

## Final keyword

It is used to make a variable as a constant, restrict a method from overriding, and can restrict inheritance. In java language final keyword can be used in following way.

- Final at variable level
- Final at method level
- Final at class level



### Final Keyword

- Restrict Changing value of variable
- Restrict method Overriding
- Restrict Inheritance

#### Final at variable level

Final keyword is used to make a variable as a constant. This is similar to const in other languages. A variable declared with the final keyword cannot be modified by the program after initialization. This is useful to universal constants, such as "PI".

Final Keyword in java Example

```
public class Circle
{
public static final double PI=3.14159;
```

```
public static void main(String[] args)
{
System.out.println(PI);
}
}
```

#### Final at method level

It makes a method final, meaning that sub classes cannot override this method. The compiler checks and gives an error if you try to override the method.

When we want to restrict overriding, then make a method as a final.

Example

```
public class A
{
public void fun1()
{
.....
}
public final void fun2()
```

```

{
.....
}

}
class B extends A
{
public void fun1()
{
.....
}
public void fun2()
{
// it gives an error because we cannot override final method
}
}

```

Example of final keyword at method level

Example

```

class Employee
{
final void disp()
{
System.out.println("Hello Good Morning");
}
}
class Developer extends Employee
{
void disp()
{
System.out.println("How are you ?");
}
}
class FinalDemo
{
public static void main(String args[])
{
Developer obj=new Developer();
obj.disp();
}
}

```

Output

It gives an error

Final at class level

It makes a class final, meaning that the class cannot be inheriting by other classes. When we want to restrict inheritance then make class as a final.

Example

```

public final class A
{
.....
}

```

.....

```
}  
public class B extends A  
{  
// it gives an error, because we cannot inherit final class  
}
```

Example of final  
keyword at class

levelExample

final class Employee

```
{  
int salary=10000;  
}  
class Developer extends Employee  
{  
void show()  
{  
System.out.println("Hello Good Morning");  
}  
}
```

class FinalDemo

```
{  
public static void main(String args[])  
{  
Developer  
obj=new  
Developer();  
Developer  
obj=new  
Developer();  
obj.show();  
}  
}
```

Output

It gives an error