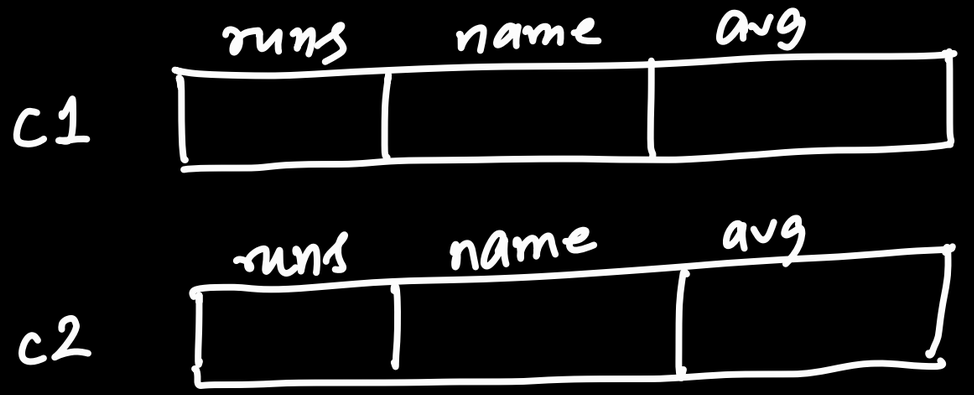
Shallow copy of Object

final Keyword

static Keyword

```java
class Cricketer{
    static String country = "NZ";
    int runs;
    String name;
    double avg;
}
public class FinalAndStatic {
    public static void main(String[] args) {
        Cricketer c1 = new Cricketer();
        // c1.country = "England"; Error
        Cricketer c2 = new Cricketer();
        c1.country = "India";
        System.out.println(c2.country);
    }
}
```



static Methods

import statement

Ques: Complex Number Class

```
class ComplexNumber {
    int x;
    int y;

    //Constructor

    // print

    // add

    // multiply
}
```

$$z_1 = x_1 + iy_1$$

$$z_2 = x_2 + iy_2$$

$$z_1 \times z_2 = x_1x_2 + ix_1y_2 + iy_1x_2 - y_1y_2$$

$$= (x_1x_2 - y_1y_2) + i(x_1y_2 + x_2y_1)$$

Ques: Complex Number Class

$$\frac{a+ib}{c+id} \times \frac{c-id}{c-id} = \frac{ac - iad + ibc + bd}{c^2+d^2} = \frac{ac+bd}{c^2+d^2} + i\left(\frac{bc-ad}{c^2+d^2}\right)$$

Ques: Fraction Class

Ques: Create your own ArrayList

H.W : Design Parking System

Leetcode 1603

Inheritance

THANKYOU

Cuties