***Assignment No. 4A***

Problem Statement 6.

Create a Database using array of structures and perform following operations on it:

I. Create Database II. Display Database

III. Add record IV. Search record

V. Modify record VI. Delete record

ROLL NO.66

Batch: - S3

#include <stdio.h>

#include <string.h>

#include<stdlib.h>

typedef struct employee

{

int code;

char name[20];

int salary;

}employee;

void read(employee st[],int n);

void insert(employee st[],int position,int n);

void Delete(employee st[],int position,int n);

int search(employee st[],int code,int n);

void print(employee st[],int n);

void sort(employee st[],int n);

void modify(employee st[],int n);

int main()

{

employee st[30];

int n,i,ch,position,code;

do

{

printf("\n\*\*\*\*MENU\*\*\*\*\n1)Create\n2)Insert\n3)Delete\n4)Search");

printf("\n5)Print\n6)Sort\n7)Modify\n8)Quit");

printf("\nEnter Your Choice:");

scanf("%d",&ch);

switch(ch)

{

case 1: printf("\nEnter No. of employees:");

scanf("%d",&n);

read(st,n);

break;

case 2: printf("\n enter the position(no of records=%d):",n);

scanf("%d",&position);

if(position<=n+1)

{

insert(st,position,n);

n++;

print(st,n);

}

else

printf("\n can not insert");

break;

case 3:printf("\n enter the code : ");

scanf("%d",&code);

position=search(st,code,n);

if(position != -1 )

{

Delete(st,position,n);

n--;

print(st,n);

}

else

printf("\n can not delete ");

break;

case 4: printf("\nEnter code:");

scanf("%d",&code);

position=search(st,code,n);

if(position==-1)

printf("\nNot found");

else

{

printf("\n Found at location=%d",position+1);

printf("\n %s\t%d\t%d",st[position].name,st[position].code,st[position].salary);

}

break;

case 5: print(st,n);

break;

case 6: sort(st,n);

print(st,n);

break;

case 7: modify(st,n);

print(st,n);

break;

case 8: exit(0);

break;

default: printf("Invalid choice");

break;

}

}while(ch!=7);

}

void insert(employee st[],int position,int n)

{

int i;

printf("\n enter data(name code salary): ");

for(i=n-1;i>=position-1;i--)

st[i+1]=st[i];

scanf("%s%d%d",st[position-1].name,&st[position-1].code,&st[position-1].salary);

}

void Delete(employee st[],int position,int n)

{

int i;

for(i=position+1;i<n;i++)

st[i-1]=st[i];

}

int search(employee st[],int code,int n)

{

int i;

for(i=0;i<n;i++)

if(code==st[i].code)

return(i);

return(-1);

}

void print(employee st[],int n)

{

int i;

for(i=0;i<n;i++)

printf("\n%20s %5d %5d",st[i].name,st[i].code,st[i].salary);

}

void read(employee st[],int n)

{

int i;

printf("\n enter data(name code salary): ");

for(i=0;i<n;i++)

scanf("%s%d%d",st[i].name,&st[i].code,&st[i].salary);

}

void modify(employee st[], int n)

{

int code,i;

printf("\nEnter the code : ");

scanf("%d",&code);

i=search(st,code,n);

if(i==-1)

printf("\nNo such code available");

else

{

printf("\n enter data(name code salary): ");

scanf("%s%d%d",st[i].name,&st[i].code,&st[i].salary);

}

}

void sort(employee st[],int n)

{ int i,j;

employee temp;

for(i=1;i<n;i++)

for(j=0;j<n-i;j++)

if(st[j].code > st[j+1].code)

{

temp=st[j];

st[j]=st[j+1];

st[j+1]=temp;

}

}

------------OUTPUT------------

\*\*\*\*MENU\*\*\*\*

1)Create

2)Insert

3)Delete

4)Search

5)Print

6)Sort

7)Modify

8)Quit

Enter Your Choice:1

Enter No. of employees:2

enter data(name code salary): Abhishek 1 52000

Ashwin 2 60000

\*\*\*\*MENU\*\*\*\*

1)Create

2)Insert

3)Delete

4)Search

5)Print

6)Sort

7)Modify

8)Quit

Enter Your Choice:2

enter the position(no of records=2):3

enter data(name code salary): Pankaj 4 46000

Abhishek 1 52000

Ashwin 2 60000

Pankaj 4 46000

\*\*\*\*MENU\*\*\*\*

1)Create

2)Insert

3)Delete

4)Search

5)Print

6)Sort

7)Modify

8)Quit

Enter Your Choice:3

enter the code : 4

Abhishek 1 52000

Ashwin 2 60000

\*\*\*\*MENU\*\*\*\*

1)Create

2)Insert

3)Delete

4)Search

5)Print

6)Sort

7)Modify

8)Quit

Enter Your Choice:4

Enter code:2

Found at location=2

Ashwin 2 60000

\*\*\*\*MENU\*\*\*\*

1)Create

2)Insert

3)Delete

4)Search

5)Print

6)Sort

7)Modify

8)Quit

Enter Your Choice:5

Abhishek 1 52000

Ashwin 2 60000

\*\*\*\*MENU\*\*\*\*

1)Create

2)Insert

3)Delete

4)Search

5)Print

6)Sort

7)Modify

8)Quit

Enter Your Choice:6

Abhishek 1 52000

Ashwin 2 60000

\*\*\*\*MENU\*\*\*\*

1)Create

2)Insert

3)Delete

4)Search

5)Print

6)Sort

7)Modify

8)Quit

Enter Your Choice:7

Enter the code : 1

enter data(name code salary): Pankaj 1 55000

Pankaj 1 55000

Ashwin 2 60000