CS180

Test 4 – 24 November 2019

1.Write the definition of a function that finds and returns the position of the minimum value in an unsorted vector of int values. Do not write a prototype or any Javadoc, just the function itself.

2. Write the Javadoc and the prototype of a function named **display\_values** that can be used to print all the values of an array of doubles for the positions that are currently on use. Do not write the function itself, only the Javadoc and Prototype. Then write a single statement that would appear in main that calls your function

3. Given the following code, draw a picture of memory when line 14 has just finished, and then show what would change by the time line 16 has just finished by lightly crossing out any previous values and showing the new values. Be sure to diagram the memory for both main and for **increment\_a\_value**. Finally, show the output when the coed is run to completion

1 int main()

2 {

3 int array[] {3, 8, 9, 5, 4};

4

5 increment\_a\_value(array, 3);

6 for (auto item : array)

7 {

8 cout << item << ‘ ‘;

9 }

10 cout << endl;

11 return 0;

12 }

13

14 void increment\_a\_value(int values[], size\_t position)

15 {

16 values[position]++;

1. }

4. Assuming that x and y are variables declared and initialized as doubles, write the fragment of code that you would use to determine whether they are equal.

5. A file name data.txt exists on disk that continue exactly 100 integers. Write a fragment of C++ code that declares necessary variables and constants, reads the numbers from the file. And finds the smallest and largest values. Print the smallest and largest to the screen after all of the numbers have been read.

1. State what a data type is, and list the names of two C++ data types