```java
//Person.java


public abstract class Person {

	public Person()
	{
		System.out.println("This is the constructor of the Person
class");
	}
	private String name;

	// Abstract methods do not contain a body and the programmer must
implement them within the child class.
	public abstract void performAction();


	public String get_person_name() {
		return name;
	}
	public void set_person_name(String sName) {
		name = sName;
	}
}
```

```java
//Student.java
public class Student extends Person {

	public Student(){
		System.out.println("This is the constructor of the Student
class");
	}

	public void performAction()
	{
		System.out.println("I am a student who is studying");
	}


}
```

```java
//Researcher.java
public interface Researcher {
	public void research();


}
```

```java
//Worker.java
public interface Worker {

	// Question: Can we do this?
	//    private int x;
	// Try it
	public void work();
}
```

```java
//WorkingStudent.java
public class WorkingStudent extends Student implements Worker, Researcher {

	private double num_of_hours;
	private double rate_per_hour;

	public WorkingStudent()
	{
		System.out.println("This is the constructor of Working Student
Class");
	}
	public void set_num_of_hours(double nHours) {
		num_of_hours = nHours;
	}

	public void set_rate_per_hour(double rph) {
		rate_per_hour = rph;
	}

	public double get_num_of_hours() {
		return num_of_hours;
	}

	public double get_rate_per_hour() {
		return rate_per_hour;
	}

	public void work() {
		performAction();
		System.out.println("I am a student who is also working.");
	}

	public void research()
	{
		System.out.println("I am a student who is doing research, too");
	}
}
```

```java
//TestWorkingStudents.java
public class TestWorkingStudents {

	public static void main(String[] args) {
		// TODO Auto-generated method stub
		System.out.println("Creating the first object WorkingStudent:");
		System.out.println("=========================================");

		WorkingStudent ws1 = new WorkingStudent();

		System.out.println("\nCreating the second object
WorkingStudent:");
		System.out.println("=========================================");

		WorkingStudent ws2 = new WorkingStudent();


		ws1.set_person_name("Michael Smith");
		ws2.set_person_name("Jessica Brown");

		ws1.set_num_of_hours(30);
		ws2.set_num_of_hours(40);

		ws1.set_rate_per_hour(10);
		ws2.set_rate_per_hour(16);

		ws1.performAction();
		ws1.work();

		ws2.performAction();
		ws2.work();
		ws2.research();

		// Question: Can we do that?
		// Worker w1 = new Worker();
		// Try it

		// Question: Can we do that?
		// Person p1 = new Person();
		// Try it
	}
}
```