

Inner class / Nested class

class outer \rightarrow The class that holds the inner class is called outer class.

```

{
    int x;
    void f1() { }
    class inner { }
}
    
```

\rightarrow class written within a class is called inner class / nested class.

Inner class

Static

Non static

class outer

```

{
    static class inner
    
```

```

    {
        void f1() { }
        // s.o.p ("f1") is new, this
    }
}
    
```

}

public class example()

```

{
    p.s.v.m ( )
    
```

```

{
    
```

~~outer ob = new outer();~~ \rightarrow if it is non static.

if static

```

outer.inner ob1 = new outer.inner();
ob1.f1();
    
```

if Non static

```

outer ob = new outer();
ob.outter.inner ob1 = ob.new inner();
ob1.f1();
    
```

*) If inner class is non static then it can access the data member of outer class.

```
class outer
```

```
{ int x=10;
```

```
class inner
```

```
{ void fun()
```

```
{ s.o.p(x);
```

```
}
```

public ~~static~~ class Example

```
{ p.s.v.m ( )
```

```
{
```

```
outer ob = new outer();
```

```
outer.inner ob1 = ob.new inner();
```

```
ob1.fun();
```

```
}
```

```
}
```

→ 10

(ob.new inner())

() new inner

non static class Example

```
{ outer ob = new outer();
  outer.inner ob1 = ob.new inner();
  ob1.fun();
}
```

ob = new outer

ob1.fun() = 10

() new inner