

# CS 213 : Software Methodology

## Spring 2023

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Jan 25

Inheritance and Private Fields

# Inheritance - Private Fields

```
public class Point {  
    private int x,y;  
    ...  
}
```

```
public class ColoredPoint extends Point {  
    // x and y inherited but HIDDEN  
    ...  
    public int getX() { // override inherited getX()  
        return x;  
    }  
}
```

COMPILE?

WILL NOT COMPILE  
because `x` is hidden



# Inheritance - Private Fields

```
public class Point {  
    private int x,y;  
    ...  
}  
  
public class ColoredPoint extends Point {  
    // x and y inherited but HIDDEN  
    ... // getX() is NOT overridden  
}
```

```
public class PointApp {  
    public static void  
    main(String[] args) {  
        ColoredPoint cp = new ColoredPoint(4,5,"blue");  
  
        System.out.println(cp.x); // ? WILL NOT COMPILE, x is private  
        System.out.println(cp.getX()); // ? 4  
  
        Inherited getX() method is  
        able to access the x field  
  
    }  
}
```