Pseudo Quiz #1 January 2014 NAME:_____

1. Consider the following Student class:

```
public class Student {
	private String name;
	private long id;
	private float midterm;
	private float finalExam;

	public Student(String name, long id) {
		this.name = name;
		this.id = id;
	}
	public void setMidterm (float midterm) {
		this.midterm = midterm;
	}
	public void setFinal (float finalExam) {
		this.finalExam = finalExam;
	}
	public double getExamAverage() {
		return (this.midterm + this.finalExam) / 2.0;
	}
	public String toString(){
		String result = name;
		result += id + "\n";
		result += midterm + " " + finalExam;
		return result;
	}
}
```

Write a class (i.e., a program) that instantiates a Student object for the following student:
Jeff Johnson , id = 95382
Midterm Exam grade = 75.75, Final Exam grade = 82.3
Once instantiated, this class should use instance methods to:

- output all the object's attributes, and then
- calculate and output the average exam grade.

```
public class StudentTester {
	public static void main (String [] args) {
		Student jeff = new Student("Jeff Johnson", 95382);
		jeff.setMidterm (75.75);
		jeff.setFinal (82.3);
		System.out.println( jeff.toString() );   // optional
		System.out.println( "Average grade = " + jeff.getExamAverage() );
	}
}
```

2. Now consider the UVicStudent class, which uses the UVicPerson interface:

```
public interface UVicPerson {

    // data attributes
    // constructor(s)

    public void setnewName(String newName);
    public String toString();
}
```

```
public class UVicStudent implements UVicPerson{
   private String name;
   private long id;
   private float midterm;
   private float finalExam;

         public UVicStudent(String name, long id) {
         this.name = name;
         this.id = id;
   }
   public void setMidterm (float midterm) {
         this.midterm = midterm;
   }
   public void setFinal (float finalExam) {
         this.finalExam = finalExam;
   }
   public double getExamAverage() {
         return (this.midterm + this.finalExam) / 2.0;
   }
   public String toString(){
         String result = name;
         result += id + "\n";
         result += midterm + " " + finalExam;
         return result;
   }
}
```

Although incredibly similar to the class in question #1, this class will not compile (ie, javac UVicStudent.java produces an error message. What is the wrong?

The interface requires a setnewName(String newName) method. But it was not in the class.

3. On the back of this page write another java class that will be used to instantiate java Objects. The class will be called UVicEmployee and it will also implement the UVicPerson interface. Your class should have private data attributes name, id, salary, and contract end date. It should include the necessary methods, including those from the interface and suitable accessor and mutator methods.

```
public class UVic_Employee implements UVicPerson {

    private String name;
    private long id
    private double salary;
    private String endDate;

    public UVic Employee ( );
this.name = "";
        id = 0;
        salary = 0;
        endDate = "January 0,0";
    }
    public UVic Employee(String newName, long newID,
                         double theSalary; String theDay){
this.name = newName;
        id = newID;
        salary = theSalary;
        endDate = theDay;
    }
public void setnewName (String newName) {
        name = newName;

    }
public String toString ( ) {
    String returnValue = "";
    returnValue += name + " :" + id + "\n";
    returnValue += "Salary: " + salary + "\n";
    returnValue += "EndDate: " + endDate;
}
```

not needed

NOTE: This answer does NOT get full marks because it does not include accessor and mutator methods! Please add them.

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