**VARUN KUMAR**

**2K19 / IT /140**

**OOP LAB-2**

Q1. Create two structures called bank\_employee (name, empid, salary, age, city\_of\_work) and bank\_branch ( branchid, branch\_city,bonus\_offered\_to\_employees) Take the input for all the fields from user. Create a database of 5 employees and 5 branches.

CODE –

#include <stdio.h>

struct bank\_employee {

char name[25];

int empId;

int salary;

char city\_of\_work[20];

int total\_salary\_with\_bonus;

};

struct bank\_branch {

int branchId;

char branch\_city[20];

int bonus\_offered;

};

int main() {

struct bank\_employee E[5];

struct bank\_branch B[5];

for(int i=0 ;i<5 ;i++){

printf("enter name: ");

scanf("%s",&E[i].name);

printf("enter employee ID: ");

scanf("%d",&E[i].empId);

printf("enter salary: ");

scanf("%d",&E[i].salary);

printf("enter city of work: ");

scanf("%s",&E[i].city\_of\_work);

printf("enter branch ID: ");

scanf("%d",&B[i].branchId);

printf("enter branch city: ");

scanf("%s",&B[i].branch\_city);

printf("enter bonus\_offered: ");

scanf("%d",&B[i].bonus\_offered);

E[i].total\_salary\_with\_bonus = E[i].salary + B[i].bonus\_offered;

}

printf("\n");

for(int i=0 ;i<5 ; i++){

printf("Name: %s\n", E[i].name);

printf("employee ID: %d\n", E[i].empId);

printf("salary: %d\n", E[i].salary);

printf("city of work : %s\n",E[i].city\_of\_work);

printf("total salary with bonuses : %d\n\n",E[i].total\_salary\_with\_bonus);

}

return 0;

}

**INTPUT -** enter name: Singh

enter employee ID: 1

enter salary: 50000

enter city of work: Delhi

enter branch ID: 10

enter branch city: Delhi

enter bonus\_offered: 20000

enter name: Rawat

enter employee ID: 2

enter salary: 60000

enter city of work: Lucknow

enter branch ID: 20

enter branch city: Lucknow

enter bonus\_offered: 10000

enter name: Kaushik

enter employee ID: 3

enter salary: 50000

enter city of work: Chandigarh

enter branch ID: 30

enter branch city: Chandigarh

enter bonus\_offered: 15000

enter name: Verma

enter employee ID: 4

enter salary: 55000

enter city of work: Agra

enter branch ID: 40

enter branch city: Agra

enter bonus\_offered: 11000

enter name: Sharma

enter employee ID: 5

enter salary: 40000

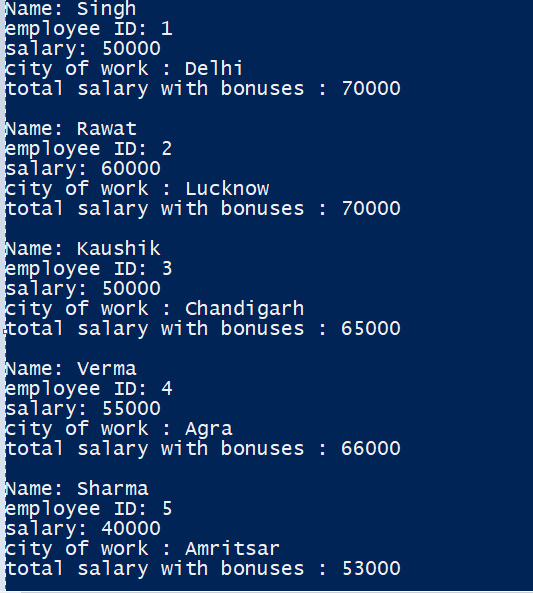
enter city of work: Amritsar

enter branch ID: 50

enter branch city: Amritsar

enter bonus\_offered: 13000

OUTPUT -



Q2. Include the concept of nested structure address in it, such that each employee has an address and branch also has an address. Print the branch’s full address on the basis of employees value in city\_of\_work

CODE -

#include <stdio.h>

struct bank\_employee {

char name[25];

int empId;

int salary;

char city\_of\_work[20];

int total\_salary\_with\_bonus;

};

struct bank\_branch {

int branchId;

char branch\_city[20];

int bonus\_offered;

struct Branch\_address{

char Building\_no[5];

char Area[20];

}a;

};

int main() {

struct bank\_employee E[3];

struct bank\_branch B[3];

for(int i=0 ;i<3 ;i++){

printf("enter name: ");

scanf("%s",&E[i].name);

printf("enter employee ID: ");

scanf("%d",&E[i].empId);

printf("enter salary: ");

scanf("%d",&E[i].salary);

printf("enter city of work: ");

scanf("%s",&E[i].city\_of\_work);

printf("enter branch ID: ");

scanf("%d",&B[i].branchId);

printf("enter branch city: ");

scanf("%s",&B[i].branch\_city);

printf("enter bonus\_offered: ");

scanf("%d",&B[i].bonus\_offered);

getchar();

printf("enter branch address:-\n Enter Building\_no : " );

gets(B[i].a.Building\_no);

printf("enter Area: " );

gets(B[i].a.Area);

E[i].total\_salary\_with\_bonus = E[i].salary + B[i].bonus\_offered;

}

int employee\_id;

printf("\n");

printf("enter employee id to be searched: ");

scanf("%d",&employee\_id);

printf("\n");

for(int i=0 ;i<3 ; i++){

if(E[i].empId==employee\_id){

printf("employee name: %s\n",E[i].name);

printf("Branch\_address :-\n" );

printf("Building\_no : %s\n",B[i].a.Building\_no);

printf("Area: %s\n",B[i].a.Area );

printf("City : %s\n", B[i].branch\_city);

break;

}

}

return 0;

}

INPUT –

PS C:\Users\NISHANT\Documents> .\oop.exe

enter name: Singh

enter employee ID: 1

enter salary: 50000

enter city of work: Delhi

enter branch ID: 1

enter branch city: Delhi

enter bonus\_offered: 20000

enter branch address:-

Enter Building\_no : B-67

enter Area: Ganesh Nagar Complex

enter name: Rawat

enter employee ID: 2

enter salary: 60000

enter city of work: Chandigarh

enter branch ID: 20

enter branch city: Chandigarh

enter bonus\_offered: 10000

enter branch address:-

Enter Building\_no : A-87

enter Area: Mayur Vihar ph-2

enter name: Kaushik

enter employee ID: 3

enter salary: 50000

enter city of work: Lucknow

enter branch ID: 30

enter branch city: Lucknow

enter bonus\_offered: 15000

enter branch address:-

Enter Building\_no : F-105

enter Area: Pandav Nagar

enter employee id to be searched: 2

OUTPUT –

