

# ENUMS IN JAVA

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# Introduction

**Enums (short for Enumerations) in Java are a special data type that enables a variable to be a set of predefined constants.**

**Enums are used when we have a fixed set of related constants, like days of the week, seasons, or states.**

# Key Concepts:

- 1 ENUM: A TYPE THAT REPRESENTS A FIXED SET OF CONSTANTS.
- 2 ENUM CLASS: UNLIKE TRADITIONAL CLASSES, ENUM CLASSES AUTOMATICALLY EXTEND `JAVA.LANG.ENUM` AND CANNOT EXTEND OTHER CLASSES.
- 3 TYPE SAFETY: ENUMS PROVIDE TYPE SAFETY, ENSURING THAT ONLY VALID VALUES ARE ASSIGNED TO THE ENUM VARIABLE.

# Why Use Enums?

- 1 CLARITY: ENUMS PROVIDE A CLEAR AND READABLE WAY TO REPRESENT A FIXED SET OF CONSTANTS.
- 2 TYPE SAFETY: PREVENTS THE USE OF INVALID CONSTANTS, IMPROVING THE RELIABILITY OF YOUR CODE.
- 3 FUNCTIONALITY: ENUMS CAN INCLUDE FIELDS, METHODS, AND CONSTRUCTORS, MAKING THEM MORE POWERFUL THAN TRADITIONAL CONSTANTS.