

Programming with Java Language

Nishat Tasnim

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1 Introduction

In this section, we provide an overview of Java programming, highlighting its key features and applications. Java is a versatile and widely-used programming language known for its portability, performance, and security features.

Whether you are a beginner or an experienced developer, understanding Java fundamentals is essential for building robust software applications. Let's explore the basics of Java programming together.

2 Data Types

Java supports a variety of data types, which can be broadly categorized into primitive and non-primitive types.

2.1 Primitive Data Types

Primitive data types are the building blocks of Java programs.

2.1.1 Integer

The integer data type represents whole numbers without any decimal points.

2.1.2 String

The string data type is used to represent sequences of characters.

2.2 Non-Primitive Data Types

Non-primitive data types include more complex structures, such as arrays and objects.

3 Operators

Operators in Java are symbols that perform operations on variables and values.

4 Control Flow Statements

Control flow statements manage the flow of execution in a Java program.

4.1 Conditional Statements

Conditional statements alter the flow of execution based on a condition.

4.1.1 if Statement

The ‘if’ statement allows the program to make decisions based on a condition.

4.1.2 switch Statement

The ‘switch’ statement is used for multi-way branching based on different cases.

4.2 Looping Statements

Looping statements repeat a block of code multiple times.

4.2.1 for Loop

The ‘for’ loop is used to iterate a block of code a specific number of times.

4.2.2 while Loop

The ‘while’ loop repeats a block of code while a given condition is true.