//============================================================================

// Name : ASSI6.cpp

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// Version :

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// Description : Hello World in C++, Ansi-style

//============================================================================

#include <iostream>

#include <cstdlib>

#include <string.h>

using namespace std;

int key=10;

class node

{

public:

char n[30];

char mean[30];

node \*next;

node()

{

next=NULL;

}

friend class hashing;

};

class hashing

{

public:

node \*head[10];

node \*ptr[10];

hashing()

{z

{

for(int i=0;i<10;i++)

{

node \*temp = head[i];

while(temp!=NULL)

{

cout<<temp->n;

if(temp->next!=NULL)

{

cout<<"->";

}

temp =temp->next;

}

cout<<endl;

}

}

};

void hashing::del()

{

char no[30];

cout<<"\nEnter the value to be deleted: ";

cin>>no;

int i = search(no);

if(i==12)

{

cout<<"\nValue Not Found\n";

}

else

{

node \*temp=head[i];

node \*s;

while(temp->next!=NULL && temp->n!=no)

{

s=temp;

temp=temp->next;

}

s->next = temp->next;

delete(temp);

}

}

void hashing:: insert()

{

char no[30];

char m[30];

cout<<"\nEnter the Word\n";

cin>>no;

cout<<"\nEnter the Mean\n";

cin>>m;

int l = strlen(no);

int index = l%key;

ptr[index] = new node();

strcpy(ptr[index]->n,no);

strcpy(ptr[index]->mean,m);

if(head[index]==NULL)

{

head[index]=ptr[index];

head[index]->next = NULL;

}

else

{

ptr[index]->next = head[index]->next;

head[index]->next = ptr[index];

}

}

int hashing ::search(char no[])

{

int flag=0;

int l = strlen(no);

int index = l%key;

node \*temp = head[index];

if(temp!=NULL)

{

while(temp!=NULL && temp->n!=no)

{

flag=1;

temp = temp->next;

}

}

else

{

flag=0;

}

if(flag==1)

{

return index;

}

else

{

cout<<"\nValue Not Found\n";

return 12;

}

}

int main()

{

hashing h;

char no[30];

int c;

int index;

while(1)

{

cout<<"\n1.Insert\n\n2.Search\n\n3.Delete\n\n4.Exit";

cout<<"\nEnter Your Choice\n";

cin>>c;

switch(c)

{

case 1:h.insert();

break;

case 2:

h.display();

cout<<"\nEnter The Word\n";

cin>>no;

index = h.search(no);

if(index!=12)

cout<<"\nData Found at Index : "<<index<<endl;

break;

case 3:

h.del();

break;

case 4:

exit(0);

break;

}

}

}