

BCS 230: Foundations of Computer Programming II

CRN 23798, 23322, 20108 Spring 2015

Instructor: Dr. Jie Li

Homework 2 — Thursday, February 5 Due Thursday, February 12, 11:55PM on Angel

Assignment Goals: To learn to use arrays and control structures to process data

Assignment:

1. Reading: Chapter 8 (excluding C-Strings part).

2. Programming Exercise

a. Create a txt file named “hw2data.txt” that contains students’ test scores in the range 0~100. Assume test scores are integers. You can use the following sample data:

76 84 75 62 58 75 93 54 36 87 81 88 68 90 73 80 74 84 96 100 61 50 84 47 92 87 76 87 82 64

b. Write a program that reads the scores from file “hw2data.txt”, find the total number of scores, and determines the number of scores in each of the following ranges:

- 1) 0-50 (0 <= score < 50)
- 2) 50-55 (50 <= score < 55)
- 3) 55-60
- 4) 60-65
- 5) 65-70
- 6) 70-75
- 7) 75-80
- 8) 80-85
- 9) 85-90
- 10) 90-100 (90 <= score <=100 Notice: 100 is included in this range)

Output the score ranges and the number of students in each range. Your program should be able to read any number of test scores.

If you run your program with the above sample data, you should have results similar to the following:

Range	Number of Students
0 -- 50	2
50 -- 55	2
55 -- 60	1
60 -- 65	3
65 -- 70	1
70 -- 75	2
75 -- 80	4
80 -- 85	6

85	--	90	4
90	--	100	5

A different data file will be used to test and grade your program.

You may refer to book example 5-24 (7th edition) for how to use a while loop to read all the integers from a file and to track the number of integers that have been read.