**ASSIGNMWNT TOPIC: ARRAY OPERATIONS**

**SOLVED BY NABEELA FAREED**

#include<iostream>

#include<conio.h>

#include<string.h>

using namespace std;

class block

{

char cnic[30];

char student\_name[30];

char fname[30];

char roll\_number[30];

char classs[30];

char date[30];

char date2[30];

public:

block()

{

first=NULL;

strcpy(date,"Not Entered");

strcpy(cnic,"Not Entered");

strcpy(student\_name,"Not Entered");

strcpy(fname,"Not Entered");

strcpy(roll\_number,"Not Entered");

strcpy(classs,"Not Entered");

strcpy(date,"Not Entered");

strcpy(date2,"Not Entered");

}

void enter(); //==== this function for takes input

void display(); //==== this function for display data

void enter2(); //==== this function for takes input

void link(); //==== this function for links the nodes

void dlink(); //==== this function for delete nodes

void delet();

void sins();

int check(char \*,char \*);

int fdis();

void manu(); //==== this function for dispaly manue

block \*next,\*first; //==== these are pointers

};

int main()

{

block a;

for(int i=2;i>=2;i++)

{

a.manu();

int b;

cin>>b;

cin.ignore();

if(b==1)

{

a.link();

cout<<"\n\n\t\t\tData Is Entered Successfully";

cout<<"\n\n\t\t\t\tEnter Any Key";

getch();

}

else if(b==2)

{

a.dlink();

cout<<"\n\n\t\t\tEnter Any Key";

getch();

}

else if(b==3)

{

a.delet();

cout<<"\n\n\t\t\t\tEnter Any Key";

getch();

}

else if(b==4)

{

a.sins();

cout<<"\n\n\t\t\t\tEnter Any Key";

getch();

}

else if(b==5)

{

i=0;

}

else

{

cout<<"\n\n\n\\t\t\tInvalid Choice ";

}

}

}

//==================================== Functions ================================

//---------------------------------Set one--------------------------------------------

void block::link()

{

block \*one,\*two;

if(first==NULL)

{

first=new block;

first->enter();

first->next=NULL;

}

else

{

one=first;

while(one->next!=NULL)

{

one=one->next;

}

two=new block;

two->enter();

two->next=NULL;

one->next=two;

}

}

void block::enter()

{

cout<<"\n\n\n\n\t\t\t---------------------> New Student Record <---------------------";

cout<<"\n\n\n\t\t\t Enter student CNIC number : ";

cin.getline(cnic,30);

cout<<"\n\n\n\t\t\t Enter student Name : ";

cin.getline(student\_name,30);

cout<<"\n\n\n\t\t\t Enter student Father Nam1e : ";

cin.getline(fname,30);

cout<<"\n\n\n\t\t\t Enter student roll\_number : ";

cin.getline(roll\_number,30);

cout<<"\n\n\n\t\t\t Enter student class name : ";

cin.getline(classs,30);

}

//---------------------------------Set two--------------------------------------------

//---------display Function-------------

void block::display()

{

cout<<"\n\n\n\t\t\t---------------------> student Info <---------------------";

cout<<"\n\n\t\t\tCNIC Number ----> "<<cnic;

cout<<"\n\n\t\t\tStudent Name ----> "<<student\_name;

cout<<"\n\n\t\t\tFtaher Name ----> "<<fname;

cout<<"\n\n\t\t\tstudent roll\_number ----> "<<roll\_number;

cout<<"\n\n\t\t\tEnter Student class name ----> "<<classs;

cout<<"\n\n\n\t\t\t---------------------> \*\*\*\*\*\*\*\*\*\*\*\*\* <---------------------";

}

//---------display LINK Function-------------

void block::dlink()

{

block \*men;

men=first;

if(men==NULL)

{

cout<<"\n\n\n\t\t\tNo Record Found ";

}

else

{

while(men!=NULL)

{

men->display();

men=men->next;

}

}

}

//---------------------------------Set two--------------------------------------------

//---------------------------------Set one--------------------------------------------

//---------delete Function-------------

void block::delet()

{

int ch=0;

block \*one,\*two;

int con1,con;

char cn[30];

cout<<"\n\n\n\t\t\tEnter student CNIC number for delete : ";

cin.getline(cn,30);

two=first;

if(two==NULL)

{

cout<<"\n\n\n\t\t\tNo record Present ";

}

if(!strcmp(cn,two->cnic))

{

dlink();

cout<<"\n\n\n\t\t\tPress one For Conferm AND 0 for Skip : ";

int conf;

cin>>conf;

if(conf==1)

{

first=two->next;

delete two;

cout<<"\n\n\n\t\t\tYour Data Is Deleted Successfully ";

}

}

else

{

one=two;

while(two!=NULL)

{

con=check(cn,two->cnic);

if(con==1)

{

dlink();

cout<<"\n\n\n\t\t\tPress 1 For Conferm AND 0 for Skip : ";

int conf;

cin>>conf;

if(conf==1)

{

ch=1;

one->next=two->next;

delete two;

cout<<"\n\n\n\t\t\tYour Data Is Deleted Successfully ";

}

else

{

break;

}

}

else if(con==0)

{

one=two;

two=two->next;

}

}

if(ch==0)

{

cout<<"\n\n\n\t\t\tNo Record Deletd ";

}

}

}

//---------delete Check Function-------------

int block::check(char \*num1,char \*num2)

{

int i=0;

if(!strcmp(num1,num2))

{

i=1;

}

return(i);

}

//---------------------------------Set three --------------------------------------------

void block::sins()

{

int h=0;

block \*one,\*two,\*three;

if(first==NULL)

{

cout<<"\n\n\n\t\t\tNo noods are Present ";

}

else

{

cout<<"\n\n\n\t\t\tChoce 1 ---> for Insert Node at first \n\n\t\t\t2 ---> forInsert Node after any other node : ";

int abc;

cin>>abc;

cin.ignore();

if(abc==1)

{

one=first;

two=new block;

two->enter();

two->next=one;

first=two;

}

else if(abc==2)

{

cout<<"\n\n\n\t\t\tEnter a CNIC number of node for adding a node after that record : ";

char xyz[30];

cin.getline(xyz,30);

one=first;

while(one!=NULL)

{

int ch=check(xyz,one->cnic);

cout<<ch;

if(ch==1)

{

h=1;

two=one->next;

three=new block;

three->enter();

three->next=two;

one->next=three;

}

one=one->next;

if(h==0)

{

cout<<"\n\n\n\t\t\t No Such Record Foound : ";

}

}

}

}

}

int block::fdis()

{

cout<<"\n\n\t\t -------------------> Student Regestration Program <-------------------";

}

void block::enter2()

{

cout<<"\n\n\n\t\t\t Enter Check Out roll\_number : ";

cin.getline(classs,30);

cout<<"\n\n\n\t\t\t Enter Check Out date : ";

cin.getline(date2,30);

}

void block::manu()

{

system("cls");

fdis();

cout<<"\n\n\n\t\t\tEnter 1 -----> for Enter Data... "<<"\n\n\n\t\t\tEnter 2 -----> for Display All... "

<<"\n\n\n\t\t\tEnter 3 -----> for Delete Record... "

<<"\n\n\n\t\t\tEnter 4 -----> for Enter Record Manully... "

<<"\n\n\n\t\t\tEnter 5 -----> for Exit... "<<"\n\n\n\t\t\t Chice : ";

}