University of Mauritius
Faculty of Engineering
Department of Computer Science & Engineering.
CSE 1003 – Computer Programming
2010/2011- Semester 2

Labsheet 6- Functions

Note: For each question in this labsheet, you are required to write a program that tests the function(s).

Question 1
Write a function that takes two integer values as parameters and returns the multiplication x*y.

Question 2
Write a function that takes two integer values as parameters and returns the smaller of the two numbers.

Question 3
Write a function that takes two integer parameters x and y and returns the value of $x^2 + y^2$.

Question 4
Write a function that takes the name and price (VAT-exclusive) of a product as parameter and returns the name and VAT-inclusive price of the product. You may assume that VAT is 15%.

Question 5
   (a) Write a function that takes as parameter a value **n** and returns the square and cube of **n**.
   (b) Use the above function in a program that accepts as input the radius of a sphere and calculates and displays the surface area and volume of the sphere.

Question 6
A factory pays its workers at the rate of Rs 30 per hour. However, if the number of hours worked (per week) exceeds 40, the rate is Rs 50 for each excess hour. Write a function that takes as parameter the number of hours a particular worker has worked per week, and calculates and returns his/her weekly wage.

Question 7
The owner of Sam video club wants a small program that allow a user to enter details of movies, customers and rentals.
For this small program you are required
   (a) to write functions that will the input of details of movies, customers and rentals,
   (b) to write a main program that will call the appropriate functions when the user choose one of the following options.

1:Adding new movie
2: Adding of new customer
3:Adding of a rental transaction

Note: For the time being we are going to assume that the details being entered will be just be displayed back on screen.

Question 8
Modify the program you have written above in question 7, by writing a function that will display the menu options and based on the user choice will call the appropriate function for adding details from the menu function itself.