A tour of the C# Language

At its core, C# is an ***object-oriented*** language. You define types and their behavior.

Several C# features help create robust and durable applications:

* **Garbage collection** automatically reclaims memory occupied by unreachable unused objects.
* **Nullable types** guard against variables that don't refer to allocated objects.
* **Exception handling** provides a structured and extensible approach to error detection and recovery.
* **Lambda expressions** support functional programming techniques.
* **Language Integrated Query (LINQ)** syntax creates a common pattern for working with data from any source.
* Language support for **asynchronous operations** provides syntax for building distributed systems.
* C# has a **unified type system**. All C# types, including primitive types such as int and double, inherit from a single root object type