MODULE 1: INTRODUCTION TO PROGRAMMING IN C#

FURTHER EXERCISES

Tutorial 5

1. The core exercise in 1.2 of this tutorial featured factorials. You might have noticed that N! is equal to N x (N-1)! and this suggests an alternative programming technique – recursion (where a function can call itself). In this case, if we have a function (method) *factorial(n)*, it would return the value 1 if n was equal to 1, but otherwise return n x factorial(n-1). Design and write a program that enables the user to input N and to output N! using recursion.

   What should the programmer consider when writing programs that involve recursion?

2. Take the following scenario: you live in a small community and you are known to have some knowledge about computers. A local company approaches you with a view to developing a website for them so that they can provide an on-line shopping facility. How should you respond to this opportunity if you regard yourself as a professional software developer?