Access Modifiers

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Access Modifiers

Variable Type	Access Scope

- 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 by 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.

final Classes

- A final Class in one that cannot be inherited from.

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**
no modifier (package)	**Y**	**Y**	**N**	**N**
private	**Y**	**N**	**N**	**N**