

languages support auto garbage collection

- **Java:** Java uses a garbage collector to automatically identify and reclaim memory occupied by objects that are no longer reachable. The Java Virtual Machine (JVM) is responsible for managing memory and performing garbage collection.
- **C#:** C# (pronounced "C sharp") is a language developed by Microsoft and used in the .NET framework. It also employs automatic garbage collection through the Common Language Runtime (CLR), which manages memory and objects' lifecycle.
- **Python:** Python features an automatic garbage collector that manages memory for objects. Python's garbage collector is designed to handle cyclic references and ensure memory is reclaimed efficiently.
- **JavaScript:** JavaScript is a scripting language widely used for web development. It utilizes automatic garbage collection to manage memory allocated for objects created during the execution of JavaScript code.
- **Ruby:** Ruby, a dynamic scripting language, incorporates a garbage collector that automatically reclaims memory used by objects that are no longer needed.
- **C++ (with Smart Pointers):** While C++ is traditionally not known for automatic garbage collection, modern C++ includes smart pointers that provide automatic memory management. Examples include `std::shared_ptr` and `std::weak_ptr`, which help manage memory in a more automated manner while still maintaining the language's performance benefits.
- **C# (with Unity):** In addition to .NET, C# is used in game development with the Unity engine. Unity provides its garbage collection mechanisms optimized for game development.
- **Kotlin:** Kotlin, a modern programming language that runs on the Java Virtual Machine (JVM), supports automatic garbage collection like Java.
- **Swift:** Swift, developed by Apple, employs automatic reference counting (ARC) to manage memory. Although not exactly garbage collection, ARC automatically deallocates objects when they are no longer needed.