CSS232 Object-Oriented Programming

Lecturer: Dr. Thittaporn Ganokratanaa

King Mongkut's University of Technology Thonburi

Lab

- Lab Unit 1
- Lab Unit 2
- Lab Unit 3

King Mongkut's University of Technology Thonburi

Lab Unit 1

1. Write a program to display any message

Example: display a sentence: "**Welcome to OOP Programming**"

2. Write a Java program to display default value of all primitive data types of Java.

Note: the data types that need to show their default value are: **short, int, long, float, double, char String, and Boolean**.

3. Write a program check two strings are equal or not.

Example: **str1 = "OOP"; str2 = "Object-Oriented Programming"**

King Mongkut's University of Technology Thonburi

Lab Unit 2

1. Write a program to give the examples of operators.
   i. Increment and decrement operators.

   Hint: **+x; ++x; x++**

   ii. Arithmetic operator.

   Hint: **+; - ; * ; / ; %**

   iii. Relational Operator.

   Hint: **< ; > ; <= ; >= ; == ; !=;**

   iv. Conditional Operator.

   Hint: **x = boolean ? a: b;**

King Mongkut's University of Technology Thonburi

Lab Unit 2

2. Write a program to give the example of control statements.

   i. If statements.

   Guide: **Testing on two integer and print the greatest and the lesser.**

   ii. Switch Statements.

   Guide: **Initial a char, then apply switch with three case and display the output.**

   iii. For loop.

   Guide: **Display total sum value of a = 10**

   iv. While Statements

   Guide: **Apply "while" loop in the condition i<=5, and display the i+1 of every iterations**

   v. Do statements

   Guide: **Apply "do" with a display sentence, and then break the loop if i>5**

King Mongkut's University of Technology Thonburi

Lab Unit 2 (Cont.)

3. Write a program to calculate the following

   i. Find the length of array

   Example: **a1 = int[10]; a2 = { 3,5,7, 1, 8, 99 , 44, -10 }; a3 = {4,3,2,1};**

   ii. Demonstrate a two-dimensional array

   Guide: **create 3x3 matrix that has element's value from 0 to 8**

4. Write a program to arrange the numbers in ascending order.

Example: **arr = {234,6,846,85,96,198,545,12,60,34,4,87,7,1};**

King Mongkut's University of Technology Thonburi

Lab Unit 2 (Cont.)

5. Write a program for calculating Matrix Operations

   i. Addition

a = { {4,7,9,8,3},{2,4,7,8,1},{1,1,8,1,2},{0,0,1,0,4}};

b = { {1,2,8,4,3},{4,1,8,3,1},{2,1,0,0,5},{1,2,1,1,7}};

   ii. Multiplication

a ={{1,2,3},{4,5,6},{2,3,4}};

b ={{1,2,3},{4,5,6},{2,3,4}};

King Mongkut's University of Technology Thonburi

Lab Unit 3

1. Write a program to reads Celsius in double value from the console and converts it to Fahrenheit. (**Note: Fahrenheit =(9.0/5.0)*Celsius + 32**)

King Mongkut's University of Technology Thonburi

Q&A