**Basic Annotations**

* **@NotNull**: Ensures that the annotated field is not null.

java

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@NotNull(message = "Field cannot be null")

private String field;

* **@NotEmpty**: Ensures that the annotated string or collection is not empty (for strings, it checks for both null and empty).

java

Copy code

@NotEmpty(message = "Field cannot be empty")

private String field;

* **@NotBlank**: Ensures that the annotated string is not null and not empty (checks for non-whitespace characters).

java

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@NotBlank(message = "Field cannot be blank")

private String field;

* **@Size**: Specifies the size constraints for a field (e.g., minimum and maximum length).

java

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@Size(min = 5, max = 10, message = "Field must be between 5 and 10 characters")

private String field;

* **@Min**: Ensures that the annotated numeric field is not less than the specified minimum value.

java

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@Min(value = 18, message = "Age must be at least 18")

private int age;

* **@Max**: Ensures that the annotated numeric field is not greater than the specified maximum value.

java

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@Max(value = 65, message = "Age must be no more than 65")

private int age;

* **@DecimalMin**: Ensures that the annotated decimal field is not less than the specified minimum value.

java

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@DecimalMin(value = "0.0", inclusive = false, message = "Value must be greater than 0")

private BigDecimal amount;

* **@DecimalMax**: Ensures that the annotated decimal field is not greater than the specified maximum value.

java

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@DecimalMax(value = "10000.0", message = "Value must be less than or equal to 10000")

private BigDecimal amount;

**Pattern Matching**

* **@Pattern**: Ensures that the annotated string matches the specified regular expression.

java

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@Pattern(regexp = "[A-Za-z0-9]+", message = "Field must be alphanumeric")

private String field;

* **@Email**: Ensures that the annotated string is a valid email address.

java

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@Email(message = "Invalid email address")

private String email;

**Custom Validations**

* **@Valid**: Used to validate nested objects or lists of objects.

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@Valid

private ChildObject child;

* **@Validated**: Used in Spring controllers or services to trigger validation based on custom validation groups.

java

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@Validated

@RestController

public class MyController {

// Methods

}