Q1. List functions in C++ STL (Standard Template Library)

#include <iostream>

#include <list>

using namespace std;

int main()

{

list <int> l;

cout<<"insert element -> ";

l.push\_back(10);

l.push\_back(20);

l.push\_back(30);

for(int x : l) cout<<x<<" ";

cout<<endl;

cout<<"insert element in front -> "<<"40 50 60"<<endl;

l.push\_front(40);

l.push\_front(50);

l.push\_front(60);

cout<<"pop element from back -> 30"<<endl;

l.pop\_back();

cout<<endl<<"print list - > ";

for(int x : l) cout<<x<<" ";

}

Q2. Assign the elements to the list (different methods) - Example of list::assign() | C++ STL

#include <iostream>

#include <list>

#include <iterator>

using namespace std;

int main()

{

list <int> l;

l.push\_back(10);

l.push\_front(20);

list <int >::iterator it = l.begin();

advance(it, 1);

l.insert(it, 99);

for(int x : l) cout<<x<<" ";

cout<<endl<<"after assign function : ";

l.assign(3, 4);

for(int x : l) cout<<x<<" ";

}

Q3. Iterate a list C++ STL

#include <iostream>

#include <list>

#include <iterator>

using namespace std;

int main()

{

list <int> l = {10, 9, 8, 7, 6, 5, 4, 3, 2, 1};

list <int>::iterator it = l.begin();

while( it != l.end())

{

cout<<\*it<<" ";

it++;

}

}

Q4. Iterate a list in reverse order C++ STL\*

#include <iostream>

#include <list>

#include <iterator>

using namespace std;

int main()

{

list <int> f ={10, 20, 30, 40, 50};

list <int>::iterator it = f.end();

do

{

--it;

cout<<\*it<<" ";

}while(it != f.begin());

}

Q5. Input and add elements to a list C++ STL

#include <iostream>

#include <list>

using namespace std;

int main()

{

list <int> f;

int ch = 0;

for(int i = 0; i < 5; i++)

{

cin>>ch;

f.push\_back(ch);

}

cout<<endl;

for(int x : f) cout<<x<<" ";

}

Q6. Get the first and last element of the list C++ STL

#include <iostream>

#include <list>

using namespace std;

int main()

{

list <int> f1 = {10, 20, 30, 40, 50};

cout<<"front = "<<f1.front();

cout<<endl<<"back = "<<f1.back();

}

Q7. Insert the element at beginning and end of the list | C++ STL

#include <iostream>

#include <list>

#include <iterator>

using namespace std;

int main()

{

list <int> l = {3, 2, 9};

l.push\_front(10);

l.push\_back(20);

for(int x: l)

{

cout<<x<<" ";

}

}