// vector hum usse kehte h jiska vector ka memory full hojata h wo apna memory double kr leta h..

#include<iostream>

#include<vector>

using namespace std;

int main(){

vector<int> v;

cout<<"capacity "<<v.capacity()<<endl;

// push\_back is for assign a value and add an element.

v.push\_back(1);

cout<<"capacity "<<v.capacity()<<endl;

v.push\_back(2);

cout<<"capacity "<<v.capacity()<<endl;

v.push\_back(3);

cout<<"capacity "<<v.capacity()<<endl;

cout<<"size "<<v.size()<<endl;

cout<<"element at 2nd index "<<v.at(2)<<endl;

// front use for 1st element.

// back use for last element.

cout<<"front "<<v.front()<<endl;

cout<<"back "<<v.back()<<endl;

// pop\_back use for delete the last element .

cout<<"before pop "<<endl;

for(int i:v){

cout<<i<<" "<<endl;

}

v.pop\_back();

cout<<"after pop "<<endl;

for(int i:v){

cout<<i<<" " <<endl;

}

// in case of clear the vector only size will 0 and capacity remins unchange.

cout<<"before clear "<<v.size()<<endl;

v.clear();

cout<<"after clear "<<v.size()<<endl;

}