

Access Modifiers

Engi- 5895

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Access Modifiers

Variable Type	Access Scope
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- `public` → accessed by any class in or out the package.
- `default` → accessed by all classes within the same package
- `protected` → by all subclasses within the same package
- `private` → cannot be accessed by any other class.

Class Methods or Instance Methods

```
private class Movie {  
    private static float price = 3.5;  
    private String rating ;  
    .....  
    public static void setPrice (float newPrice)  
    { price = newPrice ; }  
  
    public float getPrice ()  
    { return price ; }  
}
```

```
Movie.setPrice(9);  
Movie mov1 = new Movie();  
mov1.setPrice(9);  
float a = Movie.getPrice();// error  
float b = mov1.getPrice();
```

final Variables

- A final Variable is a constant .
 - A final variable cannot be modified.
 - A final variable must be initialized.
 - A final variable is often public to allow external access.
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final Classes

- A final Class is one that cannot be inherited from.
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final Methods

- A final Method is one that cannot be overridden in a subclass.

final Class example

```
public final class Color
{
    public final static Color Black = new Color (0,0,0);
    .....
}
```

Static variable is a global variable shared by all the instances of objects and it has only single copy. Final variable is a constant variable and it can't be changed.

Review: Access Modifiers

Modifier	Class	Package	Subclass	World
public	Y	Y	Y	Y
protected	Y	Y	Y	N
<i>no modifier (package)</i>	Y	Y	N	N
private	Y	N	N	N