**ACP PROJECT**

**GUNPREET SINGH**

**19BCT0242**

**G1**

**TOPIC: EMPLOYEE RECORD MANAGEMENT**

**CODE:**

**#include<stdio.h>**

**#include<stdlib.h>**

**#include<string.h>**

**FILE \*fp;**

**struct node**

**{**

**int id;**

**char name[20];**

**char gender[10];**

**char designation[10];**

**char address[30];**

**int phone\_number;**

**int salary;**

**struct node \*next;**

**};**

**struct emp**

**{**

**int id1;**

**char n[20];**

**char g[10];**

**char des[10];**

**char ad[30];**

**int p;**

**int s;**

**};**

**struct emp e[100],\*temp1;**

**void readmode()**

**{**

**fp=fopen("temp.txt","r");**

**if(fp==NULL)**

**{**

**printf("Failed to open file.\n");**

**}**

**}**

**void writemode()**

**{**

**fp=fopen("temp.txt","w");**

**if(fp==NULL)**

**{**

**printf("Failed to open file.\n");**

**}**

**}**

**struct node \*head=NULL,\*temp,\*newnode;**

**void create\_node()**

**{**

**newnode=(struct node\*)malloc(sizeof(struct node));**

**printf("Enter the id: ");**

**scanf("%d",&newnode->id);**

**fflush(stdin);**

**printf("Enter the name of employee: ");**

**gets(newnode->name);**

**printf("Enter the gender of the employee: ");**

**gets(newnode->gender);**

**printf("Enter the designation of the employee: ");**

**gets(newnode->designation);**

**printf("Enter the address of the employee: ");**

**gets(newnode->address);**

**fflush(stdin);**

**printf("Enter the phone number of the employee: ");**

**scanf("%d",&newnode->phone\_number);**

**printf("Enter the salary of the employee: ");**

**scanf("%d",&newnode->salary);**

**newnode->next=NULL;**

**if(head==NULL)**

**{**

**head=newnode;**

**}**

**else**

**{**

**temp=head;**

**while(temp->next!=NULL)**

**{**

**temp=temp->next;**

**}**

**temp->next=newnode;**

**}**

**}**

**void print()**

**{**

**temp1=e;**

**int i=0,c=0;**

**readmode();**

**while(!feof(fp))**

**{**

**fscanf(fp,"%d%s%s%s%s%d%d\n",&temp1->id1,temp1->n,temp1->g,temp1->des,temp1->ad,&temp1->p,&temp1->s);**

**printf("ID:%d\t",temp1->id1);**

**printf("NAME:%s\t\t",temp1->n);**

**printf("GENDER:%s\t\t",temp1->g);**

**printf("Designation:%s\t\t",temp1->des);**

**printf("Address:%s\t\t",temp1->ad);**

**printf("Contact Number:%d\t",temp1->p);**

**printf("Salary:%d\n",temp1->s);**

**temp1++;**

**}**

**fclose(fp);**

**}**

**void user()**

**{**

**int i,c=0,ch,n;**

**do{**

**printf("1.Display data\n2.Display a particular employee data\n3.Total number of employees\n4.Switch to administrator account\n5.Exit\n");**

**printf("Enter the choice: ");**

**scanf("%d",&ch);**

**switch(ch)**

**{**

**case 1:**

**{**

**print();**

**break;**

**}**

**case 2:**

**{**

**individual\_data();**

**break;**

**}**

**case 3:**

**{**

**n=counter();**

**printf("Number of employees:%d\n",n);**

**break;**

**}**

**case 4:**

**{**

**administrator();**

**break;**

**}**

**case 5:**

**{**

**exit(0);**

**break;**

**}**

**default:**

**print("Enter a valid input.");**

**}**

**}while(ch!=5);**

**}**

**void writeintofile()**

**{**

**writemode();**

**temp=head;**

**while(temp!=NULL)**

**{**

**fprintf(fp,"%d\t",temp->id);**

**fprintf(fp,"%s\t",temp->name);**

**fprintf(fp,"%s\t",temp->gender);**

**fprintf(fp,"%s\t",temp->designation);**

**fprintf(fp,"%s\t",temp->address);**

**fprintf(fp,"%d\t",temp->phone\_number);**

**fprintf(fp,"%d\t\n",temp->salary);**

**temp=temp->next;**

**}**

**fclose(fp);**

**}**

**void administrator()**

**{**

**int i,c=0,ch,n;**

**do{**

**printf("1.Enter data\n2.Delete a data\n3.Display data\n4.Display a particular employee data\n5.Total number of employees\n6.Switch to user account\n7.Create Backup\n8.Exit\n");**

**printf("Enter the choice: ");**

**scanf("%d",&ch);**

**switch(ch)**

**{**

**case 1:**

**{**

**create\_node();**

**break;**

**}**

**case 2:**

**{**

**delete\_data();**

**break;**

**}**

**case 3:**

**{**

**print();**

**break;**

**}**

**case 4:**

**{**

**individual\_data();**

**break;**

**}**

**case 5:**

**{**

**n=counter();**

**printf("Number of employees:%d",n);**

**break;**

**}**

**case 6:**

**{**

**user();**

**break;**

**}**

**case 7:**

**{**

**writeintofile();**

**break;**

**}**

**case 8:**

**{**

**exit(0);**

**break;**

**}**

**default:**

**print("Enter a valid input.");**

**}**

**}while(ch!=7);**

**}**

**int counter()**

**{**

**int count=0;**

**temp=head;**

**if(head==NULL)**

**{**

**printf("No records found.");**

**}**

**else{**

**while(temp!=NULL)**

**{**

**count++;**

**temp=temp->next;**

**}**

**return count;**

**}**

**}**

**void individual\_data()**

**{**

**int n;**

**printf("Enter the ID: ");**

**scanf("%d",&n);**

**temp=head;**

**while(temp!=NULL)**

**{**

**if(temp->id==n)**

**{**

**printf("ID:%d\t",temp->id);**

**printf("NAME:%s\t",temp->name);**

**printf("GENDER:%s\t",temp->gender);**

**printf("Designation:%s\t",temp->designation);**

**printf("Address:%s\t",temp->address);**

**printf("Contact Number:%d\t",temp->phone\_number);**

**printf("Salary:%d\t",temp->salary);**

**}**

**temp=temp->next;**

**}**

**}**

**int position(int n)**

**{**

**int pos=0;**

**temp=head;**

**if(head==NULL)**

**{**

**printf("The list is empty.");**

**return pos=0;**

**}**

**else**

**{**

**while(temp!=NULL)**

**{**

**pos++;**

**if(temp->id==n)**

**{**

**break;**

**}**

**temp=temp->next;**

**}**

**return pos;**

**}**

**}**

**void delete\_beg()**

**{**

**temp=head;**

**head=head->next;**

**free(temp);**

**}**

**void delete\_end()**

**{**

**struct node \*prevnode;**

**temp=head;**

**while(temp->next!=NULL)**

**{**

**prevnode=temp;**

**temp=temp->next;**

**}**

**prevnode->next=NULL;**

**free(temp);**

**}**

**void delete\_mid(int pos)**

**{**

**struct node \*nextnode;**

**int i=1;**

**temp=head;**

**while(i<pos-1)**

**{**

**temp=temp->next;**

**i++;**

**}**

**nextnode=temp->next;**

**temp->next=nextnode->next;**

**free(nextnode);**

**}**

**void delete\_data()**

**{**

**int n,pos,len;**

**printf("\nEnter the id number of the data to be deleted: ");**

**scanf("%d",&n);**

**pos=position(n);**

**len=counter();**

**if(pos==1)**

**{**

**delete\_beg();**

**}**

**else if(pos==len)**

**{**

**delete\_end();**

**}**

**else**

**{**

**delete\_mid(pos);**

**}**

**writeintofile();**

**}**

**int main()**

**{**

**int ch;**

**do**

**{**

**printf("Welcome to employee record portal.\n");**

**printf("1.User account\n2.Administrator account\n3.Exit portal\n");**

**printf("Enter your choice: ");**

**scanf("%d",&ch);**

**fflush(stdin);**

**switch(ch)**

**{**

**case 1:**

**{**

**user();**

**break;**

**}**

**case 2:**

**{**

**administrator();**

**break;**

**}**

**case 3:**

**{**

**exit(0);**

**break;**

**}**

**default:**

**printf("Invalid input.");**

**}**

**}while(ch!=7);**

**}**