

# C++ Programming Basics

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## 1 I/O with `iostream`

### 1.1 `std::cout`

### 1.2 `std::cin`

## 2 Functions

### 2.1 Introduction to Functions

#### 2.1.1 `return` Keyword

### 2.2 Function Overloading

### 2.3 Scope

#### 2.3.1 Defining a Scope

#### 2.3.2 Types of Scope

## 3 Conditions and Branches

### 3.1 Boolean Statements

#### 3.1.1 `bool()` Casts

#### 3.1.2 Comparison Operators `==`, `!=`, `<`, `<=`, `>`, `>=`

#### 3.1.3 Logical Operators `!`, `&&`, `——`

### 3.2 `if` Statements

### 3.3 `switch` Statements

### 3.4 Ternary Operator ( `? :` )

## 4 Loops

### 4.1 `while` Loops

#### 4.1.1 `do while` Loops

### 4.2 `for` Loops

### 4.3 Control Flow Statements

#### 4.3.1 `break` Keyword

#### 4.3.2 `continue` Keyword