

# Working with the Syntax API



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# Module Outline

## Generate a ToString method

- Generate a partial class
- Grab the namespace
- Read the members

## Understand the Syntax API

## Debug your C# source generator



**Generate a partial class**





# Understand the Syntax API



# Understand the Syntax API

Syntax tree

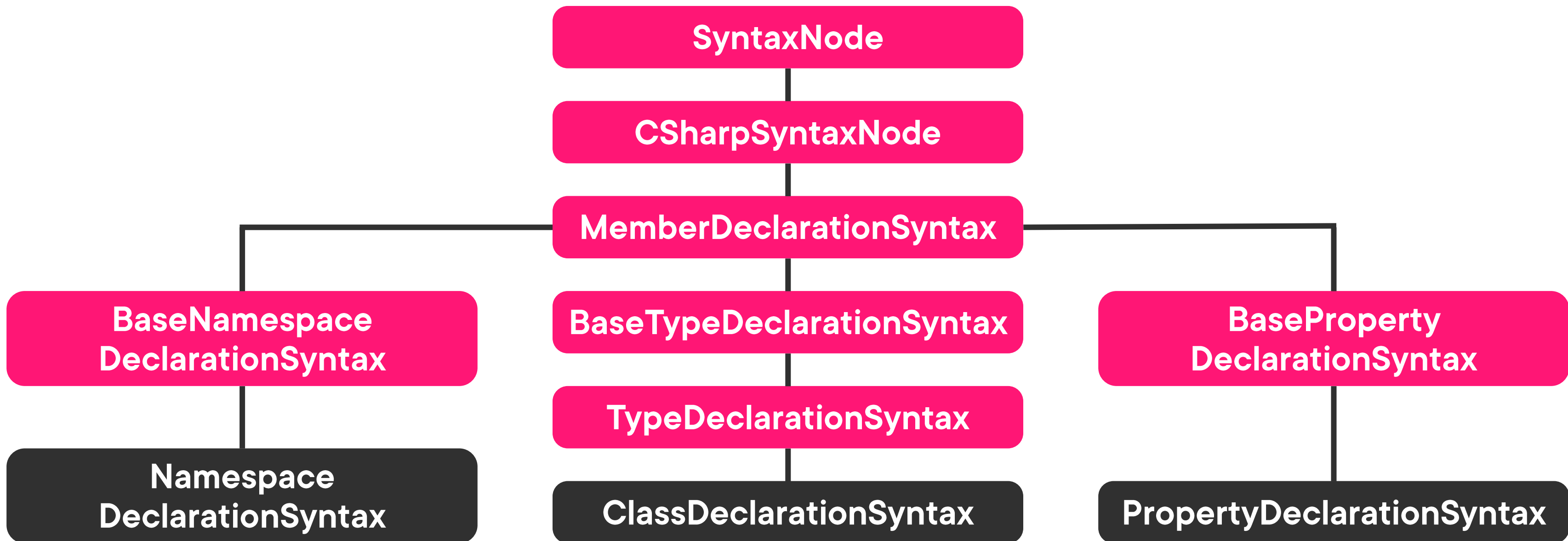
SyntaxNode

`IEnumerable<SyntaxNode> ChildNodes()`

`SyntaxNode? Parent`



# Understand the Syntax API



# Understand the Syntax API

## SyntaxNode

`IEnumerable<SyntaxNode> ChildNodes()`

`SyntaxNode? Parent`

`IEnumerable<SyntaxToken> ChildTokens()`

## SyntaxToken

`SyntaxNode? Parent`

`string Text`



# Understand the Syntax API

**SyntaxNode**

**SyntaxToken**

**SyntaxTriviaList** **LeadingTrivia**

**SyntaxTriviaList** **TrailingTrivia**

**SyntaxTrivia**

**SyntaxToken** **Token**





# Understand the Syntax API

SyntaxNode

int RawKind

SyntaxToken

int RawKind

SyntaxTrivia

int RawKind



# Understand the Syntax API

**SyntaxNode**

SyntaxKind **Kind()**

**SyntaxToken**

SyntaxKind **Kind()**

**SyntaxTrivia**

SyntaxKind **Kind()**



## Use the Syntax Visualizer window to understand

- Syntax nodes
- Syntax tokens
- Syntax trivia



# Debug your C# source generator



**Grab the namespace**



## Support file-scoped namespaces



## Generate a ToString method



## Split up the ToString generation





**Write out the members**



**Check the access modifier**



**See live how code is generated**



# Summary

## Use the Syntax API

## Generate a ToString method

- Generate a partial class
- Grab the namespace
- Read the members

## Debug your C# source generator



**Up Next:**

# **Adding a Marker Attribute**

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