* Object Oriented Programming (OOP) - Practical Number - 7 (Group - C)

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Title :-

Demonstration of STL for Sorting and Searching with user-defined records such as Item Record.

Objective :-

1) To learn and understand concepts of Standard Template Library.
2) To demonstrate STL for implemention of sorting and searching operations

Problem Statement :-

Write C++ program using STL for sorting and searching user defined records such as Item records using vector container.

Outcomes :-

1) Student will be able to learn and understand concepts of STL.
2) Student will be able to demonstrate various operations for Sorting and searching using STL.

Hardware requirement :-

Any CPU with Pentium Processor or similar, 256 MB RAM or more, 1 GB Hard Disk or more.

Software Requirement :-
64 bit linux / Windows Operating System, G++ compiler.

Theory :-
The C++ STL (Standard Template Library) is a powerful set of C++ template classes to provide general-purposed templatized classes and function that implement many popular and commonly

"With this, we are almost ready to translate the example shown above to find the highest value in an array, using the STL tools. I will first present the implementation, and then explain the details:

```
vector<int>:: iterator current = value.begin();
int high =* current++;
while ( current != value.end())
{
if (* current > high)
{
high =* current.
}
current++;
}
```

Algorithm :-

1) A vector container is used as STL.
2) It supports a random access iterator provides an efficient implementation for frequently used operations.
3) Use random access iterator for accessing vector elements.
4) If we want to sort the elements of use algorithm sort.
5) For searching find it give location of specified element.

Conclusion :-

We have successfully implemented vector container using STL for searching and sorting data.