

## CSC 360, Quiz 2 Practice

Consider the following code:

```
public class Person {

    private static int nextId = 1;

    private int id;
    private String firstName;
    private String lastName;

    public Person(String firstName, String lastName) {
        this.firstName = firstName;
        this.lastName = lastName;
        this.id = nextId++;
    }
    public String getFirstName() {
        return firstName;
    }
    public String getLastName() {
        return lastName;
    }
    public void setFirstName(String firstName) {
        this.firstName = firstName;
    }
    public void setLastName(String lastName) {
        this.lastName = lastName;
    }
    public String getFullName() {
        return firstName + " " + lastName;
    }
}
```

```

@Override
public String toString() {
    return "Person [firstName=" + firstName +
        ",lastName=" + lastName + ", id=" + id + "]";
}

public static void main(String[] args) {

    Person p1 = new Person("Steve", "Smith");
    Person p2 = new Person("Becky", "Davis");

    System.out.println(p1);
    System.out.println(p2);
}
}

```

Question 1) What is the output of the above code?

Question 2) What would the output of the code be if nextId was not static?

Question 3) What is the output of the code if the main was replaced with the following?

```

Person p = new Person();
System.out.println("Name: " + p.getFullName());

```

Question 4) What is the purpose of the @Override above the toString method?

Question 5) Does the following PlantUML diagram result in valid Java code?

```

@startuml
class Test {
    + methodA(a:int, b:int) :int

```

```
+ methodA(a:float, b:float) : float
+ methodB(a:String, b:String) : String
+ methodC(): void
}
@enduml
```

Question 6) Based on the UML diagram above, write a line of code that calls *methodC*.

Question 7) How would the method call change if *methodC* was *static*?

Question 8) What is a good object-oriented design for a program that allows you to create a schedule of classes? What *has-a* relationships are best modeled by *composition*, and what relationships are best modeled by *aggregation*?