData/Local/Programs/Python/Python39/python.exe "f:/CT-09
```

```
python/2.py"
enter your name:
Satyam
enter date: 23/11/21
    Dear Satyam
You are selected
23/11/21
PS F:\CT-09 python>
```

3. Replace double spaces with single spaces in previous program

```
tring = '''Hello my name  is Satyam Patel '''
doubleSpace = string.replace("  ", " ")
print(doubleSpace)
# this is original code by Satyam Patel
```

Output :

```
PS F:\CT-09 python> &
C:/Users/Administrator/AppData/Local/Programs/Python/Python39/python.exe "f:/CT-09
python/3.py"
Hello my name is Satyam Patel
```

4. Write a program to store seven fruits in a list entered by the user

```
fruits=[]
print("enter names of seven fruits")
for i in range(7):
    fruit = input()
    fruits.append(fruit)
print(fruits)
# this is original code by Satyam Patel
```

Output :

```
enter names of seven fruits
mango
grapes
orange
kiwi
banana
papaya
pineapple
['mango', 'grapes', 'orange', 'kiwi', 'banana', 'papaya', 'pineapple']
PS F:\CT-09 python>
```

5. Write a program to enter marks of 6 students and display them in sorted order.

```
marks = []
print("enter marks of 6 students")
for i in range(7):
    marks.append(int(input()))
marks.sort()
print(marks)
# this is original code by Satyam Patel
```

Output :

```
PS F:\CT-09 python> &
C:/Users/Administrator/AppData/Local/Programs/Python/Python39/python.exe "f:/CT-09
python/6.py"
enter marks of 6 students
12
67
90
78
56
34
34
[12, 34, 34, 56, 67, 78, 90]
PS F:\CT-09 python>
```

6. Write a program to count the number of zeroes in following tuple.

a = (7,0,8,0,0,9)

```
a = (7,0,8,0,0,9)
c=0
for i in a:
    if(i==0):
        c=c+1
print(c)
# this is original code by Satyam Patel
```

Output :

```
PS F:\CT-09 python> &
C:/Users/Administrator/AppData/Local/Programs/Python/Python39/python.exe "f:/CT-09
python/7.py"
3
```

7. Write a program to create a dictionary of Hindi words with values as their English Translation. Provide user with an option to look it up.

```
words = {
    "kursi":"chair",
    "pankha":"fan",
    "almari":"Almirah",
    "darwaza":"door"
}

a = input("search your word: ")
if a not in words.keys():
    print("word not found")
else:
    print(words[a])
# this is original code by Satyam Patel
```

Output :

```
PS F:\CT-09 python> &
C:/Users/Administrator/AppData/Local/Programs/Python/Python39/python.exe "f:/CT-09
python/8.py"
search your word: pankha
fan
```

8. Write a program to input 8 numbers from the user and display all the unique numbers (once).

```
a=list(map(int,input().split()))
a=set(a)
print(a)
# this is original code by Satyam Patel
```

Output :

```
PS F:\CT-09 python> &
C:/Users/Administrator/AppData/Local/Programs/Python/Python39/python.exe "f:/CT-09
```

```
python/9.py"
12 13 12 13 35 67 87 56
{67, 35, 12, 13, 87, 56}
```

9. What will be the length of the following set

S=set()

S.add(20)

S.add(20.0)

S.add("20")

Length of S after operation?

```
S =set()
S.add(20)

S.add(20.0)

S.add("20")
print(len(S))

# length will be 2 because 20 and 20.0 are considered same value
irrespective of data type
# this is original code by Satyam Patel
```


Output :

```
PS F:\CT-09 python> &
C:/Users/Administrator/AppData/Local/Programs/Python/Python39/python.exe "f:/CT-09
python/10.py"
2
```

10. Can you change the values inside a list which is contained in set S?

S = {8,7,12,"Simarjeet",[1,2]}

```
S = {8,7,12,"Simarjeet",[1,2]}

for i in S:
    if type(i) is list:
        i =[1,2,3,4]
        break
print(S)

#No
# this is original code by Satyam Patel
```

Output:

```
S F:\CT-09 python> &
C:/Users/Administrator/AppData/Local/Programs/Python/Python39/python.exe "f:/CT-09
python/10.py"
Traceback (most recent call last):
  File "f:\CT-09 python\10.py", line 1, in <module>
    S = {8,7,12,"Simarjeet",[1,2]}
TypeError: unhashable type: 'list'
```

11. A spam comment is defined as a text containing following keywords:

“buy now” , “make a lot of money” , “subscribe this” , “click this”.
Write a program to detect these spams (hint: use ‘in’).

```
words = ["buy now" , "make a lot of money", "subscribe this", "click  
this"]  
s = input("enter the sentence:")  
o="not spam"  
for word in words:  
    if word in s:  
        o="spam"  
        break  
print(o)  
# this is original code by Satyam Patel
```

Output :

```
PS F:\CT-09 python> &  
C:/Users/Administrator/AppData/Local/Programs/Python/Python39/python.exe "f:/CT-09  
python/11.py"  
enter the sentence:I am Satyam and I make a lot of  
money spam
```

12. Write a program to check whether a username consists of less than 10 characters or not.

```
user = input("enter username:")  
if len(user)<10:  
    print("length less than 10")  
else:  
    print("length is greater or equal to 10")  
# this is original code by Satyam Patel
```

Output :

```
PS F:\CT-09 python> &
C:/Users/Administrator/AppData/Local/Programs/Python/Python39/python.exe "f:/CT-09
python/12.py"
enter username:Satyam
length less than 10
```

13. Write a program to find out whether a given post is talking about "Simarjeet" or not.

```
l="simarjeet"

sen = input("enter your sentence:")
sen = sen.lower()
found="No"

if l in sen:
    found="yes"

print(found)
# this is original code by Satyam Patel
```

Output:

```
PS F:\CT-09 python> &
C:/Users/Administrator/AppData/Local/Programs/Python/Python39/python.exe "f:/CT-09
python/13.py"
enter your sentence:Simarjeet sir is a great teacher,There is no one like simrjeet
yes
```

14. Write a program to greet all the person names stored in a list L1 and which starts with 'S'. (hint: use startswith("S") method) i. L1 = ["Simarjeet", "Sohan", "Sachin", "Rahul"]

```
L1 = ["Simarjeet", "Sohan", "Sachin", "Rahul"]
for x in L1:
    if(x.startswith("S")):
        print("Good morning, " + x )
        # this is original code by Satyam Patel
```

Output :

```
PS F:\CT-09 python> &
C:/Users/Administrator/AppData/Local/Programs/Python/Python39/python.exe "f:/CT-09
python/14.py"
Good morning, Simarjeet
Good morning, Sohan
Good morning, Sachin
```

15. Write a program to check whether a number is prime or not.

```
num = int(input("Enter a number: "))

flag = False

if num > 1:

    for i in range(2, num):
        if (num % i) == 0:
            flag = True
            break

if (flag):
    print(num, "is not a prime number")
else:
    print(num, "is a prime number")
    # this is original code by Satyam Patel
```

Output :

```
PS F:\CT-09 python> &
C:/Users/Administrator/AppData/Local/Programs/Python/Python39/python.exe "f:/CT-09
python/15.py"
Enter a number: 2345
2345 is not a prime number
```

16. Find the greatest of 3 numbers using function.

```
def findGreatest(num1, num2, num3) :
    if num1 >= num2 and num1 >= num3 :
        return num1

    elif num2 >= num1 and num2 >= num3 :
        return num2

    else :
        return num3

num1 = int(input("Enter First Number : "))
num2 = int(input("Enter Second Number : "))
num3 = int(input("Enter Third Number : "))
print(findGreatest(num1, num2, num3))

#this is original code by Satyam Patel
```

Output :

```
PS F:\CT-09 python> &
C:/Users/Administrator/AppData/Local/Programs/Python/Python39/python.exe "f:/CT-09
python/16.py"
Enter First Number : 23
Enter Second Number : 33
Enter Third Number : 44
44
```

17. How do you prevent a python function to print a new line at the end.(use , end = “ ” in print after hello).

```
print("Hello there!", end = '')  
print("It is a great day.")  
#this is original code by Satyam Patel
```

Output :

```
C:/Users/Administrator/AppData/Local/Programs/Python/Python39/python.exe "f:/CT-09  
python/17.py"  
Hello there!It is a great day.  
PS F:\CT-09 python>
```

18. Recursive function to calculate the sum of first n natural numbers.

```

def sumOfNaturalNumber(num) :

    if num <= 1 :
        return num

    else :
        return num + sumOfNaturalNumber(num - 1)

num = int(input("enter number : "))

if num < 1 :
    print("Enter a Positive Number")

else :
    print(sumOfNaturalNumber(num))
# this is original code by Satyam Patel

```

Output :

```

PS F:\CT-09 python> &
C:/Users/Administrator/AppData/Local/Programs/Python/Python39/python.exe "f:/CT-09
python/18.py"
enter number : 4
10

```

19. Recursive function to remove a word from a list and strip it at the same time. (to strip is to remove spaces)

```

def removeCharRecursive(l, w):

    if (len(l) == 0):
        return ""

    if (l[0] == w):
        return removeCharRecursive(l[1:], w)

    return l[0] + " " + removeCharRecursive(l[1:], w)

l=["ram","shyam","Satyam","patel","code","satyam"]

print(l)
w = input("enter word to remove from above list: ")

l = list(map(str,removeCharRecursive(l, w).split(" ")))[:-1]

```

```
print(l)

# this is original code by Satyam Patel
```

Output :

```
PS F:\CT-09 python> &
C:/Users/Administrator/AppData/Local/Programs/Python/Python39/python.exe "f:/CT-09
python/19.py"
['ram', 'shyam', 'satyam', 'patel', 'code',
'satyam']
enter word to remove from above list: amol
['ram', 'shyam', 'patel', 'code']
```

20. Write a program to read the text from a given file “speech.txt” and find out whether it contains the word “open” in it. (hint : use in keyword).

```
with open('search.txt') as file:
    contents = file.read()
    search_word = input("enter a word you want to search in file: ")
    if search_word in contents:
        print('word found')
    else:
        print('word not found')
# this is original code by Satyam Patel
```

Text File (search.txt):

hello this is open file.

Output :


```
PS F:\CT-09 python> &
C:/Users/Administrator/AppData/Local/Programs/Python/Python39/python.exe "f:/CT-09
python/20.py"
enter a word you want to search in file: open
word found
PS F:\CT-09 python>
```

21. Write a program to generate multiplication tables from 2 to 20 and write it to the different files. Keep this file in a folder for your maths student who is 12 years old.

```
import os
path = 'multiplication'
for i in range(1,21):
    file = "table of " + str(i) + '.txt'
    with open(os.path.join(path, file), 'w') as fp:
        for j in range(1,11):
            fp.write(f"{i} * {j} = {i*j}\n")
    fp.close()
print("successfully done")

# this is original code by Satyam Patel
```

Output :

```
PS F:\CT-09 python> &
C:/Users/Administrator/AppData/Local/Programs/Python/Python39/python.exe "f:/CT-09
python/21.py"
successfully done
```

22. A file contains a word “Stupid” multiple times. Write a program to replace this word by “***” by updating the same file. (hint: use the concept of replace function).**

```
with open("sample.txt","r+") as f:
    data = f.read()
    data = data.replace("stupid","*****")
f.close()
```

```
with open("sample.txt","w") as f:
    f.write(data)
f.close()
print("successful!")
# this is original code by Satyam Patel
```

Output :

```
PS F:\CT-09 python> &
C:/Users/Administrator/AppData/Local/Programs/Python/Python39/python.exe "f:/CT-09
python/22.py"
successful!
```

23. Write a program to find a word “python” present in log file. Also find its line number.

```
f = open("find.log", "r+")
count=0
m = set()
for l in f.readlines():
    count+=1
    if l.find("python")>=0:
        m.add(count)
f.close()
if(len(m)==0):
    print("not found")
else:
    print("found in lines:")
    print(m)
# this is original code by Satyam Patel
```

Output :

```
PS F:\CT-09 python> &
C:/Users/Administrator/AppData/Local/Programs/Python/Python39/python.exe "f:/CT-09
```

```
python/23.py"
found in lines:
{1, 2, 3}
```

24. Write a program to check whether 2 files are identical or not.

```
import filecmp
f1="sample.txt"
f2="search.txt"
result = filecmp.cmp(f1, f2)
print(result)
# this is original code by Satyam Patel
```

Output :

```
PS F:\CT-09 python> &
C:/Users/Administrator/AppData/Local/Programs/Python/Python39/python.exe "f:/CT-09
python/24.py"
False
```

25. Write a program to empty all the contents of a file.

```
file = open("search.txt","w")
file.write("")
file.close()

print("All file content is successfully erased")
# this is original code by Satyam Patel
```

Output :

```
PS F:\CT-09 python> &
C:/Users/Administrator/AppData/Local/Programs/Python/Python39/python.exe "f:/CT-09
python/25.py"
```

All file content is successfully erased