

Certificate Course in Machine Learning using Python [6 Weeks]

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[Exercises and Practice Problems in Python](#)

Exercises and Practice Problems in Python Exercise and Practice Problems (Class)

Q. Write a Python class named Rectangle constructed by a length and width and a method which will compute the area of a rectangle.

```
class rect:
    ln=0
    br=0
    def area_rect(s):
        s.ln=int(input("Enter Length of rectangle:"))
        s.br=int(input("Enter Breadth of rectangle:"))
        a=s.ln*s.br
        print("Area of rectangle:",a)

r1=rect()
r1.area_rect()
```

Q. Write a python class to display student's roll number, Name, marks of 3 subjects using functions. Also display sum and average of their marks using function.

```
class Student_Data:
    def __init__(s):
        s.roll_no=int(input("enter the roll number:"))
        s.name=input("enter the name:")
        s.m1=int(input("enter the marks of 1st subject:"))
        s.m2=int(input("enter the marks of 2nd subject:"))
        s.m3=int(input("enter the marks of 3rd subject:"))
```

```
def display(s):  
    print("student's name=",s.name)  
    print("Student's roll number=",s.roll_no)  
    print("Marks of Subject 1:",s.m1)  
    print("Marks of Subject 2:",s.m2)  
    print("Marks of Subject 3:",s.m3)
```

```
def result(self):  
    total=self.m1+self.m2+self.m3  
    avg=total/3  
    print("Total Marks:",total)  
    print("Percentage of Marks:",avg)
```

```
st1=Student_Data()  
st1.display()  
st1.result()
```

Q. Write a python program to delete an object's properties.

```
del st1.roll_no  
  
or  
  
delattr(st1,'roll_no')
```

Q. Write a Python class named Circle constructed by a radius and two methods which will compute the area and the perimeter of a circle.

```
class Circle:  
    pie=3.14  
    def __init__(self):  
        self.r=int(input("enter the radius of the circle:"))  
  
    def area_circle(s):  
        ar=s.pie*s.r*s.r  
        print("area of a circle:",ar)
```

```
def perimeter_circle(s):  
    pr=2*s.pie*s.r  
    print("parameter of a circle:",pr)  
  
c1=Circle()  
c1.area_circle()  
c1.perimeter_circle()
```

Q. Write a Python program to create the class named data that has three members – id, name and basic_salary. Create a new class named calculation that inherits the class data and calculates the HRA, DA and Gross salary using function. Display the id, name, salary, HRA, DA and gross salary. HRA is 45% of basis salary and DA is 60% of basic salary. Input the values from the user.

```
class data:  
    def __init__(b):  
        b.id=int(input("enter employee id:"))  
        b.name=input("enter employee name:")  
        b.basic_salary=float(input("enter the basic salary of the employee:"))  
  
class calculation(data):  
    def calculate(s):  
        s.hra=s.basic_salary*(45/100)  
        s.da=s.basic_salary*(60/100)  
        s.gross=s.basic_salary+s.hra+s.da  
    def display(s):  
        print("-----Emp Record-----")  
        print("Employee ID:",s.id)  
        print("Employee Name:",s.name)  
        print("Basic Salary:",s.basic_salary)  
        print("HRA:",s.hra)  
        print("DA",s.da)  
        print("Gross Salary",s.gross)  
  
c1=calculation()  
c1.calculate()
```

```
c1.display()
```

[Next](#)

PREVIOUS ACTIVITY

[◀ Day 8 Assignment](#)

NEXT ACTIVITY

[Python Demonstration Code: Day 9 ▶](#)

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