

King Saud University
College of Computer & Information Science
CSC111 – Tut5
Primitive & Reference Types
All Sections

Exercise 1:

You have the following Class Person

```
public class Person
{
    public String firstName;
    public String middleName;
}
```

What is the output of the following Code ?

```
Person p1 = new Person()
Person p2 = new Person()
Person c;

p1.firstName = "Ahmad";
p1.middleName = "Ali";

p2.firstName = "Khalid";
p2.middleName = "Mohammad";

c = p1;
c.firstName = "Yousef";
c.middleName = "Saleh";

System.out.println(p1.firstName + " " + p1.middleName);

c = p2;
c.firstName = "Abdullah";
c.middleName = "Rashid";

System.out.println(p2.firstName + " " + p2.middleName);
```

Exercise 2:

Create a class Car that has the **model** of the car (String), the **make** year (int), and the **price** (float).

Car
+ model: String + make: int + price: float

Now, after creating the class, write the following lines of code in a separate program. However, you should add some code to it where marked, so that you can modify the object referenced by **c** **without** using the reference variable **c**:

```
Car c = new Car();
c.model = "GM";
c.make = 2011;
c.price = 60000.0f;
System.out.println("the car c is of type " + c.model +
" and the year of make is " + c.make + " and its price is " +
c.price);

//continue the program here -----
```

Exercise 3:

Create a class Restaurant that has its **name** (String), the cuisine **type** (String), the **establishment year** (int), and a variable to determine if it **was closed before** (boolean).

Restaurant
+ name: String + type: String + establishYear: int + wasClosed: boolean

Now, after creating the class, write the following lines of code in a separate program. However, you should add some code to it where marked, so that you can verify if

`(rest1 == rest2)` also verify if `(rest2 == rest3)`.

Hint: you don't have to use if statements.

```
Restaurant rest1 = new Restaurant();
rest1.name = "Italian nights";
rest1.type = "Italian";
rest1.establishYear = 2010;
rest1.wasClosed = true;
```

```
Restaurant rest2 = new Restaurant();
rest2.name = "Layali Najd";
rest2.type = "Saudi";
rest2.establishYear = 2008;
rest2.wasClosed = false;
```

```
Restaurant rest3 = new Restaurant();
rest3.name = "Layali Najd";
rest3.type = "Saudi";
rest3.establishYear = 2008;
rest3.wasClosed = false;
```

```
//continue the program here -----
```