**Demonstration of Query Methods in Spring Data JPA**

Spring Data JPA makes it easy to write queries by just declaring method names in a specific format. This is called **Query Method Naming Convention**. Spring Data JPA will automatically generate SQL based on your method name.

These are the common types of queries with simple explanations and examples.

### 1. **Search by Containing Text (Like %…%)**

This is used when you want to find something that contains a certain word or text.

**Method:**

List<Country> findByNameContaining(String name);

**->**It Finds all countries where the name contains the given word.

**Example:** Search for “land” will return: “Finland”, “Iceland”, “Thailand” etc.

### 2. **Sorting the Results**

You can sort results by a field like name or date.

**Method:**

List<Country> findAllByOrderByNameAsc();

**->** Gives the names of all countries sorted by name in ascending order (A to Z).

You can also do descending:

List<Country> findAllByOrderByNameDesc();

### 3. **Filter with Starting Text**

This finds records that start with a given prefix.

**Method:**

List<Country> findByNameStartingWith(String prefix);

**Example:** If we search for “Al”, it might return “Albania”, “Algeria”.

### 4. **Filter Between Two Dates**

Use this if your entity has a date field (like createdDate).

**Method:**

List<User> findByCreatedDateBetween(LocalDate start, LocalDate end);

**->** Find users created between two dates.

### 5. **Greater Than or Less Than**

Used for numbers or dates.

**Method (greater):**

-> Find products with price more than the given value.

**Method (less):**

List<Product> findByPriceLessThan(Double price);

### 6. **Top or First Result**

Used when you want only one or top few results.

**Method (Top 3):**

List<Employee> findTop3ByOrderBySalaryDesc();

**->**Gets top 3 employees with highest salary.

**Method (First):**

Employee findFirstByOrderByJoinDateAsc();

**->** Find the first employee who joined the company.