Java Concept 60

- Final variable once initialized can not be assigned value again
- Final variable can never be used with increment operator

```java
//Error
final int x = 0;
x = 100;
```

```java
//Error
final int x = 0;
x++;
```

```java
//Initializing final variable once again
//Error
class Complex {

     final int re = 5 ;
     final int im = 9;

    public Complex(int re, int im) {
        this.re = re;
        this.im = im;
    }

    public String makeString() {
        return "(" + re + " + " + im + "i)";
    }
}

class JavaConcept {
  public static void main(String args[])
  {
       Complex c = new Complex(10, 15);
       System.out.println("Complex number is : " +
               c.makeString());
  }
}
```

```
Error - cannot assign a value to final variable re
```

```
//Initializing final variable later
//No Error
class Complex {

     final int re  ;
     final int im ;

    public Complex(int re, int im) {
        this.re = re;
        this.im = im;
    }

    public String makeString() {
        return "(" + re + " + " + im + "i)";
    }
}

class JavaConcept {
  public static void main(String args[])
  {
       Complex c = new Complex(10, 15);
       System.out.println("Complex number is : " +
               c.makeString());
  }
}
```

```
run:
Complex number is : (10 + 15i)
```

```
//Incrementing final variable
// Error
class Complex {

     final int re  ;
     final int im ;

    public Complex(int re, int im) {
        this.re = re;
        this.re ++;
        this.im = im;
        this.im ++;
    }

    public String makeString() {
        return "(" + re + " + " + im + "i)";
    }
}

class JavaConcept {
  public static void main(String args[])
  {
       Complex c = new Complex(10, 15);
       System.out.println("Complex number is : " +
               c.makeString());
  }
}
```

```
Error- variable re might already have been assigned
```