**SUBMITTED BY :**

**NAME : ZISHNENDU SARKER**

**ROLL NO.: 2K19/CO/450**

**SUBJECT : OOP LAB**

**LAB ASSIGNMENT NO. : 05**

**SUBMITTED TO :**

**DIKSHA RUHELA MAM**

**LAB2 NO. : 5**

**LAB NAME :**

An educational institution wishes to maintain a database of its employees. The database is divided into a number of classes whose hierarchical relationships are shown below in attached file. The figure also shows the minimum information required for each class. Specify all the classes and define functions to create the database and retrieve individual information as and when required.

Add the educational information of teacher and officers (not for typist) which helps the management in decision making with regards of training, promotion etc. Add another data class called education that holds two pieces of educational information , namely , highest qualification in general education and highest professional qualification. This class should be inherited by the class teacher and officer.

The classes officer , teacher and typist are derived from the class staff. As we know, we can use container classes in place of inheritance in some situation. Redesign the program and write it separately such that classes teacher, officer and typist contain the objects of the staff.

**CODE:**

#include <iostream>

#include <string>

using namespace std;

class staff

{

int code;

char name[20];

public:

staff()

{

cout<<"Code: ";

cin>>code;

cout<<"Name: ";

cin>>name;

}

};

class education

{

public:

char hqge[20];

char hpeq[20];

};

class teacher: public education

{

char subject[20];

char publication[20];

staff a;

public:

teacher()

{

cout<<"Enter Subject: ";

cin>>subject;

cout<<"Enter Publication: ";

cin>>publication;

cout<<"Enter highest qualification in general education: ";

cin>>hqge;

cout<<"Enter highest professional qualification: ";

cin>>hpeq;

}

};

class officer: public education

{

staff b;

char grade;

public:

officer()

{

cout<<"Enter Grade: ";

cin>>grade;

cout<<"Enter highest qualification in general education: ";

cin>>hqge;

cout<<"Enter highest professional qualification: ";

cin>>hpeq;

}

};

class typist

{

staff c;

public:

int speed;

};

class regular:public typist

{

public:

regular()

{

cout<<"Enter Speed in words per minute: ";

cin>>speed;

}

};

class casual:public typist

{

int dailywages;

public:

casual()

{

cout<<"Enter Speed in words per minute: ";

cin>>speed;

cout<<"Enter Daily Wage: ";

cin>>dailywages;

}

};

int main()

{

cout<<"Teacher Data Insertion"<<endl;

teacher a1;

cout<<"\nOfficer Data Data Insertion "<<endl;

officer a2;

cout<<"\nRegular Typist Data Insertion"<<endl;

regular a3;

cout<<"\nCasual Typist Data Insertion "<<endl;

casual a4;

return 0;

}

**OUTPUT :**

