datatype variablename = some value variablename = value

In [ ]:
```
a = 10
b  = 10.5
c = "pradeepthi"
```

In [ ]:
```
type(c)
```

In [ ]:
```
a,b,c = 30,9.8,"jhon"
```

In [ ]:
```
a
```

In [ ]:
```
b
```

In [ ]:
```
c
```

In [ ]:
```
import keyword
print(keyword.kwlist)
```

In [ ]:
```
a = 10
b  = 10.5
c = "pradeepthi"
```

In [ ]:
```
print(a,end=" ")
print(b,end=" ")
print(c,end=" ")
```

In [ ]:
```
print(a,b,c)
```

In [ ]:
```
print("the valueodf a is ",a,"the value of b is ",b ,"the valus of c is", c)
```

In [ ]:
```
print("the val of a is %d , b is %f , c is  %s" % (a,b,c))
```

In [ ]:
```
print("the value of a is  {1} , value of b is {2}, value of c is {0}".format(a,b,c))
```

In [ ]:
```
print("the value as {3},he value as {0},he value as {2},he value as {1}".format("prradeepthi","ram","nikhil","SB"))
```

In [ ]:
```
a = int(input("enter a vaalue"))
b = int(input("enter b value"))

c = a+b
print(c)
```

In [ ]:
```
type(a)
```

In [ ]:
```
type(b)
```

In [ ]:
```
p = "100"
```

In [ ]:
```
type(p)
```

In [ ]:
```
q = int(p)
```

In [ ]:
```
type(q)
```

In [ ]:
```
a = 40
b = float(a)
```

In [ ]:
```
type(a)
```

In [ ]:
```
type(b)
```

```
take 4 user inputs
apply addition and sub on first two user inputs , print the values with help of %d
apply multiplication and divission on secon two user inputs , format
```

In [ ]:
```
a=int(input("enter a value"))
b=int(input("enter b value"))
c=int(input("enter c value"))
d=int(input("enter d value"))
summ=a+b
sub=a-b
mul=c*d
div=c/d
print("the sum is %d, the sub is %d"%(summ,sub))
print("the mul is {}, the div is {}".format(mul,div))
```

In [ ]:
```
string = 'hello welcome to smartbridge 1 2 3 '
#string is made of all similar kind of character dataype
```

In [ ]:
```
string[28] = "p"
```

In [ ]:
```
string[10:]
```

In [ ]:
```
string[:21]
```

In [ ]:
```
string[10:17:2] 166
```

In [ ]:
```
string = "1,2,3,4,5,6,7,8"
```

In [ ]:
```
string[-7:-2]
```

In [ ]:
```
dir(string)
```

In [ ]:
```
string2 = "hie,how,are,you , how.howhow"
```

In [ ]:
```
string2.capitalize()
```

In [ ]:
```
string2.casefold()
```

In [ ]:
```
string2.split(',')
```

In [ ]:
```
string2.center(40,"*") 11 , 30 12345678910111213141516171819192122232425262728293O
```

In [ ]:
```
string2.count("how")
```

In [ ]:
```
list1 = [1 , 20.5,"john","pradeepthi"]
```

In [ ]:
```
list1[2]
```

In [ ]:
```
list1[1:5]
```

In [ ]:
```
list1[2] = "smartbrridge"
```

In [ ]:
```
list1
```

In [ ]:
```
dir(list1)
```

In [ ]:
```
list1
```

In [ ]:
```
list1.append(1)
```

In [ ]:
```
list1
```

In [ ]:
```
list1.clear()
```

In [ ]:
```
list1
```

In [ ]:
```
list2 = list1.copy()
```

In [ ]:
```
list2
```

In [ ]:
```
list1
```

In [ ]:
```
list1.count(20.5)
```

In [ ]:
```
list1.extend([1,2,3,4])
```

In [ ]:
```
list1
```

In [ ]:
```
list1.append([1,2,3,4,5,6,7,8])
```

In [ ]:
```
list1
```

In [ ]:
```
list1.index([1, 2, 3, 4, 5, 6, 7, 8])
```

In [ ]:
```
list1.insert(2,40)
```

In [ ]:
```
list1
```

In [ ]:
```
list1.remove([1, 2, 3, 4, 5, 6, 7, 8])
```

In [ ]:
```
list1
```

In [ ]:
```
list1.reverse()
```

In [ ]:
```
list1
```

In [ ]:
```
list1.sort()
```

In [ ]:
```
list1 = [1,6,8,5,4,2,1,29]
```

In [ ]:
```
list1.sort()
```

In [ ]:
```
list1
```

In [ ]:
```
list1[5::-1]
```

In [ ]:
```
list1 = list1[5:-1]
```

In [ ]:
```
list1
```

In [ ]:
```
list3 = [i for i in range(10) if(i%2==0)]
```

In [ ]:
```
list3
```

In [ ]:
```
tuple = (1, 2 ,3 , "john", "pradeepthi")
```

In [ ]:
```
tuple[2] = "smartbridge"
```

In [ ]:
```
dir(tuple)
```

In [ ]:
```
tuple.count(1)
```

In [ ]:
```
tuple.index("pradeepthi")
```

In [ ]:
```
dict1 = {"name":"pradeepthi","age": 26,"a":(1,2,3),"list":[1,2,3,4],"name":"pradeepthi"}
```

In [ ]:
```
dict1["name"]
```

In [ ]:
```
dict1["age"]
```

In [ ]:
```
dict1["name"] = "smartbridge"
```

In [ ]:
```
dict1
```

In [ ]:
```
dict1["rollno"] = 125
```

In [ ]:
```
dict1
```

In [ ]:
```
dir(dict1)
```

In [ ]:
```
dict1.clear()
```

In [ ]:
```
dict1
```

In [ ]:
```
dict1= {"a": 25,"b":30,"c":40}
```

In [ ]:
```
dict2 = dict1.copy()
```

In [ ]:
```
dict2
```

In [ ]:
```
dict1.items()
```

In [ ]:
```
dict1.get("b")
```

In [ ]:
```
keys = ("a","b","c")
vaalues = 40,50,69
```

In [ ]:
```
dict2 = dict2.fromkeys(keys,vaalues)
```

In [ ]:
```
dict2
```

In [ ]:
```
dict2.pop('a')
```

In [ ]:
```
new_menu = ['Hawaiian', 'Margherita', 'Mushroom', 'Prosciutto', 'Meat Feast', 'Hawaiian', 'Bacon', 'Black Olive Special', 'Sausa

final_new_menu = list(dict.fromkeys(new_menu))

print(final_new_menu)
['Hawaiian', 'Margherita', 'Mushroom', 'Prosciutto', 'Meat Feast', 'Bacon', 'Black Olive Special', 'Sausage']
```

```
list1 = [1,2,3,[1,[2,3,[{"name":"pradeepthhi"},2,4]]],{"age":26}]

         0 1 2-------------------------------------   --------

                 3                                4
               0 -------1-------------------------23
```

In [ ]:
```
list1 = [1,2,3,[1,[2,3,[{"name":"pradeepthhi"},2,4]]],{"age":26}]
```

```
#conditional statements :
a = int(input("enter a value"))
b = int(input("enter b value"))
c = a+b
if(c<35):
    print("he is failed")
elif(c==35):
    print("just passed")
elif(c>35 and c<60):
    print("passed")
else:
    print("noot sdgf")
```

```
take user input for a special character
a and b
check the special character
if special + then add
if * perform multi
if / prerform
else print a random statement
```

In [ ]:
```
a=int(input("Enter a value "))
b=int(input("Enter a value "))
op=input("Enter an operation to perform ")
if op=='+':
    print(a+b)
elif op=='*':
    print(a*b)
elif op=='/':
    print(a/b)
else:
    print("Invalid")
```

In [ ]:
```
total = 100
country = "US"
if country == "US" :
    if total <=50:
        print("cost for shipping is 50 dollars")
elif total<=100:
        print("cost for shipping is 60 dollars")
elif total<=150:
    print("cost for shipping is 5 dollars")
else:
    print("Free")
if country == "india":
    if total<=50:
        print("cost for shipping is50 rupees")
else:
    print("free")
```

In [ ]:
```
#loops :
for i in range(10):
    print(i)
```

In [ ]:
```
x = "hie how are you"
x = x.split()
print(x)
for i in range(len(x)):
    print(x[i])
```

In [ ]:
```
for i in x:
    print(i)
```

In [ ]:
```
for i in range(100):
    if(i%2==0):
        print(i,end =" ")
```

In [ ]:
```
i = 0
while(i<20):
    print(i)
    i=i+1
```

In [ ]:
```
for i in range(100):
    if(i == 40):
        break
    print("you are allowed",i)
```

In [ ]:
```
for i in range(100):
    if(i%2==0):
        continue;
    print("odd number",i)
```

In [ ]:
```
i = 0
list = []
while (i<5):
    a = int(input("enter a number"))
    print(a)
    list.append(a)
    i = i+1
print(list)
```

In [ ]:
```
def functionname():
    print("hie ow are you")
```

In [ ]:
```
functionname()
```

In [ ]:
```
def fun(a,b):
    c = a+b
    d = a-b
    e = a*b
    f = a/b
    print(c,d,e,f)
    return c,d,e,f
```

In [ ]:
```
p = int(input("enter the value"))
q= int(input("enter the value"))
c,d,e,f = fun(p,q)
print(c)
print(d)

print(e)
print(f)
```

In [ ]:
```
def something(*args):
    print(type(args))
    for i in args:
        print(i)
    return(i)
```

In [ ]:
```
c = something(1,2,3,"pradeepthi","hiee","3,7,8",[1,2,3,4])
print (c)
```

In [ ]:
```
type(c)
```

In [1]:
```
def computepay(fhrs,frate):

    if hrs<=40.0:
        p=hrs*rate
        return(p)
    else:
        p=40*rate+1.5*rate(hrs-40)
        return(p)
```

In [2]:
```
hrs =float(input("Enter Hours:"))
rate=float(input("enter rate:"))
p = computepay(hrs,rate)
print("Pay",p)
```

```
Enter Hours:60
enter rate:90

---------------------------------------------------------------------------
TypeError                                 Traceback (most recent call last)
<ipython-input-2-efc74174f19f> in <module>
      1 hrs =float(input("Enter Hours:"))
      2 rate=float(input("enter rate:"))
----> 3 p = computepay(hrs,rate)
      4 print("Pay",p)

<ipython-input-1-22599bd3a26e> in computepay(fhrs, frate)
      5         return(p)
      6     else:
----> 7         p=40*rate+1.5*rate(hrs-40)
      8         return(p)

TypeError: 'float' object is not callable
```

In [3]:
```
def computepay(hours,rate):
if hours>40.0:
    p = rate * 40.0
    p = p+(1.5*rate*(hours-40))
    return p
else:
    p = rate*hours
    return p
```

```
  File "<ipython-input-3-68a4e0eae438>", line 2
    if hours>40.0:
     ^
IndentationError: expected an indented block
```

Write a program to prompt the user for hours and rate per hour using input to compute gross pay. Pay should be the normal rate for hours up to 40 and time-and-a-half for the hourly rate for all hours worked above 40 hours. Put the logic to do the computation of pay in a function called computepay() and use the function to do the computation. The function should return a value. Use 45 hours and a rate of 10.50 per hour to test the program (the pay should be 498.75). You should use input to read a string and float() to convert the string to a number. Do not worry about error checking the user input unless you want to - you can assume the user types numbers properly. Do not name your variable sum or use the sum() function.

In [8]:
```
def f(a,b):
    print(a)
    if a>5:
        print("yes")
    print(b)
```

In [11]:
```
p = float(input("df"))
q = float(input("c"))
f(p,q)
```

```
df7
c8
7.0
yes
8.0
```

In [21]:
```
def computepay(hours,rate):
    if hours<40:
        a = hours*rate
    elif h>40:
        a  = 40*rate+(h-40)*1.5*rate

    return a
```

In [22]:
```
hrs = input("enter hours")
hours = float(hrs)
r =  input("enter rate")
rate = float(r)
p  = computepay(hours,rate)
print(p)
```

```
enter hours8
enter rate9
72.0
```

In [ ]:
```

```