# Program Structure

|  |  |  |
| --- | --- | --- |
| **Name** | **Example** | **Definition** |
| **IDE** | Visual Studio |  |
| **Library** |  |  |
| **Build** |  |  |
| **Compiler** |  |  |
| **Compiling** |  |  |
| **Interpreting** |  |  |
| **Statements** |  |  |
| **Identifiers** |  |  |
| **Values** |  |  |
| **Operators** |  |  |
| **Commenting** |  |  |
| **Expression statements** |  |  |
| **Compound statements** |  |  |
| **Declaration statements** |  |  |

# System Library

|  |  |  |
| --- | --- | --- |
| **Name** | **Example** | **Definition** |
| **Console** |  |  |
| **Write** |  |  |
| **WriteLine** |  |  |
| **Read** |  |  |
| **ReadLine** |  |  |
| **ReadKey** |  |  |

# Key elements

|  |  |  |
| --- | --- | --- |
| **Name** | **Example** | **Definition** |
| **Semicolon ;** | int enemyCount = 4; | Determines the end of a line in code |
| **Curly brace { }** |  |  |
| **Brackets ()** |  |  |
|  |  |  |
|  |  |  |

# Variables and Operators

|  |  |  |
| --- | --- | --- |
| **Name** | **Example** | **Definition** |
| **Integer** | int enemyCount = 4; | A whole number variable |
| **byte** |  | 8 bits of information |
| **Float** |  | Decimal Values |
| **Boolean** |  | True or false |
| **Signed vs unsigned** |  | Signed can hold negative and positive values |
| **String** |  | Store text |
| **format** |  | format |
| **convert** |  | Chage the form of something |
|  |  |  |
| **Addition and Subtraction** |  | Adding something to another number/ Subtracting something from a number |
| **++ or --** |  | Produces and output if there is signal on any of the inputs |
| **Multiply and Divide** |  | Multiplying multiple numbers together, dividing something into 2 groups |
| **Modulo** |  | 2 numbers are congruent |
| **+= or -=** | MainValue+= addedValue  Sortcut for MainValue= MainValue + addedValue |  |
| **Null** |  | Nothing |
|  |  |  |
| **Arrays** |  | An indexed set of related elements |
| **Lists** |  | Where data can be stored |
|  |  |  |
| **Enum** |  | A set of named values called elements |
|  |  |  |

# Control Flow

|  |  |  |
| --- | --- | --- |
| **Name** | **Example** | **Definition** |
| **If Statement** |  |  |
| **Else** |  |  |
| **Else if** |  |  |
| **Less than** |  |  |
| **Greater Than** |  |  |
| **Equal to** |  |  |
| **Greater than or equal to** |  |  |
| **Not Equal to** |  |  |
|  |  |  |
|  |  |  |
| **For Loop** |  |  |
| **While Loop** |  |  |
|  |  |  |
| **Switch** |  |  |
|  |  |  |

# Classes and Functions/Methods

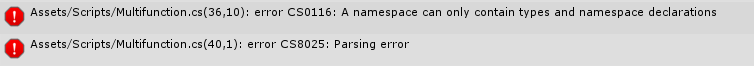
|  |  |  |
| --- | --- | --- |
| **Name** | **Example** | **Definition** |
| **Class** |  |  |
| **Constructor** |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
| **Function** |  |  |
| **parameters** |  |  |
| **Return type** |  |  |
| **void** |  |  |
|  |  |  |
| **library’s** |  |  |
|  |  |  |
|  |  |  |

# Unity

|  |  |  |
| --- | --- | --- |
| **Name** | **Example** | **Definition** |
| **Monobehaviour** |  |  |
| **Start / Awake** |  |  |
| **Update** |  |  |
| **Fixed Update** |  |  |
| **GetComponent** |  |  |
| **Vector3** |  |  |
| **Rigidbody** |  |  |
|  |  |  |
| **Transform** |  |  |
| **Quaternion** |  |  |
| **Euler** |  |  |
|  |  |  |
| **NavMeshAgent** |  |  |
| **SetDestination** |  |  |
|  |  |  |
| **Instantiate** |  |  |
| **Destroy** |  |  |
|  |  |  |
| **deltaTime** |  |  |
| **Random.Range** |  |  |
|  |  |  |
|  |  |  |

# Debugging Unity

|  |  |  |
| --- | --- | --- |
| **Name** | **Example** | **Definition** |
| **Debug.Log()** |  |  |
| **Debug.DrawLine()** |  |  |
| **Gizmos** |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

**Break down the sections of this error**

File location:

Error location:

Error Code:

Error Message:

# Read and write

|  |  |  |
| --- | --- | --- |
| **Name** | **Example** | **Definition** |
| **System.IO** |  |  |
| **File.Exists()** |  |  |
| **StreamReader** |  |  |
| **Peek()** |  |  |
| **TryParse()** |  |  |
| **StreamWriter** |  |  |
| **WriteLine()** |  |  |
|  |  |  |
|  |  |  |