

### For OOP in Flutter :

- 1- **Class & Object:** Classes define templates; objects are instances.
- 2- **Encapsulation:** Data and methods are bundled, hiding implementation.
- 3- **Inheritance:** Subclasses inherit behavior from superclasses.
- 4- **Polymorphism:** Objects of different classes behave like superclass objects.
- 5- **Abstract Classes:** Serve as templates for other classes, cannot be instantiated.
- 6- **Interfaces:** Define required methods for classes to implement.
- 7- **Constructors:** Initialize object properties, with default and named types.
- 8- **Final/Const:** final can't be reassigned; const is a compile-time constant.
- 9- **Mixins:** Reuse code across classes without inheritance.
- 10- **Method Overriding:** Subclasses can customize inherited methods.

### For Classes :

- 1- **Dart Classes:** Dart is object-oriented, using classes to create objects with data and methods.
- 2- **Declaring a Class:** Use the class keyword followed by the class name and its body.
- 3- **Constructor:** Initializes objects; can be parameterized or default.
- 4- **Named Constructors:** Define multiple constructors for a class.
- 5- **Getters and Setters:** Manage class attributes via the get and set keywords.
- 6- **Inheritance:** A class can inherit from another using extends, inheriting properties and methods.
- 7- **Method Overriding:** Child classes can override parent class methods using @override.
- 8- **Static Members:** Static fields and methods retain values throughout program execution.
- 9- **This Keyword:** Refers to the current instance to resolve name ambiguity.
- 10- **Super Keyword:** Refers to parent class methods or properties.