

## Variable Differentiation

```
In [1]: a=20  
b=30  
print("Additions is:",a+b,"Data Science ")
```

Additions is: 50 Data Science

```
In [3]: print("the value of: ",a,"the value of: ",b,"Additon:",a+b)
```

the value of: 20 the value of: 30 Additon: 50

## Working with input function

```
In [9]: a=int(input("enter the value a: "))  
b=int(input("enter the value b: "))  
print(a+b)
```

enter the value a: 4  
enter the value b: 4  
8

```
In [3]: a=float(input("enter the value a: "))  
b=float(input("enter the value b: "))  
print(a+b)
```

enter the value a: 3.4  
enter the value b: 9.7  
13.1

```
In [4]: a=float(input("enter the value a: "))  
b=float(input("enter the value b: "))  
print(a+b)
```

enter the value a: 4  
enter the value b: 6  
10.0

## Working with String

```
In [7]: ab=("Water is important")  
print(ab[0])
```

W

```
In [8]: print(ab[0:3])
```

Wat

```
In [12]: ab=("Water is important")
         print(ab[5:3])
```

```
In [13]: ab=("Water is important")
         print(ab[3:5])
```

er

```
In [18]: ab("important")
         print(ab[-5:-1])
```

rtan

```
In [20]: ab("important")
         print(ab[-3:-1])
```

an

```
In [23]: a="Data Science "
         ab=a[-8:13]
         print(ab)
```

Science

```
In [24]: a="Data Science "
         ab=a[8:-3]
         print(ab)
```

en

## For Loop

```
In [25]: for t in range(5):
         print("Data Science")
```

Data Science  
Data Science  
Data Science  
Data Science  
Data Science

```
In [26]: for x in range(3):
         a=20
         b=30
         print(a+b)
```

50  
50  
50

```
In [30]: a="pune"
         for x in a:
             print("Data")
```

Data  
Data  
Data  
Data

```
In [33]: for x in range(2,5):
         print("machine: ",x)
```

machine: 2  
machine: 3  
machine: 4

```
In [34]: for x in range(5):
         print("machine:")
```

machine:  
machine:  
machine:  
machine:  
machine:

```
In [35]: for x in range(5,7):
         print("machine:",x)
```

machine: 5  
machine: 6

```
In [36]: for x in "Datax":
         print("mouse is important",x)
```

mouse is important D  
mouse is important a  
mouse is important t  
mouse is important a  
mouse is important x

```
In [37]: for x in range(5,7):
         print("machine")
```

machine  
machine

```
In [38]: ab=["Pune","Nashik","Mumbai"]
for x in ab:
    print("machine learning")
```

```
machine learning
machine learning
machine learning
```

```
In [39]: ab=["Pune","Nashik","Mumbai"]
for x in ab:
    for y in x:
        print("machine learning","I am:",x,y)
```

```
machine learning I am: Pune P
machine learning I am: Pune u
machine learning I am: Pune n
machine learning I am: Pune e
machine learning I am: Nashik N
machine learning I am: Nashik a
machine learning I am: Nashik s
machine learning I am: Nashik h
machine learning I am: Nashik i
machine learning I am: Nashik k
machine learning I am: Mumbai M
machine learning I am: Mumbai u
machine learning I am: Mumbai m
machine learning I am: Mumbai b
machine learning I am: Mumbai a
machine learning I am: Mumbai i
```

```
In [40]: for x in range(3):
        name=input("enter the name: ")
        for x1 in name:
            print("Data Science ")
```

```
enter the name: priya
Data Science
Data Science
Data Science
Data Science
Data Science
enter the name: varsha
Data Science
Data Science
Data Science
Data Science
Data Science
Data Science
enter the name: jitu
Data Science
Data Science
Data Science
Data Science
```

```
In [45]: for x in "20":  
         print("Data")
```

Data

Data

-----\*\*\*\*\*-----