Java Concept 60

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

```
1 //Error
2 final int x = 0;
3 x = 100;
```

```
1 //Error
2 final int x = 0;
3 x++;
```

```
1  //Initializing final variable once again
2  //Error
3  class Complex {
4
5       final int re = 5 ;
6       final int im = 9;
7
8      public Complex(int re, int im) {
9          this.re = re;
10         this.im = im;
11     }
12
13     public String makeString() {
14         return "(" + re + " + " + im + "i)";
15     }
16 }
17
18 class JavaConcept {
19   public static void main(String args[])
20   {
21        Complex c = new Complex(10, 15);
22        System.out.println("Complex number is : " +
23                c.makeString());
24   }
25 }
```

Error - cannot assign a value to final variable re

```java
//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)
```

```java
//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