



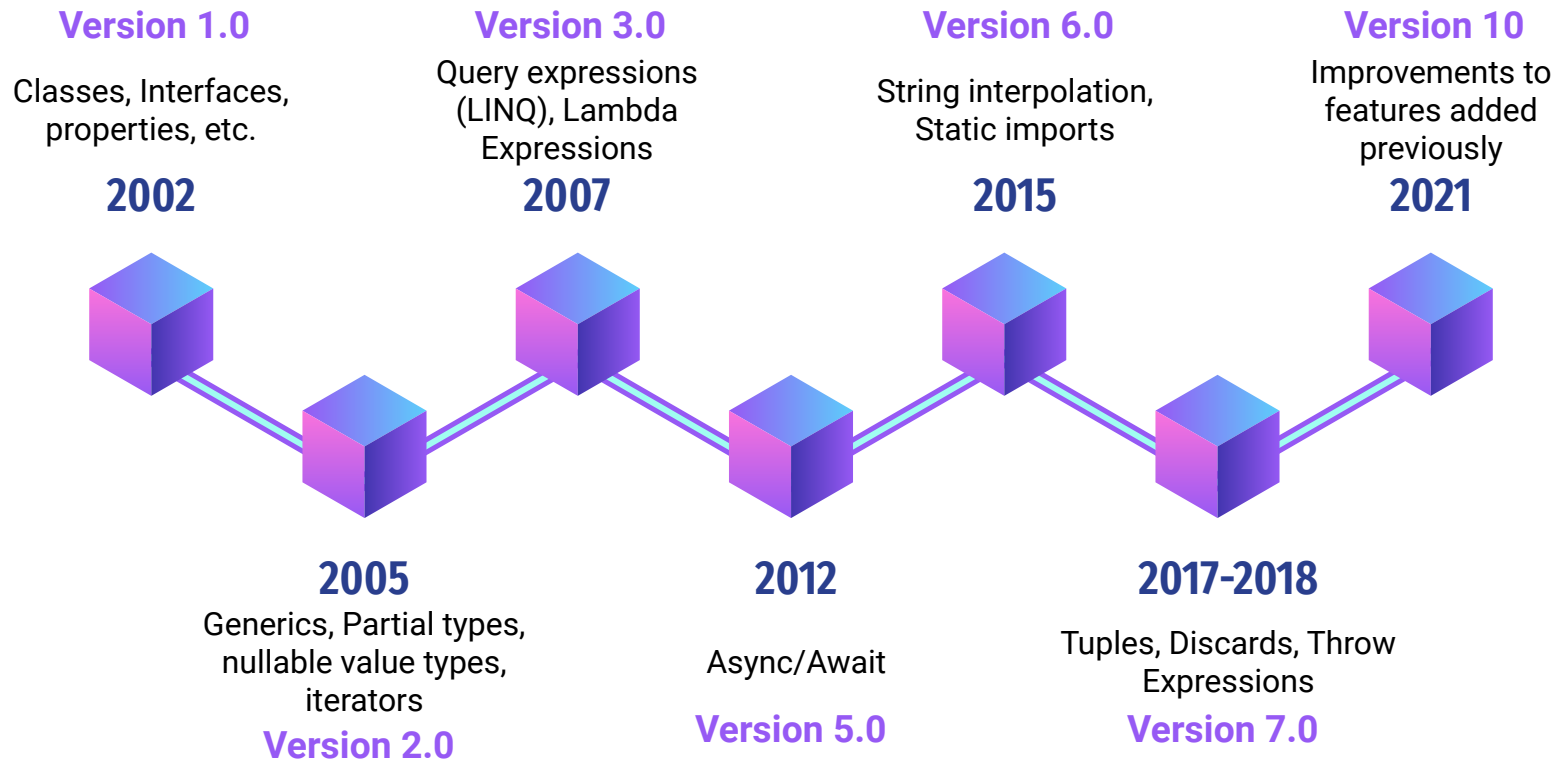
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# Introduction/Background

- Developed by Microsoft
- Object-oriented
- Modern
  - Statistically top 5
  - Continues to be updated
- .NET



# Introduction/Background



# Code Sample

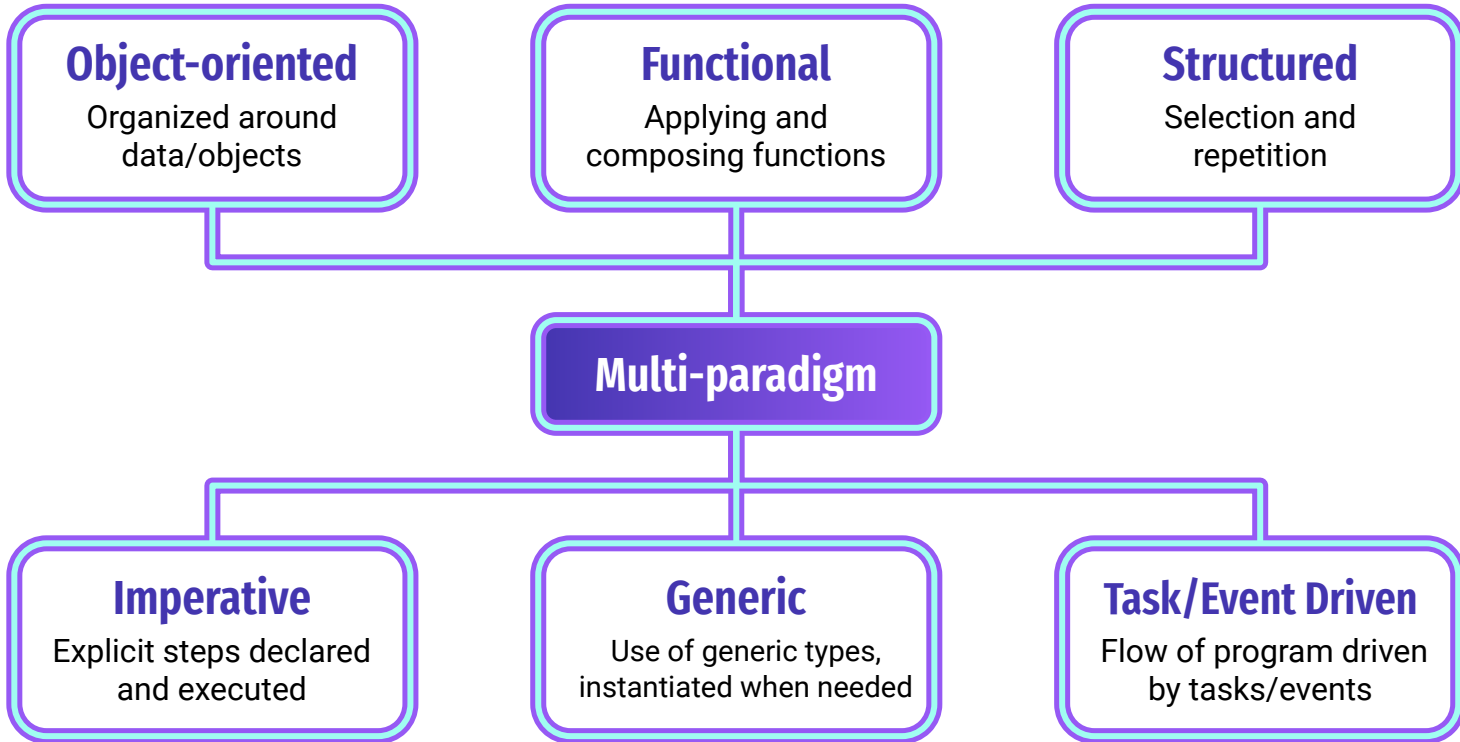
```
using System;

namespace LightningTalkDemo
{
    0 references
    class Program
    {
        0 references
        static void Main(string[] args)
        {
            //User Input
            int num;
            Console.Write("Enter a number: ");
            num = Int32.Parse(Console.ReadLine());

            Console.WriteLine("{0} is {1}", num, OddOrEven(num));
            Console.ReadKey();
        }

        1 reference
        static string OddOrEven(int number)
        {
            if (number % 2 == 0)
            {
                return "even";
            }
            else
            {
                return "odd";
            }
        }
    }
}
```

# Classification



# Evaluation



## Readability

- Explicit
- Familiar look/feel
- Structured



## Writability

- Structured
- Recursion
- Overrides
- Throw Expression
- Great documentation
- Intellisense



## Reliability/Cost

- Try/Catch/Finally
- Garbage Disposal
- SafeHandle Class



## Portability

- Cross-platform
- Limited to .NET

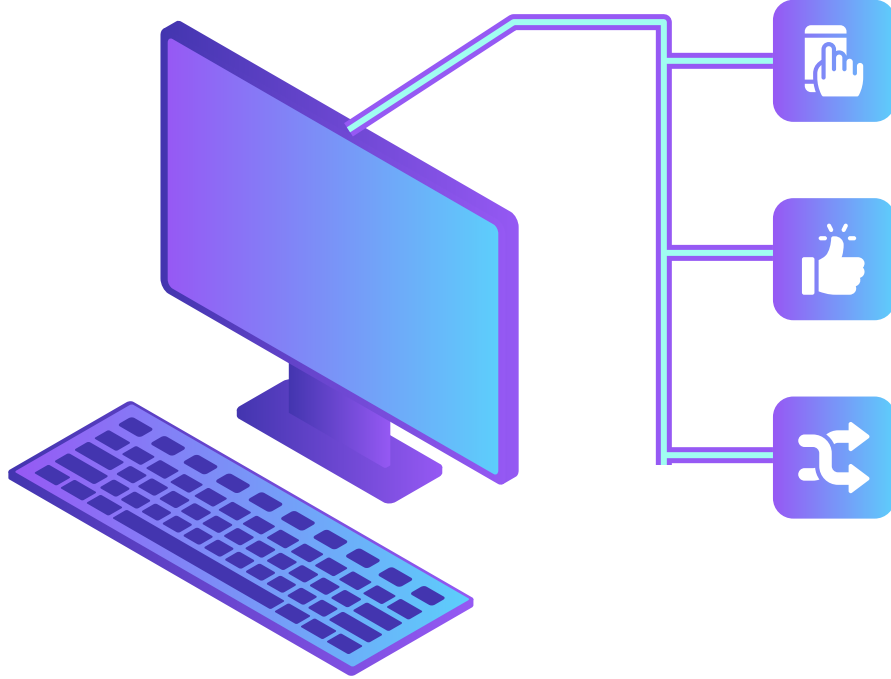
# Evaluation

Language	Type	Garbage Collection	Intended Use
C#	Strong, Safe <sup>1</sup> , Dynamic	Yes	Application Dev
Java	Strong, Safe, Static	Yes	Application Dev
Python	Strong, Safe, Dynamic	Yes	Application Dev, Scripting
Scala	Strong, Safe, Static	Yes	General, Parallel Computing, Scripting
Swift	Strong, Safe, Static	No <sup>2</sup>	Application

1. Unsafe allowed

2. Reference counting

# Conclusion



## Modern

- Popular
- Continuously Updated

## User-Friendly

- Familiar Syntax
- Shared Characteristics
- Readable, Writable, etc.

## Limited Flexibility

- .NET specific



# Works Cited

- <https://docs.microsoft.com/en-us/dotnet/csharp/whats-new/csharp-version-history>
- <https://docs.microsoft.com/en-us/dotnet/csharp/tour-of-csharp/>
- <https://ebookcentral-proquest-com.flagship.luc.edu/lib/luc/reader.action?docID=443225&ppg=309>
- <https://www.simplilearn.com/best-programming-languages-start-learning-today-article>
- <https://www.info.ucl.ac.be/~pvr/VanRoyChapter.pdf>
- <https://lucproglangcourse.github.io/principles.html>
- [https://rosettacode.org/wiki/Language\\_Comparison\\_Table](https://rosettacode.org/wiki/Language_Comparison_Table)
- <https://statisticstimes.com/tech/top-computer-languages.php>