#include <iostream>

#include <string>

using namespace std;

struct node

{

int music\_id;

string musicName;

float album\_price;

string music\_composer;

struct node \*next;

};

node \*head = 0;

void insert\_first()

{

node \*newnode = new node;

cout << "Enter music ID: ";

cin >> newnode->music\_id;

cout << "Enter music Name: ";

cin >> newnode->musicName;

cout << "Enter the price of music album: ";

cin >> newnode->album\_price;

cout << "Enter name of music composer: ";

cin >> newnode->music\_composer;

newnode->next = head;

head = newnode;

cout << "music recorded at the first position." << endl;

}

void insert\_last()

{

node \*newnode = new node;

cout << "Enter music ID: ";

cin >> newnode->music\_id;

cout << "Enter music Name: ";

cin >> newnode->musicName;

cout << "Enter music\_album price: ";

cin >> newnode->album\_price;

cout << "Enter name of music composer: ";

cin >> newnode->music\_composer;

node \*temp = head;

while (temp->next != 0)

{

temp = temp->next;

}

temp->next = newnode;

newnode->next = 0;

cout << "Donation recorded at the last position." << endl;

}

void insert\_at\_position()

{

int pos = 0, count = 0, i = 0;

cout << "Enter the position where you want to add :";

cin >> pos;

node \*temp = head;

while (temp != 0)

{

temp = temp->next;

count++;

}

if (pos > count)

{

cout << "Invalid Position" << endl;

}

else

{

temp = head;

while (pos < 0 || pos > count)

{

temp = temp->next;

i++;

}

}

node \*newnode = new node;

cout << "Enter music ID: ";

cin >> newnode->music\_id;

cout << "Enter music Name: ";

cin >> newnode->musicName;

cout << "Enter music\_album price: ";

cin >> newnode->album\_price;

cout << "Enter name of music composer: ";

cin >> newnode->music\_composer;

temp = head;

for (int i = 0; i < pos - 1; i++)

{

temp = temp->next;

}

newnode->next = temp->next;

temp->next = newnode;

cout << "Music recorded at position " << pos << "." << endl;

}

void display()

{

node \*temp = head;

cout << "Id\tName\tPrice" << endl;

while (temp != 0)

{

cout << temp->music\_id << "\t\t" << temp->musicName << "\t\t" << temp->album\_price << "\t\t" << temp->music\_composer << endl;

temp = temp->next;

}

}

void delete\_first()

{

if (head == 0)

{

cout << "list is empty" << endl;

}

else

{

node \*temp = head;

head = head->next;

delete temp;

cout << "Donation deleted from the first position." << endl;

}

}

void delete\_last()

{

struct node \*prenode;

node \*temp = head;

while (temp->next != 0)

{

prenode = temp;

temp = temp->next;

}

prenode->next = 0;

delete temp;

cout << "Music deleted from the last position." << endl;

}

void delete\_at\_position()

{

struct node \*nextnode;

int pos = 0, i, count = 0;

node \*temp = head;

cout << "Enter the position where you want to add :";

cin >> pos;

while (temp != 0)

{

temp = temp->next;

count++;

}

if (pos > count)

{

cout << "Invalid Position" << endl;

}

else

{

temp = head;

while (i < pos)

{

temp = temp->next;

i++;

}

}

temp = head;

for (int i = 0; i < pos - 1; i++)

{

temp = temp->next;

}

nextnode = temp->next;

temp->next = nextnode->next;

delete nextnode;

cout << "Music recorded deleted at position " << pos << "." << endl;

}

int main()

{

int ch, k, n;

do

{

cout << "Menu\n1.Insert at first\n2.Insert at last\n3.Insert at position\n4.Delete at first\n5.Delete at last\n6.Delete at position\n7.Display\nExite\nEnter your choice:";

cin >> ch;

switch (ch)

{

case 1:

insert\_first();

break;

case 2:

insert\_last();

break;

case 3:

insert\_at\_position();

break;

case 4:

delete\_first();

break;

case 5:

delete\_last();

break;

case 6:

delete\_at\_position();

break;

case 7:

display();

break;

case 8:

default:

cout << "Wrong choice" << endl;

}

cout << "if you want to continue enter 1:";

cin >> k;

} while (k == 1);

}

Output: