OBJECT ORIENTED PROGRAMMING

**ASSIGNMENT 1: -**

Develop a object oriented program in C++ to create a database of student information system containing of the following information NAME, ROLLNUMBER, DOB, BLOOD GROUP,CONTACT ADDRESS ,TELEPHONE etc. Construct the database with the suitable member function, static member function, friend class, friend function, the pointers, inline code , and dynamic memory allocation, operators new and delete.

Implements mention in the above problem statement.

**DESCRIPTION:-**

A **member function** of a class is a **function** that has its definition or its prototype within the class definition like any other variable. It operates on any object of the class of which it is a **member**, and has access to all the **members** of a class for that object.

A **static member function** is a special **member function**, which is used to access only **static** data **members**, any other normal data **member** cannot be accessed through **static member function**. Just like **static** data **member**, **static member function** is also a class **function**; it is not associated with any class object.

**Friend Class** A friend class can access private and protected members of other class in which it is declared as friend. It is sometimes useful to allow a particular class to access private members of other class. For example a LinkedList class may be allowed to access private members of Node.

A **friend function in C++** is a **function** that is preceded by the keyword “**friend**”. When the **function** is declared as a **friend**, then it can access the private and protected data members of the class. A **friend function** is declared inside the class with a **friend** keyword preceding as shown below.

A pointer is a variable that holds a memory address where a value lives. A pointer is declared using the \* operator before an identifier. As C++ is a statically typed language, the type is required to declare a pointer.

C++ inline function is powerful concept that is commonly used with classes. If a function is inline, the compiler places a copy of the code of that function at each point where the function is called at compile time. ... The compiler can ignore the inline qualifier in case defined function is more than a line.

C++ supports dynamic allocation and deallocation of objects using the new and delete operators. These operators allocate memory for objects from a pool called the free store. The new operator calls the special function operator new, and the delete operator calls the special function operator delete.

OUTPUT :-

Menu

1.Information of Person

2.Display Information

3.Exit

Enter your choice1

Enter The Information

Enter Name of Person=Shubham

Enter date of birth of person=31/01/2000

Enter blood group of person=O+

Enter roll no of person=60

Enter Contact no of person=8459296471

Enter address of person=Pune

Enter the class of person=SY

Enter the division of person=A

Enter the driving liscense no=35JKSNDFI

Total no of records :1

Menu

1.Information of Person

2.Display Information

3.Exit

Enter your choice