



DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

UNIT I

INTRODUCTION TO OOP

Objects

Any entity that has state and behaviour is known as an object. For example, a chair, pen, table, keyboard, bike, etc. It can be physical or logical.



An Object can be defined as an instance of a class. An object contains an address and takes up some space in memory. Objects can communicate without knowing the details of each other's data or code. The only necessary thing is the type of message accepted and the type of response returned by the objects.

Example: A dog is an object because it has states like colour, name, breed, etc. as well as behaviours like wagging the tail, barking, eating, etc.

Syntax to declare object

```
classname objectname= new classname();
```

Example

```
add a= new add();
```

Classes

- Collection of objects is called class. It is a logical entity.



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- A class can also be defined as a blueprint from which you can create an individual object. Class doesn't consume any space.

- Syntax

Class classname

```
{  
    Data Members;  
    Data methods;  
}
```

Example

```
class add  
{  
    int a,b, c; // data members  
    Void display() // data methods  
    {  
        return a+b+c;  
    }  
}
```