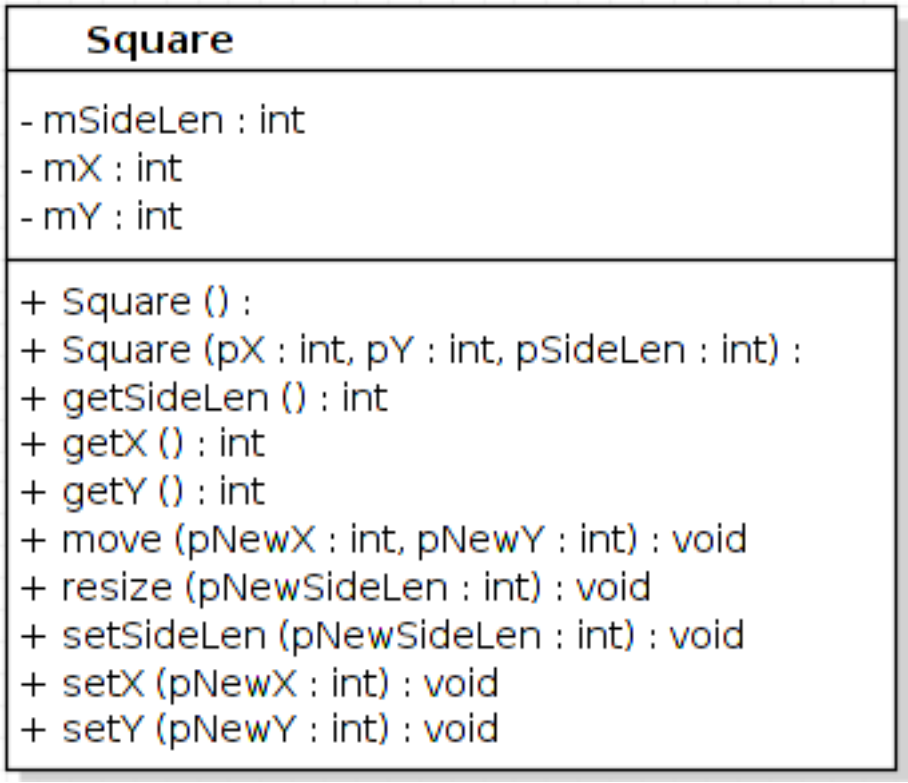
2. Inheritance :: *Square* Class

Now suppose we want to create a *Square* class to represent squares. A square will have three attributes specifying the (x, y) coordinates of the upper left corner of the *Square* on the window and the *length* of each side.



2. Inheritance :: *Square* Class Implementation

And the *Square* class implementation:

```
//*************************************************************************
// CLASS: Square (Square.java)
//*************************************************************************

/**
 * Represents a Square that can be drawn on a graphical window.
 */
public class Square {
    private int mSideLen;
    private int mX;
    private int mY;

    /**
     * Default ctor. Initializes all instance variables to 0 by calling the second
     * ctor.
     */
    public Square() {
        this(0, 0, 0);
    }
```

2. Inheritance :: *Square* Class Implementation (continued)

```
/**
 * Second ctor.
 */
public Square(int pX, int pY, int pSideLen) {
    setX(pX);
    setY(pY);
    setSideLen(pSideLen);
}

/**
 * Accessor method for the mSideLen data member.
 */
public int getSideLen() {
    return mSideLen;
}

/**
 * Accessor method for the mX data member.
 */
public int getX() {
    return mX;
}
```

2. Inheritance :: *Square* Class Implementation (continued)

```
/**
 * Accessor method for the mY data member.
 */
public int getY() {
    return mY;
}

/**
 * Moves this Square to a new location.
 */
public void move(int pNewX, int pNewY) {
    setX(pNewX);
    setY(pNewY);
}

/**
 * Change the size of this Square.
 */
public void resize(int pNewSideLen) {
    setSideLen(pNewSideLen);
}
```

2. Inheritance :: *Square* Class Implementation (continued)

```
    /**
     * Mutator method for the mSideLen data member.
     */
    public void setSideLen(int pNewSideLen) {
        mSideLen = pNewSideLen;
    }

    /**
     * Mutator method for the mX data member.
     */
    public void setX(int pNewX) {
        mX = pNewX;
    }

    /**
     * Mutator method for the mY data member.
     */
    public void setY(int pNewY) {
        mY = pNewY;
    }
}
```