Introduction to C++

Ryan Baker

January 2, 2025

Contents

1	Course Introduction		
	1.1	Overview of Lecture Series	2
2	Features of C++		
	2.1	Evolution of C++	2
	2.2	The C++ Methodology	2
	2.3		2
3	Env	rironment Setup	2
	3.1	Tools Required	2
			2
			2
	3.2	•	2
4	Bas	ic Syntax and Structure	2
	4.1	Basic Structure of a C++ Program	2
			2
	4.2		2
		*	2
			2
	4.3	V	2
5	Dat	atypes and Variables	2
	5.1		2
			2
			2
	5.2		2
	J. <u>_</u>		2
			2
	5.3		2

1 Course Introduction

- 1.1 Overview of Lecture Series
- 2 Features of C++
- 2.1 Evolution of C++
- 2.2 The C++ Methodology
- 2.3 C++ vs. Other Languages
- 3 Environment Setup
- 3.1 Tools Required
- 3.1.1 Text Editor
- 3.1.2 Compiler
- 3.2 "Hello, World!" Example
- 4 Basic Syntax and Structure
- 4.1 Basic Structure of a C++ Program
- 4.1.1 int main()
- 4.2 Foundational Concepts
- 4.2.1 Semicolons, /* comments */, and Whitespace
- 4.2.2 Line-by-Line Execution
- 4.3 Input and Output
- 5 Datatypes and Variables
- 5.1 Primitive Types
- 5.1.1 int, char, bool, float, void
- 5.1.2 sizeof Operator
- 5.2 Declaration and Definition
- 5.2.1 Assignment Operator =
- **5.2.2** Brace Initialization {}
- 5.3 Arithmetic Operators