Object Pooling

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Module Overview

What is object pooling?

Memory management and garbage collection

Implementing an object pool

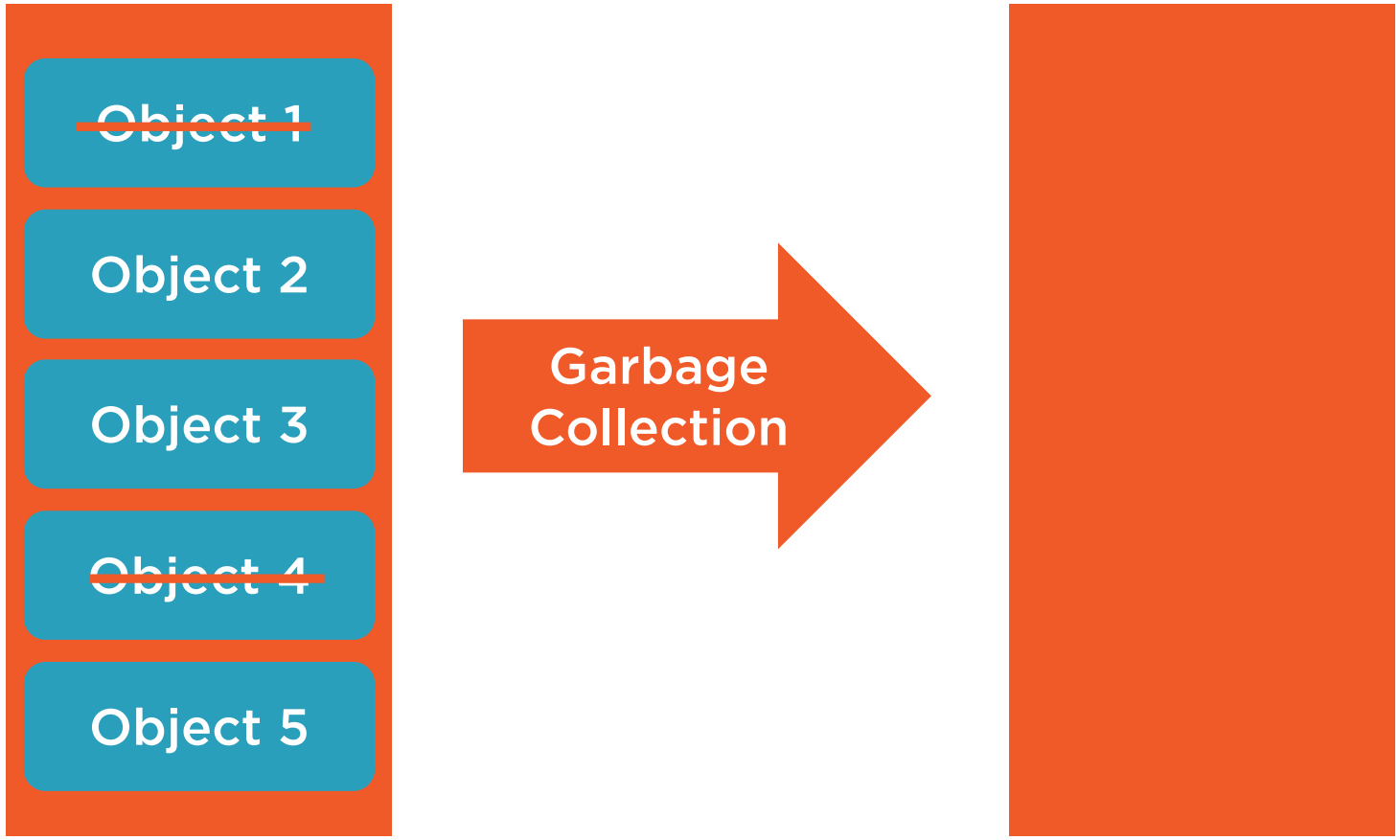
The cost of pooling

Object Pooling

Object pooling is a technique in which objects are instantiated prior to actual gameplay and stored, or pooled, for reuse.

Automatic Memory Management

Automatic Memory Management



Phase of Garbage Collection

Marking

Lists live objects & unused objects are marked for removal

Relocation

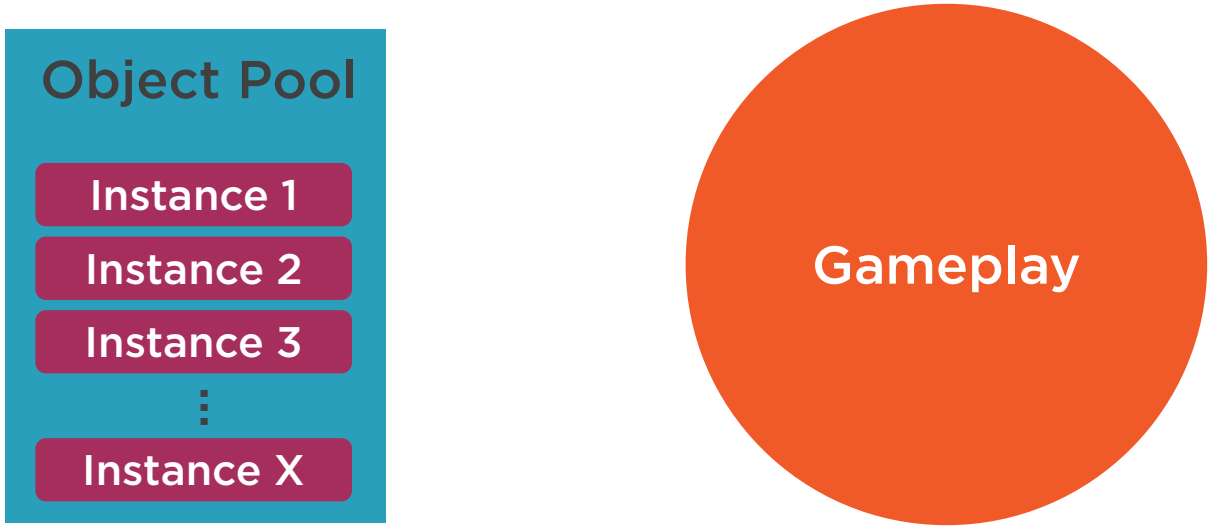
References to live objects updated

Compacting

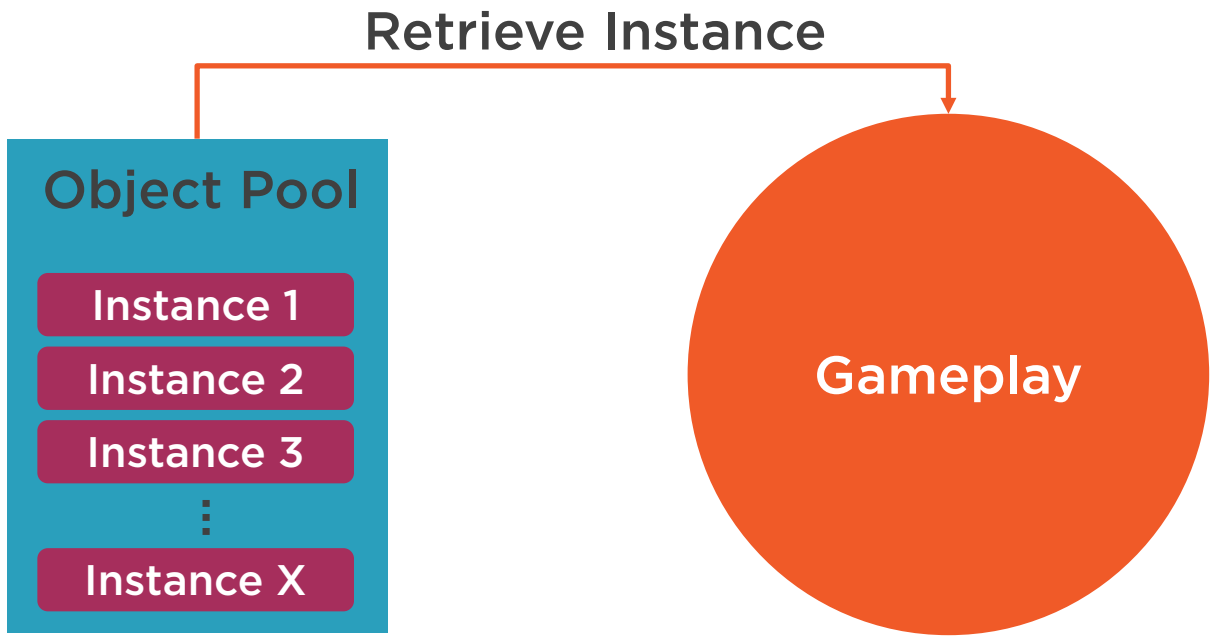
Unused objects released & live objects moved and compacted

When Unity performs garbage collection, it stops running your code until the garbage collector has finished its work.

Object Pooling



Object Pooling



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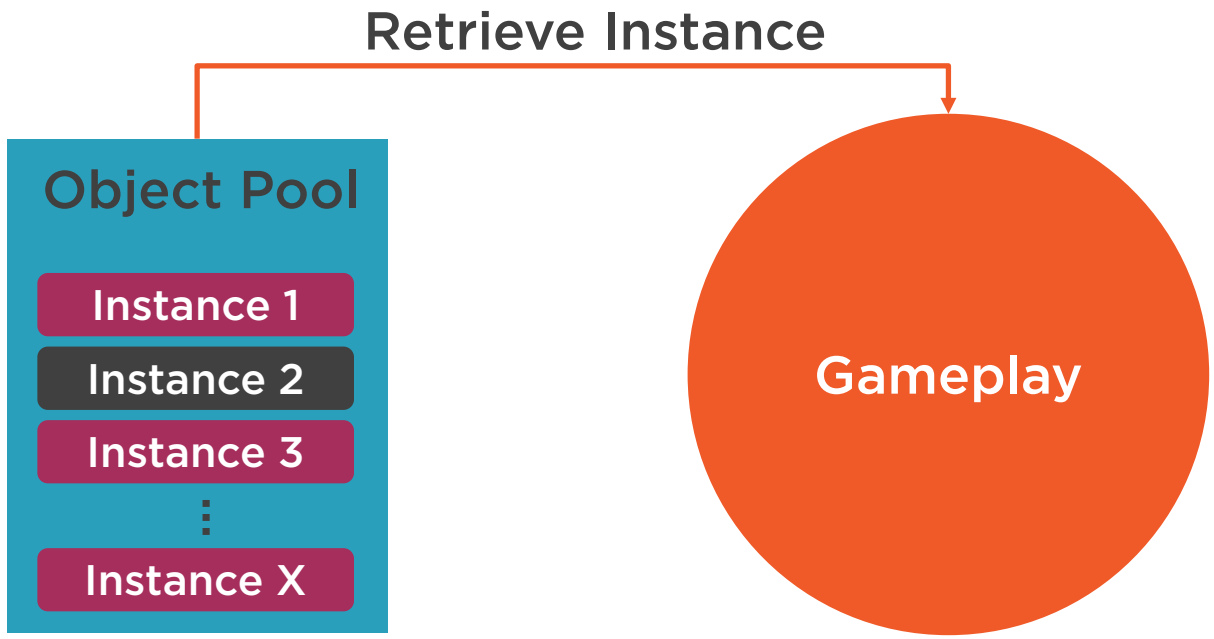

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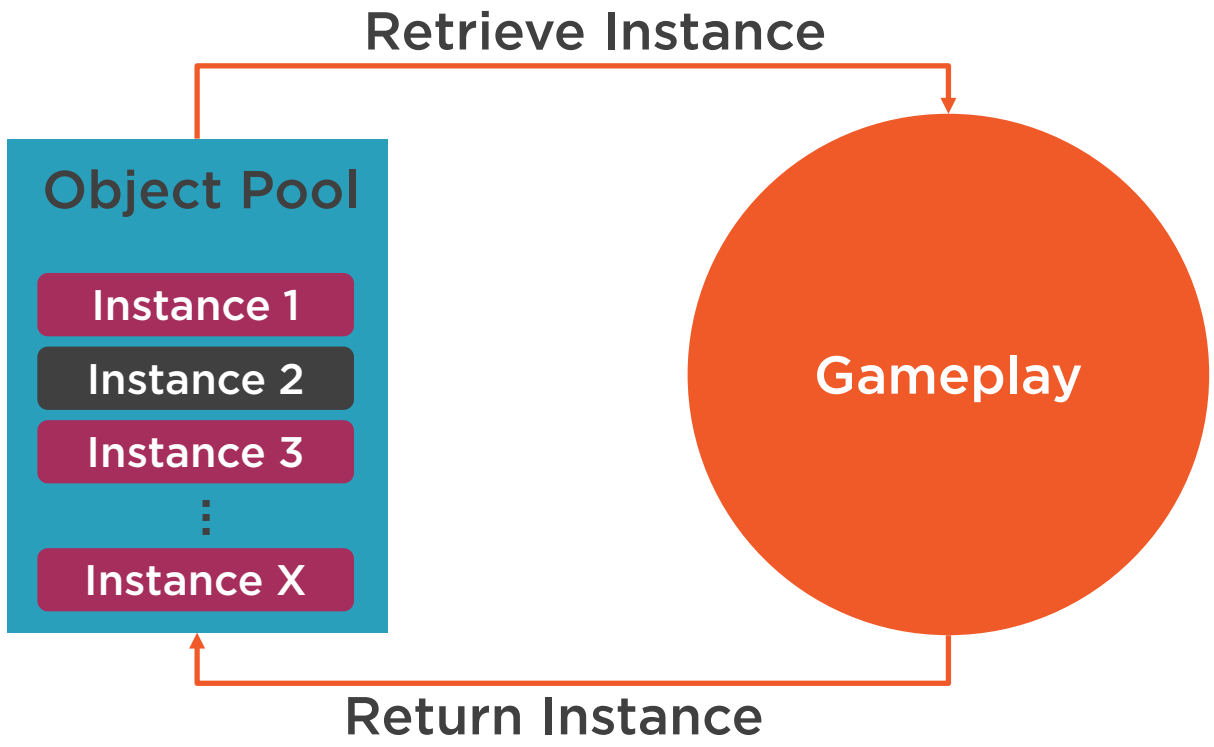
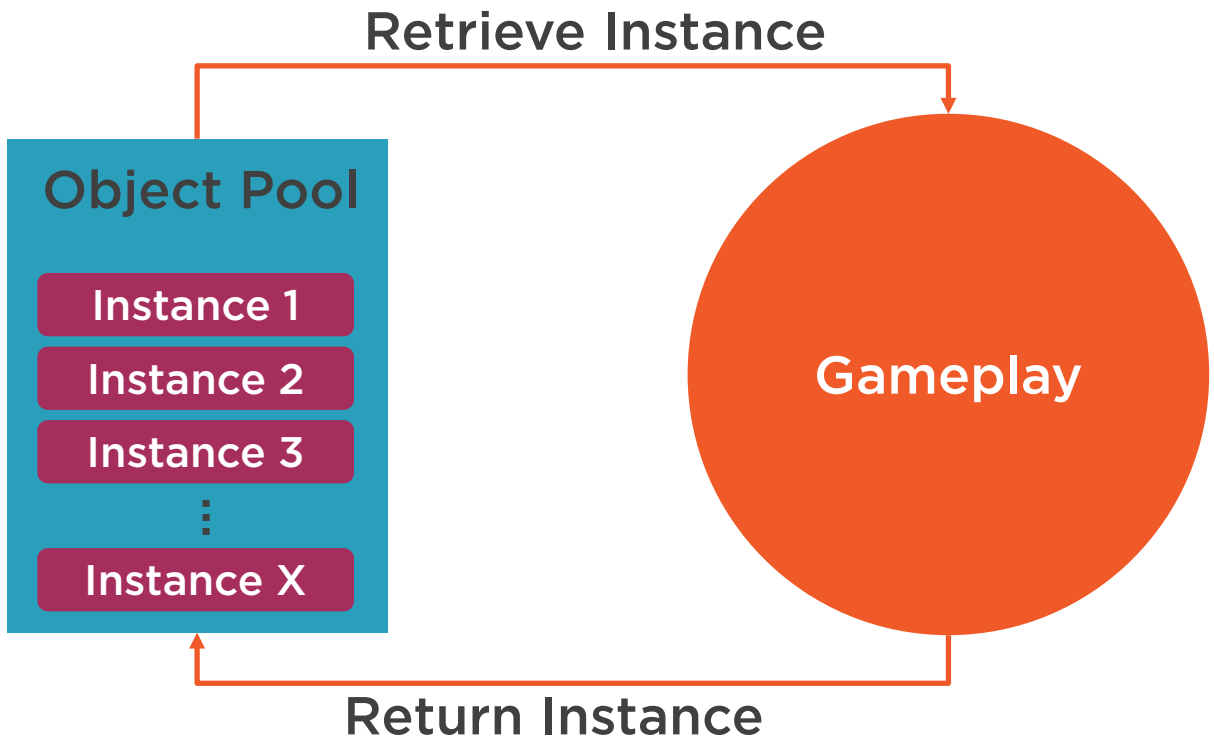


Object Pooling



Instantiation and Destruction

Instantiate()

Causes memory to allocated on the heap

Destroy()

Marks objects for deletion during garbage collection

Coming Up

A Real-World Scenario

Coming Up

Implementing an Object Pool

Object Pooling

Object pooling is a technique in which objects are instantiated prior to actual gameplay and stored, or pooled, for reuse.

Coming Up

Module Conclusion

Object pools are still using memory!

Course Summary

Performance issues and code

The Unity Profiler

Optimization strategies

Object pooling

Thank You!