

**LAB09: Sorting.**

Write a program that sorts 5 student records. Each student record consists of a student id, student name, as well as grade of subject (A, B, C, D, F). The program must prompt the user to input each student record details and display the student records again in the order of grade of subject from A to F. Use the insertion sort algorithm.

**Sample output:**

```

Student #1
-----
ID: 1133
Name: Jane
Grade (A, B, C, D or F): B

Student #2
-----
ID: 1224
Name: Ong
Grade (A, B, C, D or F): A

Student #3
-----
ID: 1886
Name: Janet
Grade (A, B, C, D or F): D

Student #4
-----
ID: 1547
Name: Kelvin
Grade (A, B, C, D or F): C

Student #5
-----
ID: 1554
Name: Hairul
Grade (A, B, C, D or F): B

Ranking of Students
-----
Rank    ID      Name    Grade
1       1224    Ong     A
2       1133    Jane    B
3       1554    Hairul  B
4       1547    Kelvin  C
5       1886    Janet   D

```

2. Modify the program above using selection sort.

**Practice questions**

Given is an array containing the elements as shown in the diagram below. Sort the array of numbers in **ascending order** by using **merge sort** in tree form.

23	14	56	45	35	98	75	66	4
0	1	2	3	4	5	6	7	8

$$8/2 = 4$$

