University of Cape Town ~ Department of Computer Science

Computer Science 1015F ~ 2009

Practical Test 2A

Time: 45 minutes

Complete the following program to model a clothing outfit in an object-oriented program. You are given a driver class and one of the data classes (Item). You are required to write the Outfit class – only the methods used by the driver class are required. (Hint: Remember to add a toString method as that will be used by the println statement)

Note: You can download the classes from the "Practical Test 2A" assignment on Vula.

Sample I/O:

```
The Jeans and Tekkies Combo
Shoes:Tekkies
Pants:Jeans
```

PracTest2A.java (Driver class):

```java
class PracTest2A
{
    public static void main ( String [] args )
    {
        Outfit jeansAndTekkies = new Outfit ("The Jeans and Tekkies Combo");
        jeansAndTekkies.addShoes (new Item ("Tekkies"));
        jeansAndTekkies.addPants (new Item ("Jeans"));
        System.out.println (jeansAndTekkies);
    }
}
```

Item.java:

```java
class Item
{
    private String name;
    public Item ( String theName )
    { name = theName; }
    public String toString ()
    { return name; }
}
```

You may consult your paper notes and textbook, but no electronic resources. You may NOT use a search engine or consult any Web resources (including Vula) or files on your flash disk, hard drive, etc. Comment your own code only. All submissions will be re-marked by a tutor.

Submit only the **Outfit.java** source file contained within a .ZIP file to the Automatic Marker – and make sure you submit the Java file and not the Jgrasp Project file!

Practical Test 2B

Time: 45 minutes

Complete the following program to model the contents of a student's desk in an object-oriented program. You are given a driver class and one of the data classes (Stationery). You are required to write the DeskContents class - only the methods used by the driver class are required. (Hint: Remember to add a toString method as that will be used by the println statement)

Note: You can download the classes from the "Practical Test 2B" assignment on Vula.

Sample I/O:

```
Jabu:Bic Clic,Staedtler HB,Mars Plastic
```

PracTest2B.java (Driver class):

```java
class PracTest2B
{
   public static void main ( String [] args )
   {
      Stationery pen = new Stationery ("Bic Clic");
      Stationery pencil = new Stationery ("Staedtler HB");
      Stationery eraser = new Stationery ("Mars Plastic");
      DeskContents jabu = new DeskContents ("Jabu", pen, pencil, eraser);
      System.out.println (jabu);
   }
}
```

Stationery.java:

```java
class Stationery
{
   private String name;
   public Stationery ( String aName )
   { name = aName; }
   public String toString ()
   { return name; }
}
```

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Submit only the **DeskContents.java** source file contained within a .ZIP file to the Automatic Marker – and make sure you submit the Java file and not the Jgrasp Project file!

Practical Test 2C

Time: 45 minutes

Complete the following program to model a three course meal menu in an object-oriented program. You are given a driver class and one of the data classes (Course). You are required to write the ThreeCourseMeal class - only the methods used by the driver class are required. (Hint: Remember to add a toString method as that will be used by the println statement)

Note: You can download the classes from the "Practical Test 2C" assignment on Vula.

Sample I/O:

```
Beans Bonanza
1:Bean soup
2:Bean stew
3:Bean dessert
```

PracTest2C.java (Driver class):

```java
class PracTest2C
{
   public static void main ( String [] args )
   {
      ThreeCourseMeal beansMeal = new ThreeCourseMeal ("Beans Bonanza");
      beansMeal.addFirst (new Course ("Bean soup"));
      beansMeal.addSecond (new Course ("Bean stew"));
      beansMeal.addThird (new Course ("Bean dessert"));
      System.out.println (beansMeal);
   }
}
```

Course.java:

```java
class Course
{
   private String name;
   public Course ( String theName )
   { name = theName; }
   public String toString ()
   { return name; }
}
```

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Submit only the **ThreeCourseMeal.java** file contained within a .ZIP file to the Automatic Marker – and make sure you submit the Java file and not the Jgrasp Project file!

Practical Test 2D

Time: 45 minutes

Complete the following program to model a two course meal menu in an object-oriented program. You are given a driver class and one of the data classes (Course). You are required to write the TwoCourseMeal class - only the methods used by the driver class are required. (Hint: Remember to add a toString method as that will be used by the println statement)

Note: You can download the classes from the "Practical Test 2D" assignment on Vula.

Sample I/O:

```
Beans Bonanza
1:Bean soup
2:Bean stew
```

PracTest2D.java (Driver class):

```java
class PracTest2D
{
   public static void main ( String [] args )
   {
      TwoCourseMeal beansMeal = new TwoCourseMeal ("Beans Bonanza");
      beansMeal.add (new Course ("Bean soup"), 1);
      beansMeal.add (new Course ("Bean stew"), 2);
      System.out.println (beansMeal);
   }
}
```

Course.java:

```java
class Course
{
   private String name;
   public Course ( String theName )
   { name = theName; }
   public String toString ()
   { return name; }
}
```

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Submit only the **TwoCourseMeal.java** file contained within a .ZIP file to the Automatic Marker – and make sure you submit the Java file and not the Jgrasp Project file!

Computer Science 1015F ~ 2009

Practical Test 2E

Time: 45 minutes

Complete the following program to model a team of 2 students in an object-oriented program. You are given a driver class and one of the data classes (Student). You are required to write the Team class – only the methods used by the driver class are required. (Hint: Remember to add a toString method as that will be used by the println statement)

Note: You can download the classes from the "Practical Test 2E" assignment on Vula.

Sample I/O:

```
The Presidents
Student One:Thabo
Student Two:Jacob
```

PracTest2E.java (Driver class):

```java
class PracTest2E
{
   public static void main ( String [] args )
   {
      Team aTeam = new Team ("The Presidents");
      aTeam.addMember (new Student ("Thabo"), 1);
      aTeam.addMember (new Student ("Jacob"), 2);
      System.out.println (aTeam);
   }
}
```

Student.java:

```java
class Student
{
   private String name;
   public Student ( String theName )
   { name = theName; }
   public String toString ()
   { return name; }
}
```

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Submit only the **Team.java** source file contained within a .ZIP file to the Automatic Marker – and make sure you submit the Java file and not the Jgrasp Project file!