static Keyword in Java

CSCI 111
# Course Class

```java
private String name;
private int roomNum;
private int numStudents;

public Course(String inN, int inR)
    name = inN;
    roomNum = inR;

public String getName()
    return name;

public int getRoom()
    return roomNum;

public void incrementNumStudents()
    numStudents = numStudents + 1;

public void printStats()
    System.out.println(name + " has " +
    numStudents +
    " students enrolled.");
```
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    return name;

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    return roomNum;

public void incrementNumStudents()
    numStudents = numStudents + 1;

public void printStats()
    System.out.println(name + " has " +
                        numStudents +
                        " students enrolled.");

//Driver Code:
Course course1 = new Course("CSCI 111", 103);
Course Class

private String name;
private int roomNum;
private int numStudents;

public Course(String inN, int inR) {
    name = inN;
    roomNum = inR;
}

public String getName() {
    return name;
}

public int getRoom() {
    return roomNum;
}

public void incrementNumStudents() {
    numStudents = numStudents + 1;
}

public void printStats() {
    System.out.println(name + " has " +
                        numStudents +
                        " students enrolled.");
}

//Driver Code:
Course course2 = new Course("Literature", 204);
Course Class

```java
private String name;
private int roomNum;
private int numStudents;

public Course(String inN, int inR)
    name = inN;
    roomNum = inR;

public String getName()
    return name;

public int getRoom()
    return roomNum;

public void incrementNumStudents()
    numStudents = numStudents + 1;

public void printStats()
    System.out.println(name + " has " +
    numStudents + " students enrolled.");
```

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```java
name = "CSCI 111"
roomNum = 103
numStudents = 0

public String getName()
    return name;

public int getRoom()
    return roomNum;

public void incrementNumStudents()
    numStudents = numStudents + 1;

public void printStats()
    System.out.println(name + " has " +
    numStudents + " students enrolled.");
```

---

```java
name = "Literature"
roomNum = 204
numStudents = 0

public String getName()
    return name;

public int getRoom()
    return roomNum;

public void incrementNumStudents()
    numStudents = numStudents + 1;

public void printStats()
    System.out.println(name + " has " +
    numStudents + " students enrolled.");
```

---

//Driver Code:
course1.incrementNumStudents();
Course Class

private String name;
private int roomNum;
private int numStudents;

public Course(String inN, int inR)
    name = inN;
    roomNum = inR;

public String getName()
    return name;

public int getRoom()
    return roomNum;

public void incrementNumStudents()
    numStudents = numStudents + 1;

public void printStats()
    System.out.println(name + " has " + numStudents + " students enrolled.");

//Driver Code:
course1.incrementNumStudents();

public String name = "CSCI 111"
    roomNum = 103
    numStudents = 1

public String getName()
    return name;

public int getRoom()
    return roomNum;

public void incrementNumStudents()
    numStudents = numStudents + 1;

public void printStats()
    System.out.println(name + " has " + numStudents + " students enrolled.");

name = "Literature"
    roomNum = 204
    numStudents = 0

public String getName()
    return name;

public int getRoom()
    return roomNum;

public void incrementNumStudents()
    numStudents = numStudents + 1;

public void printStats()
    System.out.println(name + " has " + numStudents + " students enrolled.");

//Driver Code:
course1.incrementNumStudents();
House Blueprint

```java
public House(inAddress, inNumRoom)
    address = inAddress;
    numRooms = inNumRoom;

public void paintWalls(color)
    paintColor = color;
    //paint the walls
    //let dry
    //do touch-up work
```

```
address = 123 Fake Street
numRooms = 4
paintColor = null

public void paintWalls(color)
    paintColor = color;
    //paint the walls
    //let dry
    //do touch-up work
```

```
address = 321 E Main Street
numRooms = 6
paintColor = null

public void paintWalls(color)
    paintColor = color;
    //paint the walls
    //let dry
    //do touch-up work
```
Course Class

```java
private String name;
private int roomNum;
private int numStudents;

public Course(String inN, int inR) {
    name = inN;
    roomNum = inR;
}

public String getName() {
    return name;
}

public int getRoom() {
    return roomNum;
}

public void incrementNumStudents() {
    numStudents = numStudents + 1;
}

public void printStats() {
    System.out.println(name + " has " +
                        numStudents +
                        " students enrolled.");
}
```

Student Class

```java
private String name;
private int idNum;
private double gpa;
private Course course1;
private Course course2;

public Student(String n, int i) {
    name = n;
    idNum = i;
}

public String getName() {
    return name;
}

public intgetID() {
    return idNum;
}

public void addCourse1(Course c) {
    course1 = c;
    course1.incrementNumStudents();
}
```

Driver Class

```java
public static void main(…) {
    Student s1 = new Student("Joe", 1234);
    Course c1 = new Course("CSCI 111", 103);
    s1.addCourse1(c1);
}
```
The Java keyword \texttt{static} means that the variable or method belongs to the entire class, not an instance of the class.

Code example...

```java
private String name;
private int roomNum;
private int numStudents;

public Course(String inN, int inR)
    name = inN;
    roomNum = inR;

public String getName()
    return name;

public int getRoom()
    return roomNum;

public void incrementNumStudents()
    numStudents = numStudents + 1;

public void printStats()
    System.out.println(name + " has " +
                        numStudents +
                        " students enrolled.");
```
course1

name = “CSCI 111”
numStudents = 230
numCourses =

public String getName()
    return name;

public int getRoom()
    return roomNum;

public void incrementNumStudents()
    numStudents = numStudents + 1;

public static int getNumCourses()
    return numCourses;

course2

name = “Literature”
roomNum = 204
numCourses =

public String getName()
    return name;

public int getRoom()
    return roomNum;

public void incrementNumStudents()
    numStudents = numStudents + 1;

public static int getNumCourses()
    return numCourses;