Introduction

Introduction

```language-java
package com.inclass.introduction;

public class CustomVar {

    public static void main(String[] args) {
        // in java primitives, are not objects, they are only stored in stack
memory
        Student drip = new Student();
        System.out.println(drip.roll);
        System.out.println(drip.name);
        System.out.println(drip.marks);

        System.out.println();

        Student dript = new Student(12, "Driptanil Datta", 90);
        System.out.println(dript.roll);
        System.out.println(dript.name);
        System.out.println(dript.marks);

        System.out.println();

        drip.changeName("Driptanil");
        drip.greeting();

        System.out.println();

        drip.clone(dript);
        drip.greeting();
    }
}
class Student {
    int roll;
    String name;
    float marks;

    void greeting() {
        System.out.println("Hello!, My name is " + this.name);
    }
    void changeName(String fullName) {
        this.name = fullName;
    }
    void clone(Student other) {
```

```
        this.name = other.name;
        this.roll = other.roll;
        this.marks = other.marks;
    }
    // constructor is a function, that helps to initialize
    Student() {
        this.roll = 0;
        this.name = "anonymous";
        this.marks = 0.0f;
    }
    Student (int rollNo, String fullName, float examMarks) {
        this.roll = rollNo;
        this.name = fullName;
        this.marks = examMarks;
    }
}
```

- `final` keyword, is used to initialise a variable which cannot be modified.
- for non-primitives, the value of object can be changed, but new object cannot be assigned.

Success

```language-java
final A drip = new A("Driptanil");
drip.name = "Drip";
```

Error

```language-java
final A drip = new A("Driptanil");
drip = new A("Datta");
```

```language-java
package com.inclass.introduction;

public class Wrapper {
    public static void main(String[] args) {
        Integer a = 10;
        Integer b = 20;
        swap (a,b);
        System.out.println(a);
        System.out.println(b);

        final float pi = 3.14f;

        final A drip = new A("Driptanil");
        drip.name = "Drip";
```

```java
//         drip = new A("Datta");

        A obj;
        for (int i = 0; i < 1000000; i++) {
            obj = new A("LOL");
        }
        // System.out.println(obj);
        // will print package with hash code    }

    static void swap(Integer a, Integer b) {
        Integer temp = a;
        a = b;
        b = temp;
    }
}

class A {
    String name;

    A (String fullName) {
        this.name = fullName;
    }
    // printing objects "PrintStream" internally calls the .toString()
    // if the .toString() method is not present in the object    // it prints the
default to .toString() method which prints the hash code
    @Override
    protected void finalize() throws Throwable {
        System.out.println("Object is destroyed");
    }
}
```