

Spring Data JPA Annotations 101

Discover the Basics in Minutes

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@Entity

This annotation marks a class as a JPA entity, representing a table in the database. It is a fundamental building block for Spring Data JPA.

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@Repository

Indicates that an interface or class is a repository, responsible for database operations. It allows for exception translation and simplifies data access.

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@Id

Used to specify the primary key of an entity. It marks a field as the unique identifier for database records.

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@GeneratedValue

Works in conjunction with @Id to automatically generate a value for the primary key. It's commonly used with numeric primary key columns.

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@Table

Provides metadata about the table associated with the annotated entity. It allows customization of table names, schema, and other properties.

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@Column

Specifies the details of a column in a database table. It allows customization of column names, lengths, and other attributes.

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@Query

Used to declare custom queries directly on the repository interface. It allows the definition of complex queries beyond the methods automatically provided by Spring Data.

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@OneToOne

Establishes a one-to-one relationship between two entities. It is used to annotate a field in one entity that references another entity. This implies that each record in the first entity corresponds to exactly one record in the second entity, and vice versa.

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@OneToMany

Defines a one-to-many relationship between two entities. Typically, it's applied to a collection field in one entity, indicating that each record in the owning entity can be related to multiple records in the referenced entity.

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@ManyToOne

Represents a many-to-one relationship between two entities. Applied to a field in the owning entity, it signifies that multiple records in the owning entity can refer to a single record in the referenced entity.

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@ManyToMany

Establishes a many-to-many relationship between two entities. It is applied to a collection field in both entities, indicating that each record in one entity can be associated with multiple records in the other entity, and vice versa.

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@JoinColumn

Used to specify the foreign key column when there is a need to customize the mapping of a relationship. It is often used with @OneToOne and @ManyToOne to explicitly define the foreign key column name and other attributes.

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@JoinTable

Defines a join table for a many-to-many relationship. It is often used with @ManyToMany to specify the intermediate table that manages the relationship, including the columns used for joining entities.

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@MappedBy

Used in bidirectional relationships to specify the field on the inverse side of the relationship that owns the mapping. It is typically used with @OneToMany and @ManyToMany to avoid the creation of redundant columns.

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