

# Assessment of Learning: SQL

**Table name:** coffee\_beans

<b>id</b>	<b>name</b>	<b>roaster</b>	<b>origin</b>	<b>category</b>	<b>process</b>	<b>roast_level</b>	<b>bag_size_g</b>	<b>price</b>	<b>rating</b>	<b>in_stock</b>
1	Sunrise Blend	Cedar & Steam	Multiple	Blend	Washed	Medium	340	16.99	8.10	true
2	Ethiopia Yirgacheffe	Bright Peak Coffee	Ethiopia	Single Origin	Washed	Light	250	18.50	8.30	true
3	Colombia Huila	Riverbend Roasters	Colombia	Single Origin	Washed	Medium	340	17.50	8.00	true
4	Midnight Decaf	Urban Grind	Colombia	Decaf	Swiss Water	Dark	340	18.99	7.60	true
5	Kenya AA	Atlas Origin	Kenya	Single Origin	Washed	Light	250	21.00	8.50	true
6	House Espresso	Cedar & Steam	Multiple	Blend	Natural	Dark	454	19.99	7.90	true
7	Guatemala Huehuetenango	Riverbend Roasters	Guatemala	Single Origin	Washed	Medium	340	17.99	8.05	true
8	Brazil Cerrado	Sunrise Collective	Brazil	Single Origin	Natural	Medium	340	15.99	7.80	true
9	Costa Rica Honey	Bright Peak Coffee	Costa Rica	Single Origin	Honey	Medium	250	19.50	8.10	true
10	Sumatra Mandheling	Urban Grind	Indonesia	Single Origin	Wet-hulled	Dark	340	18.49	7.95	true
11	Mountain Trail Blend	Atlas Origin	Multiple	Blend	Natural	Medium	340	16.49	7.85	true
12	Yemen Mokha	Sunrise Collective	Yemen	Single Origin	Natural	Light	250	24.99	8.60	true
13	Sunbeam Ethiopia	Cedar & Steam	Ethiopia	Single Origin	Washed	Light	340	20.50	8.20	true

## Questions

*Please write your responses on the next page.*

1. List all coffees in the categories **Blend** or **Decaf** and show their **name** and **category**, sorting by **name** in alphabetical order.
2. Order all coffees roasted by "**Cedar & Steam**" by **price** from **highest to lowest**. Show **name** and **price**.
3. List all coffees whose **name starts with** Sun and show **name** and **roaster**, **alphabetically by name**.
4. List the **two highest-rated** coffees. Show **name** and **rating** (highest first).
5. List the **third and fourth cheapest** coffees and their **price**.

**Solutions**

Write your responses here. If you prefer to write on a separate page, ask Mr. Gordon for paper, then clearly label your answers, for example: #1, #2, and so on.

Question	Query	Expected result															
1	<pre>SELECT name, category FROM coffee_beans WHERE category IN ('Blend', 'Decaf') ORDER BY name ASC;</pre>	<table border="1"> <thead> <tr> <th></th> <th>name</th> <th>category</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>House Espresso</td> <td>Blend</td> </tr> <tr> <td>2</td> <td>Midnight Decaf</td> <td>Decaf</td> </tr> <tr> <td>3</td> <td>Mountain Trail Blend</td> <td>Blend</td> </tr> <tr> <td>4</td> <td>Sunrise Blend</td> <td>Blend</td> </tr> </tbody> </table>		name	category	1	House Espresso	Blend	2	Midnight Decaf	Decaf	3	Mountain Trail Blend	Blend	4	Sunrise Blend	Blend
	name	category															
1	House Espresso	Blend															
2	Midnight Decaf	Decaf															
3	Mountain Trail Blend	Blend															
4	Sunrise Blend	Blend															
2	<pre>SELECT name, price FROM coffee_beans WHERE roaster = 'Cedar &amp; Steam' ORDER BY price DESC;</pre>	<table border="1"> <thead> <tr> <th></th> <th>name</th> <th>price</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Sunbeam Ethiopia</td> <td>20.5</td> </tr> <tr> <td>2</td> <td>House Espresso</td> <td>19.99</td> </tr> <tr> <td>3</td> <td>Sunrise Blend</td> <td>16.99</td> </tr> </tbody> </table>		name	price	1	Sunbeam Ethiopia	20.5	2	House Espresso	19.99	3	Sunrise Blend	16.99			
	name	price															
1	Sunbeam Ethiopia	20.5															
2	House Espresso	19.99															
3	Sunrise Blend	16.99															
3	<pre>SELECT name, roaster FROM coffee_beans WHERE name LIKE 'Sun%' ORDER BY name ASC;</pre>	<table border="1"> <thead> <tr> <th></th> <th>name</th> <th>roaster</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Sunbeam Ethiopia</td> <td>Cedar &amp; Steam</td> </tr> <tr> <td>2</td> <td>Sunrise Blend</td> <td>Cedar &amp; Steam</td> </tr> </tbody> </table>		name	roaster	1	Sunbeam Ethiopia	Cedar & Steam	2	Sunrise Blend	Cedar & Steam						
	name	roaster															
1	Sunbeam Ethiopia	Cedar & Steam															
2	Sunrise Blend	Cedar & Steam															
4	<pre>SELECT name, rating FROM coffee_beans ORDER BY rating DESC, name ASC LIMIT 2;</pre>	<table border="1"> <thead> <tr> <th></th> <th>name</th> <th>rating</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Yemen Mokha</td> <td>8.6</td> </tr> <tr> <td>2</td> <td>Kenya AA</td> <td>8.5</td> </tr> </tbody> </table>		name	rating	1	Yemen Mokha	8.6	2	Kenya AA	8.5						
	name	rating															
1	Yemen Mokha	8.6															
2	Kenya AA	8.5															
5	<pre>SELECT name, price FROM coffee_beans ORDER BY price ASC, name ASC LIMIT 2 OFFSET 2;</pre>	<table border="1"> <thead> <tr> <th></th> <th>name</th> <th>price</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Sunrise Blend</td> <td>16.99</td> </tr> <tr> <td>2</td> <td>Colombia Huila</td> <td>17.5</td> </tr> </tbody> </table>		name	price	1	Sunrise Blend	16.99	2	Colombia Huila	17.5						
	name	price															
1	Sunrise Blend	16.99															
2	Colombia Huila	17.5															

**coffee\_beans**

<b>id</b>	<b>name</b>	<b>roaster_id</b>	<b>origin_id</b>	<b>process</b>	<b>roast_level</b>	<b>price</b>	<b>rating</b>
1	Sunrise Blend	4	4	Natural	Medium	16.99	8.10
2	Ethiopia Yirgacheffe	2	1	Washed	Light	18.50	8.30
3	Colombia Huila	3	2	Washed	Medium	17.50	8.00
4	House Espresso	1	4	Natural	Dark	19.99	7.90
5	Kenya AA	3	3	Washed	Light	21.00	8.50
6	Costa Rica Honey	2	5	Honey	Medium	19.50	8.10
7	Brazil Cerrado	4	4	Natural	Medium	15.99	7.80
8	Yemen Mokha	4	6	Natural	Light	24.99	8.60
9	Sunbeam Ethiopia	1	1	Washed	Light	20.50	8.20
10	Costa Rica Washed	3	5	Washed	Medium	17.99	8.05

**roaster**

<b>id</b>	<b>roaster_name</b>	<b>city</b>	<b>founded_year</b>
1	Cedar & Steam	Vancouver	2014
2	Bright Peak Coffee	Toronto	2016
3	Riverbend Roasters	Ottawa	2012
4	Sunrise Collective	Halifax	2018
5	North Star Roastery	Calgary	2015

**origin**

<b>id</b>	<b>country</b>	<b>region</b>
1	Ethiopia	Yirgacheffe
2	Colombia	Huila
3	Kenya	Nyeri
4	Brazil	Cerrado
5	Costa Rica	Tarrazú
6	Yemen	Mokha

**Questions**

Please write your responses on the next page.

6. List every coffee **roasted in Toronto or Vancouver**, showing **bean name**, **roaster name**, and **city**. Sort by **city** (alphabetical) and then the **bean name** (alphabetical).
7. List all **Light** roasts with **rating greater than or equal to 8.20**, showing **bean name**, **roaster name**, **origin country**, and **rating**. Order by **rating** from highest to lowest, then by **bean name** in alphabetical order.
8. For **every roaster**, show **roaster name**, **city**, and the **number of bean blends** they offer as **bean\_count**. Include roasters that do not sell any bean blends. Sort by **roaster name** in alphabetical order.

**Solutions**

Write your responses here. If you prefer to write on a separate page, ask Mr. Gordon for paper, then clearly label your answers, for example: #6, #7, and so on.

Question	Query	Expected result																									
6	<pre>SELECT b.name AS bean, r.roaster_name AS roaster, r.city FROM coffee_beans AS b INNER JOIN roaster AS r ON b.roaster_id = <u>r.id</u> WHERE r.city IN ('Toronto', 'Vancouver') ORDER BY r.city ASC, b.name ASC;</pre>	<table border="1"> <thead> <tr> <th></th> <th>bean</th> <th>roaster</th> <th>city</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Costa Rica Honey</td> <td>Bright Peak Coffee</td> <td>Toronto</td> </tr> <tr> <td>2</td> <td>Ethiopia Yirgacheffe</td> <td>Bright Peak Coffee</td> <td>Toronto</td> </tr> <tr> <td>3</td> <td>House Espresso</td> <td>Cedar &amp; Steam</td> <td>Vancouver</td> </tr> <tr> <td>4</td> <td>Sunbeam Ethiopia</td> <td>Cedar &amp; Steam</td> <td>Vancouver</td> </tr> </tbody> </table>		bean	roaster	city	1	Costa Rica Honey	Bright Peak Coffee	Toronto	2	Ethiopia Yirgacheffe	Bright Peak Coffee	Toronto	3	House Espresso	Cedar & Steam	Vancouver	4	Sunbeam Ethiopia	Cedar & Steam	Vancouver					
	bean	roaster	city																								
1	Costa Rica Honey	Bright Peak Coffee	Toronto																								
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7	<pre>SELECT b.name AS bean, r.roaster_name AS roaster, o.country, b.rating FROM coffee_beans AS b INNER JOIN roaster AS r ON b.roaster_id = <u>r.id</u> INNER JOIN origin AS o ON b.origin_id = <u>o.id</u> WHERE b.roast_level = 'Light' AND b.rating &gt;= 8.20 ORDER BY b.rating DESC, b.name ASC;</pre>	<table border="1"> <thead> <tr> <th></th> <th>bean</th> <th>roaster</th> <th>country</th> <th>rating</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Yemen Mokha</td> <td>Sunrise Collective</td> <td>Yemen</td> <td>8.6</td> </tr> <tr> <td>2</td> <td>Kenya AA</td> <td>Riverbend Roasters</td> <td>Kenya</td> <td>8.5</td> </tr> <tr> <td>3</td> <td>Ethiopia Yirgacheffe</td> <td>Bright Peak Coffee</td> <td>Ethiopia</td> <td>8.3</td> </tr> <tr> <td>4</td> <td>Sunbeam Ethiopia</td> <td>Cedar &amp; Steam</td> <td>Ethiopia</td> <td>8.2</td> </tr> </tbody> </table>		bean	roaster	country	rating	1	Yemen Mokha	Sunrise Collective	Yemen	8.6	2	Kenya AA	Riverbend Roasters	Kenya	8.5	3	Ethiopia Yirgacheffe	Bright Peak Coffee	Ethiopia	8.3	4	Sunbeam Ethiopia	Cedar & Steam	Ethiopia	8.2
	bean	roaster	country	rating																							
1	Yemen Mokha	Sunrise Collective	Yemen	8.6																							
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3	Ethiopia Yirgacheffe	Bright Peak Coffee	Ethiopia	8.3																							
4	Sunbeam Ethiopia	Cedar & Steam	Ethiopia	8.2																							
8	<pre>SELECT r.roaster_name, r.city, COUNT(<u>b.id</u>) AS bean_count FROM roaster AS r LEFT JOIN coffee_beans AS b ON b.roaster_id = <u>r.id</u> GROUP BY <u>r.id</u>, r.roaster_name, r.city ORDER BY r.roaster_name ASC;</pre>	<table border="1"> <thead> <tr> <th></th> <th>roaster_name</th> <th>city</th> <th>bean_count</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Bright Peak Coffee</td> <td>Toronto</td> <td>2</td> </tr> <tr> <td>2</td> <td>Cedar &amp; Steam</td> <td>Vancouver</td> <td>2</td> </tr> <tr> <td>3</td> <td>North Star Roastery</td> <td>Calgary</td> <td>0</td> </tr> <tr> <td>4</td> <td>Riverbend Roasters</td> <td>Ottawa</td> <td>3</td> </tr> <tr> <td>5</td> <td>Sunrise Collective</td> <td>Halifax</td> <td>3</td> </tr> </tbody> </table>		roaster_name	city	bean_count	1	Bright Peak Coffee	Toronto	2	2	Cedar & Steam	Vancouver	2	3	North Star Roastery	Calgary	0	4	Riverbend Roasters	Ottawa	3	5	Sunrise Collective	Halifax	3	
	roaster_name	city	bean_count																								
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