# CS 213 – Software Methodology

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Access Levels

public, private, package, protected

# Access Levels/Visibility

```
package abcpackage;

public class A {
   private int apriv;
   protected int aprot;
   int apack;
   ...
}
```

```
package abcpackage;

class B {
   int bpack;
   public void m() {
     A a = new A();
     a.aprot=10;
}
```

ok, same package

```
package abcpackage;

class C extends B {
   public void m() {
     A a = new A();
     a.apriv = 10;
     a.apack = 15;
     B b = new B();
     bpack = 5;
   }
}
```

not ok, private

ok, same package

ok, same package, inherited

```
package defpackage;
import abcpackage.*;
public class D
  extends A {
   int dpack;
   public void m() {
      aprot=5;
      apack=10;
   }
}
```

ok, inherited

different package, not visible

```
package defpackage;
import abcpackage.*;
public class F
  extends A {
   public void m() {
      A a = new A();
      a.aprot=5;

      a.apack=5;
   }
}
```

apack and aprot are not visible via a

```
package defpackage;
import abcpackage.*
public class E {
  B b;
}
```

B in different package, not visible because it Is declared as package level accessible only