

NAME _____

1. Given the following data structures, on the next page write a segment of code to do each task.

```
class BirthData
{
private:
    char place[100];
public:
    char month[10];
    int day;
    int year;
    void display( );
    {
        printf("%s %s %d %d\n",place,month,day,year);
    }
    void assignplace(char p[100])
    {
        strcpy(place, p);
    }
    void readplace( char p[100])
    {
        strcpy(p, place);
    }
}

struct employmentrecord
{
    char place[100];
    char month[10];
    char name[100];
    BirthData BD;
    void display( )
    {
        printf("%s %s \n",place,name);
        BD.display( );
    }
}

employmentrecord Records[100];
```


2. Show the contents of each variable and the output of the following program

```
class MyClass
{
public:
    int    a,
    int    b;
    int    c;
    MyClass(int x, int y, int z)
    {
        a = x;
        b = y;
        c = z;
        printf("%d %d %d\n",a,b,c);
    }
}

MyClass    MC1(1,2,3), MC2(10,11,12);
int        a = 30, b = 40, x = 50, y = 60, w = 70;

void bill ( MyClass    *MC)
{
    MC->b = a + 1;
    MC2.c = MC1.a;
    MC->c = MC->c + 1;
}

void main()
{
    int    a = 80, c = 90, MC3 = 100;

    MC1.a = a;
    MC2.b = MC3;
    printf("%d %d %d\n",MC1.a,MC1.b,MC1.c);
    bill(MC1);
    printf("%d %d %d\n",MC1.a,MC1.b,MC1.c);
    MC2.a = MC1.c;
    printf("%d %d %d\n",MC2.a,MC2.b,MC2.c);
}
```

3. Write a class to maintain a company's records. The class is to hold an array of structures containing all of the employee's records. The data base consists of an array of 100 structures with the following fields in the structure: The employee's name, age, SSN, and pay. The class is to have this array as private. The constructor is to open a file called "thedata.dat" and read in the 100 records into the array of structures. The destructor is to write the 100 records from the array to the same file. Finally a display member function is to print a report of the 100 records.

In the main program create a variable of the class you created, and give each employee a 10% raise. Then print a report of the records.