Lab: Spring Data Advanced Querying

This document defines the lab assignments for the ["Spring Data" course @ Software University](#).

You are **given** a simpler implementation of the **Shampoo Company**. Now it's time to start writing some query methods to retrieve data.
Before you start, insert the data from the "shampoo-company-insert.sql" file!

1. Select Shampoos by Size

Create a method that selects all shampoos with a **given size**, **ordered by shampoo id.**

Example:

Input	Output
MEDIUM	Nature Moments Mediterranean Olive Oil & Aloe Vera MEDIUM 6.50lv.
	Volume & Fullness Lavender MEDIUM 5.50lv.
	Rose Shine & Hydration MEDIUM 6.50lv.
	Color Protection & Radiance MEDIUM 6.75lv.
	Heavenly Long Long-Hair MEDIUM 7.50lv.
	Sea Buckthorn Vital MEDIUM 6.50lv.
	Fresh it Up! MEDIUM 7.65lv.
	Nectar Nutrition MEDIUM 6.85lv.

2. Select Shampoos by Size or Label

Create a method that selects all shampoos with a **given size or label id**. Sort the result **ascending by price**.

Example:

Input	Output
MEDIUM 10	Volume & Fullness Lavender MEDIUM 5.50lv.
	Intense-Charm Brunette SMALL 5.50lv.
	Nature Moments Mediterranean Olive Oil & Aloe Vera MEDIUM 6.50lv.
	Rose Shine & Hydration MEDIUM 6.50lv.
	Sea Buckthorn Vital MEDIUM 6.50lv.
	Color Protection & Radiance MEDIUM 6.75lv.
	Nectar Nutrition MEDIUM 6.85lv.
	Heavenly Long Long-Hair MEDIUM 7.50lv.
	Fresh it Up! MEDIUM 7.65lv.
	Active-Caffeine SMALL 7.80lv.

3. Select Shampoos by Price

Create a method that selects all shampoos, which price is **higher than a given price**. Sort the result **descending by price**.

Example:

Input	Output
5	Superfruit Nutrition LARGE 13.80lv.
	Cotton Fresh LARGE 13.60lv.
	Color Protection & Radiance LARGE 11.50lv.
	Rose Shine & Hydration LARGE 10.70lv.
	Nectar Nutrition LARGE 10.50lv.
	Keratin Strong SMALL 8.80lv.
	Superfruit Nutrition SMALL 8.80lv.
	Cotton Fresh SMALL 8.80lv.
	Keratin Strong LARGE 8.80lv.
	Volume & Fullness Lavender LARGE 8.50lv.
	…

4. Select Ingredients by Name

Create a method that selects all **ingredients**, which **name starts with given letters**.

Example:

Input	Output
M	Macadamia Oil
	Mineral-Collagen
	Micro Crystals

5. Select Ingredients by Names

Create a method that selects all **ingredients**, which are **contained in a given list**. Sort the result **ascending by price**.

Example:

Input	Output
Lavender	Apple
Herbs	Lavender
Apple	Herbs

6. Count Shampoos by Price

Create a method that **counts all shampoos** with **price lower than a given price**.

Example:

Input	Output
8.50	15

Follow us:

JPQL Querying

7. Select Shampoos by Ingredients

Create a method that selects all **shampoos with ingredients** included in a **given list**.

Example:

Input	Output
Berry Mineral-Collagen	Superfruit Nutrition Color Protection & Radiance Volume & Fullness Lavender Keratin Strong Nature Moments Mediterranean Olive Oil & Aloe Vera Nectar Nutrition Fresh it Up!

8. Select Shampoos by Ingredients Count

Create a method that selects all **shampoos with ingredients less than a given number**.

Example:

Input	Output
2	Moroccan Argan Oil & Macadamia Volume & Fullness Lavender Sea Buckthorn Vital Active-Caffeine

9. Delete Ingredients by Name

Create a method that **deletes ingredients by a given name**. Use named query.

10. Update Ingredients by Price

Create a method that **increases the price of all ingredients by 10%**. Use named query.

11. Update Ingredients by Names

Create a method that **updates the price** of all ingredients, which names are in a given list.