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## Object Oriented Programming

### Exp. 2 : Classes and Objects.

1. Create a class named Student making use of appropriate variables and functions.

⇒

```
class Student
{
    private :
        int id;
        string name;
    public :
        void setId ( int n)
        {
            id = n;
        }
        int  getId ()
        {
            return id;
        }
        void  setName (string s)
        {
            name = s;
        }
        string  getName ()
        {
            return name;
        }
};
```

2. Write answers for following questions.

a. How many classes & objects you can create?
⇒ We can create any number of classes and objects as many as we want until memory becomes full.

b. Is it mandatory to make variables private & methods public?
⇒ No, it is not mandatory to make variables private and methods public. It is depend on the need of the user. Variables are declared as private to achieve data hiding.

c. If variable is private then can you access member variable in main function using '.' Operator?
⇒ No, we can't access private member variables in main function. Private member variables are accessible to only the member functions (methods) of that class only.

## Questions :

1. The variables declared inside the class are known as data members and functions are known as **member functions**.

2. Only **member functions** can have access to private members and private functions.

3. Which of the following statements about member functions are True or false.
   (i) A member function can call another member function directly with using the dot operator.
   (ii) A member function can access the private data of the class.
   ⇒ (i) – false , (ii) – True.

4. Data members & member functions of a class in C++ program are by default.
   ⇒ **private**.

5. How structures and classes in C++ differ ?.
   ⇒ In structures, members are public by default whereas, in classes, they are private by default.

**Conclusion :** A class is a user defined data type which has data members & member functions. Object is an instance of class. Using class, we can group the data, methods belonging to same thing together. We can hide data using 'private' access specifier.