Wentworth Institute of Technology

COMP3350 Programming Languages

Lab 3 – Functional Programming in F#

This lab is on functional programming using F#. You will use an IDE, such as Visual Studio with F# support or some other suitable development environment, for creating, compiling and testing the programs.

Write and test the following functions. Use the provided unit test cases to check your solutions.

1. Write and test a recursive function, findLast, to find the last element in an integer list. Test your program using the list: [10]

[15; 9; 18; 25; 50]

1. The List function find, in F#, returns the first element for which the given function returns true. It throws the exception System.Collections.Generic.KeyNotFoundException if no such element exists. [10]

Syntax of Find

List.find (function) list

The list provided to you will contain the matching element, so you

do not have to handle the exception.

The function you will write is a Lambda expression that will return true if the list element is a multiple of 10 (modulo 10).

The list you will be testing with is:

let mylist = [11..50]

What to submit on Brightspace.

1. The F# functions and their respective outputs.