You may be asked to demonstrate/explain your work to the tutor, if you are absent/unavailable or fail to demonstrate properly, zero marks will be awarded.

Text book: Deitel, H M & Deitel, P J 2013, C: How to program, 7th edn, Pearson Prentice-Hall, Upper Saddle River, New Jersey.

Marks will be deducted (-0.25) if the submission format is not right
Checked submission format - deduct 0.25 marks if the submission format is not right. IMPORTANT: Submission Format Copy and paste the question and then write your answer. If it is a programming question copy and paste your code from text editor followed by the screenshots of the output window. Marks will be deducted if this format is not followed. You need to follow the exact sequential number as in the tut sheet. Submit a single file.

Lab 7

1. Using the array “data” as the example, explain the logic of the following sorting techniques. Use diagram wherever necessary

array	10	2	9	12	6

   a. Bubble sort
   b. Selection sort
   c. Insertion sort
   d. Merge sort
   e. Quick sort

2.
```
struct student {
    char name[10];
    int rank;
};
```

   Using the student structure given above, create an array of size 5 students. Then write a complete C program to sort the students array based on the students rank. Use the following sorting techniques in your code.
   Don’t forget to print initial array and final (sorted) array.
   a. Selection sort
   b. Insertion sort
   c. Merge sort
   d. Quick sort