**king Saud University**

**College of Computer &Information Science**

**CSC111 – Lab**

**Object oriented programming**

**All Sections**

**-------------------------------------------------------------------**

Design a class named Student to represent a student informations. The class contains:

# A string data field named studName that specify the student name.

# An integer data field named studAge that specify the student age.

* A method named **setName()** to store the student name.
* A method named **setAge()** to store the student age.
* A method named **getName()** that returns the name of student.
* A method named **getAge()** that returns the student age
* Draw the UML diagram for the class and then implement the class.
* Write a test program (class with main method) that creates two student objects-with student name and age. Display the name and age of student in this order. Name student class student. Name class with main method **TestStudent.**

**Sample Run**

Student age:    22

Student Name:Saleh

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Student age:    25

Student Name:Ali

**Solution**

1. First phase is to design your program as an OOP program. Draw UML diagrams for the two classes, Student and TestStudent.

|  |
| --- |
| **Student** |
| **studName: String**  **studAge : int** |
| **setName(string** studentName**)**  **setAge(int** studentAge**)**  **getName(): string**  **getAge(): int** |

|  |
| --- |
| **TestStudent** |
|  |
| **main(): void** |

1. Create a new eclipse project and name it **lab**
2. Unlike in previous exercise, we will create two separate files for the two classes. Create a new class and name it **Student**.
3. Create a new class and name it **TestStudent**. Make sure you choose the public static void main option.
4. Write the program classes as shown in next pages (you can ignore comments)
5. When you are done, save your program and run it. Make sure it prints the output as shown above.
6. Submit your program to WebCAT through. Ask your TA for help.

**class** Student

{

// data members

// Set Student Name

public void setName(String studentName)

{

studName = studentName;

}

/\* Set the student age\*/

/\*setAge\*/

//getage()

//return student age

public int getAge()

{

return studAge;

}

/\*getName()\*/

//return student name

}

//class TestStudent

//tests the Student class above

public class TestStudent

{

public static void main(String[] args)

{

/\*create objects\*/

/\*set values to methods \*/

/\*print the student information\*/

}

}

**class** Student

{

// data members

private String studName;

private int studAge;

// Set Student Name

public void setName(String studentName)

{

studName = studentName;

}

// Set the student age

public void setage(int studentAge)

{

studAge = studentAge;

}

//getage()

//return student age

public int getAge()

{

return studAge;

}

//getName()

//return student name

public String getName()

{

return studName;

}

}

//class TestStudent

//tests the Student class above

public class TestStudent

{

public static void main(String[] args)

{

//create objects

Student s1 = new Student();

Student s2 = new Student();

/\*set values to methods \*/

s1.setName("**Saleh**");

s1.setAge(22);

s2.setName("**Ali**");

s2.setAge(25);

//print the student information

System.out.println("Student Name:\t" + s1.getName());

System.out.println("Student age:\t" + s1.getAge());

System.out.println("--------------------------");

System.out.println("Student Name:\t" + s2.getName());

System.out.println("Student age:\t" + s2.getAge());

}

}

**Done…**