

Inner Classes or nested Classes

- Process of defining a class or classes inside another class
- Advantages are grouping or sub grouping of data

Syn:

class <className>:

Attributes [Fields | Methods | constructors]

class <InnerClass>:

Attributes [Fields | Methods | Constructors]

Example:

Employee				
eno	ename	DOJ		
		DD	MM	YY

Employee

What are the members of class Employee ?

setEmployee() | getEmployee()
Doj Inner Class

DOJ

setDoj() --> need to set the data for dd|mm|yy
getDoj() --> print Doj: dd-mm-yy.

Employee:

setEmployee() --> need to set the data
for eno and ename
getEmployee() ---> print eno and ename

What are the members of the class Doj ?
setDoj() and getDoj()

class Employee:

def setEmployee(self):

self.eno=input("Enter eno : ")

self.ename=input("Enter ename : ")

def getEmployee(self):

```
print("Eno is : ",self.eno)  
print("Ename is : ",self.ename)
```

class Doj:

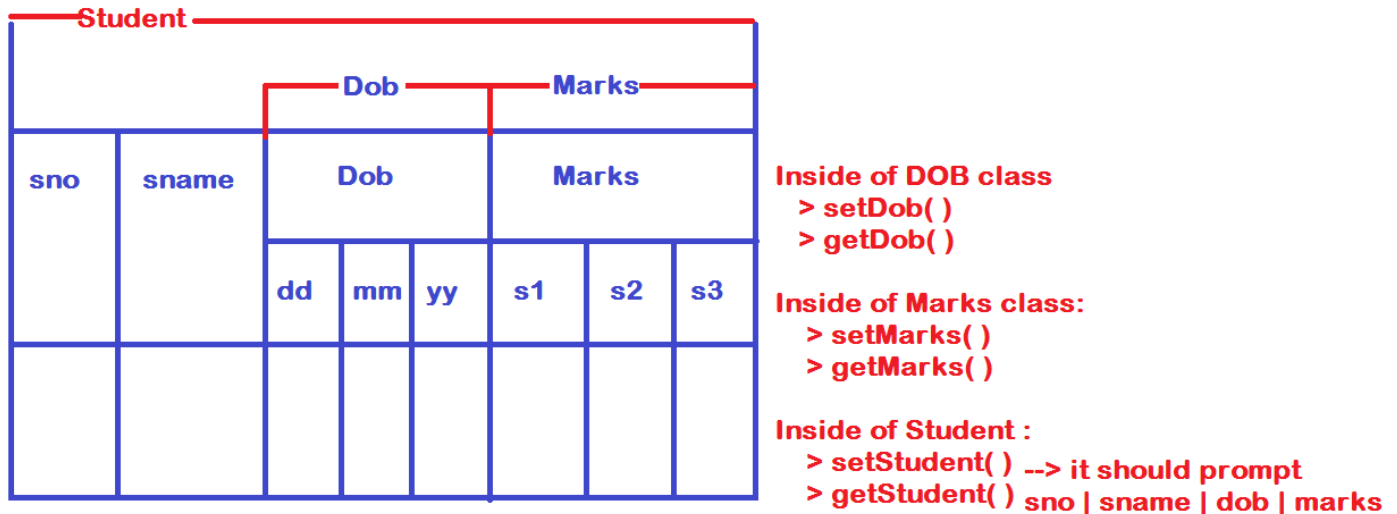
```
def setDoj(self): #instance mtd of class Doj  
    print("Enter Doj ")  
    self.dd=input("Enter DD : ")  
    self.mm=input("Enter MM : ")  
    self.yy=input("Enter YY : ")
```

```
def getDoj(self):  
    print("Doj is : {}-{}-{}".format(self.dd,self.mm,self.yy))
```

```
#CallingThem  
e=Employee()  
e.setEmployee()  
d=e.Doj()  
d.setDoj()
```

```
print("- "*30)  
e.getEmployee()  
d.getDoj()
```

Example 2:



class Student:

```
def setStudent(self):  
    self.sno=input("Enter sno : ")  
    self.sname=input("Enter sname : ")
```

```
    self.d=self.Dob()  
    self.d.setDob()
```

```
    self.m=self.Marks()  
    self.m.setMarks()
```

```
def getStudent(self):  
    print("- "*30)  
    print("Sno is : ",self.sno)  
    print("Sname is : ",self.sname)
```

```
self.d.getDob( )  
self.m.getMarks( )
```

class Dob:

```
def setDob(self): #instance mtd  
    print("Enter DOB : ")  
    self.dd=input("Enter DD : ")  
    self.mm=input("Enter MM : ")  
    self.yy=input("Enter YY : ")
```

```
def getDob(self):  
    print("Dob of Student : {}-{}-{}".format(self.dd,self.mm,self.yy))
```

class Marks:

```
def setMarks(self):  
    self.s1=input("Enter Sub1 Marks : ")  
    self.s2=input("Enter Sub2 Marks : ")  
    self.s3=input("Enter Sub3 Marks : ")
```

```
def getMarks(self):  
    print("- "*20)  
    print("Marks are ")  
    print("Sub1 Marks : ",self.s1)  
    print("Sub2 Marks : ",self.s2)  
    print("Sub3 Marks : ",self.s3)
```

```
#Calling  
s=Student()  
s.setStudent()  
s.getStudent()
```