

C++ Programming

STL Notes

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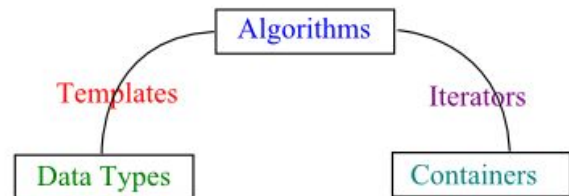
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STL

- STL: Implemented very efficient data structures to directly use
 - They are called containers
 - Learning them = makes studying data structures course easier
 - Using templates: Generic containers
- STL also provides set of algorithms to act on these containers



1. **Templates**
make **algorithms** independent of the **data types**
2. **Iterators**
make **algorithms** independent of the **containers**

Notes

- Speed
 - Vector, Queue, Deque are fast. Unordered set is fast, but not like them.
 - Any erase/find operation is slow (except erase on average Unordered set)
 - Set/Multiset/Map are slow. Don't use unless good reason
- In Practice
 - Vector is one of the most used DS.
 - Initialize with capacity if possible. Push_back is slow
 - Set & Map are next in use
 - Set can do what priority queue does, but opposite is not true
- Google is your friend
 - When you want specific feature
 - When facing an error. The more complex logic, the more errors, till you learn
 - Code step by step and compile. Google error messages

“Acquire knowledge and impart it to the people.”

“Seek knowledge from the Cradle to the Grave.”