

King Saud University
College of Computer and Information Sciences
Computer Science Department

CSC 113

Second Semester 1433-1434

Tutorial #3

Q1: Determine if the following statements are correct, have incorrect syntax, or semantically wrong. Explain your answer.

Statements	Correctness	Explanation
<pre>public class student { private String name; private int grade; public student (String name, int grade) { name = name; grade = grade; } }</pre>		
<pre>public student (student s) { this (s.getName(),s.getGrade()); } public String getName(){ return name;} public int getGrade(){ return grade;}</pre>		
<pre>student S1 = new student("Nora",70); student S2 = new student("Nora",70); if (S1 == S2) System.out.print ("Same students"); else System.out.println("different students");</pre>		

<pre> student[] list = new student [5]; int current= 0; list[current++] = S1; list[current++] = S2; for (int i=0; i<list.length;i++) System.out.println(list[i].getName()); </pre>		
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Q2: Trace the following program:

```

public class Book
{
    private int ISBN;
    private String title;
    private String author;

    public Book(int isbn, String t, String A)
    {
        ISBN=isbn;
        title=t;
        author=A;
    }

    public String toString()
    {
        String temp="Book Info: \nISBN: "+ISBN+"\nTitle:
        "+title+"\nAuthor: "+author+"\n";
        return temp;}

    // Setter and getter methods..
}

public class Library
{
    Book Shelves[];
    int current;

    public Library (int size)
    {
        Shelves = new Book[size];
        current=0;
    }
    //The method add from Tutorial 2

```

```

public void Display(){
    for (int i=0; i<current; i++)
        System.out.println(Shelves[i]);
}
public void Display (int i){
    System.out.println(Shelves[i]);
}
public void Display (int start, int end){
    for (int i=start; i<=end; i++)
        System.out.println(Shelves[i]);
}
public void Display (String A){
    for (int i=0; i<current; i++)
        if(Shelves[i].getAuthor().equals(A))
            System.out.println(Shelves[i]);
}
}

```

```

public class test {
    public static void main (String []args)
    {
        Library L = new Library (10);
        L.add(new Book(123,"Java How To
Program", "Deitel"));
        L.add(new Book(456,"Database
Systems", "Connolly"));
        L.add(new Book(789,"Tuedays with
Morrie", "Mitch Albom"));
        L.add(new Book(100,"Visual C# How to
Program", "Deitel"));
        L.add(new Book(200,"the Help", "Kathryn
Stockett"));
        L.Display(2);
        L.Display();
        L.Display(1,3);
        L.Display("Deitel");
    }
}

```