

# Visual Studio/C# Getting Started

✓ Visual Studio 2022

✓ C# Basics

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# Visual Studio

- Integrated Development Environment (IDE)
- Code Editor, Designer
- Debugger, Profiler
- Other tools
- Extensibility.

# Projects

- Projects organised in solutions
- Project templates
  - Platform
  - Language
  - Framework
- File/Model templates.

# Demo

- Create Command Line Tool
- "Hello World"
- Debugging

# Variables

- `<type> <name> [ = <init value> ]`
- `int i;`
- `string name = "Thomas";`
- `bool isGreen = false;`
- `string[] arrayOfString;`
- Naming Convention: `lowerCamelCase`

# Operator

- Arithmetic
  - +, -, \*, /, %
  - ++, --
- Logical
  - && (and)
  - || (or)

# Conditions

- `if (<condition>) { <block> }`
- `else {<block>}`

# Demo

- Calculator
- Add, Sub



# Functions

- `<modifier> <type> <name>(<type> param, ...) {<block>}`
- `public int Add(int a, int b) { return a + b; }`
- `private void LogMessage() {}`

# Modifier

- private
- internal
- public
- protected
- (static)

# Demo

- Calculator
- Extract methods

# Iterations

- While
- For
- ForEach

# Demo

- Implement "Sum"