



# INTRODUCTION TO OBJECT-ORIENTED ANALYSIS

by KariAnn Harjo



# Objects

An object is a fundamental entity in O-O Analysis.

Example: A 'Coffee Cup' object represents a real coffee cup, encapsulating its properties and behaviors.

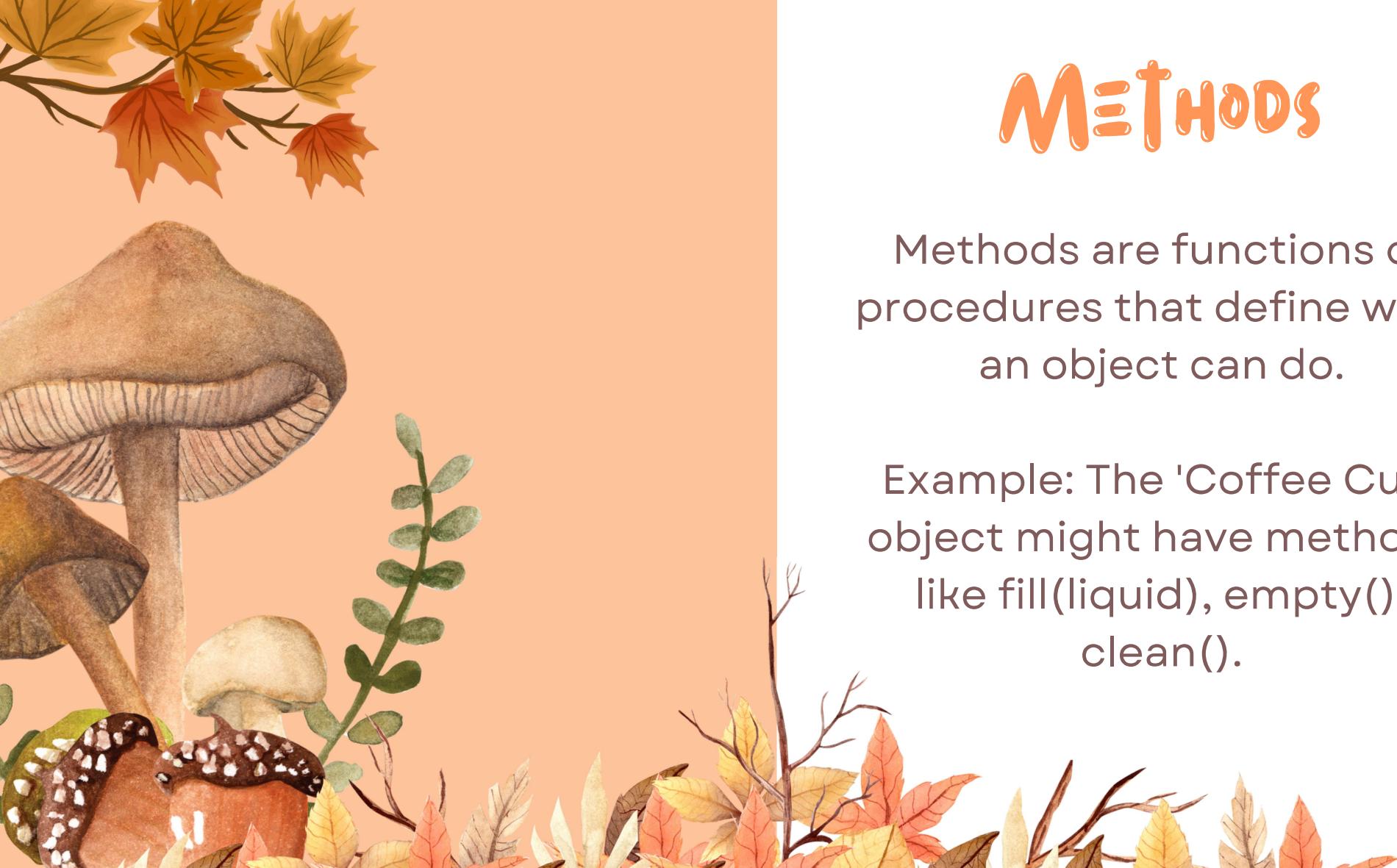




# ATTRIBUTES

An attribute is a characteristic or property of an object.

Example: Attributes of a 'Coffee Cup' object might include color, volume, currentTemperature.



# METHODS

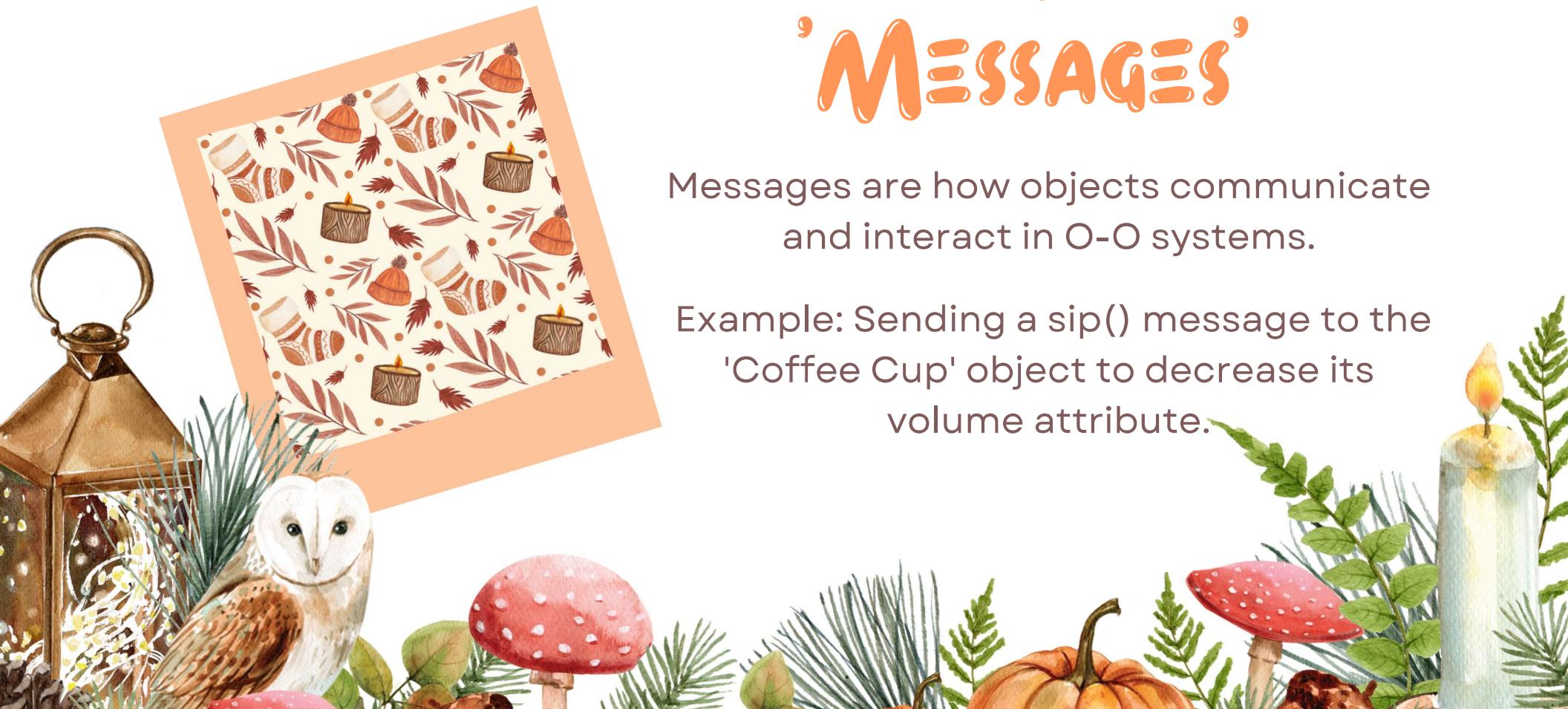
Methods are functions or procedures that define what an object can do.

Example: The 'Coffee Cup' object might have methods like `fill(liquid)`, `empty()`, `clean()`.

# THE ROLE OF 'MESSAGES'

Messages are how objects communicate and interact in O-O systems.

Example: Sending a `sip()` message to the 'Coffee Cup' object to decrease its volume attribute.



# THE BLUEPRINT OF 'CLASSES'

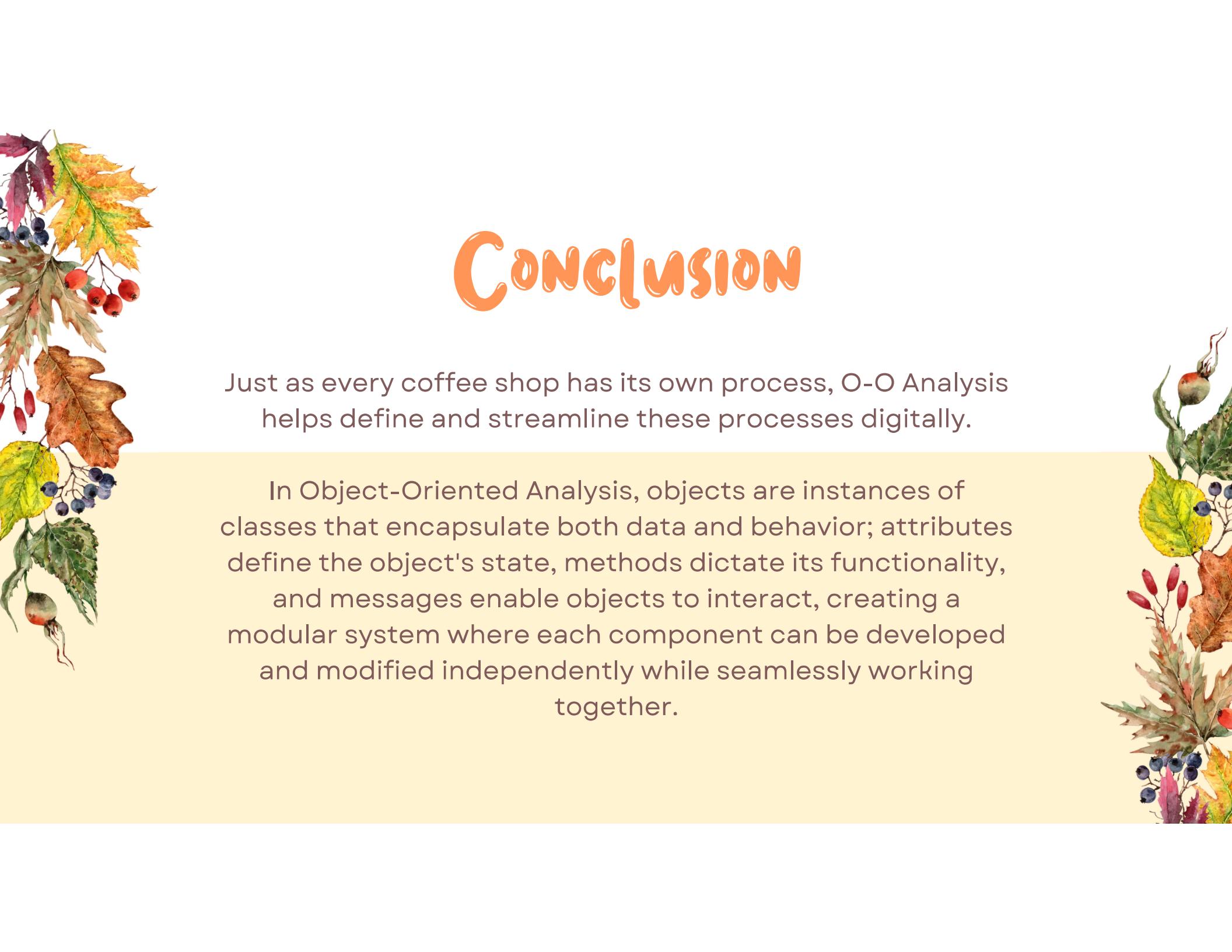
Classes are templates for creating objects, defining shared attributes and methods.

Example: A 'Coffee Machine' class defines the common characteristics and functionalities of all coffee machines.



# COFFEE IN ACTION: FROM CLASSES TO CUPS

A demonstration of how a 'Coffee Order' class can be instantiated into specific coffee order objects, each with unique attributes like typeOfCoffee, sugarLevel, milkContent but shared methods like prepare(), serve(), chargeCustomer().



# Conclusion

Just as every coffee shop has its own process, O-O Analysis helps define and streamline these processes digitally.

In Object-Oriented Analysis, objects are instances of classes that encapsulate both data and behavior; attributes define the object's state, methods dictate its functionality, and messages enable objects to interact, creating a modular system where each component can be developed and modified independently while seamlessly working together.