

Table of Contents



1. [Introduction to Salesforce Apex](#)
2. [OOps Concept](#)
3. [What is an Object?](#)
4. [What is a Class](#)
5. [Abstraction \(What the object does\)](#)
6. [Inheritance](#)
7. [Polymorphism](#)
8. [Encapsulation \(How the Object does\)](#)
9. [Complete Video](#)
10. [Resources](#)

Introduction to Salesforce Apex

- **What is Salesforce apex?**
 - Salesforce Apex is a programming language used to develop custom functionalities and business logic in the Salesforce platform. Think of it as a tool that allows developers to create custom solutions that are specific to a particular business's needs within the Salesforce environment.
- **Use of Salesforce apex**
 - With Salesforce Apex, developers can create custom objects, automate business processes, create custom user interfaces, and integrate Salesforce with other systems. In simple terms, Apex is a way to extend the capabilities of the Salesforce platform to meet the unique needs of a business.

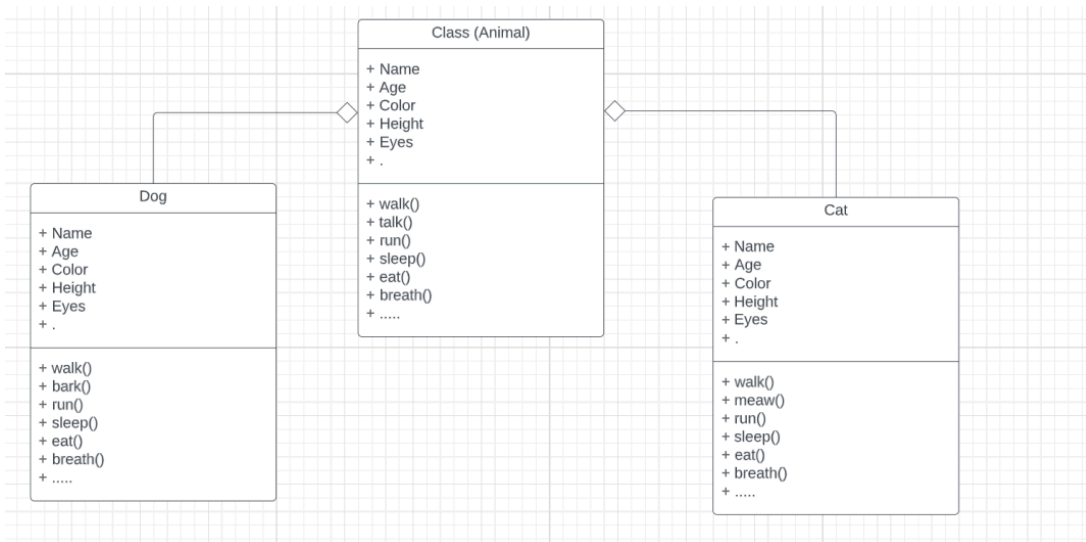
OOps Concept

- Object
- Class
- Abstraction
- Inheritance
- Polymorphism
- Encapsulation



What is an Object?

- Any real-world entity that has a **state and behavior** is known as an object. For example, a chair, pen, table, keyboard, bike, etc.
- It can be physical or logical.
- A Cat is an Object because **it has color, height, and weight as state** and **speaks, walks, and sleeps as behavior**
- A table or chair is also an object because it has color, height, width &, etc.





Dog

+ Name - MAX
+ Age - 5
+ Color - Brown & Black
+ Height - 3
+ breed - Doberman



What is a Class

- A-Class is a Collection of Objects is a class. **For Example**, Vehicles, Tree, Animal
- Class can also be **defined as a blueprint** from which **we can create multiple individual objects**.

Abstraction (What the object does)

Hiding internal (implementation) details and exposing/showcasing only the functionality is known as abstraction.

For example tv, We do not what happens behind the scene

Inheritance

When a child object acquires **all the properties** (variables/methods) from a parent object then it is known as inheritance.



Polymorphism

When the same task is done in a different way then it is known as Polymorphism. For Example, speaking, walking, convincing customers, playing football, youtube sessions, teaching

Encapsulation (How the Object does)

Wrapping hiding/code (Putting together) and data together into a single unit is known as encapsulation.



For example, a capsule is wrapped with different medicines.

In Salesforce, class is a perfect example of encapsulation.

- DRY Principle
 - Do not repeat yourself

- SOLID Principle (Intro)
 - **S** – Single Responsibility Principle (SRP)
 - **O** – Open-Closed Principle
 - **L** – Liskov's Substitution Principle
 - **I** – Interface Segregation Principle
 - **D** – Dependency Inversion Principle

Complete Video



Resources

- <https://www.javatpoint.com/java-oops-concepts>
- <https://www.geeksforgeeks.org/object-oriented-programming-oops-concept-in-java/>
- <https://www.mygreatlearning.com/blog/oops-concepts-in-java/>
- <https://medium.com/from-the-scratch/oop-everything-you-need-to-know-about-object-oriented-programming-aee3c18e281b>
- <https://medium.com/edureka/object-oriented-programming-b29cfd50eca0>
- <https://medium.com/backticks-tildes/the-s-o-l-i-d-principles-in-pictures-b34ce2f1e898>