

//To show the usage of abstract class and abstract method with inheritance (Three CLASSES only) in java

```
abstract class A
{
    abstract void input();

    void output() // This method is only accessible to "class B"
                  object only.
    {
        System.out.println("This is regular method of class A");
    }
}

abstract class B extends A
{
    abstract void get();
    void disp()
    {
        System.out.println("This is method of class B");
    }

    //As class B is also abstract therefore no one has access to "class A" void output()
    method. So, it is a waste here but definitely maintains a hierarchy.
}

class C extends B
{
    void input()
    {
        System.out.println("This is overridden method of class A in class C");
    }

    void get()
    {
        System.out.println("This is overridden method of class B in class C");
    }
}

class Abstract_Main2
{
    public static void main(String args[])
    {
        C obj=new C();

        obj.get();
        obj.input();
        //obj.output(); // you cannot call class A method with class C object because
        class C object will be jumping the hierarchy which is not allowed in java.
        // If program run, then it will show error "void output()
        method not declared" because class C object can access only
        class B methods and variables.

        obj.disp();
    }
}
```

## Output

```
C:\Users\Dhruv\Desktop\Java>javac Abstract_Main2.java

C:\Users\Dhruv\Desktop\Java>java Abstract_Main2
This is overridden method of class B in class C
This is overridden method of class A in class C
This is method of class B
```