

# OOP - Java Packages Exercise

## 1. Exercise on Java packages

Suppose you have three classes :

```
import java.util.ArrayList;
public class MytestClass {
    public static void main(String[] args){
        ArrayList<Integer> aL= new ArrayList<Integer>();
        aL.add(new Integer(20));
        aL.add(new Integer(23));
        aL.add(new Integer(27));
        MyPrintUtils.printList(aL);
        dbUtils.printDB();
    }
}
```

```
public class dbUtils {
    public static void printDB(){
        System.out.println("Printing DB Info");
    }
}
```

```
import java.util.List;
public class MyPrintUtils<E> {
    public static<E> void printList(List<E> a){
        for(E e:a){
            System.out.println(e);
        }
    }
}
```

You need to put `MytestClass` in a package `edu.newpaltz.cs.oop`, `dbUtils` in a package `edu.newpaltz.cs.databases`, `MyPrintUtils` in the package `edu.newpaltz.cs.utils`.

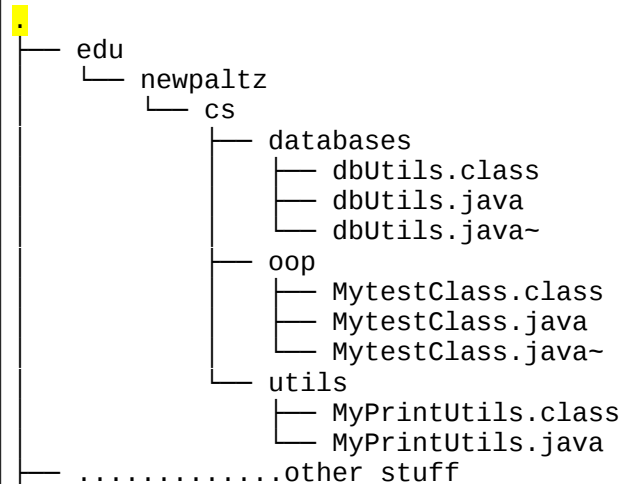
Explain where you will move each source file, and what modifications will have to be done (w.r.t import and package statements) in each source file. Do the necessary moves, then compile and run `MytestClass`.

Output to console of the correct program will be:

```
20
23
27
Printing DB Info
```

Here is the directory structure showing where files need to be.

The `.` notation means current (or base) directory



Compile with: `./javac edu/newpaltz/cs/oop/MytestClass.java`

Run: `./java edu/newpaltz/cs/oop/MytestClass`

The modifications needed for the source code are shown below:

```
package edu.newpaltz.cs.oop;
import java.util.ArrayList;
import edu.newpaltz.cs.utils.*;
import edu.newpaltz.cs.databases.*;
public class MytestClass {
    public static void main(String[] args){
        ArrayList<Integer> aL= new ArrayList<Integer>();
        aL.add(new Integer(20));
        aL.add(new Integer(23));
        aL.add(new Integer(27));
        MyPrintUtils.printList(aL);
        dbUtils.printDB();
    }
}
```

```
package edu.newpaltz.cs.utils;
import java.util.List;
public class MyPrintUtils<E> {
    public static<E> void printList(List<E> a){
        for(E e:a){
            System.out.println(e);
        }
    }
}
```

```
package edu.newpaltz.cs.databases;  
public class dbUtils {  
    public static void printDB(){  
        System.out.println("Printing DB Info");  
    }  
}
```