

Java Program Structure

[Java's Program Structure | Wikipedia](#)

This is the prescribed Program Structure for a Java Class.

```
import java.util.Objects;

/**
 * @author divyanshbhardwaj
 * @version 1.0
 * This class is the definition class for a 'Student'.
 * */
public class Student {
    private String studentName;
    private long contactNumber;
    private double currentCPI;
    private String officialEmailAddress;

    public String getStudentName() {
        return studentName;
    }

    public void setStudentName(String studentName) {
        this.studentName = studentName;
    }

    public long getContactNumber() {
        return contactNumber;
    }

    public void setContactNumber(long contactNumber) {
        this.contactNumber = contactNumber;
    }

    public double getCurrentCPI() {
        return currentCPI;
    }

    public void setCurrentCPI(double currentCPI) {
        this.currentCPI = currentCPI;
    }

    public String getOfficialEmailAddress() {
        return officialEmailAddress;
    }

    public void setOfficialEmailAddress(String officialEmailAddress) {
        this.officialEmailAddress = officialEmailAddress;
    }
}
```

```
    public Student(String studentName, long contactNumber, double currentCPI,
String officialEmailAddress) {
        this.studentName = studentName;
        this.contactNumber = contactNumber;
        this.currentCPI = currentCPI;
        this.officialEmailAddress = officialEmailAddress;
    }

    @Override
    public String toString() {
        return "Student{" +
            "studentName='" + studentName + '\'' +
            ", contactNumber=" + contactNumber +
            ", currentCPI=" + currentCPI +
            ", officialEmailAddress='" + officialEmailAddress + '\'' +
            '}';
    }

    @Override
    public boolean equals(Object newObject) {
        if (this == newObject) {
            return true;
        }
        if (newObject == null || getClass() != newObject.getClass()) {
            return false;
        }
        Student student = (Student) newObject;
        return getContactNumber() == student.getContactNumber() &&
            Double.compare(student.getCurrentCPI(), getCurrentCPI()) == 0 &&
            getStudentName().equals(student.getStudentName()) &&
            getOfficialEmailAddress().equals(student.getOfficialEmailAddress());
    }

    @Override
    public int hashCode() {
        return Objects.hash(getStudentName(), getContactNumber(), getCurrentCPI(),
            getOfficialEmailAddress());
    }
}
```