Lab Guide

Learn How to Write Complex CMDB Query in Less Than 5 Min

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Default Login / Password: Knowledge17

admin / Knowledge17

itil / Knowledge17

employee / Knowledge17

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Lab Goal

This lab sets up the data needed for the labs.

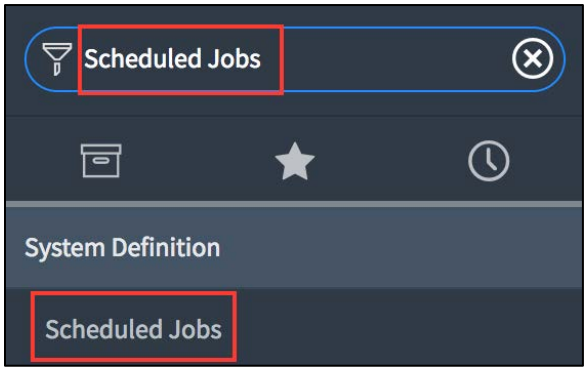
Lab 1.1
Setup

Log On to Your Training Instance

1. Navigate to the unique instance URL provided to you.
2. Log on with provided credentials as an admin user.

Execute Query Builder Scheduled Job

1. Navigate to **System Definition > Scheduled Jobs**.



2. Open the **CMDB Query Builder suggested relationships cache refresh** scheduled job.
3. Click **Execute Now**.



Lab Goal

Lab 1.2 Create And Run A Simple CMDB Query

This lab explains how to create a simple CMDB Query and run it.

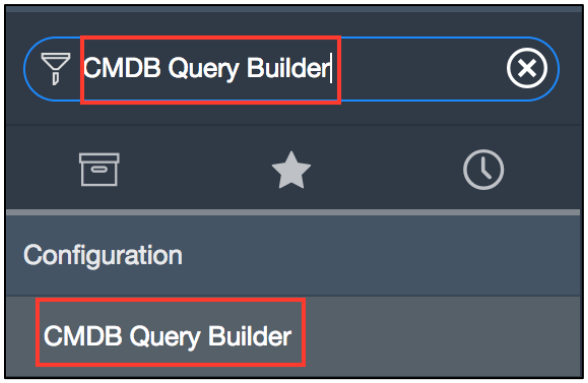
Context: Give me all Business Services which have a Business criticality of Most Critical.

Log On to Your Training Instance

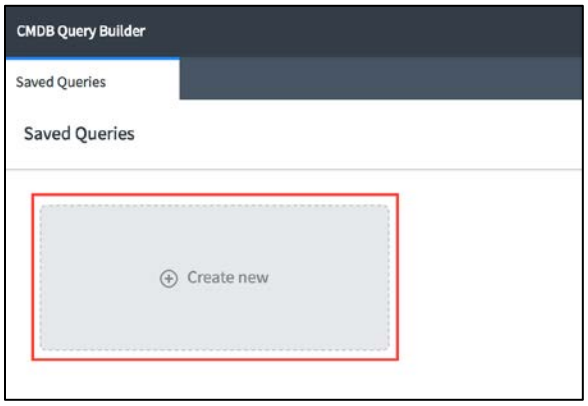
1. Navigate to the unique instance URL provided to you.
2. Log on with provided credentials as an admin user.

Create a CMDB Query

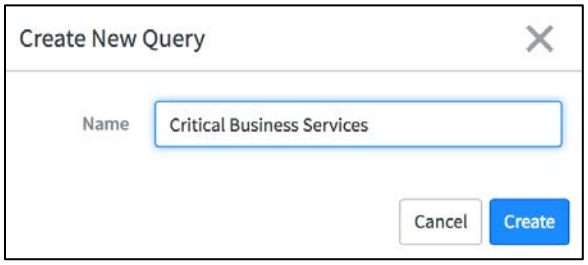
1. Navigate to **CMDB Query Builder**.



2. Click **Create new**.

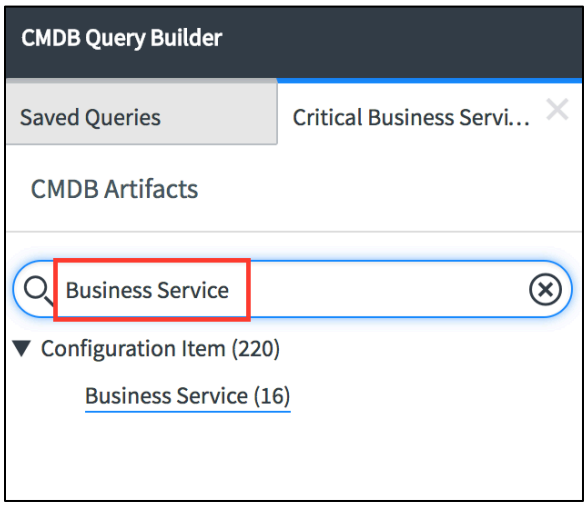


3. Add a name for the new query of **Critical Business Services**



4. Click **Create**.

5. Search for **Business Service** in the CMDB Artifacts.



6. Drag the **Business Service** class onto the canvas.

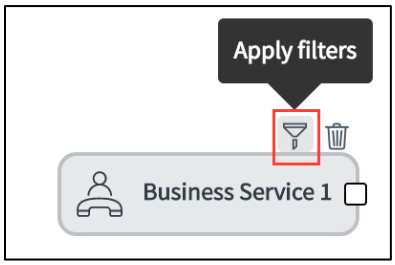


7. Click **Save**.



Apply Filters to a Class

1. Click the filter button by hovering over **Business Service 1**.



2. Add the filter of **Business criticality is 1 – most critical**.



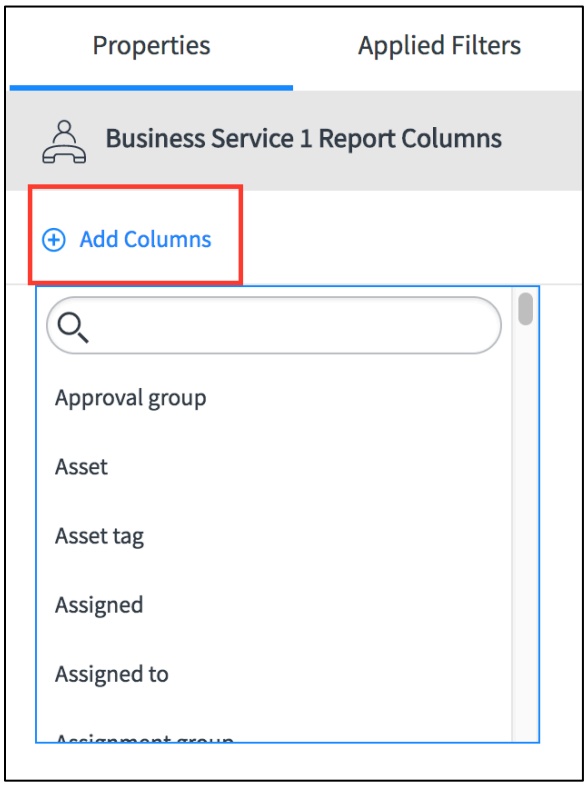
3. Click the **Close** button to close the filter box.

Add Report Columns

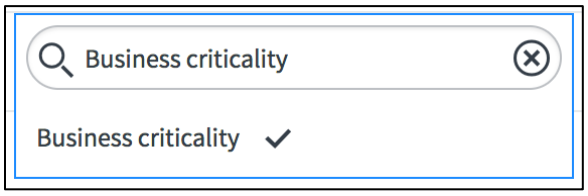
1. Ensure **Business Service 1** is selected on the canvas.



2. On the right panel, click **Add Columns**.



3. Search for **Business criticality** and select it.



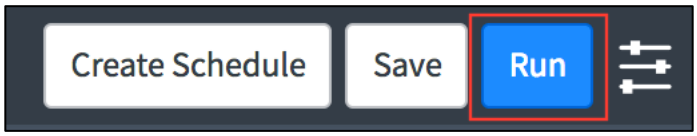
4. Search for **Owned by** and select it.



5. Click the canvas to close the properties section for Business Service 1.

Run a Query

1. In the top-right, click **Run**.

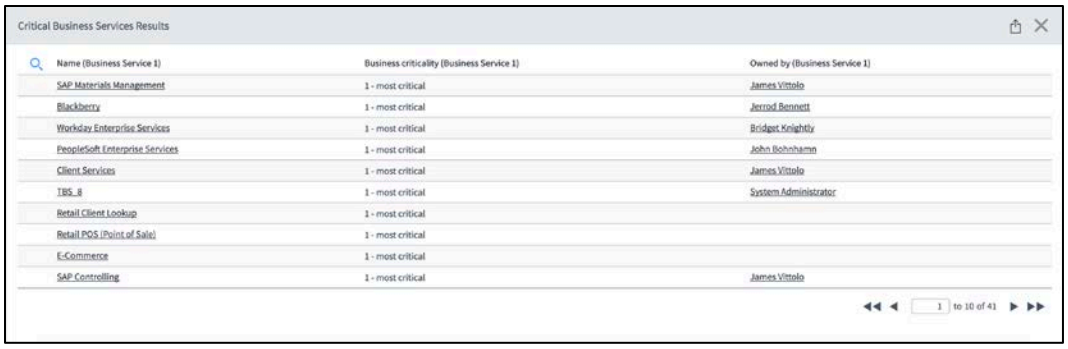


2. Results are loaded at the bottom of the page.

3. Click **Save**.

Lab Success Verification

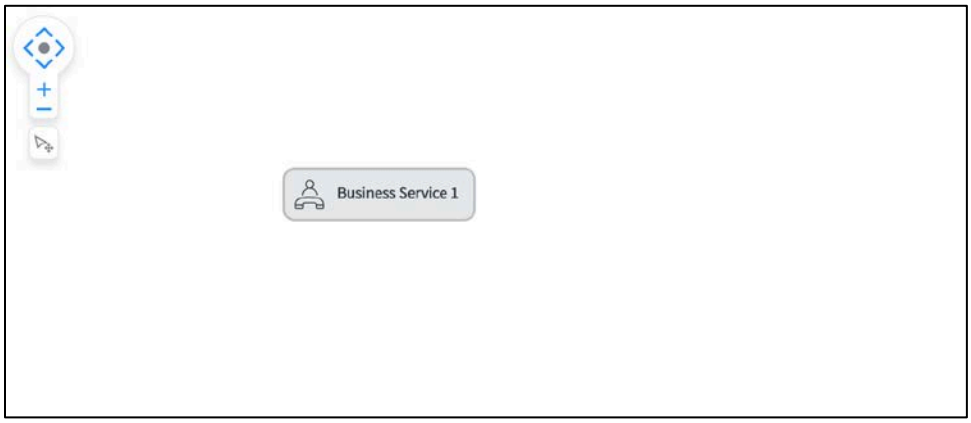
1. Your results should look like the following table.


Critical Business Services Results

Name (Business Service 1)	Business criticality (Business Service 1)	Owned by (Business Service 1)
SAP Materials Management	1 - most critical	James Vittolo
Blackberry	1 - most critical	Jerrod Bennett
Workday Enterprise Services	1 - most critical	Bridget Knightly
PeopleSoft Enterprise Services	1 - most critical	John Bohnhamn
Client Services	1 - most critical	James Vittolo
TBS_8	1 - most critical	System Administrator
Retail Client Lookup	1 - most critical	
Retail POS (Point of Sale)	1 - most critical	
E-Commerce	1 - most critical	
SAP Controlling	1 - most critical	James Vittolo

1 to 10 of 41

2. Your query should look like the following example.



Lab Goal

Lab 2.1 Create And Run A Chain Relationship Query

This lab explains how to create a CMDB Query with a chain of relationships.

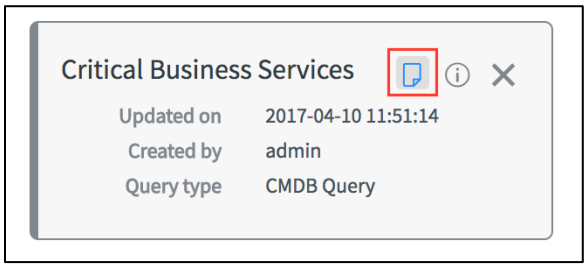
Context: Give me all Critical Business Services which are connected to an Oracle Instance through a load balancer pool and web server. The Oracle instance should be running version 9.5.

Log On to Your Training Instance

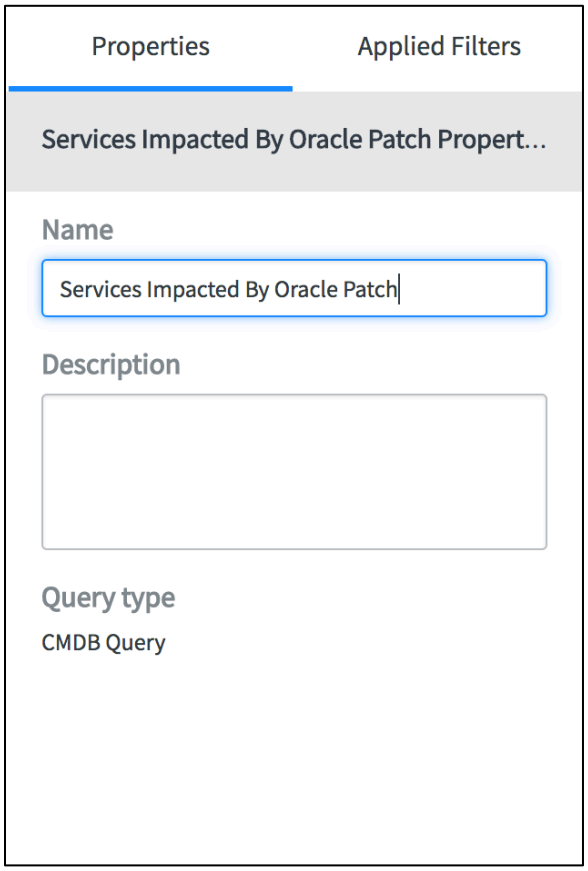
1. Navigate to the unique instance URL provided to you.
2. Log on with provided credentials as an admin user.

Create a CMDB Query

1. Navigate to **CMDB Query Builder**.
2. Hover over the **Critical Business Services Query** and click the **Duplicate Query** icon.

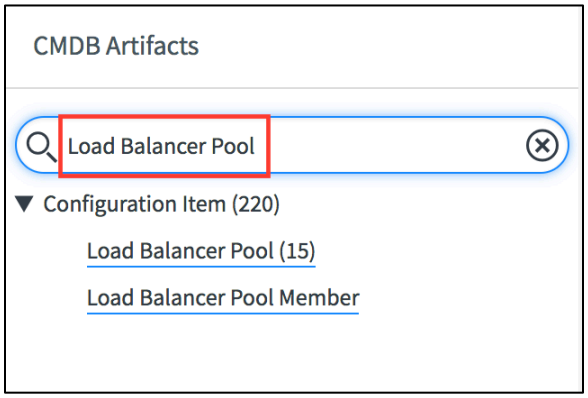


3. In the right panel, change the name of the query to **Services Impacted By Oracle Patch**.



Add Connections Between Classes

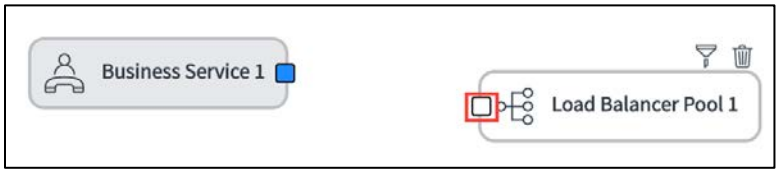
1. Search for **Load Balancer Pool** in the CMDB Artifacts and drag it onto the canvas.



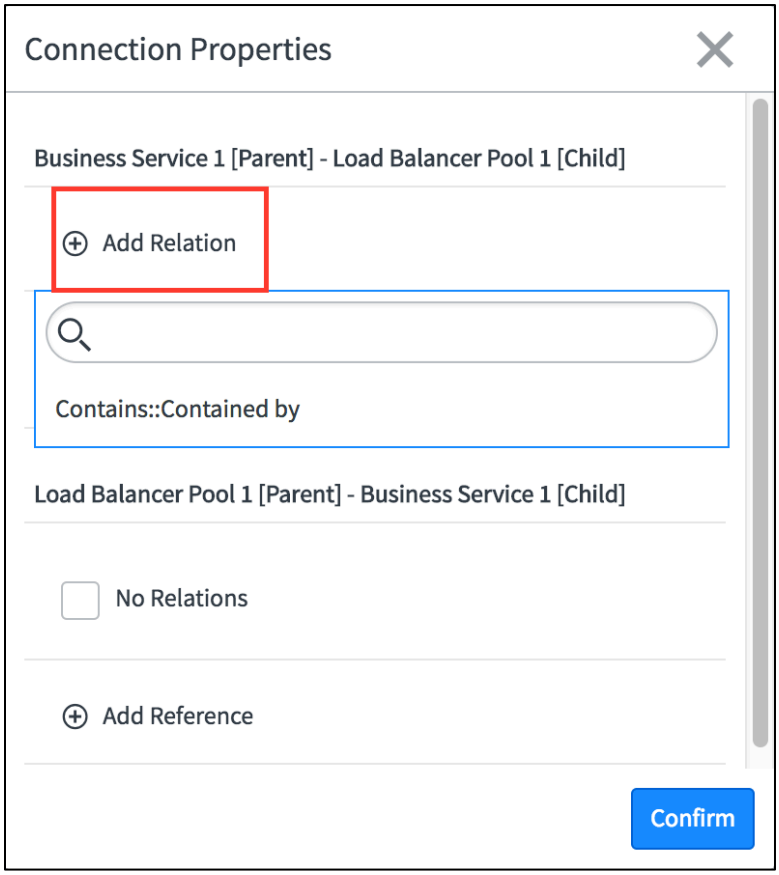
2. Hover over **Business Service 1** and click the box on the right side to start building a connection.



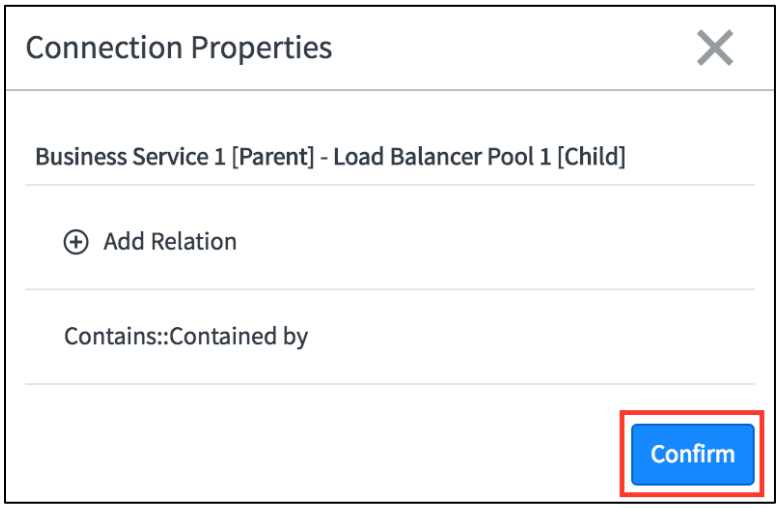
3. Hover over **Load Balancer Pool 1** and click the box on the left side to complete the connection.



4. When the dialog box appears, click **Add Relation** under the heading **Business Service 1 [Parent] – Load Balancer Pool 1 [Child]**.



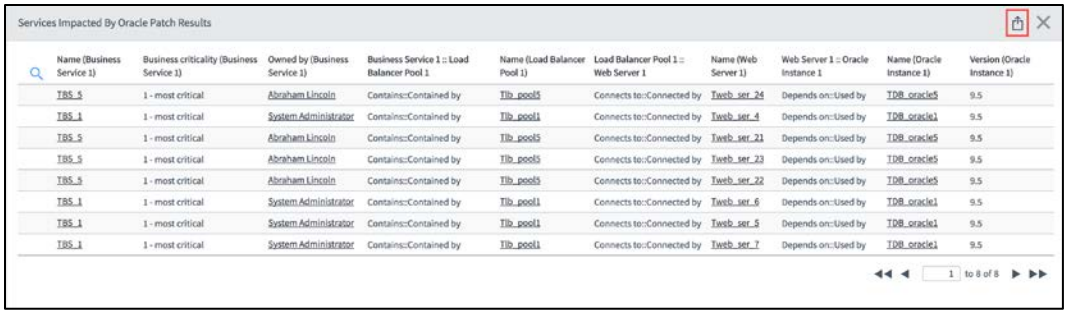
5. Select the relationship **Contains::Contained by** and click **Confirm**.



6. Search for **Web Server** in the CMDB Artifacts and drag it onto the canvas.
7. Connect **Load Balancer Pool 1** to **Web Server 1**.
8. When the dialog box appears, click **Add Relation** under the heading **Load Balancer Pool 1 [Parent] – Web Server 1 [Child]**.
9. Select the relationship **Connects to::Connected by** and click **Confirm**.
10. Search for **Oracle Instance** in the CMDB Artifacts and drag it onto the canvas.
11. Connect **Web Server 1** to **Oracle Instance 1**.
12. When the dialog box appears, click **Add Relation** under the heading **Web Server 1 [Parent] – Oracle Instance 1 [Child]**.
13. Select the relationship **Depends on::Used by** and click **Confirm**.
14. Apply a filter on **Oracle Instance 1** of **Version is 9.5**.
15. Add a report column to **Oracle Instance 1** of **Version**.
16. Click **Save**.

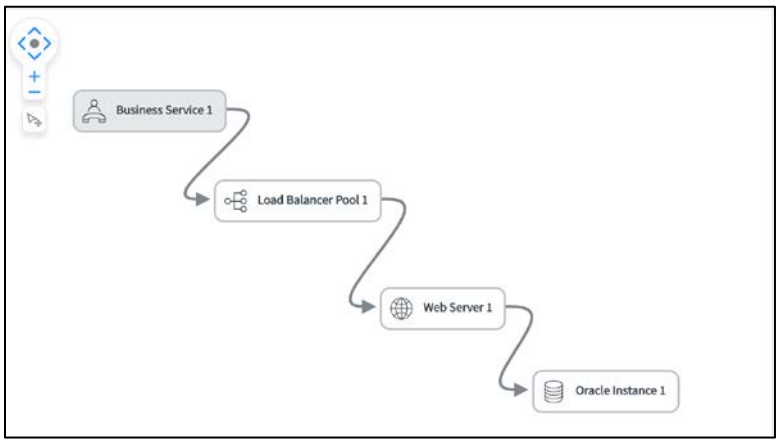
Run and Export Results

1. Click **Run**.
2. Results appear at the bottom of the screen.
3. Click the **Export** button to export the current results.



Lab Success Verification

1. Your results should look like the results above.
2. Your query should look like the following example.



Lab Goal

This lab explains how to run a partial CMDB Query.

Lab 2.2
Run a Partial Query

Log On to Your Training Instance

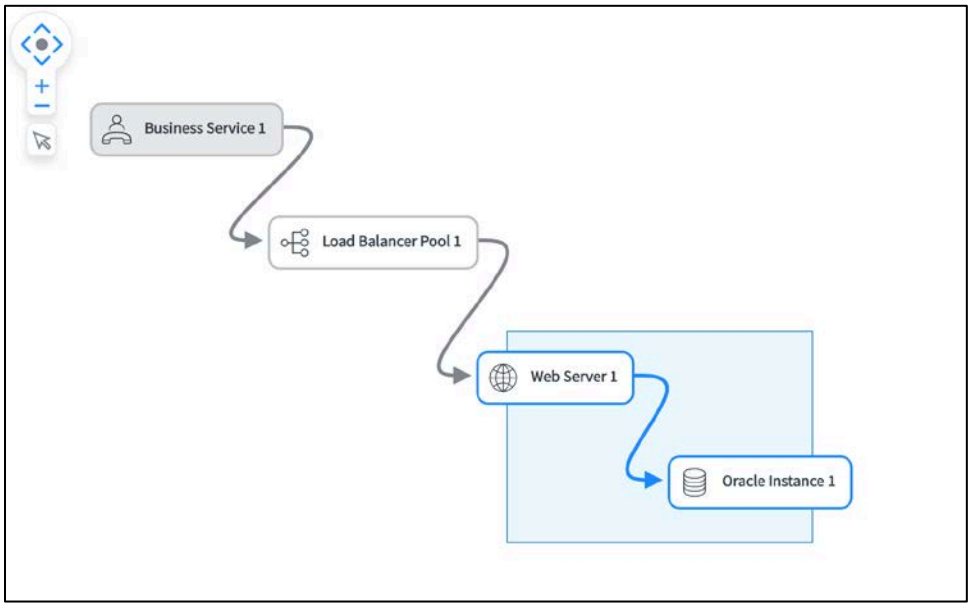
1. Navigate to the unique instance URL provided to you.
2. Log on with provided credentials as an admin user.

Select a Partial Query

1. Navigate to **CMDB Query Builder**.
2. Open the **Services Impacted By Oracle Patch** query.
3. Click the arrow button under the zoom buttons to change the mode to selection mode.



4. Select the portion of the query where **Web Server 1** is connected to **Oracle Instance 1**.



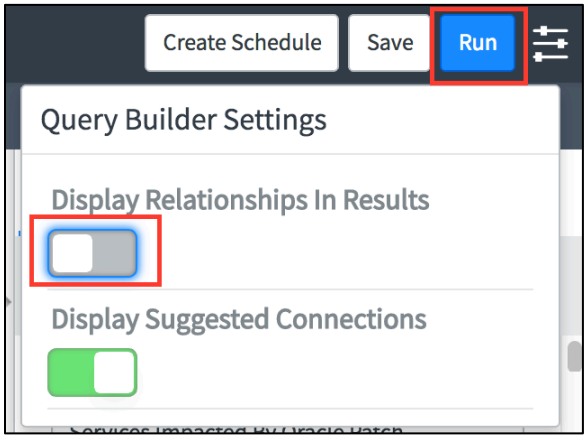
Run a Partial Query

1. Click **Run**.
2. When the pop-up window appears, select **Web Server 1** as the start node and click **Confirm**.



3. Results appear.

4. Click the **Settings** button in the top right of the page and turn off the **Display Relationships in Results** setting.



Lab Success Verification

1. Your results should look like the following table.



Lab Goal

Lab 3.1
AND Queries

This lab explains how to use AND with CMDB Queries.

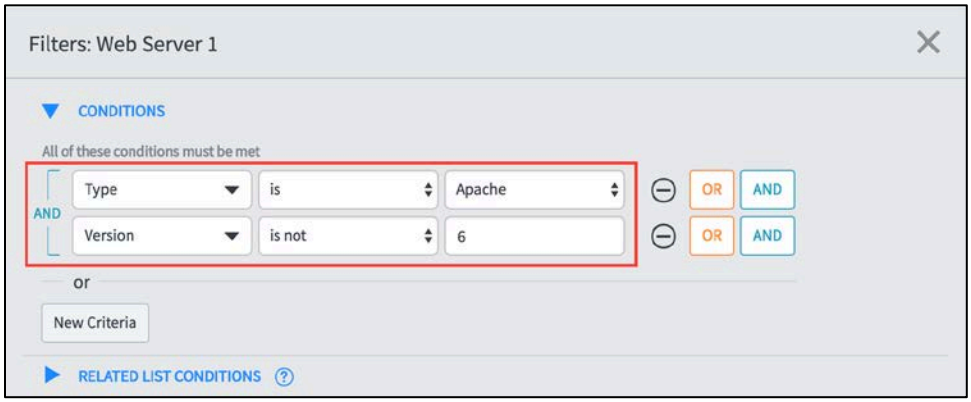
Context: Give me Web Servers which are not running Apache version 6 that are hosted on Linux servers with less than 8000 MB of RAM, and are connected by a load balancer pool.

Log On to Your Training Instance

1. Navigate to the unique instance URL provided to you.
2. Log on with provided credentials as an admin user.

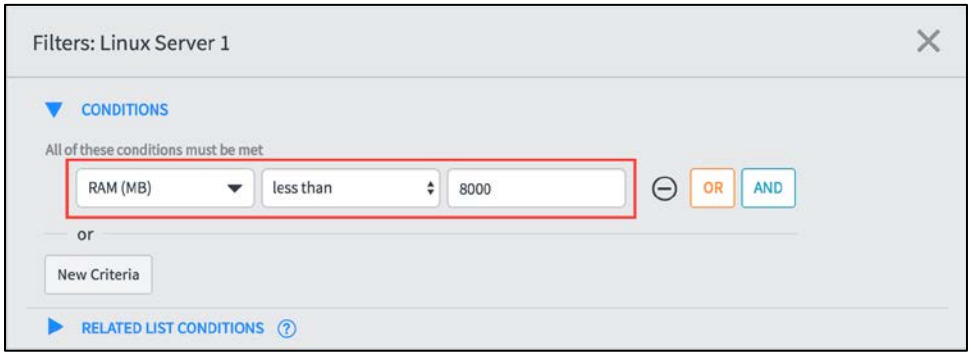
Build an AND Query

1. Navigate to **CMDB Query Builder**.
2. Click **Create New**.
3. Name the query **AND Query**.
4. Search for **Web Server** in the CMDB Artifacts and drag it onto the canvas.
5. Add a filter to **Web Server 1** of **Type is Apache AND Version is not 6**.

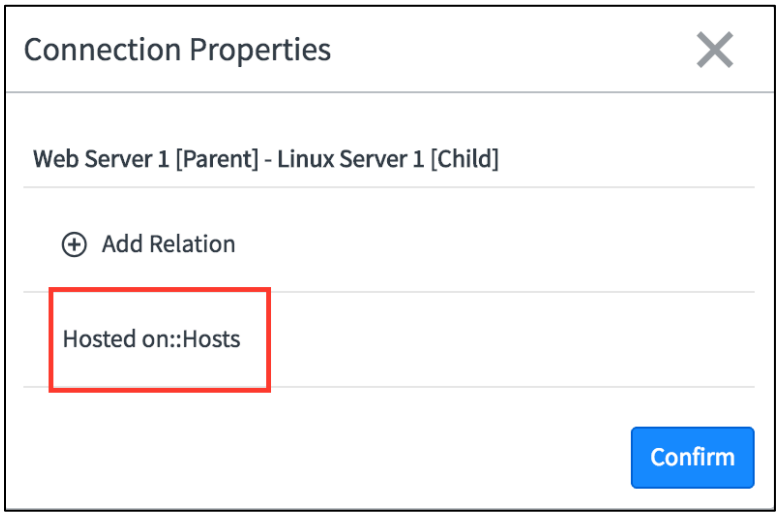


6. Add report columns for **Web Server 1** of **Type** and **Version**.

7. Search for **Linux Server** in the CMDB Artifacts and drag it onto the canvas.
8. Add a filter to **Linux Server 1** of **RAM (MB) less than 8000**.



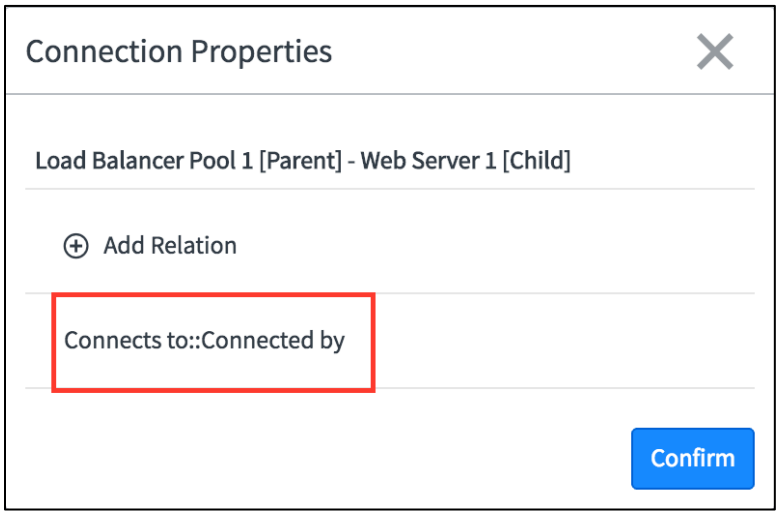
9. Add a report column for **Linux Server 1** of **RAM (MB)**.
10. Search for **Load Balancer Pool** in the CMDB Artifacts and drag it onto the canvas.
11. Connect **Web Server 1** to **Linux Server 1**.
12. When the dialog box appears, click **Add Relation** under the heading **Web Server 1 [Parent] – Linux Server 1 [Child]**.
13. Select the relationship **Hosted on::Hosts** and click **Confirm**.



14. Connect **Web Server 1** to **Load Balancer Pool 1**.

15. When the dialog box appears, click **Add Relation** under the heading **Load Balancer Pool 1 [Parent] – Web Server 1 [Child]**.

16. Select the relationship **Connects to::Connected by** and click **Confirm**.



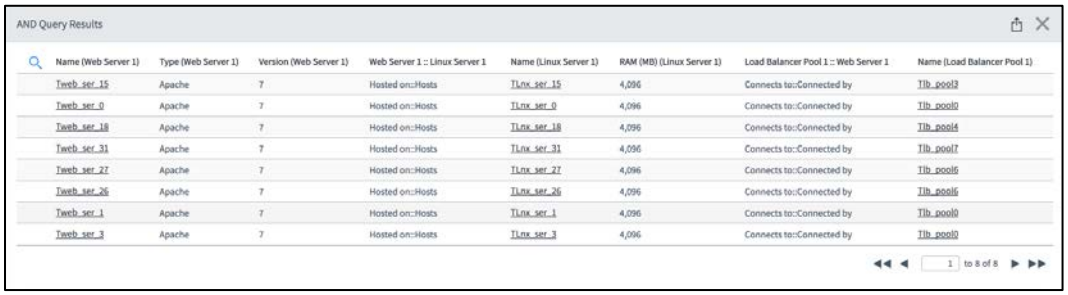
17. Click the **Settings** button and ensure the **Display Relationships In Results** setting is active.

18. Click **Save**.

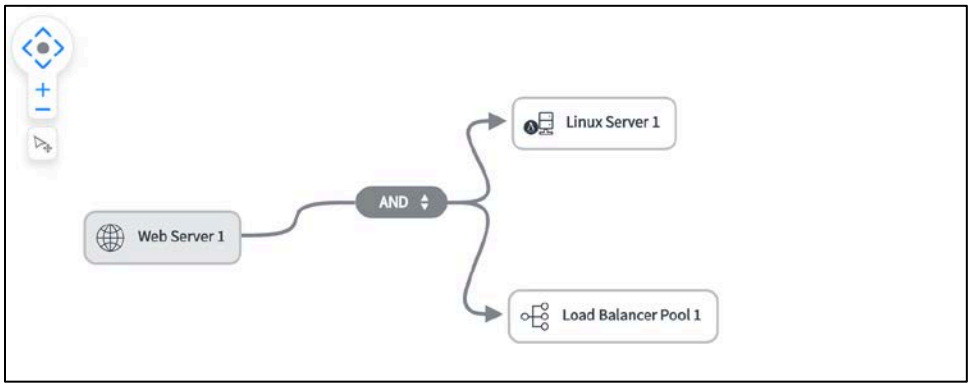
19. Click **Run**.

Lab Success Verification

1. Your results should look like the following table.



2. Your query should look like the following example.



Lab Goal

Lab 3.2
OR Queries

This lab explains how to use OR with CMDB Queries.

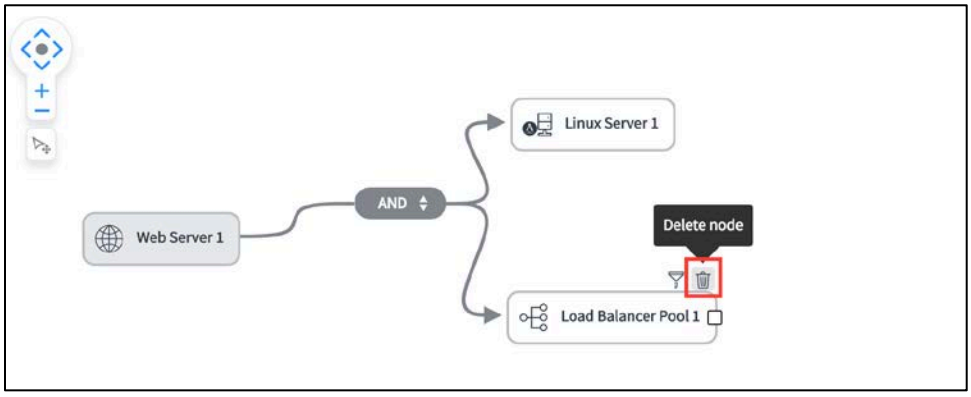
Context: Give me Web Servers which are not running Apache version 6 that are hosted on Linux servers with less than 8000 MB of RAM, or are hosted on Windows servers.

Log on to Your Training Instance

1. Navigate to the unique instance URL provided to you.
2. Log on with provided credentials as an admin user.

Build an OR Query

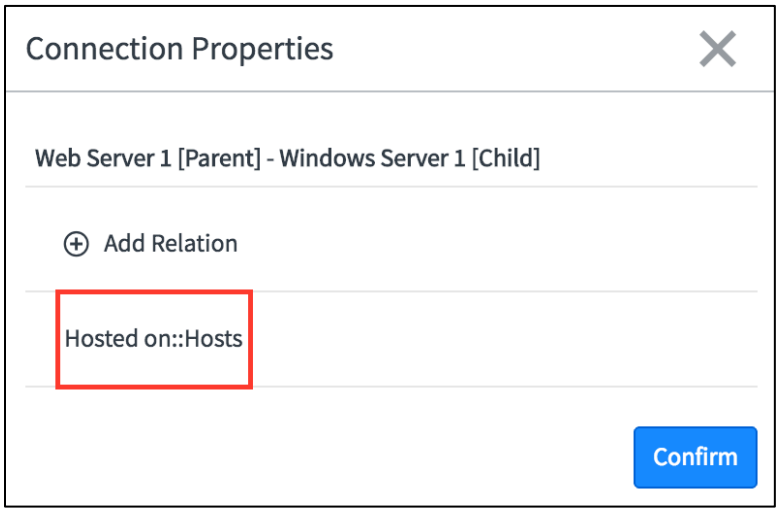
1. Navigate to **CMDB Query Builder**.
2. Hover over the **AND Query** saved query card and click **Duplicate**.
3. Rename the query to **OR Query**
4. Hover over **Load Balancer Pool 1** and click the **Delete Node** icon.



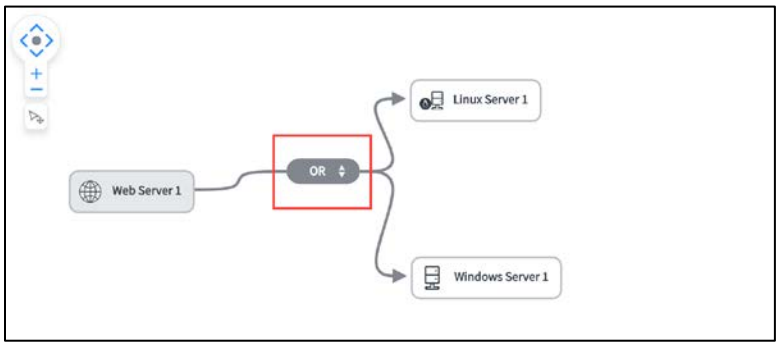
5. Search for **Windows Server** in the CMDB Artifacts and drag it onto the canvas.
6. Connect **Web Server 1** to **Windows Server 1**.

7. When the dialog box appears, click **Add Relation** under the heading **Web Server 1 [Parent] – Windows Server 1 [Child]**.

8. Select the relationship **Hosted on::Hosts** and click **Confirm**.



9. Click the **AND** bubble between Web Server 1 and both Linux Server 1 and Windows Server 1 so that it becomes **OR**.



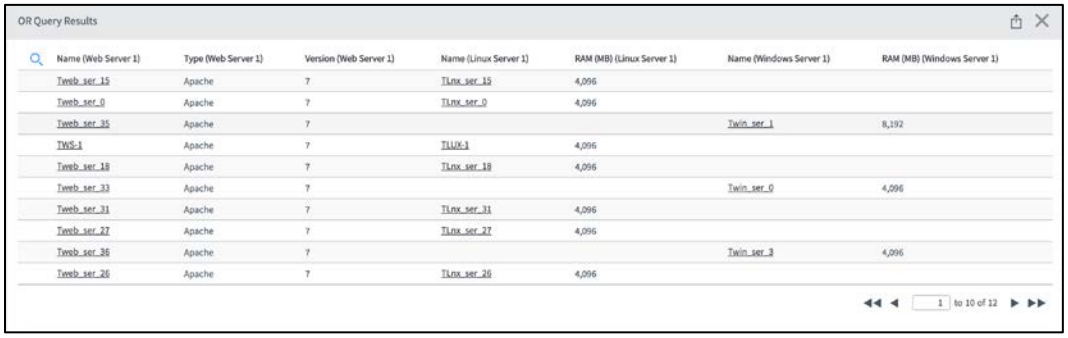
10. Add a report column for **Windows Server 1** of **RAM (MB)**.

11. Click **Save**.

12. Click **Run**.

Lab Success Verification

1. Your results should look like the following table.

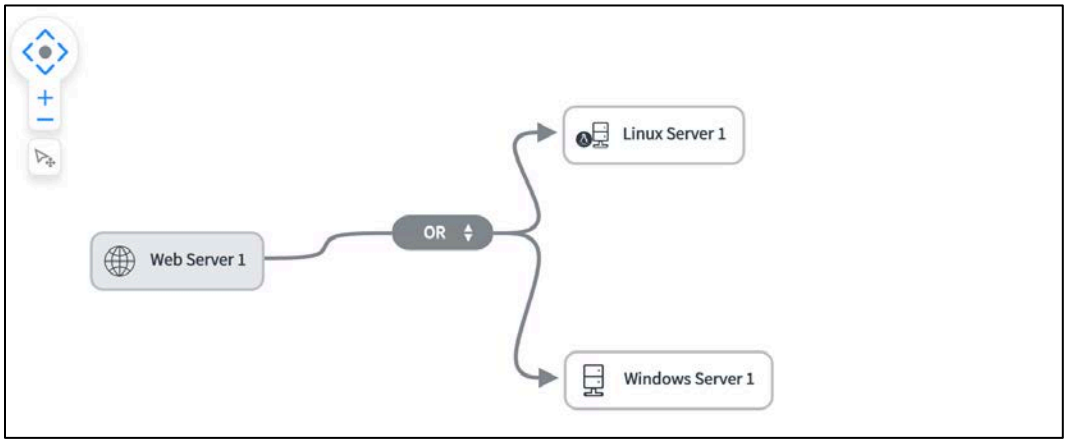


OR Query Results

Name (Web Server 1)	Type (Web Server 1)	Version (Web Server 1)	Name (Linux Server 1)	RAM (MB) (Linux Server 1)	Name (Windows Server 1)	RAM (MB) (Windows Server 1)
Tweb_ser_15	Apache	7	Tlnx_ser_15	4,096		
Tweb_ser_0	Apache	7	Tlnx_ser_0	4,096		
Tweb_ser_35	Apache	7			Twin_ser_1	8,192
TWS-1	Apache	7	TLUX-1	4,096		
Tweb_ser_18	Apache	7	Tlnx_ser_18	4,096		
Tweb_ser_33	Apache	7			Twin_ser_0	4,096
Tweb_ser_31	Apache	7	Tlnx_ser_31	4,096		
Tweb_ser_27	Apache	7	Tlnx_ser_27	4,096		
Tweb_ser_36	Apache	7			Twin_ser_3	4,096
Tweb_ser_26	Apache	7	Tlnx_ser_26	4,096		

◀◀ ◀ 1 to 10 of 12 ▶ ▶▶

2. Your query should look like the following example.



Lab Goal

Lab 3.3
No Relations

This lab explains how to use No Relations with CMDB Queries.

Context: Give me Web Servers which are not running Apache version 6 that are hosted on Linux servers with less than 8000 MB of RAM, and has no relation to a Load Balancer Pool.

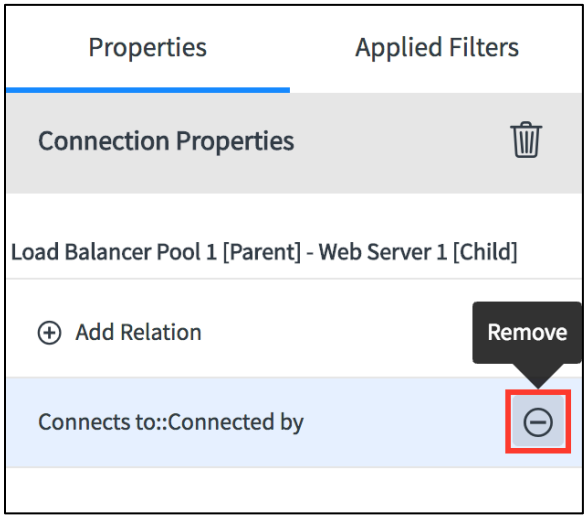
Log On to Your Training Instance

1. Navigate to the unique instance URL provided to you.
2. Log on with provided credentials as an admin user.

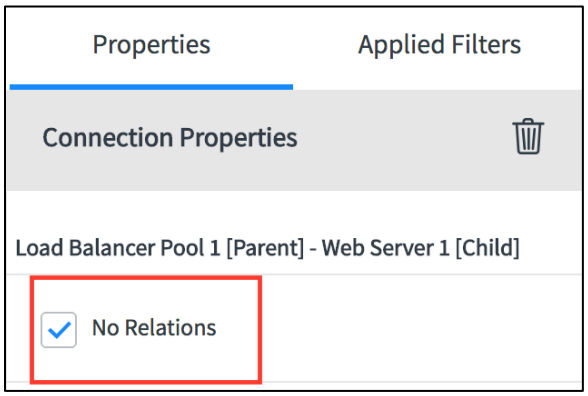
Build a No Relations Query

1. Navigate to **CMDB Query Builder**.
2. Hover over the **AND Query** saved query card and click **Duplicate**.
3. Rename the query to **No Relations Query**.
4. Click on the connection between **Web Server 1** and **Load Balancer Pool 1**.

5. On the right panel, hover over the right side of the **Connects to::Connected by** relationship and click **Remove**.



6. Check the **No Relations** box under the heading **Load Balancer Pool 1 [Parent] – Web Server 1 [Child]**.

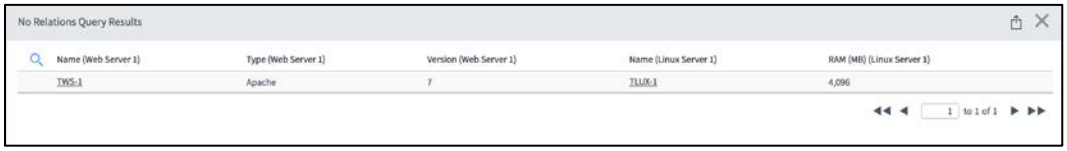


7. Click **Save**.

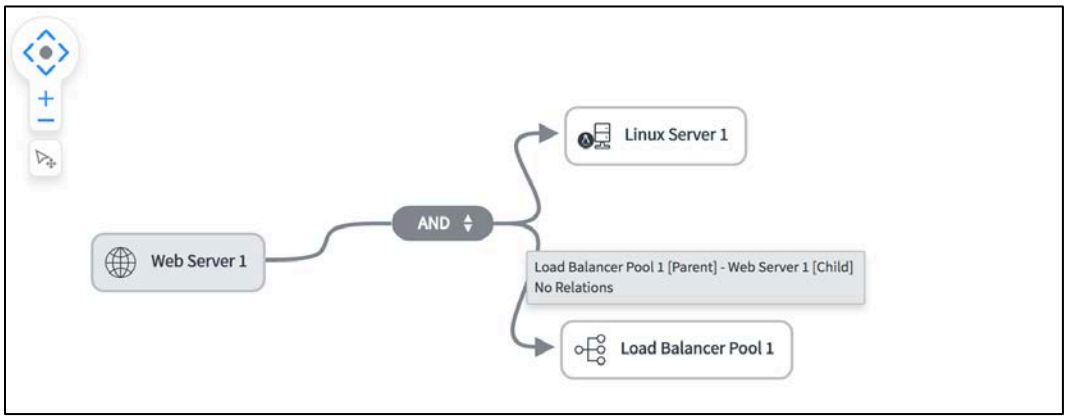
8. Click **Run**.

Lab Success Verification

1. Your results should look like the following table.



2. Your query should look like the following example.



Lab Goal

Lab 4.1 Using Saved Queries in CMDB Groups

This lab explains how to use saved CMDB Queries as part of a CMDB Group.

Context: Create a group of Linux servers which are connected by Load Balancer Pool 1 or Load Balancer Pool 5.

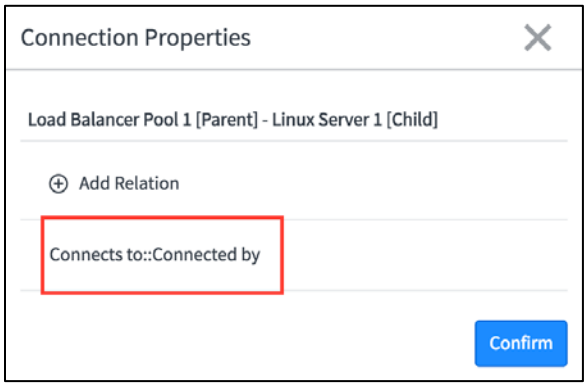
Log On to Your Training Instance

1. Navigate to the unique instance URL provided to you.
2. Log on with provided credentials as an admin user.

Adding a Saved Query to a CMDB Group

1. Navigate to **CMDB Query Builder**.
2. Create a new query called **Linux Servers Connected by LBP1 or LBP5**.
3. Search for **Linux Server** in the CMDB Artifacts and drag it onto the canvas.
4. Search for **Load Balancer Pool** in the CMDB Artifacts and drag it onto the canvas.
5. Connect **Linux Server 1** to **Load Balancer Pool 1**.
6. When the dialog box appears, click **Add Relation** under the heading **Load Balancer Pool 1 [Parent] – Linux Server 1 [Child]**.

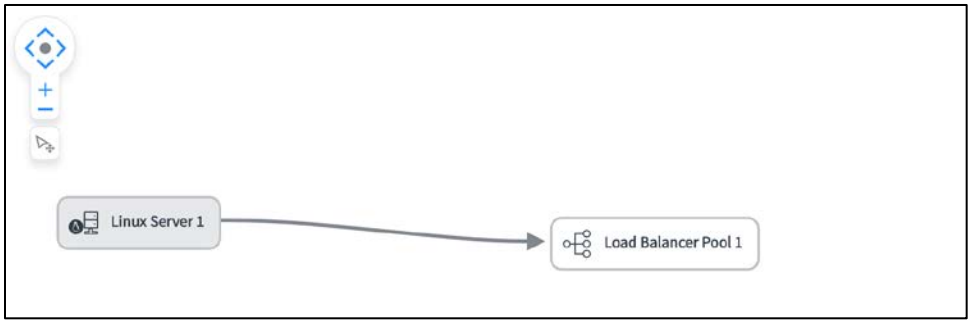
7. Select the relationship **Connects to::Connected by** and click **Confirm**.



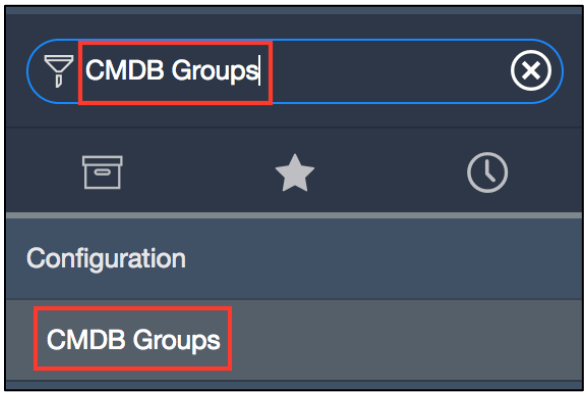
8. Add a filter to **Load Balancer Pool 1** of **Name is Tlb_pool1 OR Name is Tlb_pool5**.



9. Click **Save**.



10. Navigate to **CMDB Groups**.



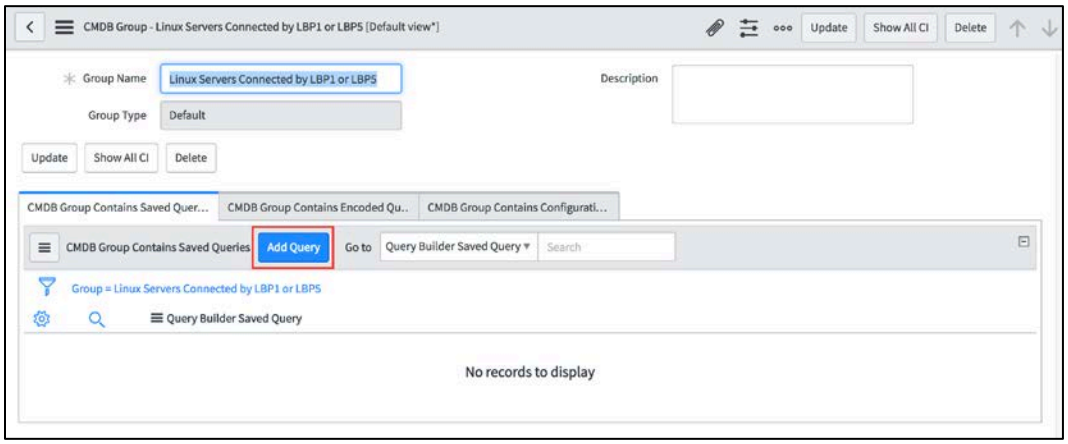
11. Click **New**.

12. Name the group **Linux Servers Connected by LBP1 or LBP5** and click **Submit**.



13. When taken back to the list view, click on the **Linux Servers Connected by LBP1 or LBP5** group to navigate to the group.

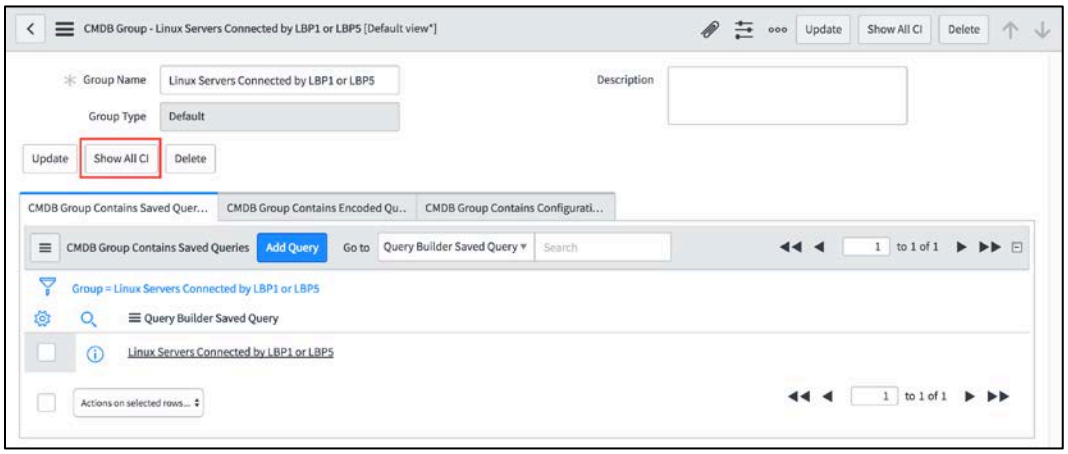
14. In the CMDB Group Contains Saved Queries related list, click **Add Query**.



15. In **Query Builder Saved Query**, select the saved query **Linux Servers Connected by LBP1 or LBP5** and click **Submit**.

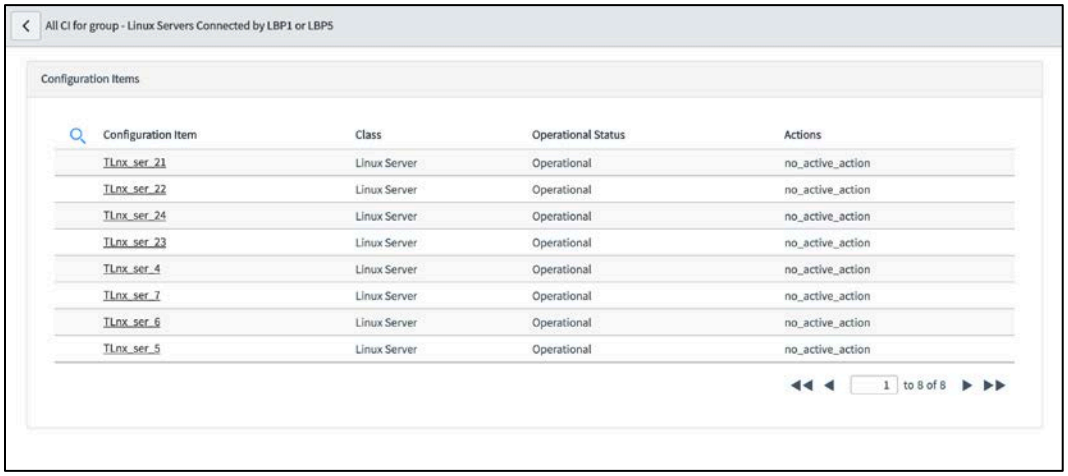


16. Once you've returned to the Group form, click **Show All CI**.



Lab Success Verification

1. Your results should look like the following table.



Lab Goal

This lab explains how to tag saved queries, search saved queries, and schedule execution of saved queries.

Lab 4.2 Tagging, Searching, and Scheduling

Log On to Your Training Instance

1. Navigate to the unique instance URL provided to you.
2. Log on with provided credentials as an admin user.

Tag Saved Queries

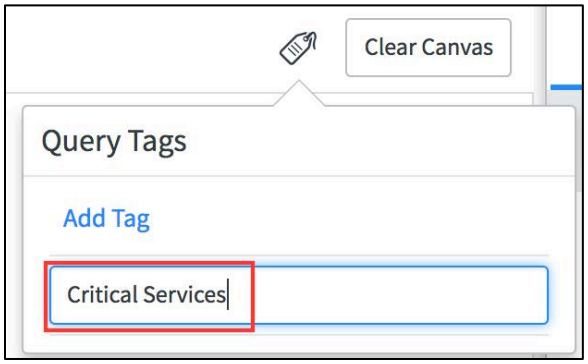
1. Navigate to **CMDB Query Builder**.
2. Open the **Critical Business Services** query.
3. At the top of the canvas, click the **Tags** icon.



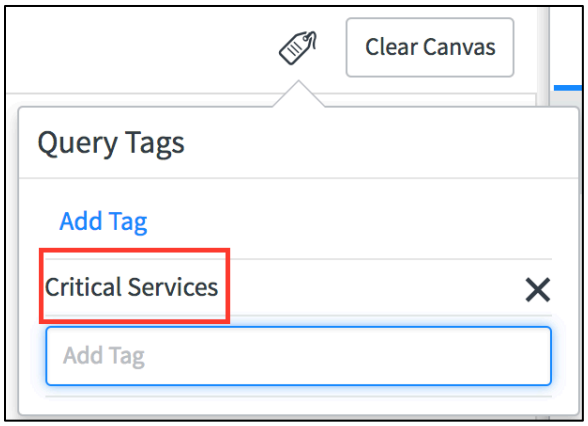
4. Click **Add Tag**.



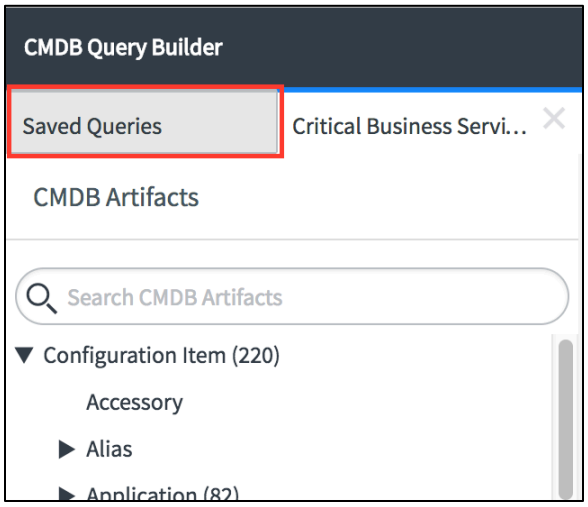
5. In the input box, type **Critical Services**.



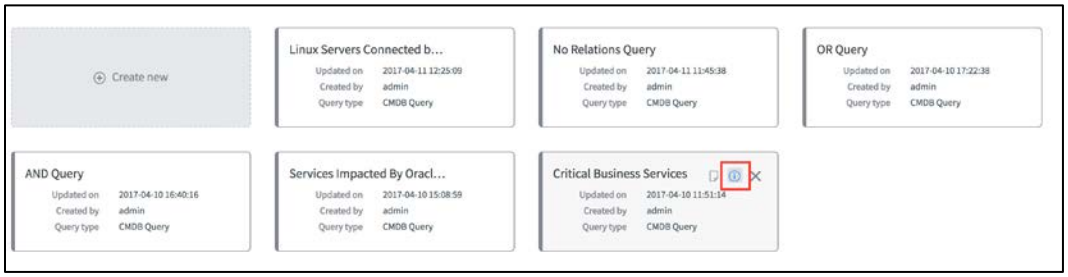
6. Press **Enter** and notice the tag is now added to the list.



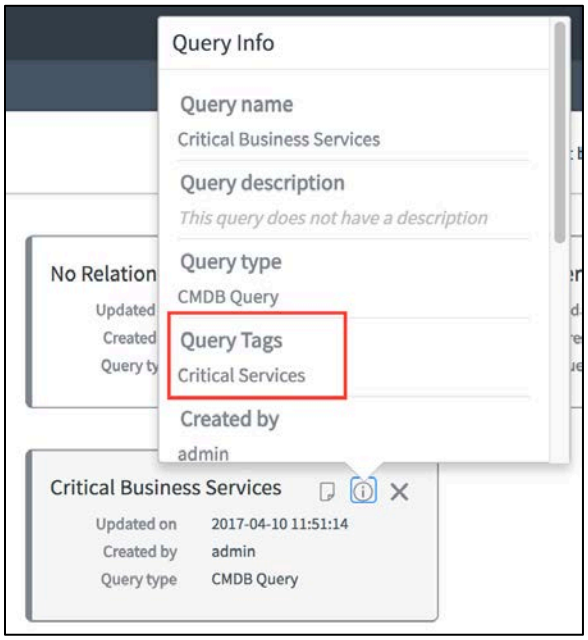
7. Switch to the **Saved Queries** tab.



8. Hover over the **Critical Business Services** query and click the **Info** icon.



9. Notice the Tag is now added to the saved query information.



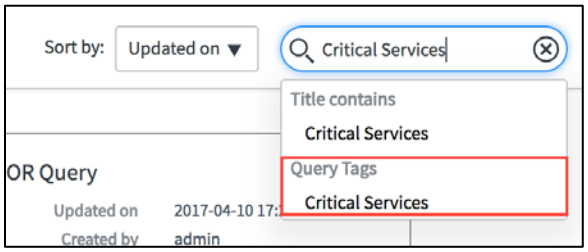
10. Open the **Services Impacted By Oracle Patch** query.

11. Add the tag **Critical Services** to the query.

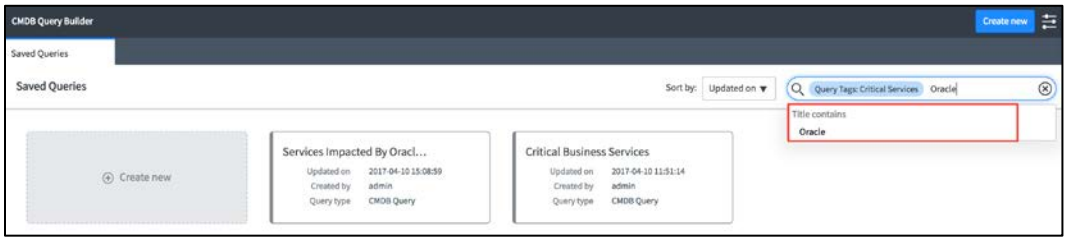
Search Saved Queries

1. Navigate to **CMDB Query Builder**.

2. In the Saved Queries search input, type **Critical Services** and select **Critical Services** under Query Tags.



3. Type **Oracle** into the input and select **Oracle** under Title contains.



4. Click on **Title contains: Oracle** and click **Delete**.

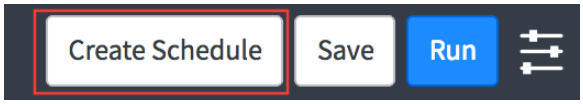


5. To clear all search filters, click the **X** icon in the search input.



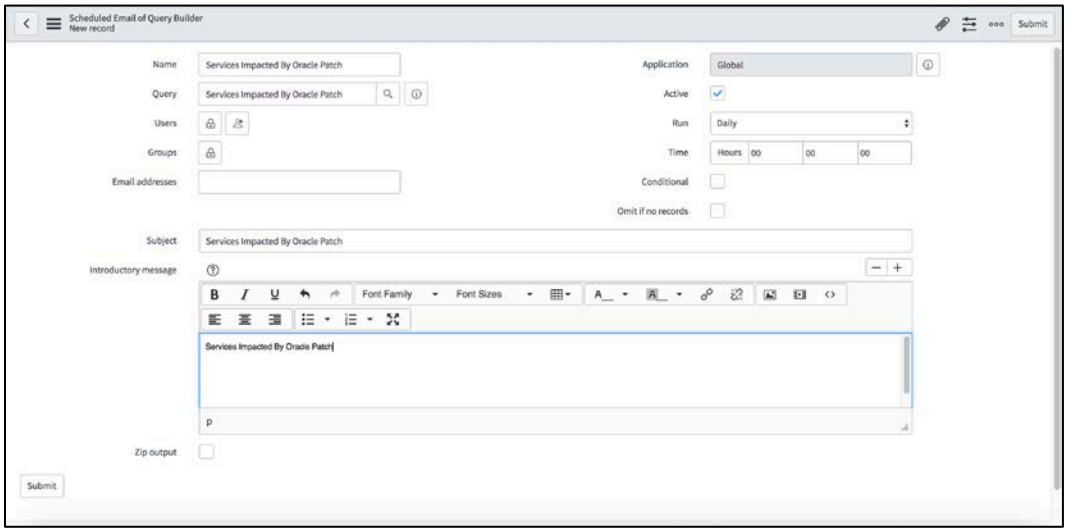
Schedule a Saved Query to be Executed

1. Navigate to **CMDB Query Builder**.
2. Open the **Services Impacted By Oracle Patch** query.
3. In the top-right, click **Create Schedule**.



4. Input the following information in the Scheduled Email of Query Builder form:

   Name: **Services Impacted By Oracle Patch**
   Email addresses: **admin@example.com**
   Subject: **Services Impacted By Oracle Patch**
   Introductory message: **Services Impacted By Oracle Patch**



5. Navigate to **CMDB Query Builder**.

6. Hover over the **Services Impacted By Oracle Patch** query and click the **Info** icon.

