```
#include <iostream>

#include<list>

using namespace std;

int main()

{

            list<int> l;

            l.push_back(10);

            l.push_back(20);

            l.push_back(30);

            l.push_back(40);

            l.push_back(50);

            list<int>::iterator itr;

            for(itr=l.begin();itr!=l.end();itr++)

  {

            cout<<*itr<<endl;


}

            cout<<"Size"<<l.size()<<endl;

            l.clear();

            cout<<"Size"<<l.size()<<endl;

            return 0;

}
```

```
#include <iostream>

#include <list>

using namespace std;


void showTheContent(list<int> l)

{
    list<int>::iterator it;
     for(it=l.begin();it!=l.end();it++)
   {
      cout <<  *it << " ";
   }
   cout << "\n";
}
int main()
{

   list<int> list1,list2;
   int i;
   // inserting at the back
   for(i=0;i<10;i++)
    list1.push_back(i+1);

   //inserting at the front
   for(i=0;i<10;i++)
    list2.push_front(i+1);

   cout << "Content of List 1: ";
   showTheContent(list1);
   cout << "Content of list 2: ";
   showTheContent(list2);

   // sorting the second list
   list2.sort();
   cout << "Sorted List2 : ";
   showTheContent(list2);

   //Removing five elements from front in list1.
```

```
int times = 5;
while(times--)
{
   list1.pop_front();
}
cout << "Content of List 1: " ;
showTheContent(list1);
//Removing five elements from the back in list2.
times=5;
while(times--)
{
   list2.pop_back();
}
cout << "Content of List 2: ";
showTheContent(list2);

 //seek the first element of list 1
 cout << list1.front() << " is now at the front in list 1\n";
 // seek the last element in list 2
 cout << list2.back() << " is now the last element in list 2\n";

 //Inserting elements in list 1.
 list1.insert(list1.begin(),5,10);
 cout << "After Insertion list 1: ";
 showTheContent(list1);

 //remove() to remove all the elements with value 10.
 list1.remove(10);

 cout << "After Removal list 1: ";
 showTheContent(list1);
```

```
    // size() to know the number of elements
    cout << "No. of elements in list 1: ";
    cout << list1.size() << "\n";

    //Reversing the content of list 2
    list2.reverse();
    cout << "Reversed list 2: ";
    showTheContent(list2);

    //erasing first element of list 2
    list2.erase(list2.begin());
    cout << "After erasing from list 2: ";
    showTheContent(list2);

    //Removing all elements from list 1.
    list1.clear();
    // Use of empty() function
    if(list1.empty()) cout << "List 1 is now empty\n";
    else cout << "Not Empty\n";

    // use of assign function
    list1.assign(5,2); // 2 2 2 2 2
    cout << "List 1: ";
    showTheContent(list1);



    return 0;
}
```

```
#include <iostream>
```

```
#include <list>

using namespace std;

//function for printing the elements in a list
void showlist(list <int> g)
{
    list <int> :: iterator it;
    for(it = g.begin(); it != g.end(); ++it)
        cout << '\t' << *it;
    cout << '\n';
}

int main()
{

    list <int> gqlist1, gqlist2;


    for (int i = 0; i < 10; ++i)
    {
        gqlist1.push_back(i * 2);
        gqlist2.push_front(i * 3);
    }
    cout << "\nList 1 (gqlist1) is : ";
    showlist(gqlist1);

    cout << "\nList 2 (gqlist2) is : ";
    showlist(gqlist2);

    cout << "\ngqlist1.front() : " << gqlist1.front();
    cout << "\ngqlist1.back() : " << gqlist1.back();

    cout << "\ngqlist1.pop_front() : ";
    gqlist1.pop_front();
    showlist(gqlist1);

    cout << "\ngqlist2.pop_back() : ";
    gqlist2.pop_back();
    showlist(gqlist2);

    cout << "\ngqlist1.reverse() : ";
    gqlist1.reverse();
    showlist(gqlist1);

    cout << "\ngqlist2.sort(): ";
    gqlist2.sort();
    showlist(gqlist2);

    return 0;

}
```