

# TINKER ACADEMY

## AP Computer Science Prep (Java Programming)

### Homework 3: OOP Part 2

Make sure you read the Handout slides!

#### Overview

In this Homework you will modify an interface.  
You might need to refer to the Handout slides for Week 3 to complete this homework.  
The Handout slides for Week 3 can be accessed from TinkerCourses.

#### Open the Homework

##### Import Java Project

1. Open File Manager
2. Navigate to TinkerCourses, TA-JAV-2, homework3
3. Right Click, extract Homework3.zip
4. Double click to Open eclipse (under Tinker Apps)
5. Right click over Package Explorer
6. Import...
7. Select extracted folder Homework3

#### Before you begin

Keep the handout slides for Week 3 open

##### Structure of the Program

Homework3 is an Eclipse Java Project. The Project has

1. A Java Source File called "Homework3.java"
2. The Homework3 class contains the main method

## Complete the Homework

### Homework Part 1

Add the following methods to the Car interface

```
public void setSpeed(int speed);
```

Define the corresponding method in the classes Bugatti and Tesla

```
public void setSpeed(int speed) {  
    this.speed = speed;  
}
```

### Homework Part 2

Add the following methods to the main method in Homework3.java

```
public static void main(String[] args) {  
    Car car = new Bugatti("Red", "Gray", "RedGrayBugatti.jpg");  
    car.setSpeed(100);  
    System.out.println("The speed of the car is now " + car.getSpeed());  
}
```

### Run the program in Eclipse

Follow the instructions in the Handout Slides to run the program.

If all is good, you should see the following output on running the program

```
The speed of the car is now 100
```

## Submit the Homework

Submit your changes

1. Make sure you are on the Home WiFi.
2. Save All your changes
3. Open File Manager
4. Click TinkerSetup
5. Double Click "Course Submit"

All the Best!