

Exercise 4

The problem consists in solving exercises 7 and 8 of Section 6.8 of the book. You are supposed to turn in two files: Main.hs and Merge.hs. The first contains the function main that reads the input and calls the mergesort function that must be in the file Merge.hs. Mergesort uses merge as described in the exercises 7 and 8 of Section 6.8.

You should assume that the numbers that should be sorted are all in one line separated by some spaces. They are all read with a single getLine operation and then a list containing the strings containing the numbers is produced using the system operation “words”.

Example if the input line contains 45 1 21 0 then getLine gets the string s=“45 1 21 0” and then words s = [“45”,“1”,“21”,“0”]::[[String]] it is then easy to transform the strings in corresponding integers, [45,1,21,0]::[Int].