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Report about Stack in STL

1. Introduction:

Stack are type of container adopter, LIFO (Last in First Out). Insert at the end and extract from the first element.

Stack have template so that we can use multiple data type for each stack.

Template: <class T, class Container = deque<T> > class stack;

T is type of elements. Ex: int, string, char…

Container is the structure to store the data of the stack. The standard container used is vector, deque, list to store the data. By default, stack use deque as a default type.

2. Function:
   a. bool empty() const:

Boolean function, return whether stack is empty.

   b. Size_type size() const:

Function return number of elements in the stack, return type based on the store data.

   c. Reference top():

Return a reference of the last element in the stack.

   d. void push(value_type&& val):

Insert at the top of the stack.

   e. void emplace(Args&&… args):

Insert at the top of the stack, element is construct at argument.

   f. void pop():

Remove the top element of the stack.

   g. void swap(stack& x);

Swap element of two stacks

3. Operators:

==, !=, <, <=, >, >=