

# Enums

# Learning objectives

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- ▶ Creating enums
- ▶ Using enums
- ▶ Enums in switch statements
- ▶ Iterating over possible enum values

# Enums

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- ▶ Enums is short for enumerations and are a special data type in Java
- ▶ Enums are used to create a limited number of valid values
- ▶ If the type of a variable is an enum then the values that can be assigned to it are limited to only the valid values declared in the enum

# Benefits of enums

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- ▶ Ensures data integrity - limit the possible values a variable can have
- ▶ Enhance code maintainability - makes it easy to add or modify possible values
- ▶ Improves code readability - enum values have meaningful names

# Demo 1 - Enums

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- ▶ Creating enums
- ▶ Using enums compared to other types
- ▶ Using enums in switch statements and the values method

# Enums in switch statements

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- ▶ Enums are valid types in switch statements
- ▶ Enums are often used in switch statements because they represent a limited number of possible values

# Iterating over possible enum values

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- ▶ Calling the method `values` on the enum gives an array of all the possible values
- ▶ This array can be used to iterate over all the possible values

# Demo 2 - Enums

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- ▶ Enums in switch statements
- ▶ Looping over possible values of an enum



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