//SE 47 (List)

#include<iostream>

#include<list>

using namespace std;

void showlist(list<int> a)

{

list <int> :: iterator i;

cout<<": LIST :"<<endl;

for( i = a.begin() ; i != a.end() ; ++i)

{

cout<<" "<<\*i<<" ";

}

cout<<endl;

}

void deletelist(list<int> b)

{

list<int> :: iterator i;

cout<<"ENTER THE NUMBER TO BE DELETED :";

int num;

cin>>num;

for( i = b.begin() ; i != b.end() ; ++i)

{

if(\*i == num)

{

cout<<\*i<<" HAS BEEN DELETED"<<endl;

i = b.erase(i);

}

}

cout<<": EDITED LIST :"<<endl;

for( i = b.begin() ; i != b.end() ; ++i)

{

cout<<" "<<\*i<<" ";

}

cout<<endl;

}

int main()

{

list <int> l1;

int c1,c2;

int n;

char ch1,ch2;

do{

cout<<"\_\_\_\_\_\_\_LISTS\_\_\_\_\_\_\_"<<endl;

cout<<"1. SINGLY LINKED LIST. "<<endl;

cout<<"2. DOUBLY LINKED LIST. "<<endl;

cout<<"3. CIRCULAR LINKED LIST. "<<endl;

cout<<endl;

cout<<"ENTER YOUR CHOICE : ";

cin>>c1;

switch(c1)

{

case 1 : do{

cout<<"1. INSERT IN THE LIST."<<endl;

cout<<"2. DELETE FROM THE LIST. "<<endl;

cout<<"3. REVERSE LIST."<<endl;

cout<<"4. SORTING. "<<endl;

cout<<"5. DISPLAY LIST. "<<endl;

cout<<endl<<"ENTER YOUR CHOICE : ";

cin>>c2;

switch(c2)

{

case 1 : cout<<"ENTER THE ELEMENT : ";

cin>>n;

l1.push\_back(n);

break;

case 2 : deletelist(l1);

break;

case 3 : cout<<"REVERSED LIST "<<endl;

l1.reverse();

showlist(l1);

break;

case 4 : cout<<"SORTED LIST "<<endl;

l1.sort();

showlist(l1);

break;

case 5: showlist(l1);

break;

default: coot<<"\_\_WRONG CHOICE\_\_"<<endl;

}

cout<<"DO YOU WISH CONTINUE : ";

cin>>ch1;

}while(ch1=='y' ||ch1=='Y');

break;

case 2 : do{

cout<<"1. INSERT FROM FRONT."<<endl;

cout<<"2. INSERT FROM BACK ."<<endl;

cout<<"3. DELETE FROM FRONT. "<<endl;

cout<<"4. DELETE FROM BACK . "<<endl;

cout<<"5. REVERSE LIST."<<endl;

cout<<"6. SORTING. "<<endl;

cout<<endl<<"ENTER YOUR CHOICE : ";

cin>>c2;

switch(c2)

{

case 1 : cout<<"ENTER THE ELEMENT : ";

cin>>n;

l1.push\_front(n);

break;

case 2 : cout<<"ENTER THE ELEMENT : ";

cin>>n;

l1.push\_back(n);

break;

case 3 : cout<<l1.front()<<" HAS BEEN DELETED "<<endl;

l1.pop\_front();

break;

case 4 : cout<<l1.back()<<" HAS BEEN DELETED "<<endl;

l1.pop\_back();

break;

case 5 : cout<<": REVERSED LIST :"<<endl;

l1.reverse();

showlist(l1);

break;

case 6 : cout<<": SORTED LIST :"<<endl;

l1.sort();

showlist(l1);

break;

default: cout<<"\_\_WRONG CHOICE\_\_"<<endl;

}

cout<<"DO YOU WISH CONTINUE : ";

cin>>ch1;

}while(ch1=='y' ||ch1=='Y');

break;

case 3 : do{

cout<<"1. INSERT FROM FRONT."<<endl;

cout<<"2. INSERT FROM BACK ."<<endl;

cout<<"3. DELETE FROM FRONT. "<<endl;

cout<<"4. DELETE FROM BACK . "<<endl;

cout<<"5. REVERSE LIST."<<endl;

cout<<"6. SORTING. "<<endl;

cout<<endl<<"ENTER YOUR CHOICE : ";

cin>>c2;

switch(c2)

{

case 1 : cout<<"ENTER THE ELEMENT : ";

cin>>n;

l1.push\_front(n);

break;

case 2 : cout<<"ENTER THE ELEMENT : ";

cin>>n;

l1.push\_back(n);

break;

case 3 : cout<<l1.front()<<" HAS BEEN DELETED "<<endl;

l1.pop\_front();

break;

case 4 : cout<<l1.back()<<" HAS BEEN DELETED "<<endl;

l1.pop\_back();

break;

case 5 : cout<<": REVERSED LIST :"<<endl;

l1.reverse();

showlist(l1);

break;

case 6 : cout<<": SORTED LIST :"<<endl;

l1.sort();

showlist(l1);

break;

default: cout<<"\_\_WRONG CHOICE\_\_"<<endl;

}

cout<<"DO YOU WISH CONTINUE : ";

cin>>ch1;

}while(ch1=='y' ||ch1=='Y');

break;

}

cout<<": PRESS Y TO GO BACK TO MAIN MENU : ";

cin>>ch2;

}while(ch2=='y'||ch2=='Y');

return 0;

}

\_\_\_\_\_\_\_LISTS\_\_\_\_\_\_\_

1. SINGLY LINKED LIST.

2. DOUBLY LINKED LIST.

3. CIRCULAR LINKED LIST.

ENTER YOUR CHOICE : 1

1. INSERT IN THE LIST.

2. DELETE FROM THE LIST.

3. REVERSE LIST.

4. SORTING.

5. DISPLAY LIST.

ENTER YOUR CHOICE : 1

ENTER THE ELEMENT : 1

DO YOU WISH CONTINUE : y

1. INSERT IN THE LIST.

2. DELETE FROM THE LIST.

3. REVERSE LIST.

4. SORTING.

5. DISPLAY LIST.

ENTER YOUR CHOICE : 1

ENTER THE ELEMENT : 2

DO YOU WISH CONTINUE : y

1. INSERT IN THE LIST.

2. DELETE FROM THE LIST.

3. REVERSE LIST.

4. SORTING.

5. DISPLAY LIST.

ENTER YOUR CHOICE : 3

REVERSED LIST

: LIST :

2 1

DO YOU WISH CONTINUE : y

1. INSERT IN THE LIST.

2. DELETE FROM THE LIST.

3. REVERSE LIST.

4. SORTING.

5. DISPLAY LIST.

ENTER YOUR CHOICE : 1

ENTER THE ELEMENT : 3

DO YOU WISH CONTINUE : y

1. INSERT IN THE LIST.

2. DELETE FROM THE LIST.

3. REVERSE LIST.

4. SORTING.

5. DISPLAY LIST.

ENTER YOUR CHOICE : 5

: LIST :

2 1 3

DO YOU WISH CONTINUE : y

1. INSERT IN THE LIST.

2. DELETE FROM THE LIST.

3. REVERSE LIST.

4. SORTING.

5. DISPLAY LIST.

ENTER YOUR CHOICE : 2

ENTER THE NUMBER TO BE DELETED :1

1 HAS BEEN DELETED

: EDITED LIST :

2 3

DO YOU WISH CONTINUE : y

1. INSERT IN THE LIST.

2. DELETE FROM THE LIST.

3. REVERSE LIST.

4. SORTING.

5. DISPLAY LIST.

ENTER YOUR CHOICE : 4

SORTED LIST

: LIST :

1 2 3

DO YOU WISH CONTINUE : n

: PRESS Y TO GO BACK TO MAIN MENU : n