**UNIVERSITY OF GLASGOW – SCHOOL OF COMPUTING SCIENCE  
CSC 1009 OBJECT-ORIENTED PROGRAMMING**

**Programming Laboratory Wk06 Report  
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| Important:   1. Export/Save as/Print as PDF, including rename the file into the following format, small letters, without space: sit-student-id\_lab\_wkXX.pdf 2. For problem question, type your answer 3. For programming question, take several screen capture on the outputs as an evidences. |

**Answers:**

1. Input as follows   
   size : 6  
   list : 1 3 5 7 9 11

Value to be added : 6

With the result shown below.

Text

Description automatically generated

1. Input as follows

size : 6  
list : 1 3 5 7 9 11

Position of value to swap : 2 6

With the result shown below.

Text

Description automatically generated

1. With 500 random values range 1000 – 9999 and search with a randomized number.

Result is as follows.

Table

Description automatically generated with low confidence

1. Yes it can be implemented in hash format. However it is not a good idea. As there will be a need to have additional linkedhashmap to return the new list which contains the sorted results.

Input as follows:

size : 6  
list : 1 3 5 7 9 11

value to be added and sorted : 6

Result shown as such below.

Text

Description automatically generated

1. Yes it can be impletemented in has format and it is a good idea to implement it.

Input as follows:

size : 6  
list : 1 3 5 7 9 11

index/pos of value to be swapped : 2 6

Result shown as such below.

Text

Description automatically generated

1. Yes it can be impletemented in has format and it is a good idea to implement it.  
     
   500 values are randomly generated using range 1000 – 9999 and searched for using a randomized number.

A picture containing text, window

Description automatically generated