Csci335 midterm topics:

1. Makefile (41 lines) and g++:  
   <https://www3.ntu.edu.sg/home/ehchua/programming/cpp/gcc_make.html>
2. Iterators: for template classes: vectors, array, and list(doubly linkedlist) and unordered map(find.(), key is the input). In the context of the 4, erasing, iterating and insert.

Standard Template Library: has a collection of containers include vectors, array and list

Small coding question, go through a vector and increment every element by 3.  
No codes from project, just the makefile

1. Smart pointers: (no lambda, no mutex): unique pointers and shared pointers,
2. Big-O – upper bound

Big-Omega – lower bound

Big-Theta - average bound, exact bound

Little-o(): strictly smaller than worst.

Little-omega(): strictly larger than best

4n3+7n+7  
https://www.wolframalpha.com/input?i=log%5E2n+vs+log%28log%28n%29%29+from+0+to+1000

The complexity hierarchy of the functions: