Puzzles

# Please provide a working solution to the following scenarios. We would expect to be able to run the solution and see any tests that were used in the development.

# Answers must be completed in .NET 4. The last question is required to be completed in Silverlight 4 or MVC 3.

# Puzzle One

Write a function that would return the 5th element from the tail (or end) of a singly linked list of integers, in one pass, and then provide a set of test cases against that function (please do not use any list manipulation functions that you do not implement yourself).

# Puzzle Two

Write a function that receives three integer inputs for the lengths of the sides of a triangle and returns one of four values to determine the triangle type.

1. Scalene
2. Isosceles
3. Equilateral
4. Error

Generate test cases for the function assuming another developer coded the function.

# Puzzle Three

Write a function to reverse the words in a string (“cat and dog” becomes “tac dna god”). Please do not use any string manipulation functions that you do not implement yourself.

# Puzzle Four

Write a ASP.NET MVC 4+ application that implements the following.

You are to create an application to manage a small video store of 50 videos. You only need to show the CRUD implementation of Videos, Users and hiring / renting a video.