Programming Practice Lab

Assignment 7

CO5: Understand and utilize STL classes in C++

1. Create an array of student objects (containing roll, name, name and score) whose size may vary dynamically once objects are added or removed, randomly elements may be accessed, one can find number of objects in the list, one can find the student with highest score, find the students with a substring in their name and also without a substring in the name. Take the help of suitable STL classes.

2. Create an array of student objects where along with the support mentioned in Q.1, one can remove an object with specific roll, sort the collection in the descending order and show the same; two student collections can also be combined. Take the help of suitable STL class.

3. Students come to mark sheet collection desk and are served in first come first served basis. Implement the scenario. Take the help of suitable STL class.

4. Maintain a container of students where they are kept in the descending order of their scores. Take the help of suitable STL class.

5. Store the roll and score of the students in a map in the sorted order of roll. One should be able to retrieve the score for a given roll. Take the help of suitable STL class.