C++ Standard Template Library (STL)

STL is a set of C++ template classes which provides common programming ***data structures*** and ***functions*** such as lists, stacks, arrays, etc.

It is a library that contains 3 well-structured components containers, algorithms, and iterators.

1. **Containers:**
   (https://www.geeksforgeeks.org/containers-cpp-stl/)
   - These are used to manage collections of objects of a particular type.
   - Container library in STL provides containers that are used to create data structures like arrays, linked lists, trees, etc.
   - These containers are generic, they can store elements of any data types.
2. **Algorithms:**
   (https://www.geeksforgeeks.org/algorithms-library-c-stl/)
   - Algorithms act on containers. These provide the means by which one can perform initialization, sorting, searching & transforming of containers' contents.
   - Algorithm library contains built in functions that performs complex algorithms on the data structures. Example: ***reverse()*** function, ***sort()*** function, ***binary_search()***, etc.
   - The algorithm library provides ***abstraction***, i.e. you need not know about how these algorithms work.
3. **Iterators:**
   (https://www.geeksforgeeks.org/iterators-c-stl/)
   - These are used to interact with the elements of collections of objects. These collections may be containers or subsets of it.
   - Iterators in STL are used to point to the containers.
   - Iterators act as a bridge between containers & algorithms.