**Searching and Sorting**

**output :-**

Enter your choice

1 : Add student record.

2 : Display the record of student.

3 : Display student database.

4 : Search the student by name.

5 : Search the student by SGPA.

6 : Sort students by name and view list.

7 : Sort students by roll no and view list.

8 : Sort students by CGPA and view list.

9 : exit.

1

Enter your first name :

abc

Enter Roll No :

2

Enter SGPA (Only between 0 to 10) :

9

Time taken by the program: 7738869 microseconds

Enter your choice

1 : Add student record.

2 : Display the record of student.

3 : Display student database.

4 : Search the student by name.

5 : Search the student by SGPA.

6 : Sort students by name and view list.

7 : Sort students by roll no and view list.

8 : Sort students by CGPA and view list.

9 : exit.

1

Enter your first name :

lmn

Enter Roll No :

3

Enter SGPA (Only between 0 to 10) :

7

Time taken by the program: 15444034 microseconds

Enter your choice

1 : Add student record.

2 : Display the record of student.

3 : Display student database.

4 : Search the student by name.

5 : Search the student by SGPA.

6 : Sort students by name and view list.

7 : Sort students by roll no and view list.

8 : Sort students by CGPA and view list.

9 : exit.

1

Enter your first name :

xyz

Enter Roll No :

1

Enter SGPA (Only between 0 to 10) :

8

Time taken by the program: 14971040 microseconds

Enter your choice

1 : Add student record.

2 : Display the record of student.

3 : Display student database.

4 : Search the student by name.

5 : Search the student by SGPA.

6 : Sort students by name and view list.

7 : Sort students by roll no and view list.

8 : Sort students by CGPA and view list.

9 : exit.

2

Enter the sr no of student to display record : 1

Name : abc

Roll no : 2

SGPA : 9

Time taken by the program: 3575409 microseconds

Enter your choice

1 : Add student record.

2 : Display the record of student.

3 : Display student database.

4 : Search the student by name.

5 : Search the student by SGPA.

6 : Sort students by name and view list.

7 : Sort students by roll no and view list.

8 : Sort students by CGPA and view list.

9 : exit.

3

--------------------RECORD OF STUDENTS----------------------

Name Roll No SGPA

------------------------------------------------------------

Sr no. 1 abc 2 9

------------------------------------------------------------

------------------------------------------------------------

Sr no. 2 lmn 3 7

------------------------------------------------------------

------------------------------------------------------------

Sr no. 3 xyz 1 8

------------------------------------------------------------

Time taken by the program: 87 microseconds

Enter your choice

1 : Add student record.

2 : Display the record of student.

3 : Display student database.

4 : Search the student by name.

5 : Search the student by SGPA.

6 : Sort students by name and view list.

7 : Sort students by roll no and view list.

8 : Sort students by CGPA and view list.

9 : exit.

4

enter name of student : lmn

key match

Name : lmn

Roll no : 3

SGPA : 7

No of swaps : 0

No of comparisons : 2

No of iterations : 1

Time taken by the program: 2808898 microseconds

Enter your choice

1 : Add student record.

2 : Display the record of student.

3 : Display student database.

4 : Search the student by name.

5 : Search the student by SGPA.

6 : Sort students by name and view list.

7 : Sort students by roll no and view list.

8 : Sort students by CGPA and view list.

9 : exit.

5

Enter SGPA of student : 7

Name : lmn

Roll No : 3

SGPA : 7

No of swaps : 0

No of comparisons : 5

No of iterations : 3

Time taken by the program: 2310954 microseconds

Enter your choice

1 : Add student record.

2 : Display the record of student.

3 : Display student database.

4 : Search the student by name.

5 : Search the student by SGPA.

6 : Sort students by name and view list.

7 : Sort students by roll no and view list.

8 : Sort students by CGPA and view list.

9 : exit.

6

--------------------RECORD OF STUDENTS----------------------

Name Roll No SGPA

------------------------------------------------------------

Sr no. 1 abc 2 9

------------------------------------------------------------

------------------------------------------------------------

Sr no. 2 lmn 3 7

------------------------------------------------------------

------------------------------------------------------------

Sr no. 3 xyz 1 8

------------------------------------------------------------

No of swaps : 0

No of comparisons : 2

No of iterations : 2

Time taken by the program: 363 microseconds

Enter your choice

1 : Add student record.

2 : Display the record of student.

3 : Display student database.

4 : Search the student by name.

5 : Search the student by SGPA.

6 : Sort students by name and view list.

7 : Sort students by roll no and view list.

8 : Sort students by CGPA and view list.

9 : exit.

7

--------------------RECORD OF STUDENTS----------------------

Name Roll No SGPA

------------------------------------------------------------

Sr no. 1 xyz 1 8

------------------------------------------------------------

------------------------------------------------------------

Sr no. 2 abc 2 9

------------------------------------------------------------

------------------------------------------------------------

Sr no. 3 lmn 3 7

------------------------------------------------------------

No of swaps : 2

No of comparisons : 8

No of iterations : 2

Time taken by the program: 333 microseconds

Enter your choice

1 : Add student record.

2 : Display the record of student.

3 : Display student database.

4 : Search the student by name.

5 : Search the student by SGPA.

6 : Sort students by name and view list.

7 : Sort students by roll no and view list.

8 : Sort students by CGPA and view list.

9 : exit.

8

--------------------RECORD OF STUDENTS----------------------

Name Roll No SGPA

------------------------------------------------------------

Sr no. 1 abc 2 9

------------------------------------------------------------

------------------------------------------------------------

Sr no. 2 xyz 1 8

------------------------------------------------------------

------------------------------------------------------------

Sr no. 3 lmn 3 7

------------------------------------------------------------

No of swaps : 1

No of comparisons : 3

No of iterations : 1

Time taken by the program: 377 microseconds

Enter your choice

1 : Add student record.

2 : Display the record of student.

3 : Display student database.

4 : Search the student by name.

5 : Search the student by SGPA.

6 : Sort students by name and view list.

7 : Sort students by roll no and view list.

8 : Sort students by CGPA and view list.

9 : exit.

9