Digit extraction is a process used to obtain individual digits from a number, usually represented as an integer or a string. This can be useful in various applications, such as data analysis, calculations, and algorithms. Here's a straightforward breakdown of the concept:

1. Understanding the Basics:

- **Digits**: The basic building blocks of numbers in the decimal system, ranging from 0 to 9.

- **Extraction**: The act of pulling out specific information—in this case, digits from a number.

2. Common Methods for Digit Extraction:

Here are two common methods to extract digits from an integer in Java:

a. Using Mathematical Operations:

You can repeatedly divide the number by 10 to extract the last digit. For example:

- Use the modulus operator (%) to get the last digit.

- Use integer division (/) to remove the last digit.

```java
public static void extractDigits(int number) {
    while (number > 0) {
        int digit = number % 10; // Extract the last digit
        System.out.println(digit); // Process the digit (e.g., print it)
        number = number / 10; // Remove the last digit
    }
}...
```