Rajarata University of Sri Lanka

Faculty of Applied Sciences

B.Sc in Information and Communication Technology

ICT 1306 (Object Oriented Programming)

Practical 02: Introduction to C++ Programming (Part 02)

Outline

- Functions.
- Arrays.

Outcome

At the end of this session students should be able to:

- Get knowledge about the general structure of the C++ programming.

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1. Write a function called circarea() that finds the area of a circle. It should take an argument of type float and return an argument of the same type. Write a main() function that gets a radius value from the user, calls circarea(), and displays the result.

2. Write three functions, add() to add its two parameters together and return the sum, multiply() to multiply its two parameters, and square() to multiply its single parameter itself. Use your functions in the main program to calculate the result of following mathematical expression.

$$(3*4+5*7)^2$$

3. Find the Minimum and Maximum of the following array.

3	2	4	5	6	4	9	7	8	1

4. A Marketing firm has decided to market 3 different products. Forecasted earning is given in the following matrix.

Days	Item-1	Item-2	Item-3	Total
1	100	10	25	A
2	200	20	30	B
3	300	30	90	C
4	400	30	70	D
5	500	50	80	E
6	600	10	300	F
7	700	60	10	G
Total	P	Q	R	Z

Write a C++ program to input above data into an array and Output the

- Daily total earnings (A, B, C, D, E, F and G)
- Weekly total earnings for each product (P, Q and R)
- Total earnings for the whole week (Z)

Take Home Assignment

1. Write four functions, checkBalance(), deposit(double amount), withdrawal(double amount) and calculateInterest(int rate). The checkBalance function returns the balance. The deposit function adds the parameter passed to the balance. The withdraw function checks whether the parameter passed is less than or equal to the balance. If it is true, it subtracts the value from the balance. Otherwise it prints an error message “Sorry there is not enough money”. The calculateIntrest function computed the interest as balance*2.5/100.

   Provide a menu to select one of the four functions. Once the user select one of the functions the program should ask user to enter appropriate values and pass them as parameters to the function.

2. Write a C++ program to reverse a string.

   Ex: *user input* : Hello World
   reversed string : dlrow olleh

Next Practical: Objects and Classes