### .NET > C#.NET > OOP

# Introduction to OOP using C#.NET

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#### What is 00P?

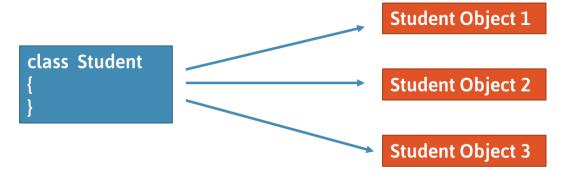
- Object Oriented Programming
- · Programming Model for Scalable Applications
- Data manipulation depends on the objects
- Used in most popular languages such as Java, Python, JavaScript, C++ etc.
- Advantages:
  - Modularity
  - Re-usability

## Steps for OOP

- Creating classes (models).
- Creating objects (instances).

#### Class

- Model / Blue-Print / Structure of Objects.
- Defines list of members (fields and methods) of similar objects.
- Objects can be created based on class.



accessModifier modifier class ClassName 1. internal static **Fields** 2. public 2. abstract Methods 3. sealed **Internal** class 4. partial **Constructors** accessible within the <u>Static</u> class contains only static members. same project. **Properties** Abstract class can additionally contain **Events Public** class is abstract methods. the accessible in Destructors Sealed class can't be inherited. project also in other projects. Multiple partial classes are combined into } single class.

## Object

- A memory unit that stores fields (in memory).
- Represents a physical person / thing.
- Created based on a class.
- Reference variable refers to the object.



## **Creating Object**

1 Create Reference Variable:

ClassName referenceVariableName;

2 Create Object and Store its reference into the Reference Variable:

referenceVariableName = new ClassName();