

1, Explain access modifiers?

Ans Access modifiers defines The Scope of a Variable of a function/Variable.

They are divided by 4 Types.

- public
- private
- protected
- Internal

2, Scope of a Variable/function in a class?

A:- Scope of a Variable in python in 3 Types.

- 1) Global Scope
- 2) partially private scope
- 3) Strictly private scope

1) Global scope:- In Global scope is nothing but a public scope. This variable can access outside of a class.

Ex:- class Student:

    firstName: str = "Naveen"

    lastName: str = "Kumar"

emp = ~~Employee~~ Student()

print(emp.firstName) # O/P = "Naveen"

2) partially private scope:-

partially private variable/function

is defined by using -



Functional scope / local scope:- Creating a function variable within the function is called function scope / local scope.

Ex:-

```
def funName():  
    global fName  
    fName = "Naveen"  
    fName = "Kumar"  
funName()  
print(fName) # "Kumar"  
print(lName) # Error.
```

Block Scope Variable:- Creating a variable inside of a control statement.

4) Example of Abstraction Variable?

Ans

Class Student:

```
-- firstName: str = "Naveen"  
-- LastName: str = "Kumar"  
def funName(self):  
    return self.__firstName + " " + self.__lastName  
stu = Student()  
stu.__lastName = "ABC"  
print(stu.funName())
```



1) Abstraction with Examples?

A:- creating a private function in a class to hide potential logic and create a public function to access required information from that class.

→ By using abstraction provide security

Ex:- Class Employee:

-- first Name: str = "Naveen"

-- LastName: str = "Kumar"

def fullName(self):

return self.\_\_nameFormat(  
self.\_\_firstName, self.\_\_lastName)

def \_\_nameFormat(self, fName: str,  
lName: str):

return f"{{fName}} {{lName}}"

emp = Employee()

emp.\_\_firstName = "ABC"

print(emp.fullName())

print(emp.\_\_nameFormat("Naveen",  
"Kumar"))

2) What is an inheritance and explain about inheritance?

Ans Creating a class from another class is called inheritance

- Creating a child class from parent class
- creating a ~~base~~ derived class from base class

### Types of Inheritance

- single level
- multi level
- multiple
- Hybrid
- Hierarchical

### 3) Types of Inheritance?

Ans Creating a class from another class is called as Inheritance

There are 5 types, Those

- 1) single level
- 2) multi level
- 3) multiple
- 4) Hybrid
- 5) Hierarchical