Lab Guide

CMDB:

Health Dashboard, Reporting, and Reconciliation

Richard Brounstein & Romit Banerjee

Default Login / Password: Knowledge17

admin / Knowledge17

itil / Knowledge17

employee / Knowledge17

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Lab Goal

This lab explains how to create a CMDB Completeness Rule for recommended fields and run the health audit.

Lab 1.1 Create and execute Completenes s Rules

Log on to Your Training Instance

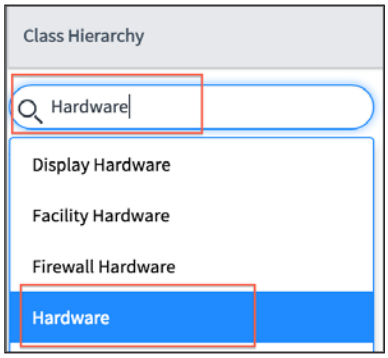
1. Navigate to the unique instance URL provided to you.
2. Log on with provided credentials as an admin user.

Create a Completeness Rule – Recommended Fields

3. Navigate to **CI Class Manager**.

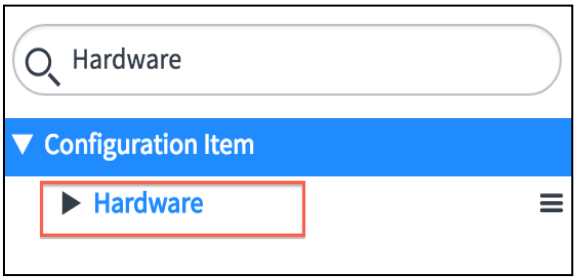


4. Search for the class **Hardware** and select **Hardware** from the list of classes in the dropdown.

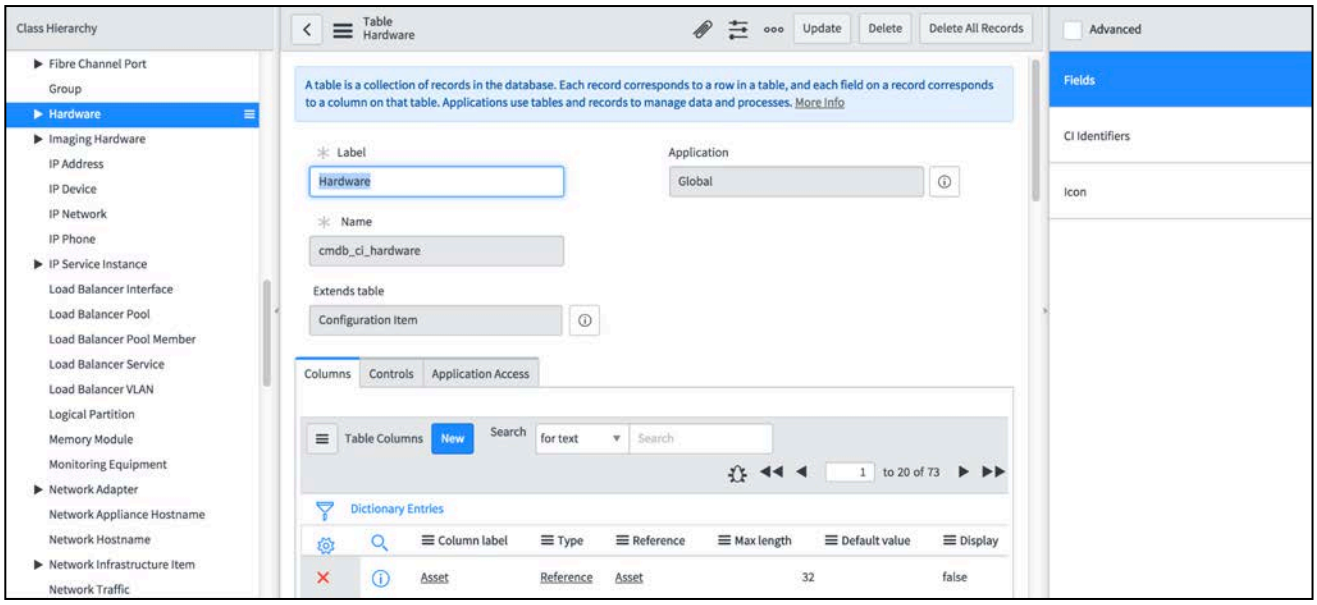


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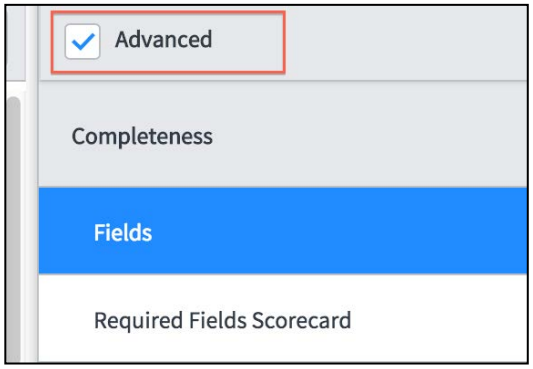
5. The hierarchy of the **Hardware** class will be shown, click on Hardware.



6. You will see a screen like this:

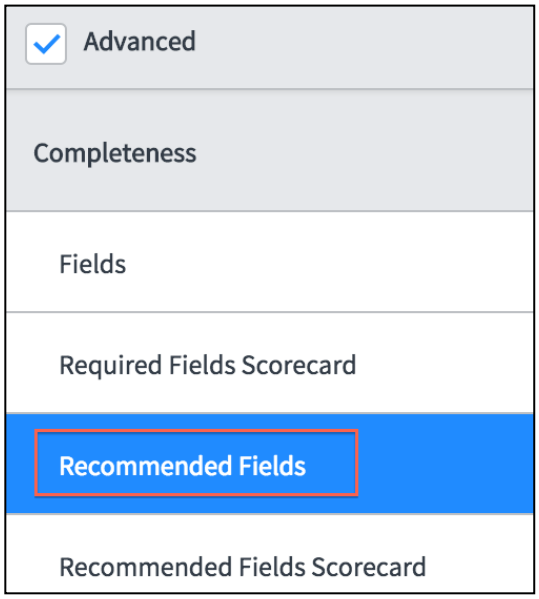


7. Check the **Advanced** box in the top-right panel of the screen.

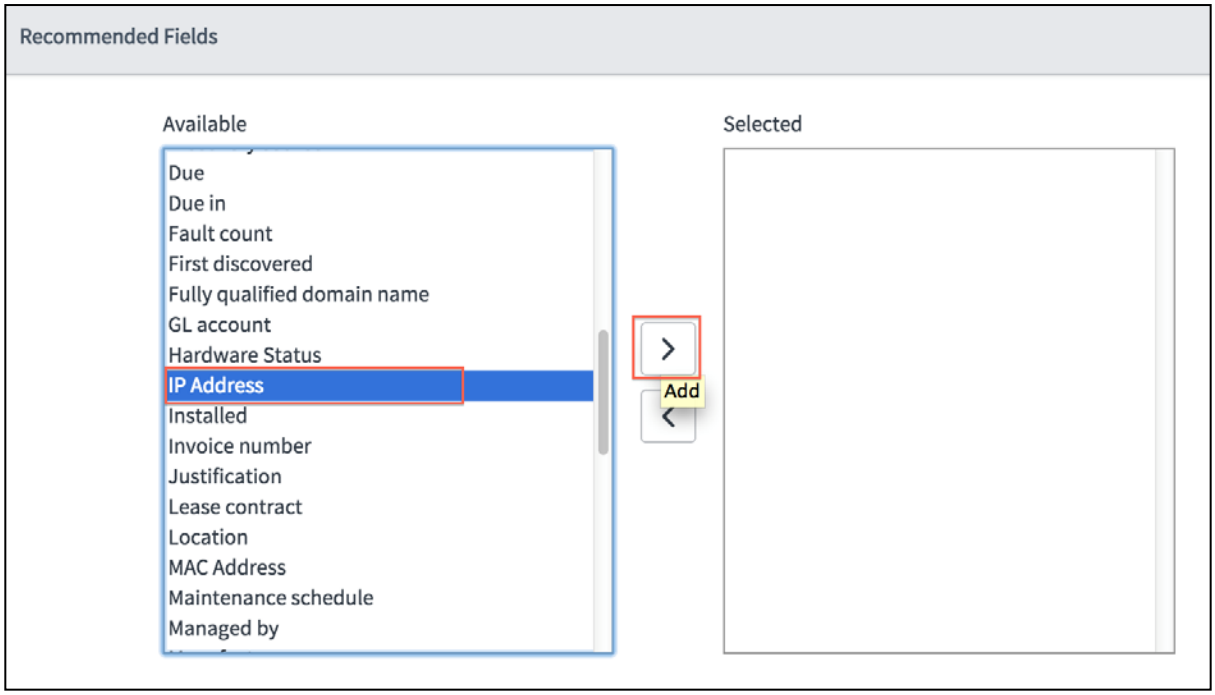


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8. Select **Recommended Fields** under **Completeness** in the list of options on the right-hand side.



9. Select **IP Address** from the left column and click on the **Add** (button with symbol '**>**').



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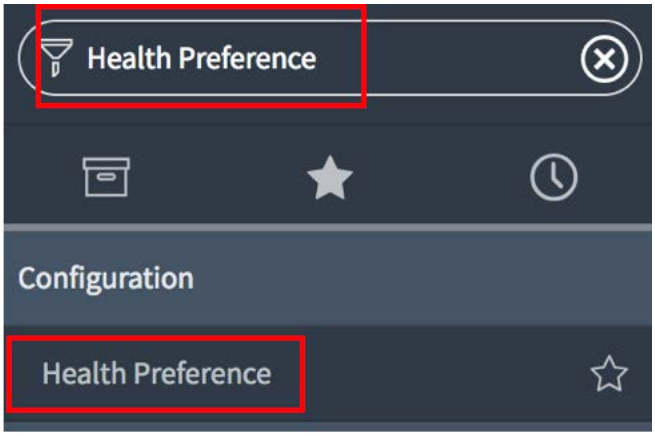
10. Click **Save**.



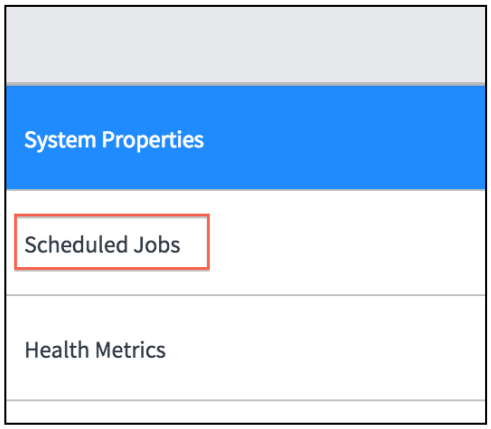
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Lab Success Verification

1. Navigate to **Health Preference**.

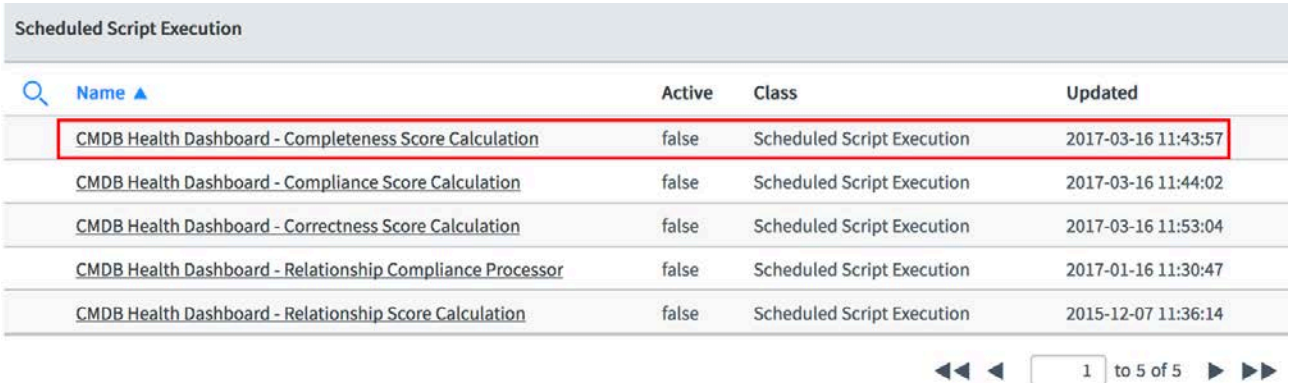


2. Select **Scheduled Jobs** from the options in the right panel.

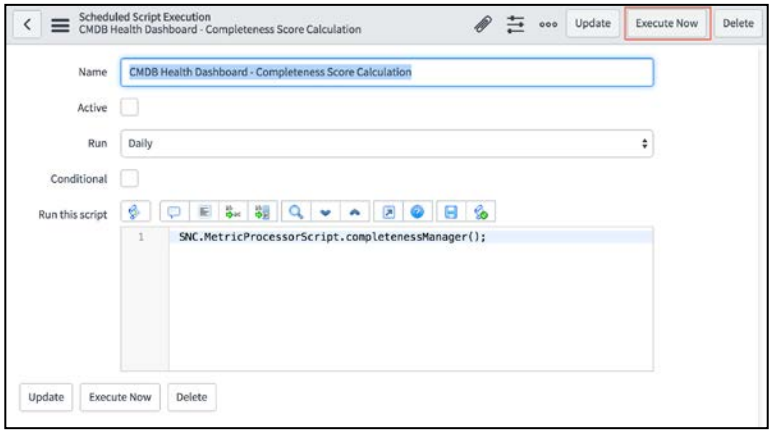


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3. Click on **CMDB Health Dashboard – Completeness Score Calculation**.



4. Click on **Execute Now**.



5. Wait for 2 minutes, and navigate to the **CMDB View.**

IMPORTANT: Clear your Browser History: Follow these steps to clear the cache -

Chrome Browser: Three vertical dot menu in the upper right hand corner of the browser

Settings -> History -> Clear Browsing Data (Only “Browsing history” and “Cached images”)

Check the Cached Images and Files option and hit the Clear Browsing Data button

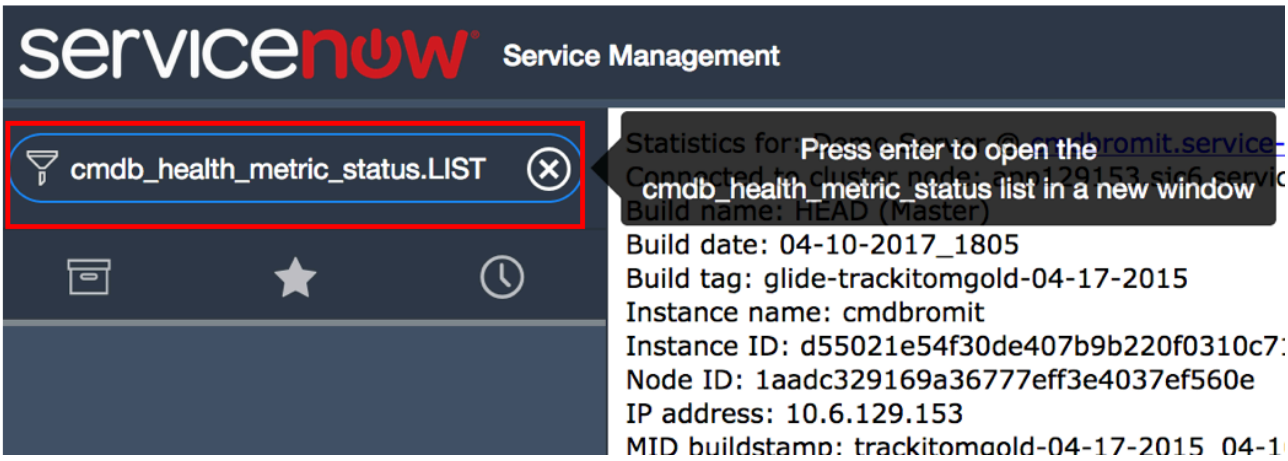
Firefox Browser: Three line menu in the upper right hand corner of the browser

Settings -> History

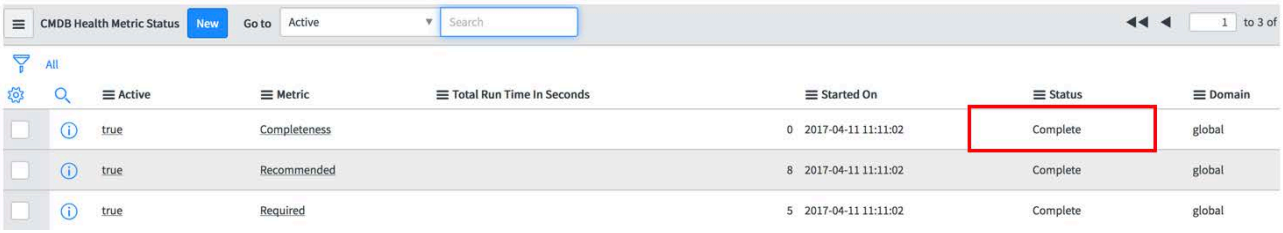
Select Clear Recent History (only “Browsing” and “Cache” needs to clear)

6. Look at the cmdb_health_metric_status table by typing cmdb_health_metric_status.LIST in the navigator to see the status of the processing of data for the CMDB Health Dashboard.

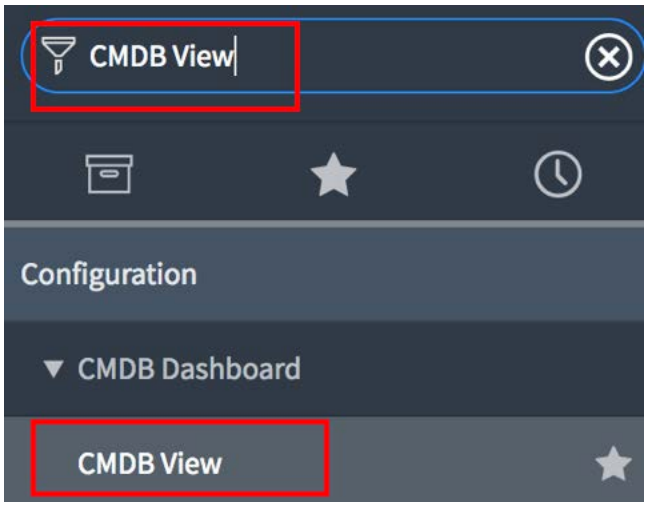
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7. Keep refreshing the browser until the Completeness status is “Complete”. Then the CMDB data has been refreshed for the dashboard.

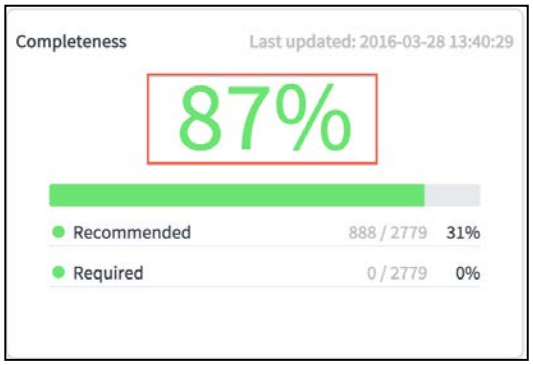


8. Now go to the CMDB View and view the dashboard result.



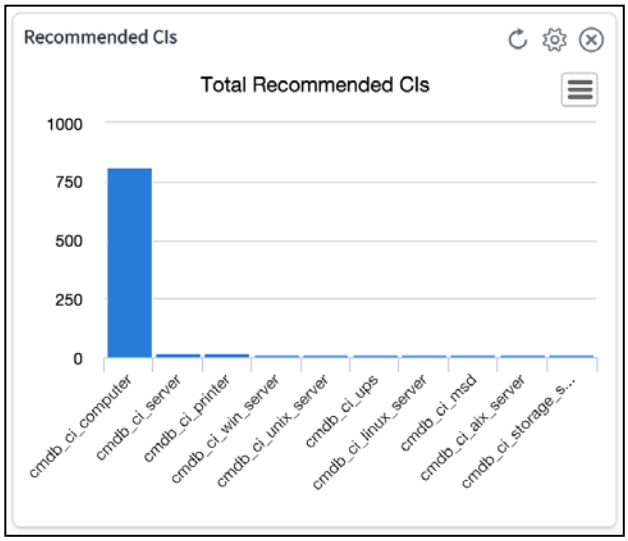
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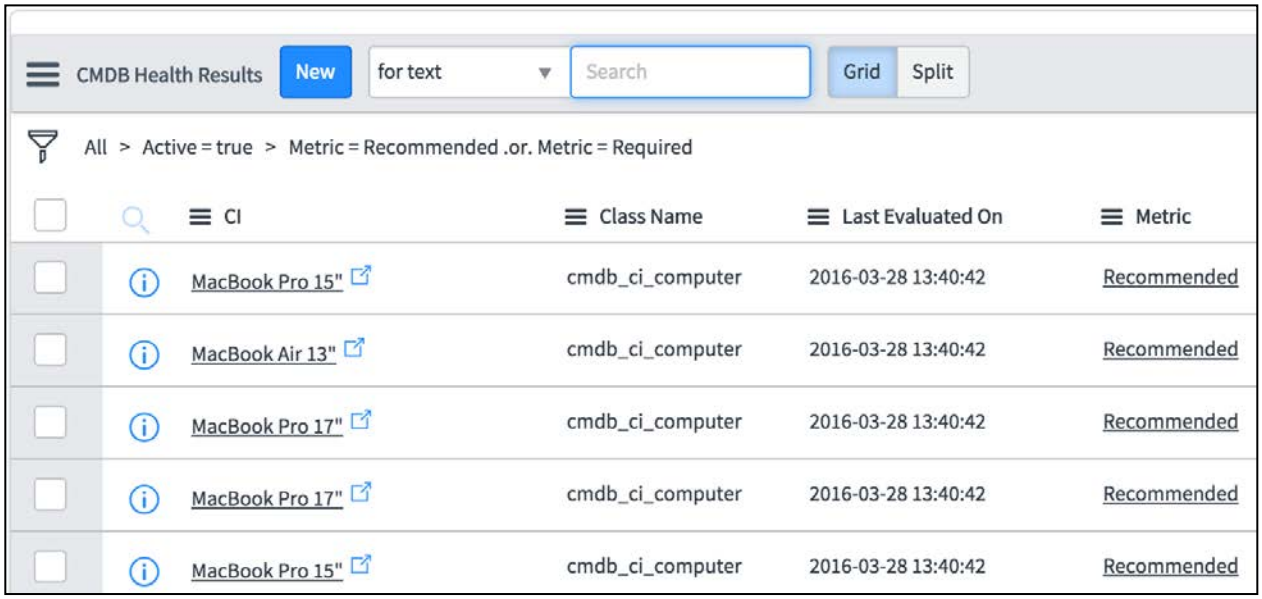
9. You will see a dashboard with **Completeness** scores. Other widgets will be filled up over the course of the lab.



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10. Click on the **Completeness** score to view the CIs that failed the health audit.





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Lab Goal

This lab explains how to create a CMDB Compliance Rule to audit records and run the health audit.

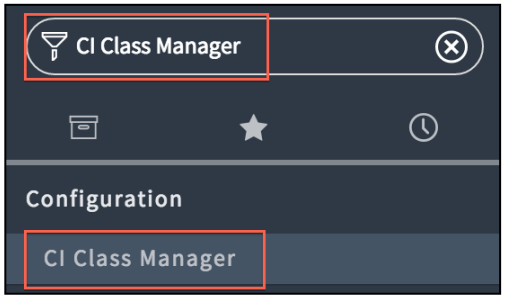
Lab 1.2
Create and execute Compliance Rules

Log on to Your Training Instance

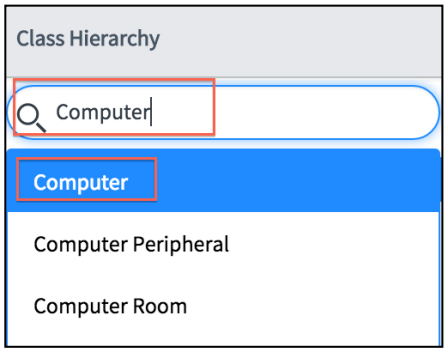
1. Navigate to the unique instance URL provided to you.
2. Log on with provided credentials as an admin user.

Create a Compliance Rule

1. Navigate to **CI Class Manager**.

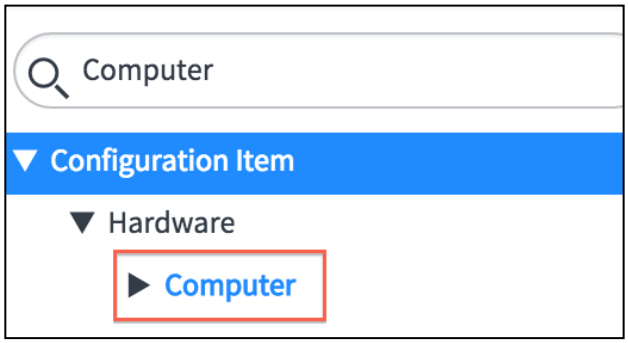


2. Search for **Computer** in the top-left pane of the screen. Select **Computer** in the dropdown options.

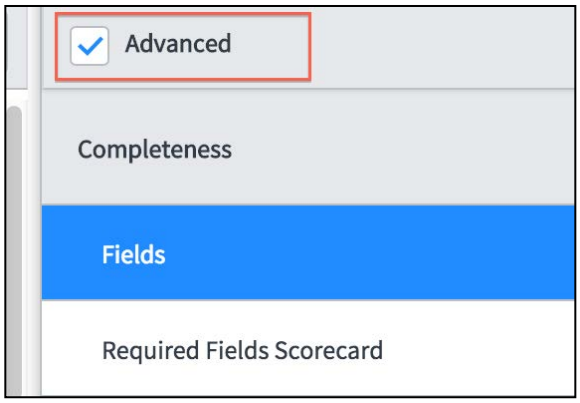


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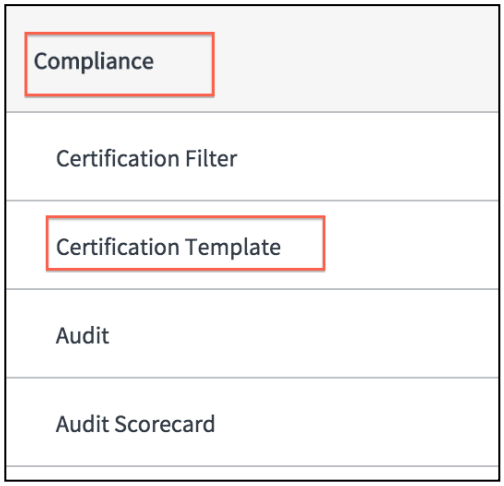
3. You will see the hierarchy tree of the computer class; click on **Computer**.



4. Check the **Advanced** checkbox in the top-right corner of the screen.

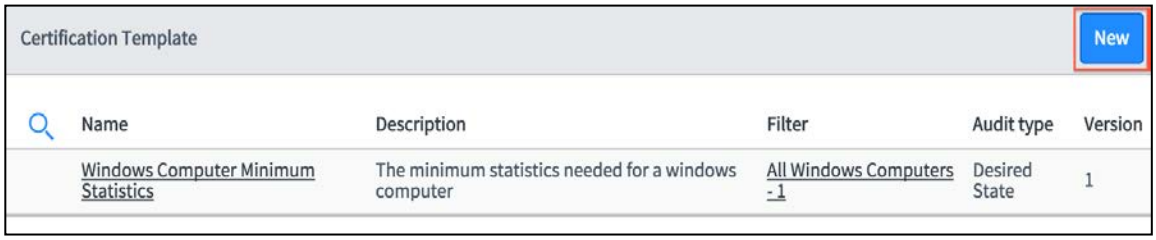


5. Click on **Compliance** in the options that are shown in the right panel. Select **Certification Template** option under Compliance.



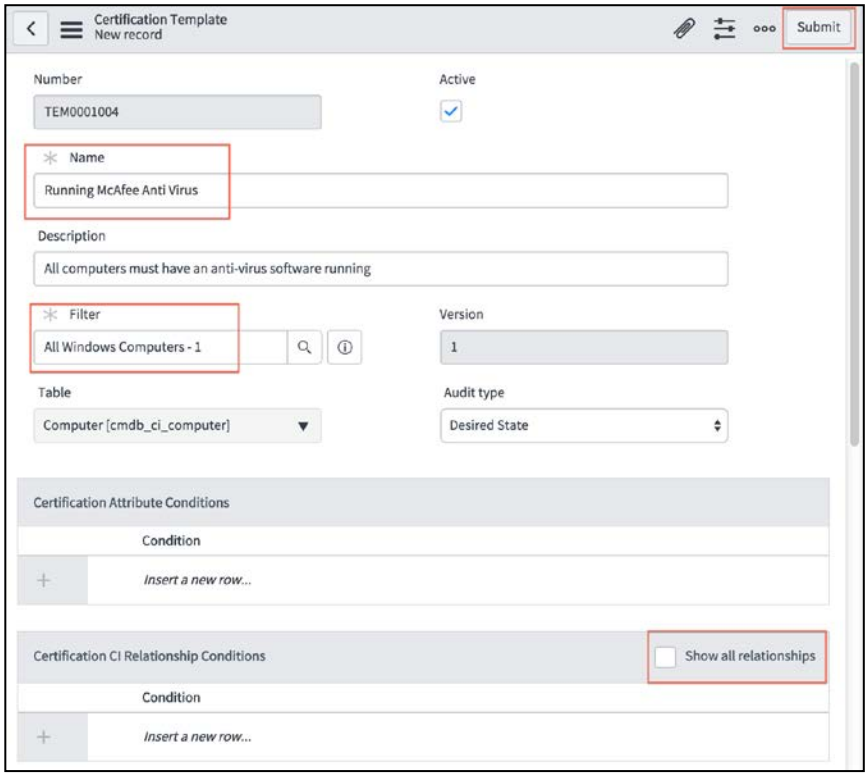
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6. Click on **New**.

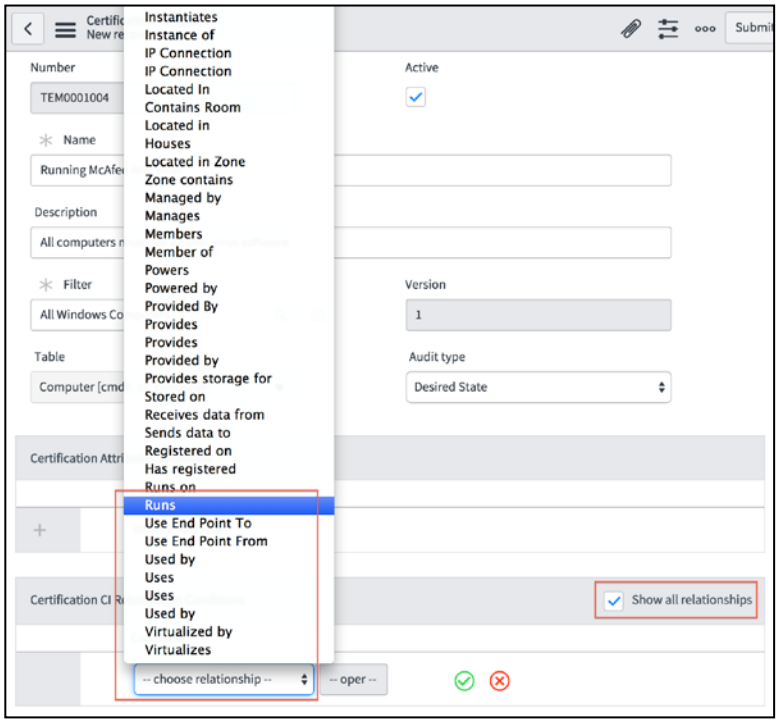


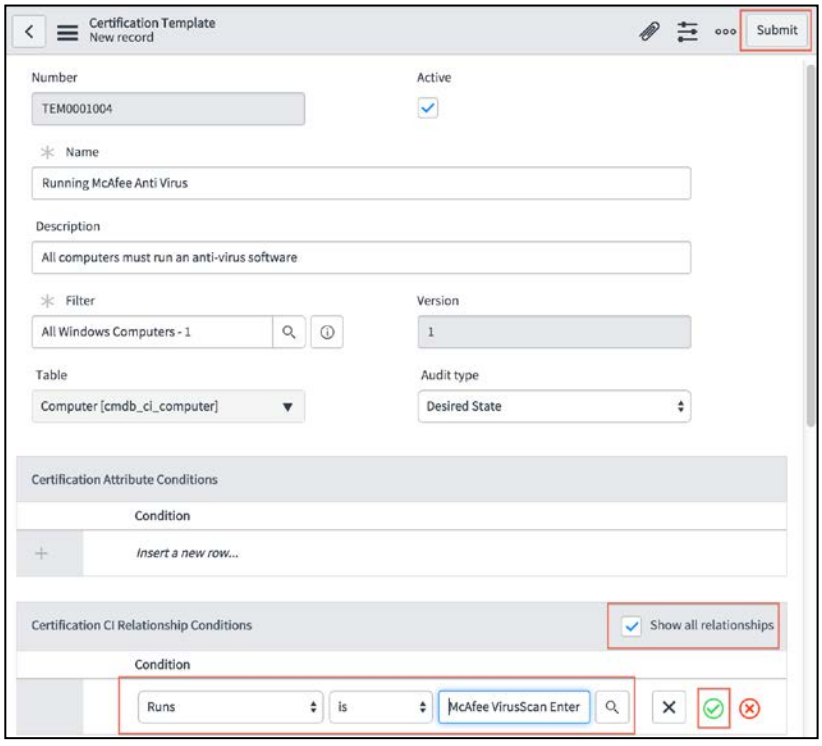
7. Populate the following fields:

   Name: **Running McAfee Anti Virus**
   Description: **All computers must run an anti-virus software**
   Filter: **All Windows Computers – 1**
   Certificate CI Relation Condition:
      Select the check box **Show All Relationships**
      Relation Dropdown: **Runs**
      Condition: **Is**
      Value: **McAfee VirusScan Enterprise**



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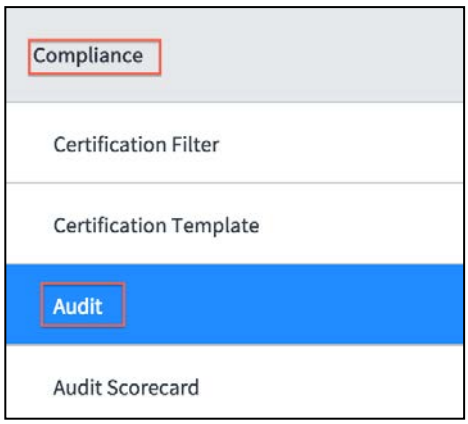


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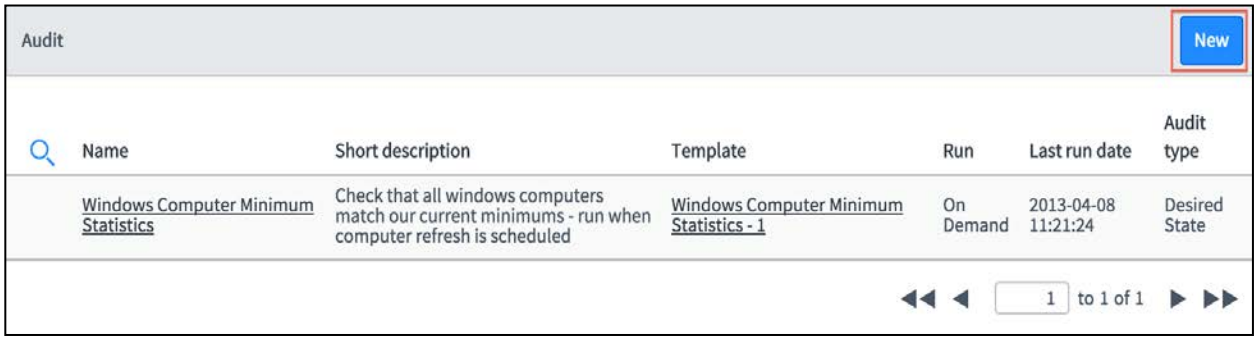
You will see the CI Relationship Condition listed after pressing the Green Checkmark:



8. Click on **Submit**.
9. Select **Audit** in the right menu under **Compliance**.



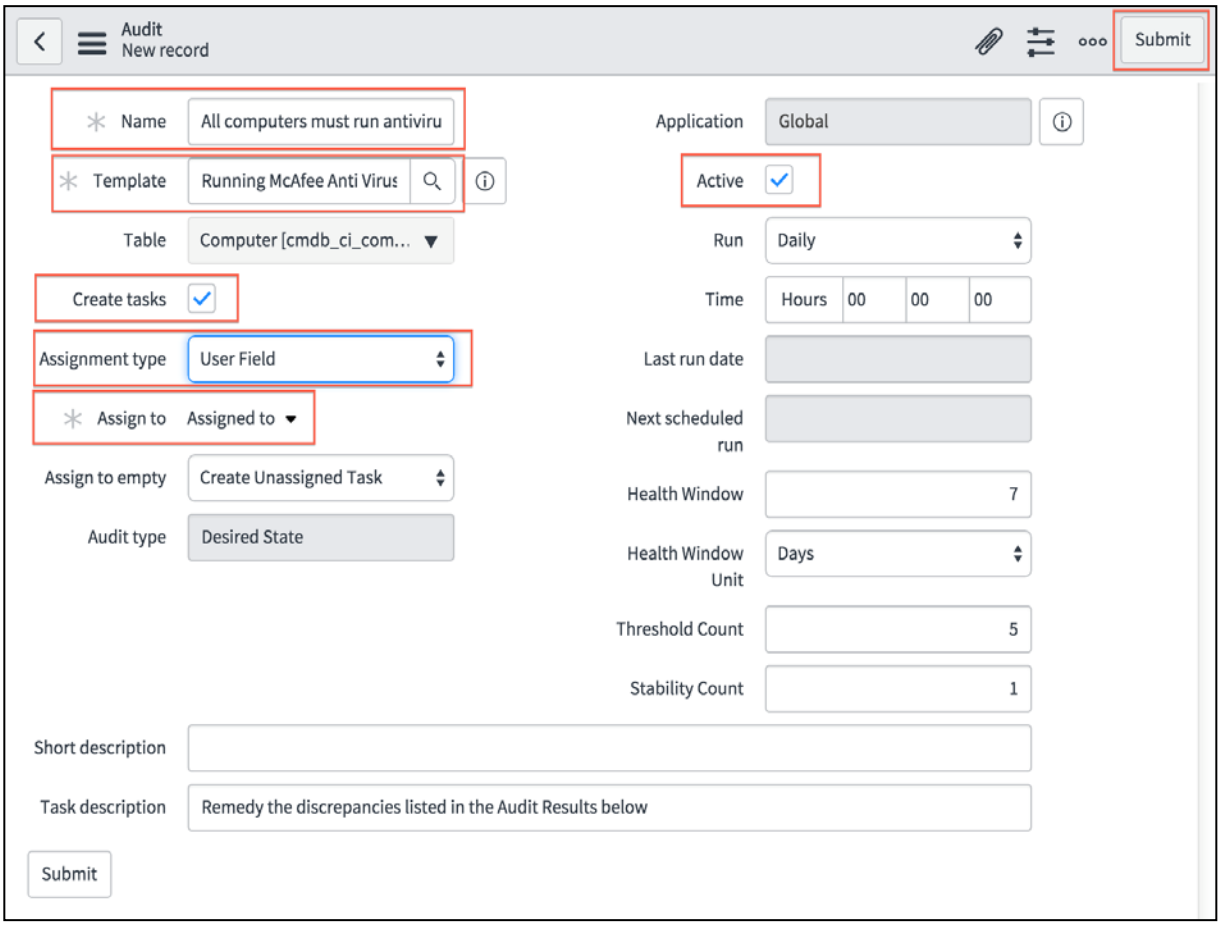
10. Click on **New**.



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11. Enter the following fields:

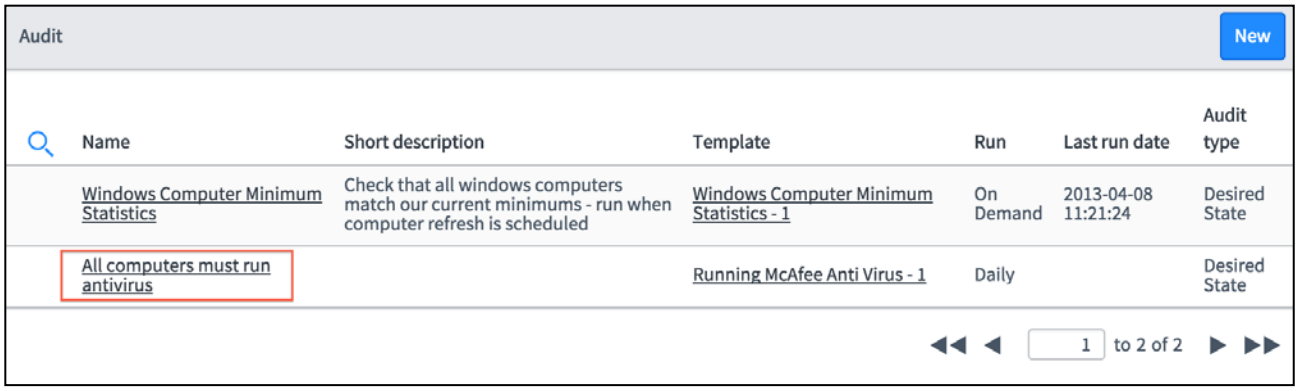
    Name: **All Computers must run anti-virus**
    Template: **Running McAfee Anti Virus – 1** (If you created multiple versions of the template, pick the latest version)
    Create Tasks: **check the box**
    Assignment Type: **User Field**
    Assign To: **Assigned To**



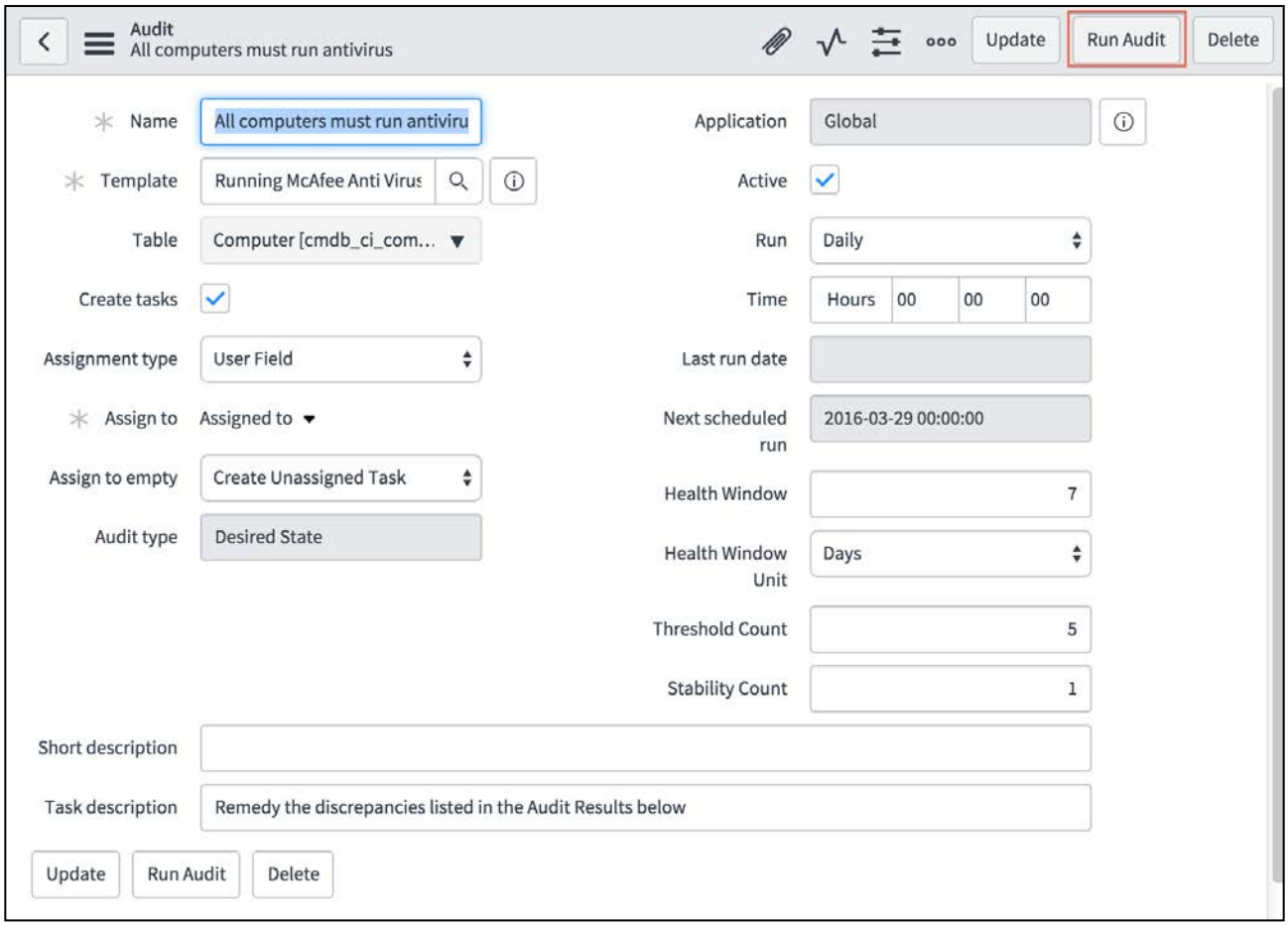
12. Click on **Submit**.

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13. Once you click **Submit**, you will be redirected to the page that lists all audits. Click on the Audit that was just created – **All Computers must run antivirus**.



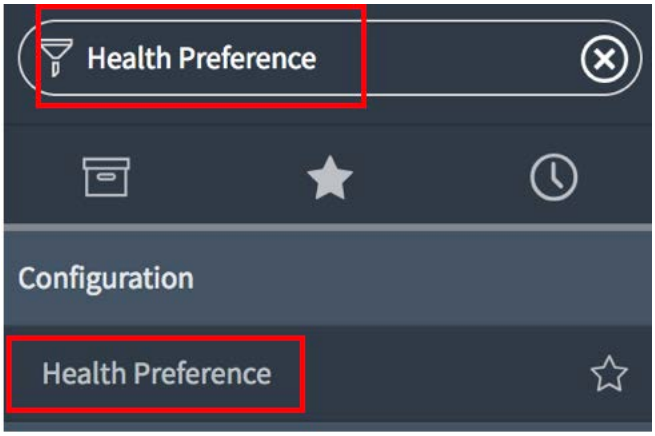
14. Click on Run Audit in the top-right corner.



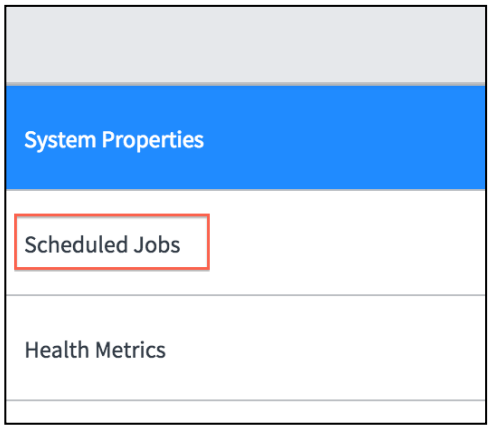
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Lab Success Verification

1. Navigate to **Health Properties**.

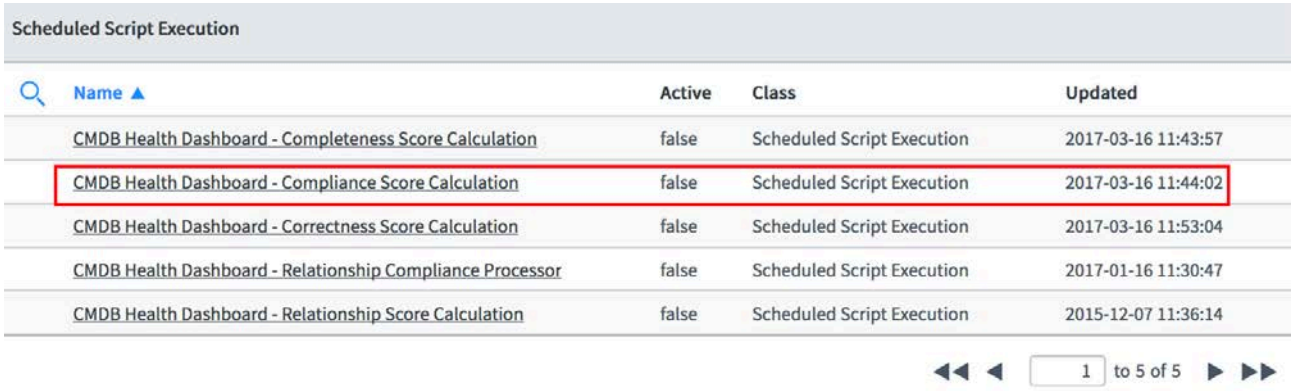


2. Select **Scheduled Jobs** from the options in the right panel.

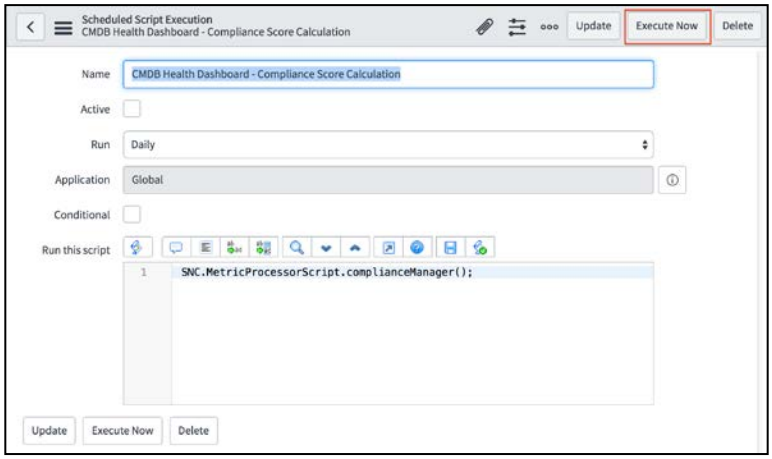


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3. Click on **CMDB Health Dashboard – Compliance Score Calculation**.

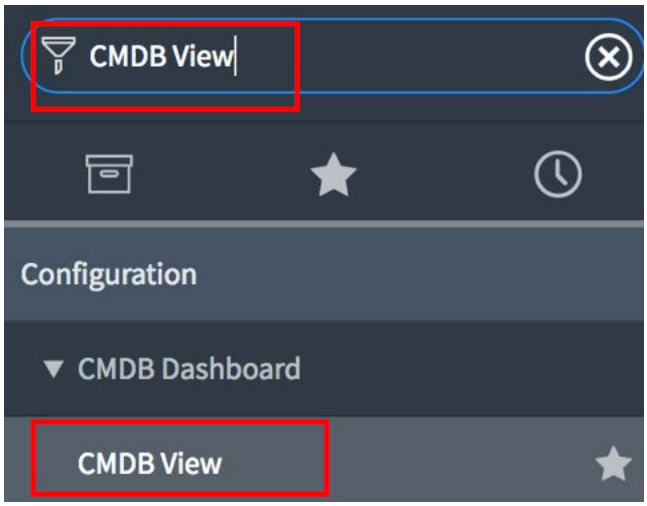


4. Click on **Execute Now**.



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5. Wait for 2 minutes, and navigate to the **CMDB View.** Look at the **cmdb_health_metric_status** table by typing **cmdb_health_metric_status.LIST** to see the status of the processing of data for the CMDB Health Dashboard and keep refreshing the table until the Compliance status is "Complete". Then the CMDB data has been refreshed for the dashboard. **Make sure to clear your browser cache.**

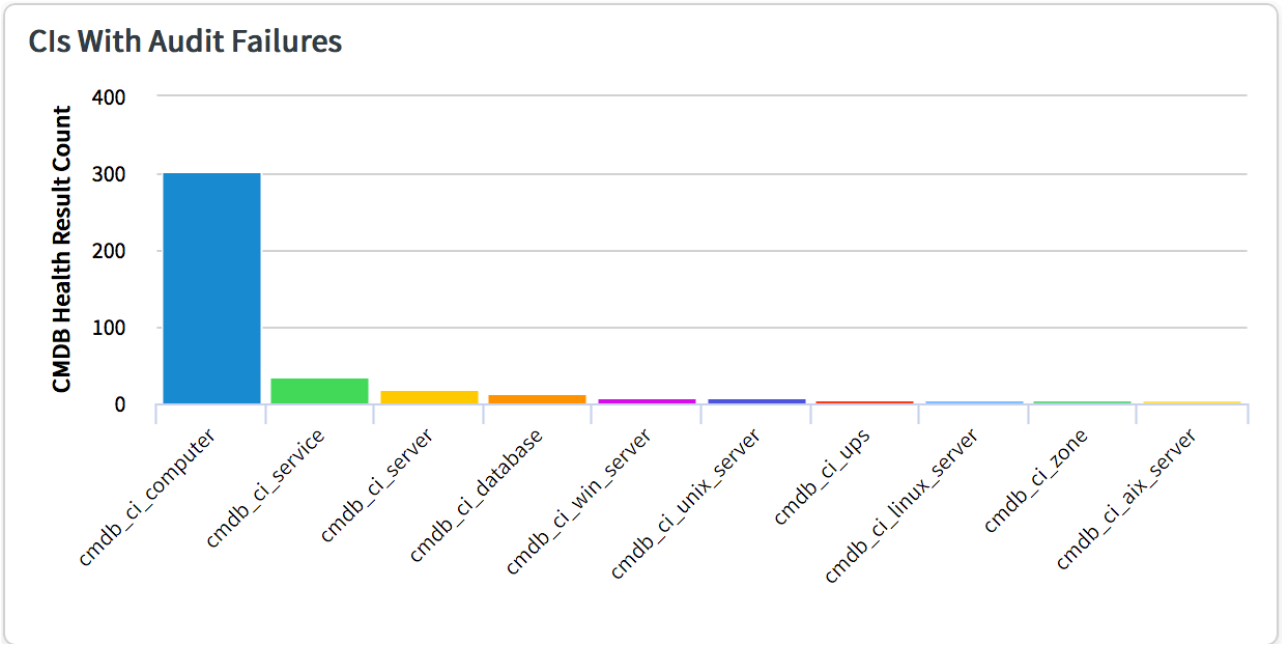


6. You will see a dashboard with **Compliance** scores. Other widgets will be filled up over the course of the lab.



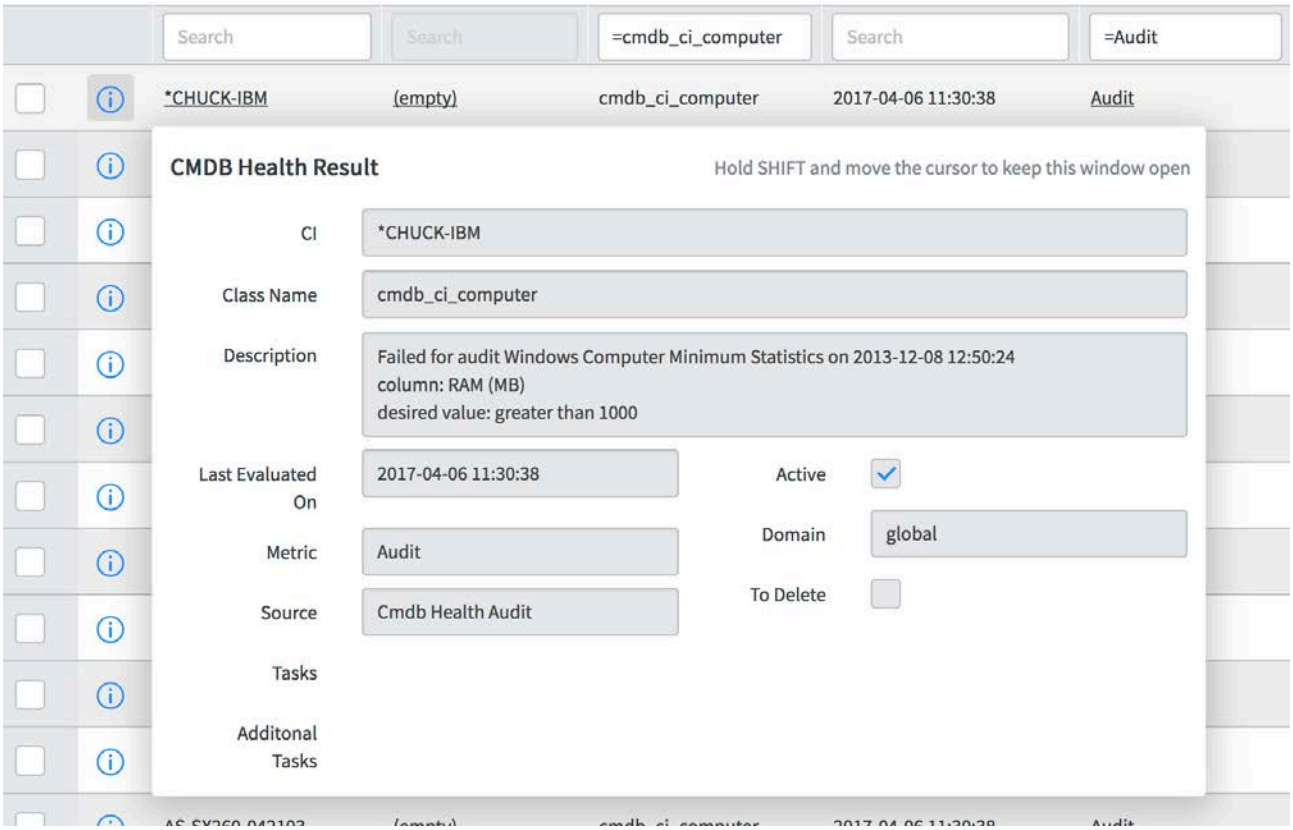
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7. Click on the **Compliance** score to view the CIs that failed the health audit.



Double-click on the **cmdb_ci_computer** to go into the details. Note that when you hover the mouse over the 'I' next to an audit entry, it shows the details of why the audit failed.

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8. If the scores are not reflected on the dashboard, you may have **to clear out your browser cache** and reload the CMDB Dashboard. Follow these steps to clear the cache:
    Chrome Browser:
        Settings -> History -> Clear Browsing Data
        Check the Cached Images and Files option and hit the Clear Browsing Data button
    Firefox Browser:
        Settings -> History
        Select Clear Recent History

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Lab Goal

This lab explains how to create a CMDB Correctness Rule to find Orphan records and run the health audit. We also want to leverage the Health Inclusion rules (new in Jakarta) that allow us to limit measurements to certain CI Classes.

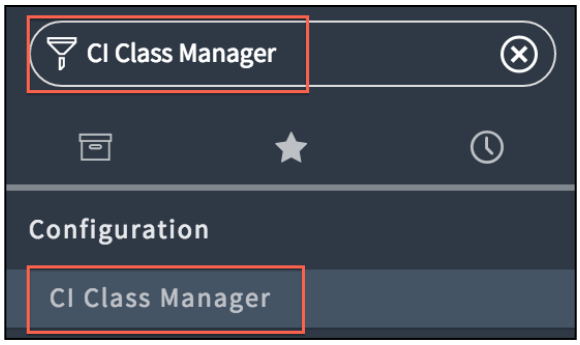
Lab 1.3 Create and execute Correctness Rules

Log on to Your Training Instance

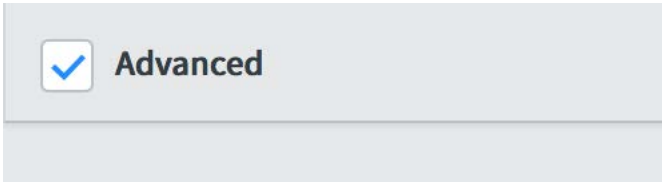
1. Navigate to the unique instance URL provided to you.
2. Log on with provided credentials as an admin user.

Set the Health Inclusion Rules

1. Navigate to **CI Class Manager**.

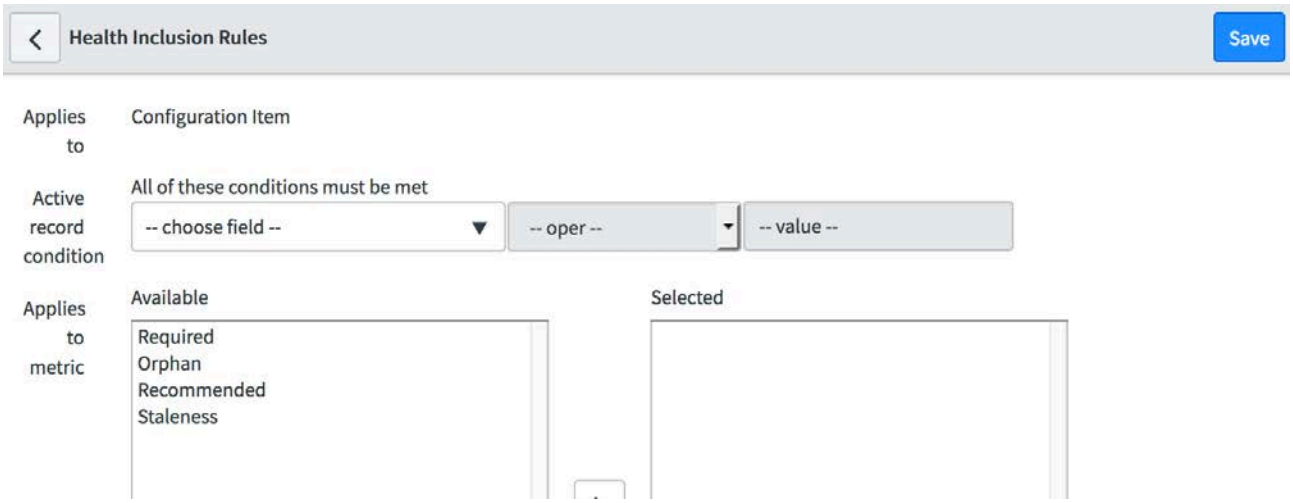


2. Turn on Advanced and click on Health Inclusion Rules.



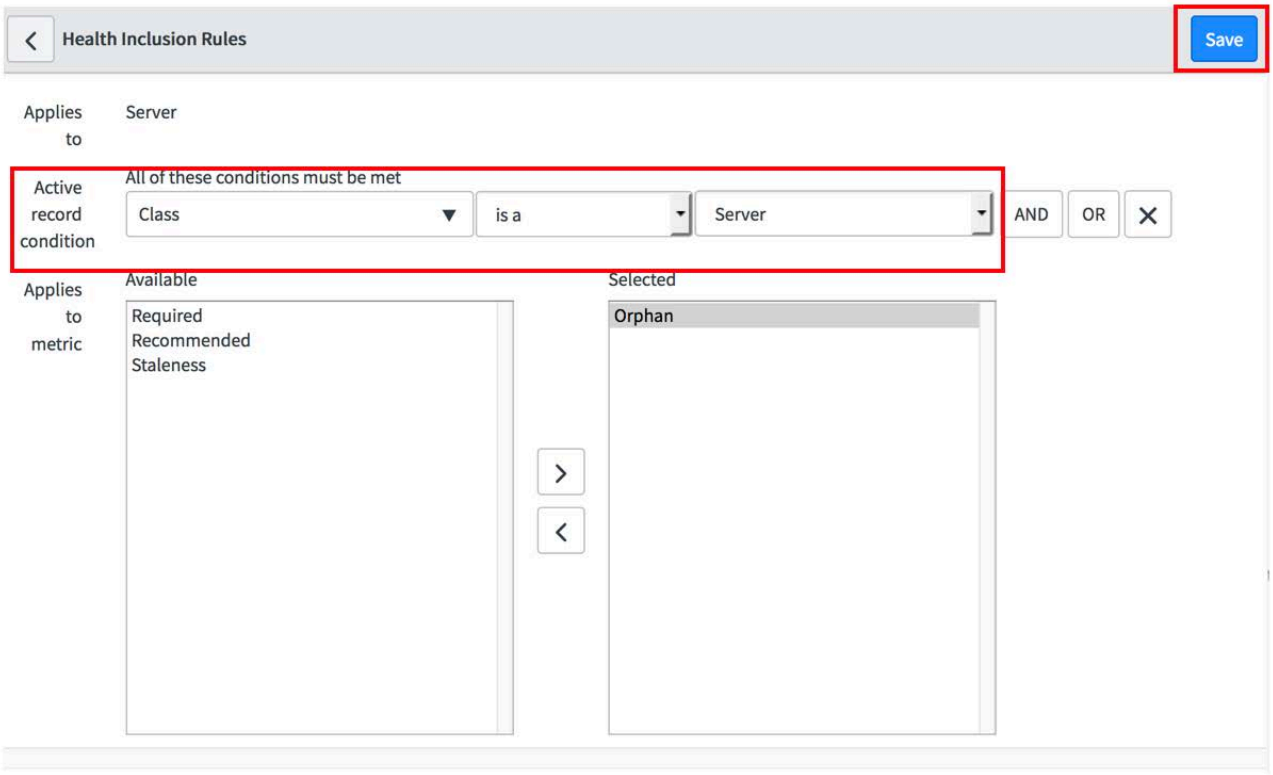
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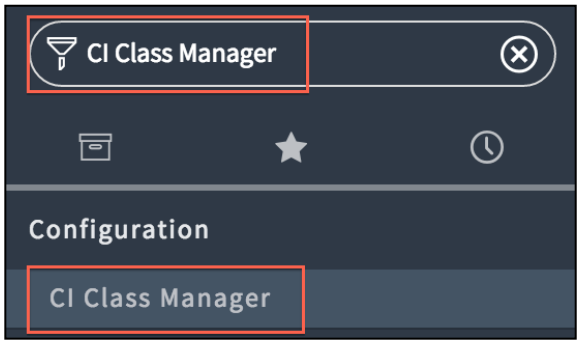
3. Set the rules for Orphan so that the rules will only apply to Cis that are a Server or a lower class. Set the field "**Class**" with operator "**is a**" and value "**Server**". That will include Windows and Unix servers as well as all classes lower than a Server. Click **Save.**

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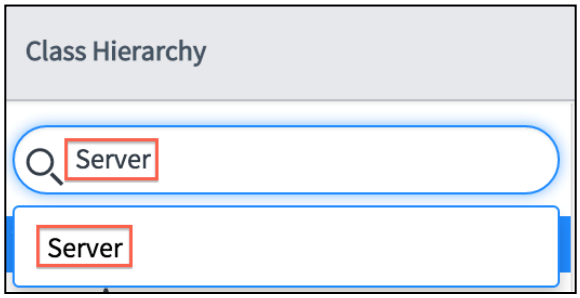
Create a Correctness Rule – Orphan Records

1. Navigate to **CI Class Manager**.

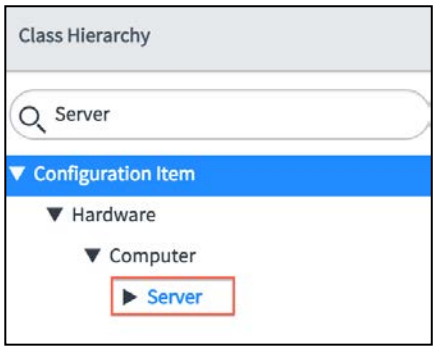


2. Search for **Server** in the top-left pane of the screen. Hit '**Enter'** after typing the full work to see results for exact search of the typed in string.

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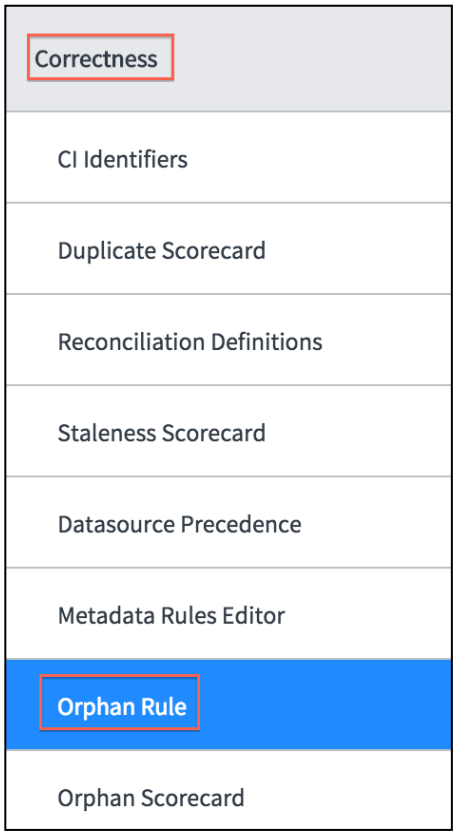
3. You will see the hierarchy tree of the Server class, click on **Server**.



4. Check the **Advanced** checkbox in the top-right corner of the screen.

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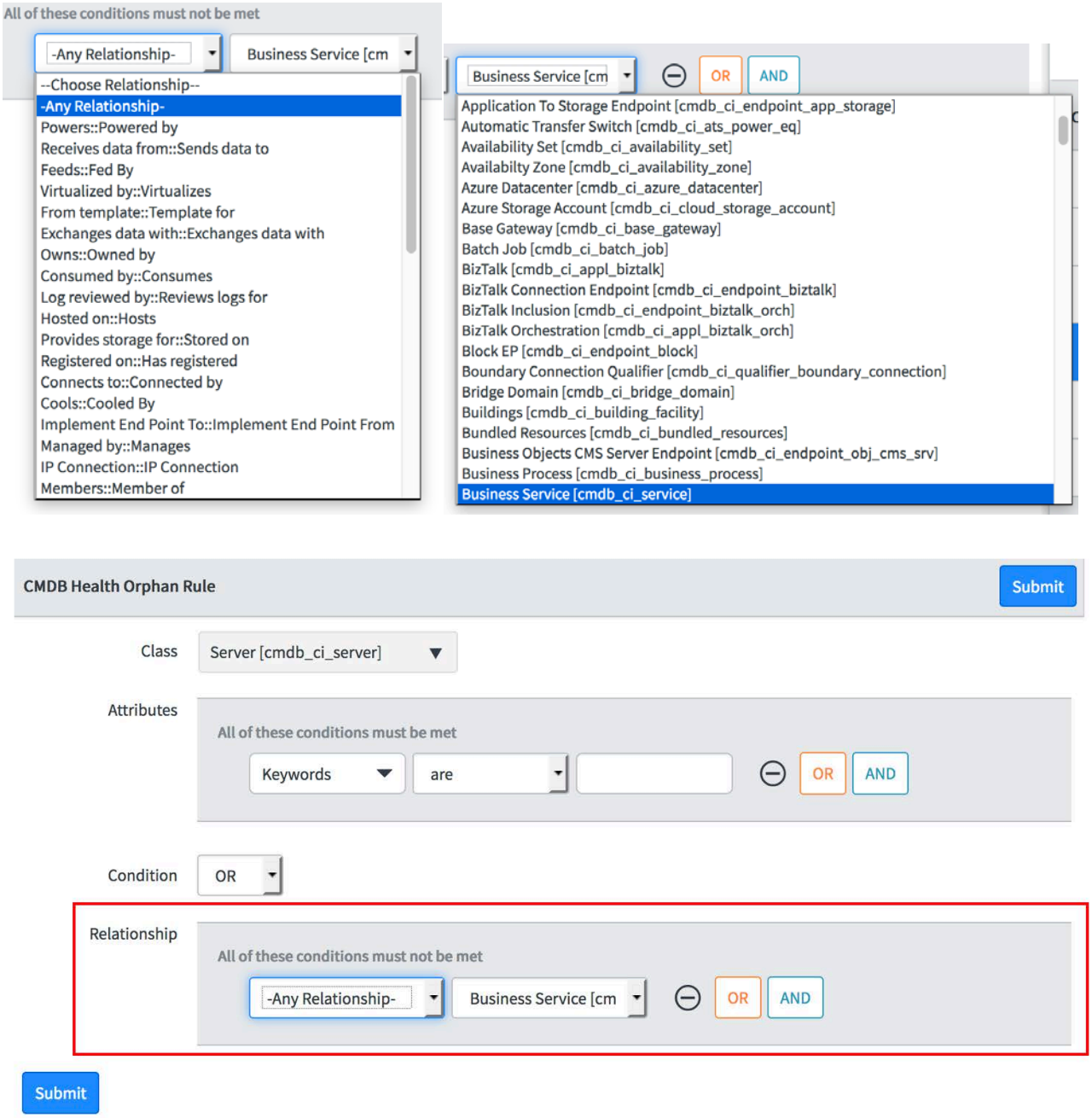
5. Click on **Correctness** in the options that are shown in the right panel. And select **Orphan Rule** option under Correctness.



6. Create the following rule under the Relationship Section:

   Any Relationship to a **Business Service**

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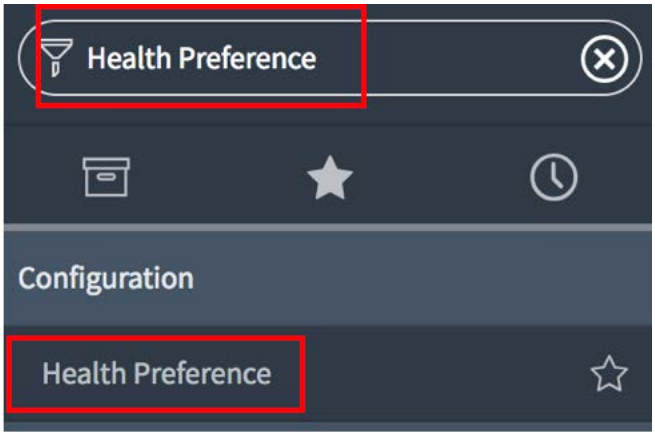


7. Click on **Submit**.

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Lab Success Verification

1. Navigate to **Health Preference**.

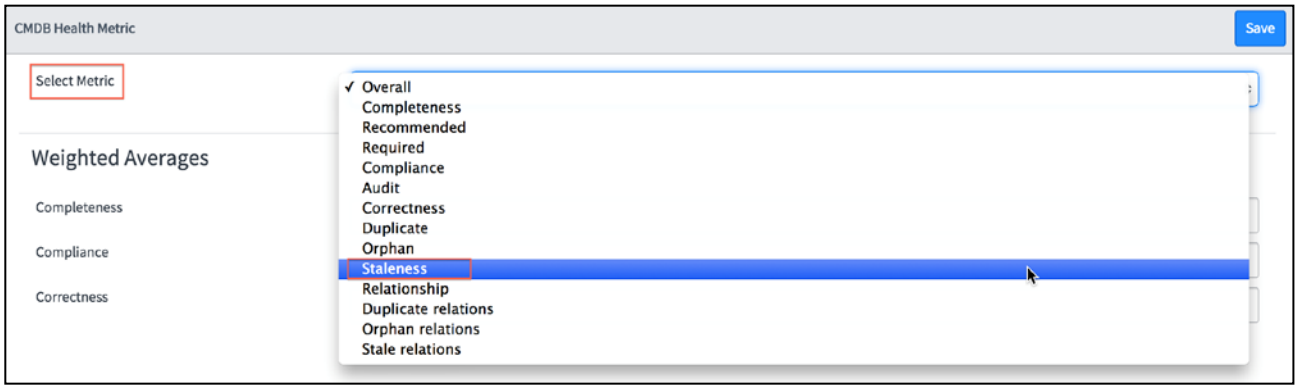


2. Select **Health Metrics** in the right panel.

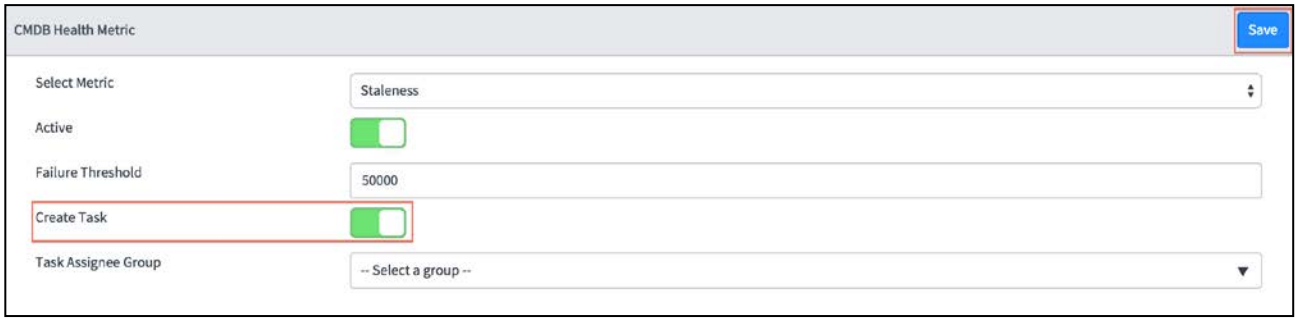


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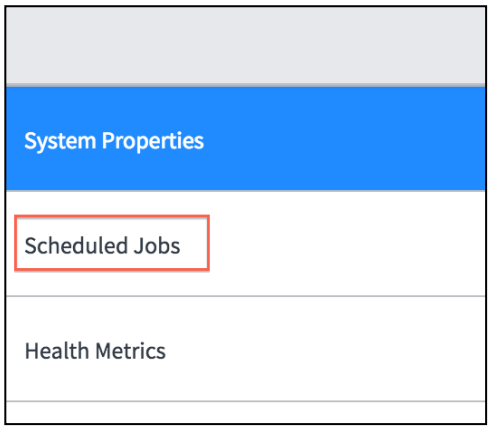
3. Select **Staleness** in the dropdown at the top of the page.



4. Toggle the **Create Task** button to make it green and hit **Save**.

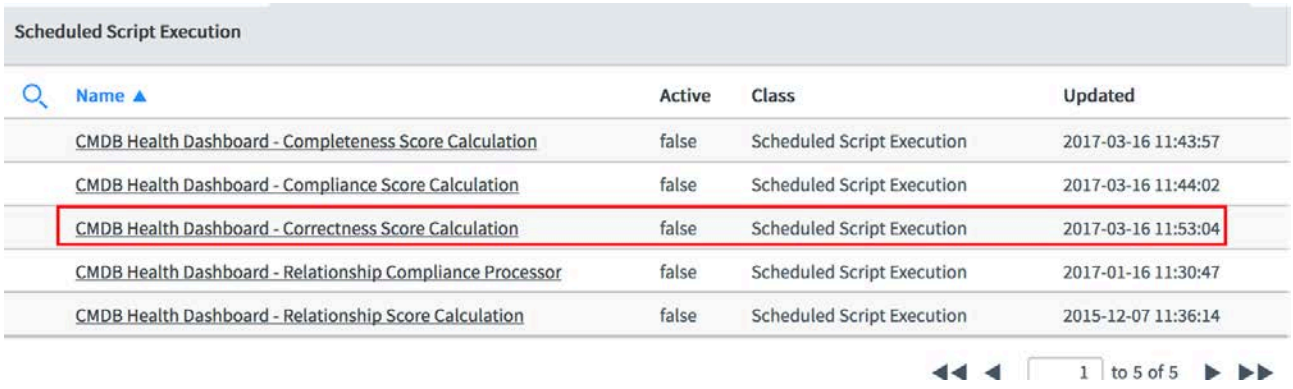


5. Select **Scheduled Jobs** from the options in the right panel.

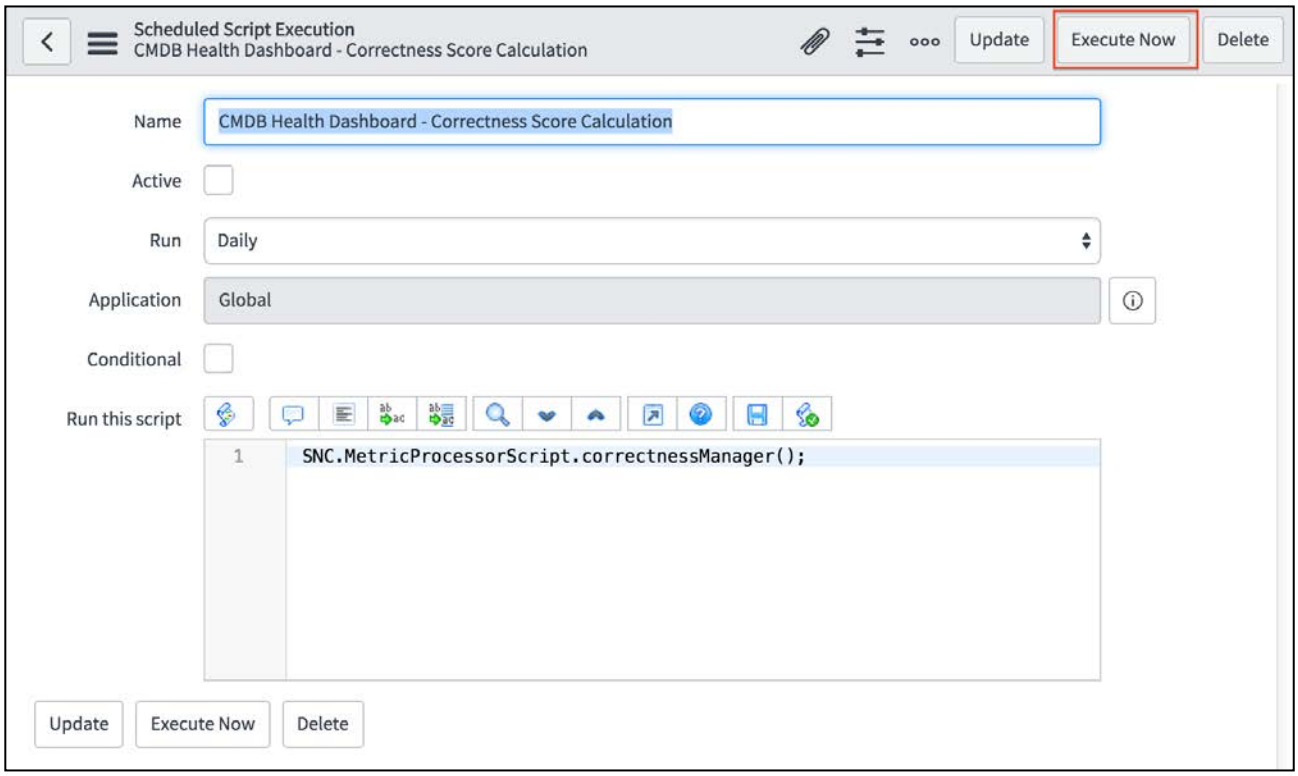


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6. Click on **CMDB Health Dashboard – Correctness Score Calculation**.

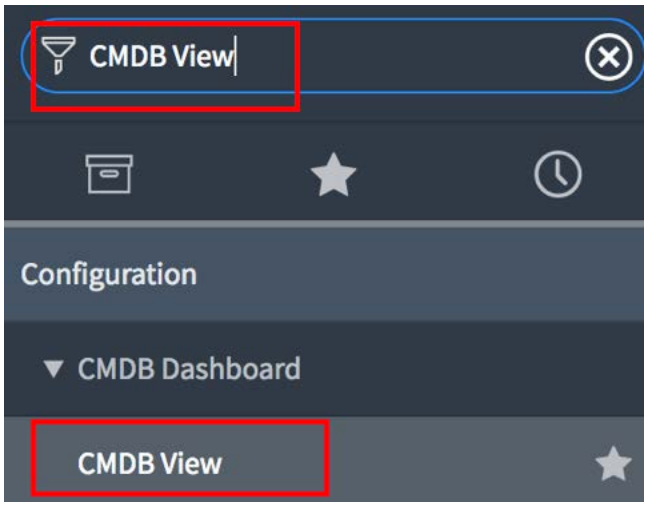


7. Click on **Execute Now**.

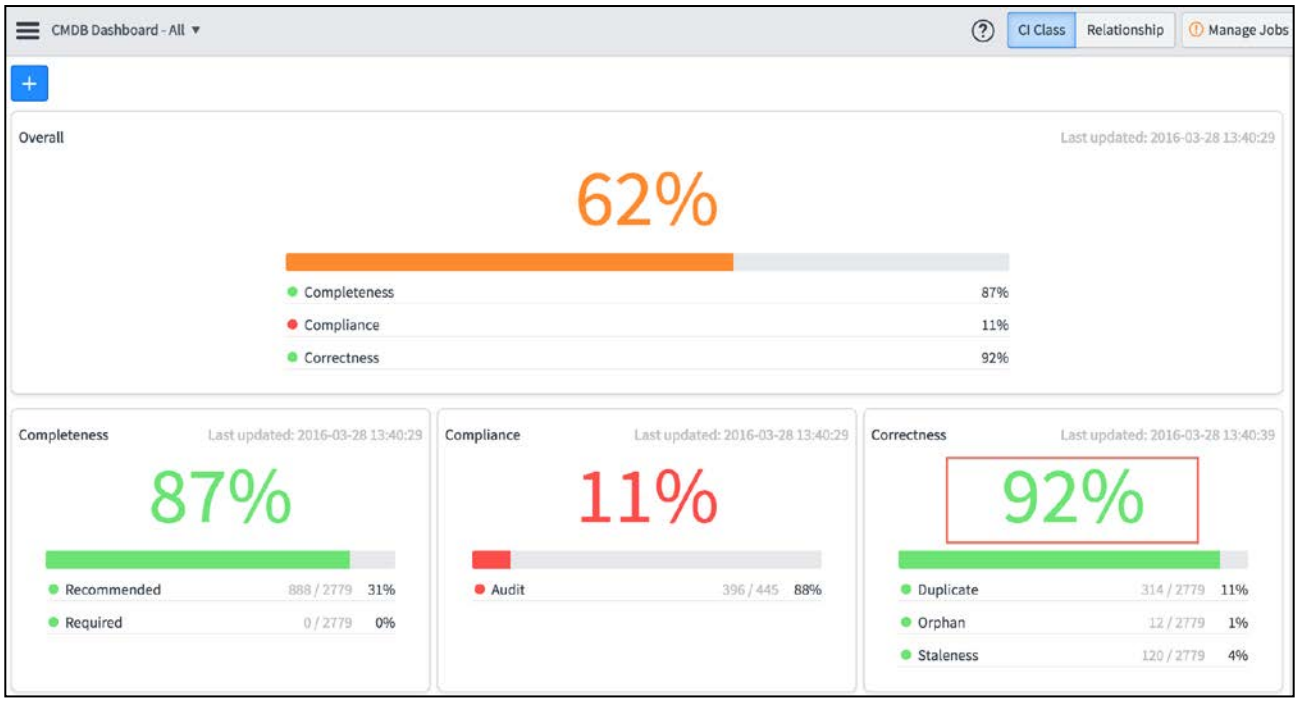


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8. Wait for 2 minutes, and navigate to the **CMDB View.** Look at the **cmdb_health_metric_status** table by typing **cmdb_health_metric_status.LIST** to see the status of the processing of data for the CMDB Health Dashboard and keep refreshing the table until the Correctness status is "Complete". Then the CMDB data has been refreshed for the dashboard. **Make sure to clear your browser cache.**

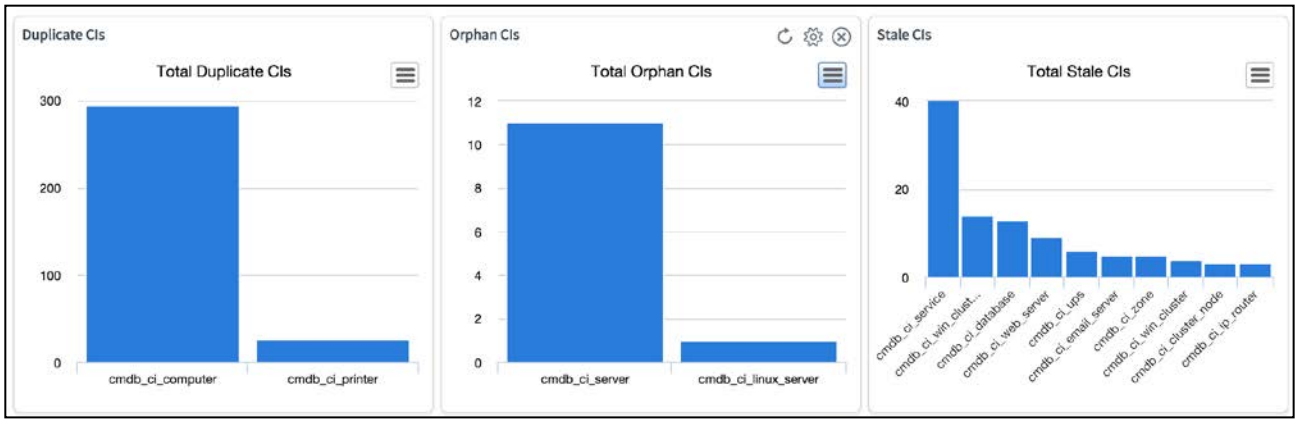


9. You will see a dashboard with failures for each rule created so far.



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10. Click on the **Correctness** score to view the CIs that failed the health audit.



11. Note: you may have to **clear your browser cache** and refresh the dashboard to view latest scores.

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Lab Goal

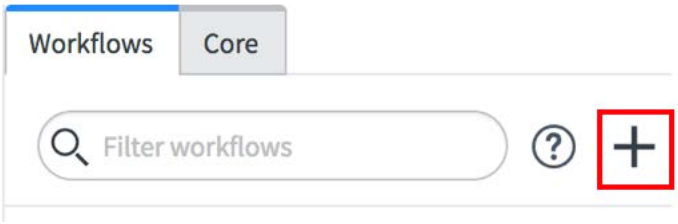
Lab 2.1 Create a Duplicate CI Remediation Workflow

This lab explains how to create and execute a remediation rule to resolve duplicate records.

Summary of the remediation logic: Within a group of duplicate records, delete everything but the most recently created record.

Create a rule to remediate Duplicate Records

1. Navigate to **Workflow Editor**.
2. Click the **"+"** icon in the **Workflows** tab on the right to create a new workflow.

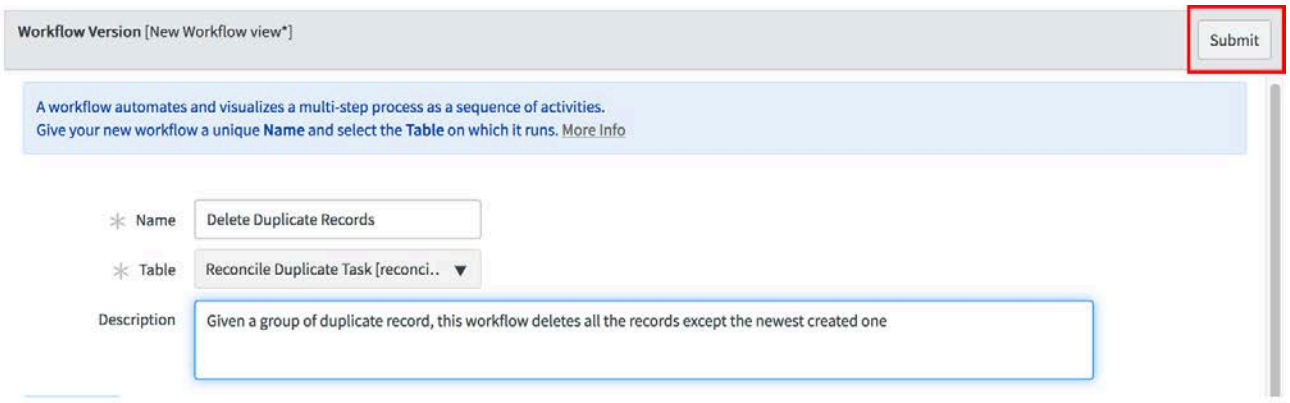


3. Populate the following fields:

   Name: **Delete Duplicate Records**
   Table: **Reconcile Duplicate Task**
   Description: **Given a group of duplicate record, this workflow deletes all the records except the newest created one**

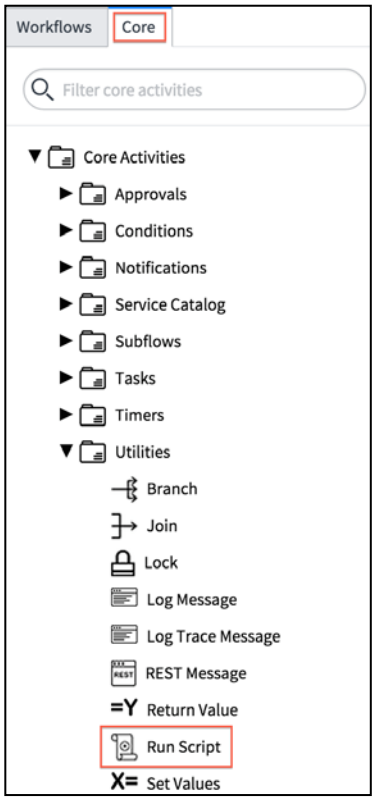
4. Click **Submit**.

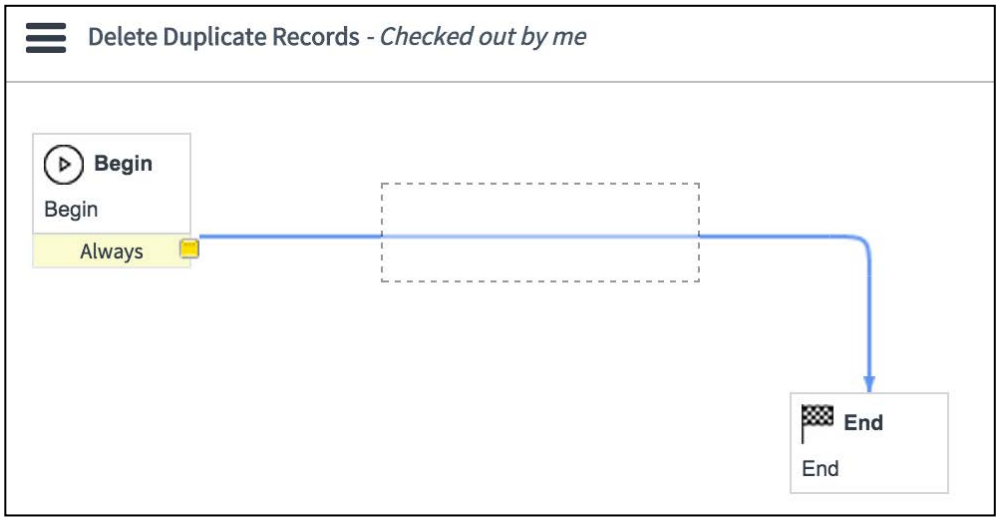
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5. From the **Core** tab on the right side, select **Utilities -> Run Script** and drag it over the line connecting the Begin and End boxes on the workflow canvas.



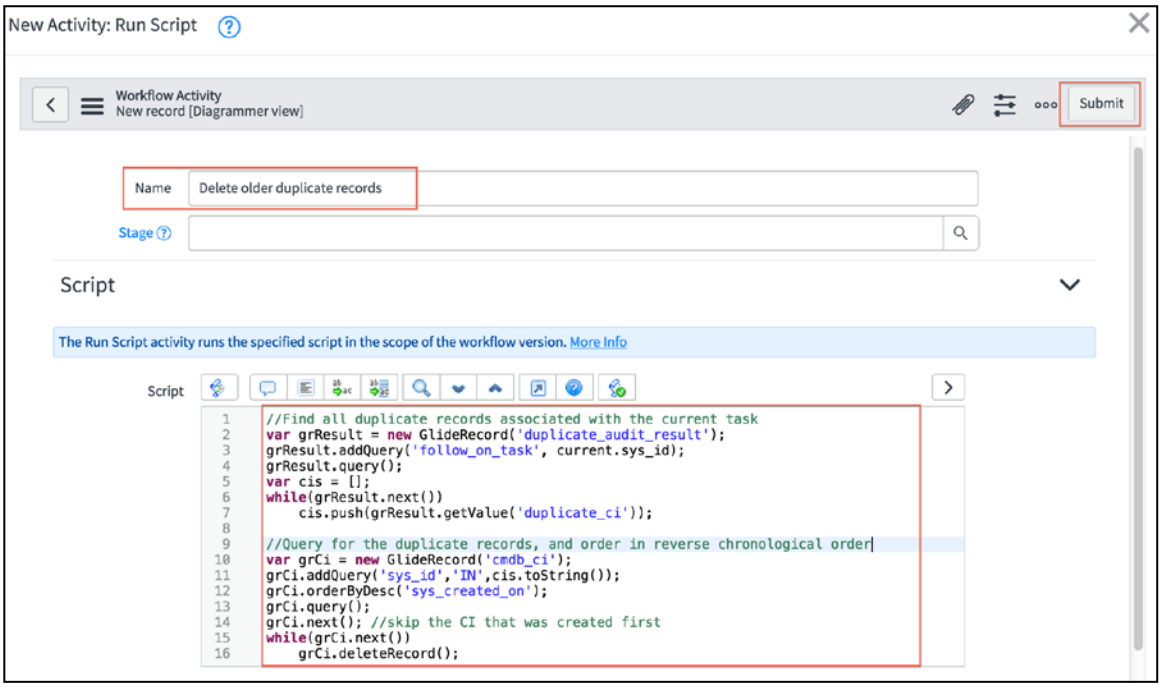


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6. Copy the below script **remediate_duplicate_records** to the workflow activity and set the name to **Delete Older Duplicate Records**.

```
var grResult = new GlideRecord ( 'duplicate_audit_result');
grResult.addQuery ( 'follow_on_task', current.sys_id );
grResult.query();
var cis = [];
while (grResult.next())
       cis.push(grResult.getValue('duplicate_ci'));

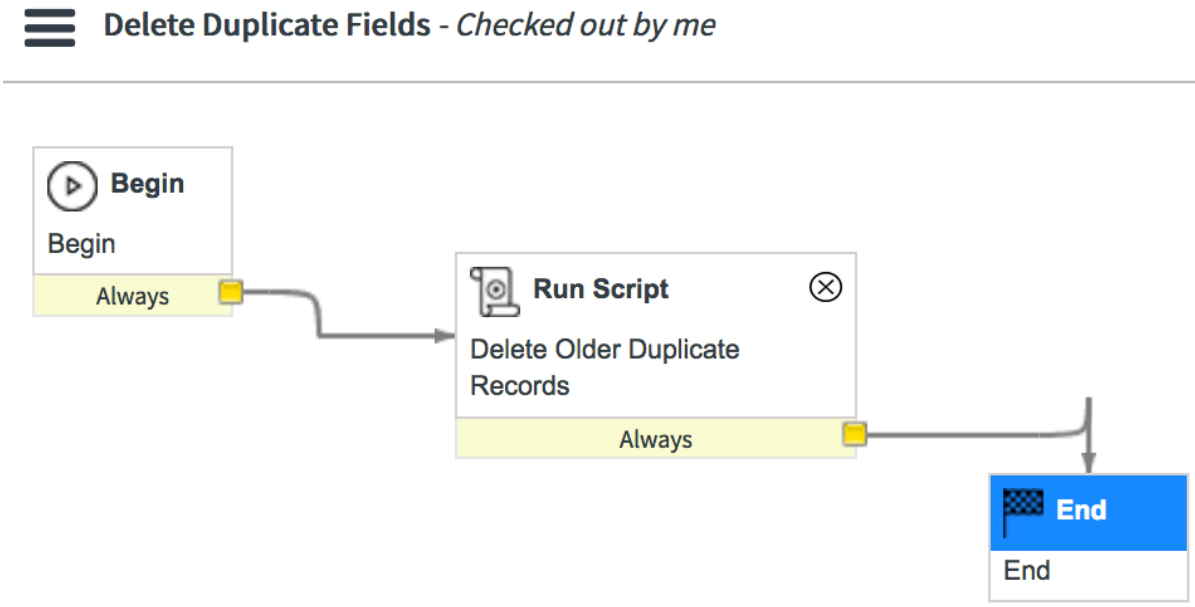
var grCi = new GlideRecord ( 'cmdb_ci' );
grCi.addQuery ('sys_id', 'IN', cis.toString());
grCi.orderByDesc ('sys_created_on');
grCi.query();
grCi.next();
while (grCi.next())
        grCi.deleteRecord();
```



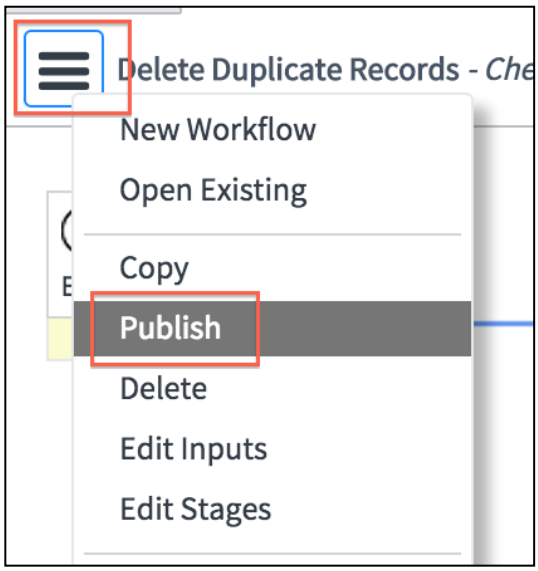
7. Click on **Submit**.

8. Make sure the arrows point to the new script step by dragging the arrow lines.

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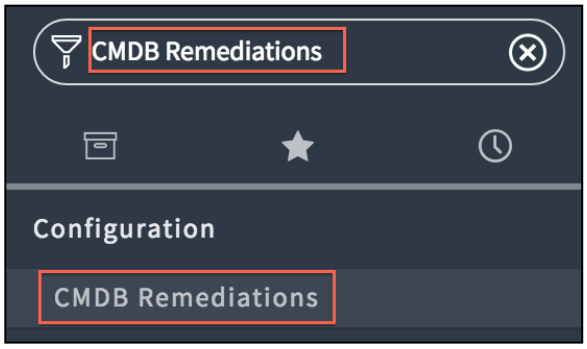


9. Click the **Workflow Actions** button next to the name of the workflow and **Publish** the workflow.

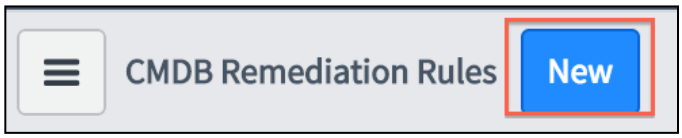


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10. Navigate to **CMDB Remediations**.

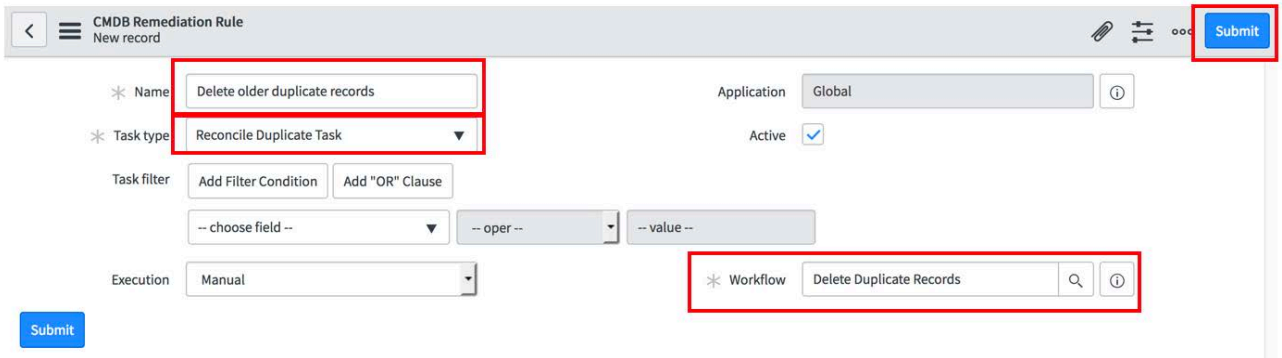


11. Click on **New**.



12. Populate the following fields:

    Name: **Delete older duplicate records**
    Task Type: **Reconcile Duplicate Task**
    Orchestration Workflow: **Delete Duplicate Records**
    Execution: **Manual**

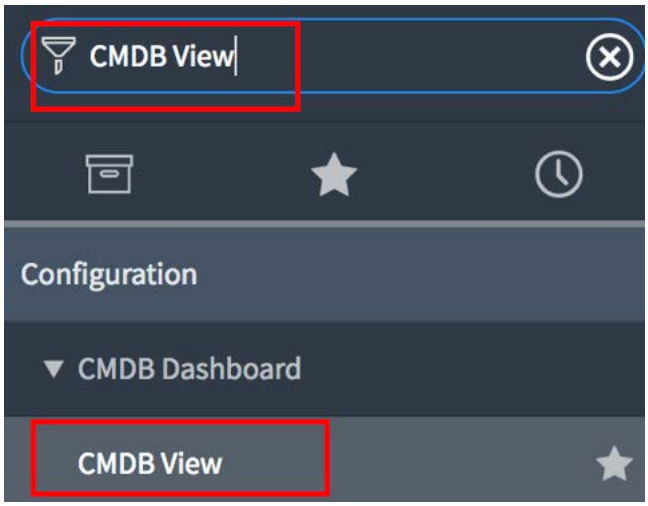


13. Click on **Submit**.

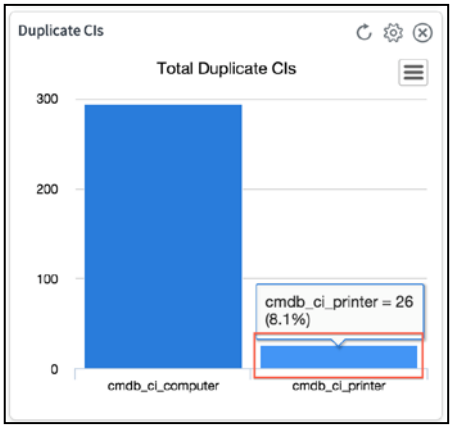
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Lab Success Verification

1. Navigate to **CMDB Dashboard**.

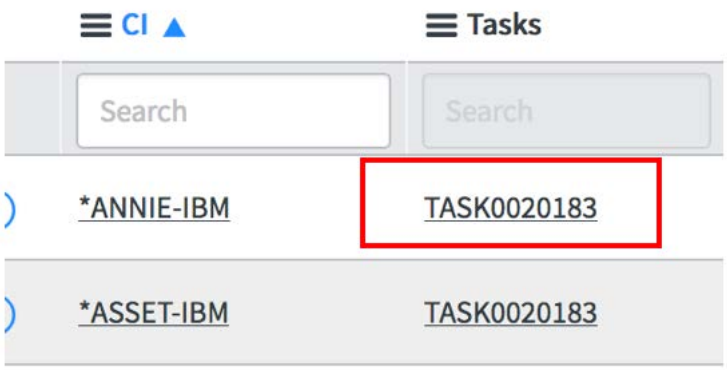


2. Click on any of the lines in the bar chart showing failures for Duplicate CIs.



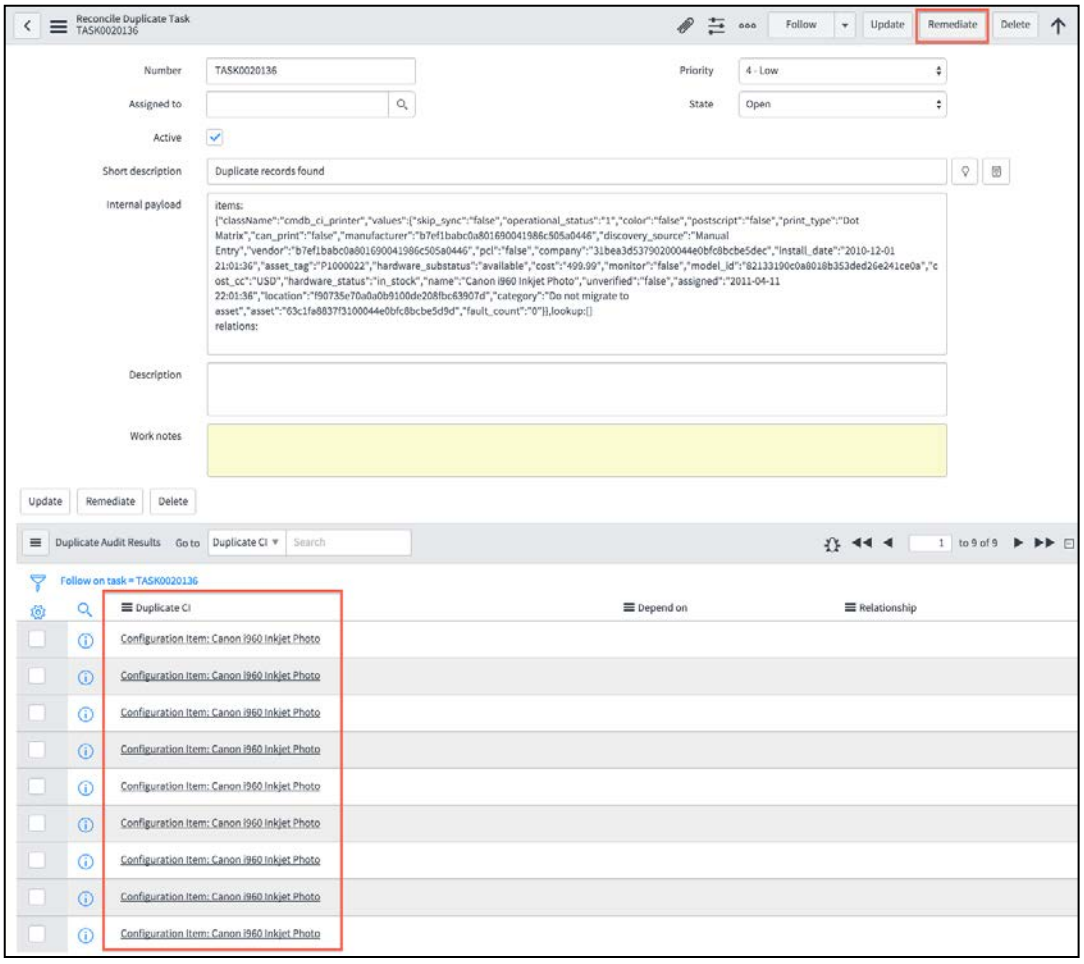
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3. Click on any of the **tasks** shown in the list of duplicate CIs.

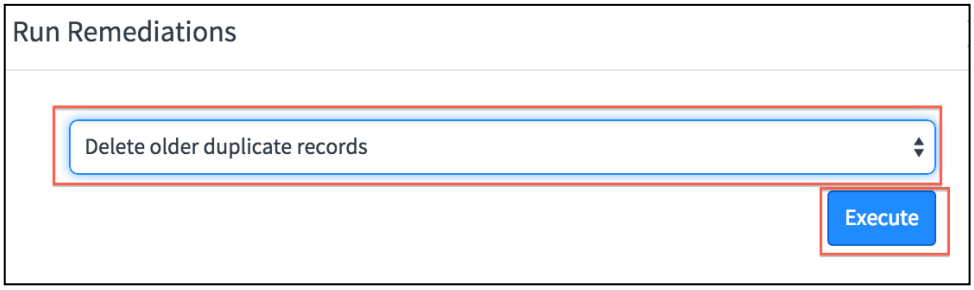


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4. You will see the task detailing the duplicate records, and a list of associated duplicate records as a related list at the bottom of the page. Select the **Remediate** button in the top-right.



5. Pick the remediation action **Delete Duplicate Records**. Then, click **Execute**.

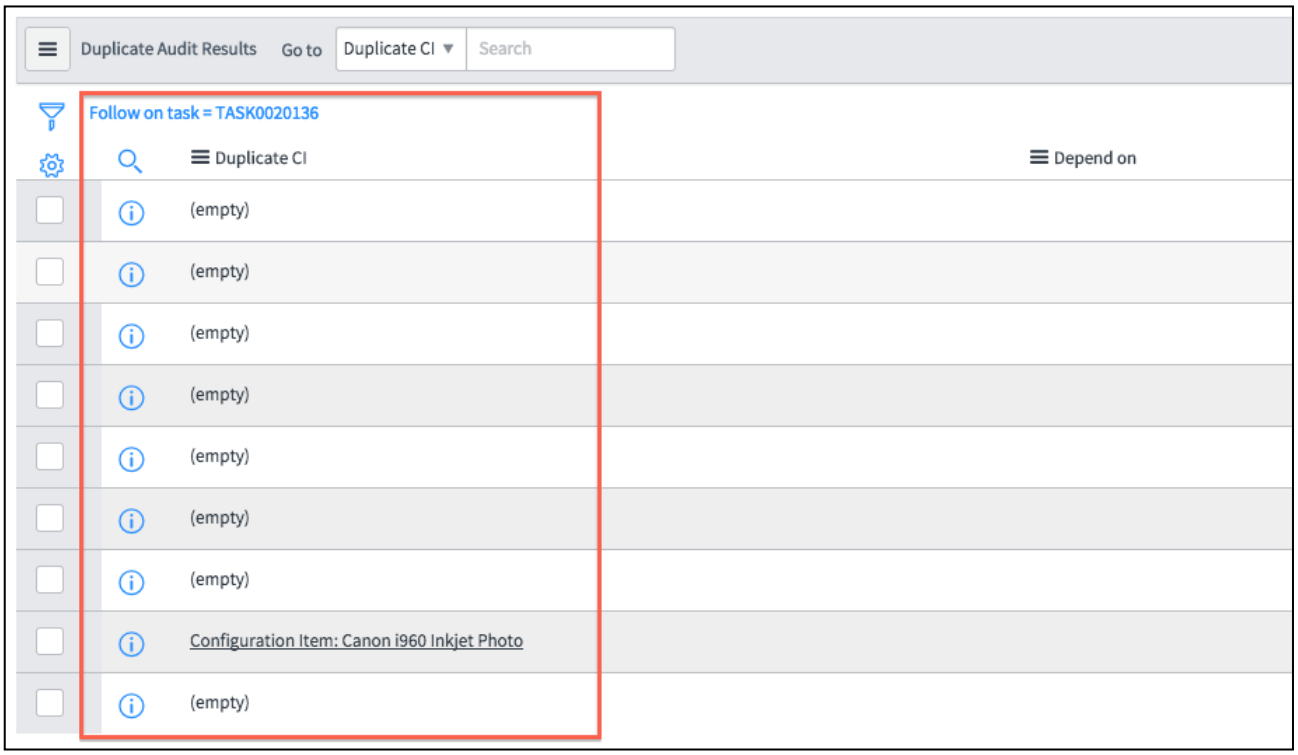


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6. Wait for the green popup message “Remediation Started” to fade away.



7. Refresh the task and you will see that all duplicate records except one have been deleted.



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Lab Goal

Lab 2.2 Create a Stale CI Remediation Workflow

This lab explains how to create and execute a remediation rule to resolve stale records.

Summary of the remediation logic: Any stale record found should be deleted.

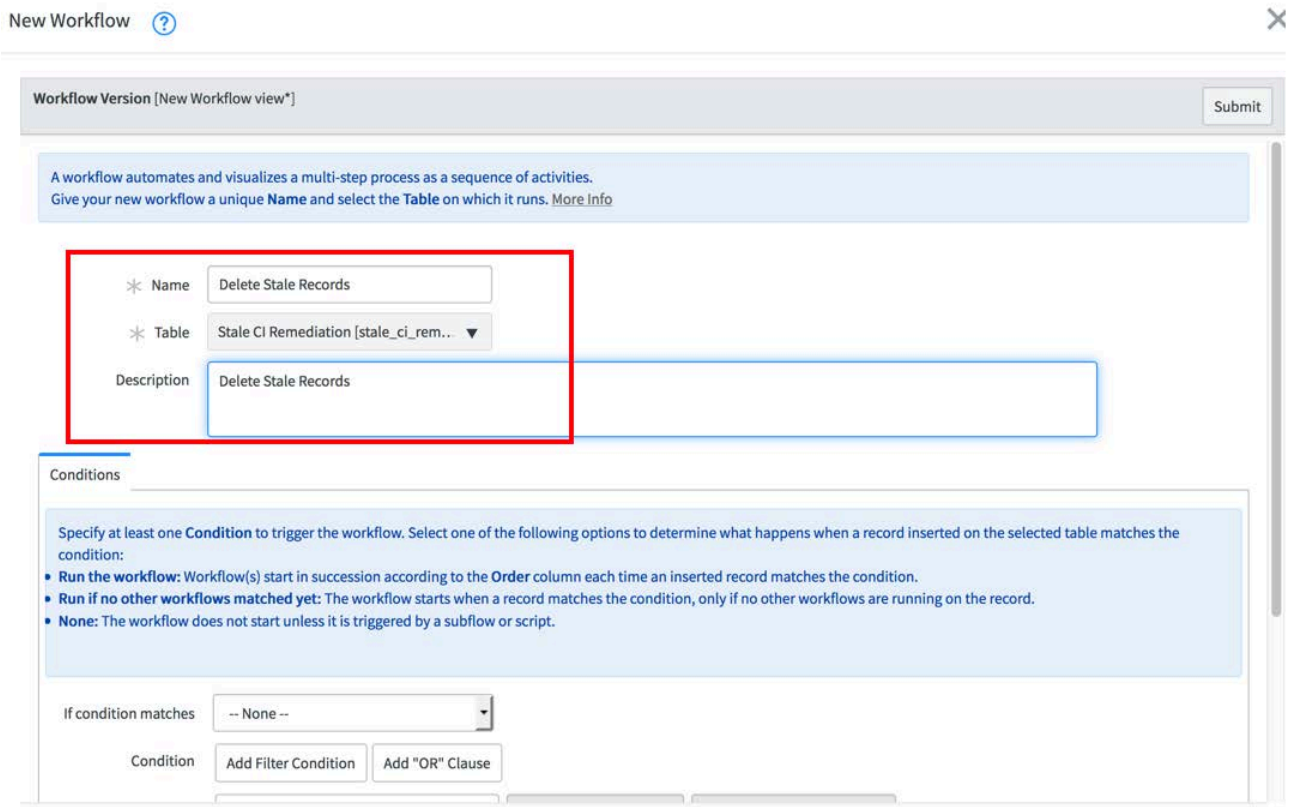
Create a rule to remediate Stale Records

1. Navigate to **Workflow Editor**.
2. Click the **"+"** icon in the **Workflows** tab on the right to create a new workflow.

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3. Populate the following fields:

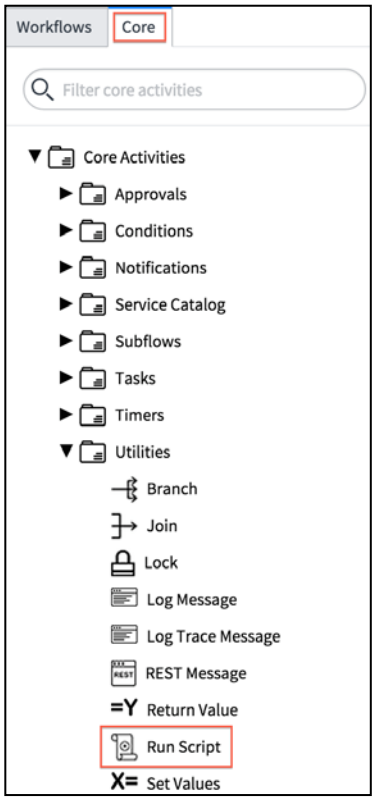
   Name: **Delete Stale Records**
   Table: **Stale CI Remediation**
   Description: **Delete Stale Records**
   If Condition Matches: **None**

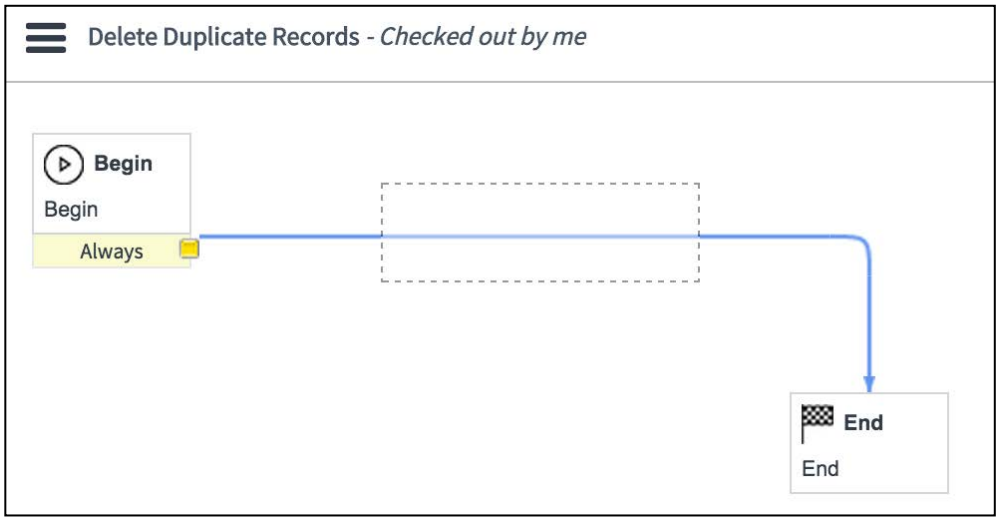


4. Click **Submit**.

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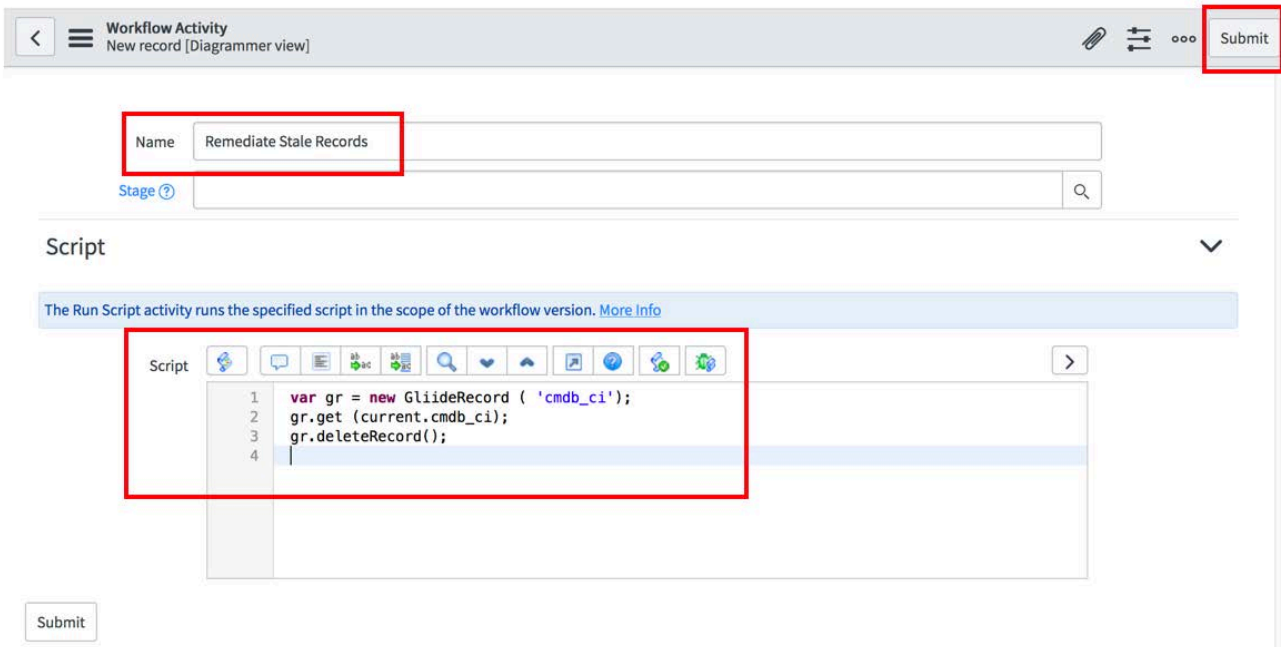
5. From the **Core** tab on the right side, select **Utilities -> Run Script** and drag it over the line connecting the Begin and End boxes on the workflow canvas.





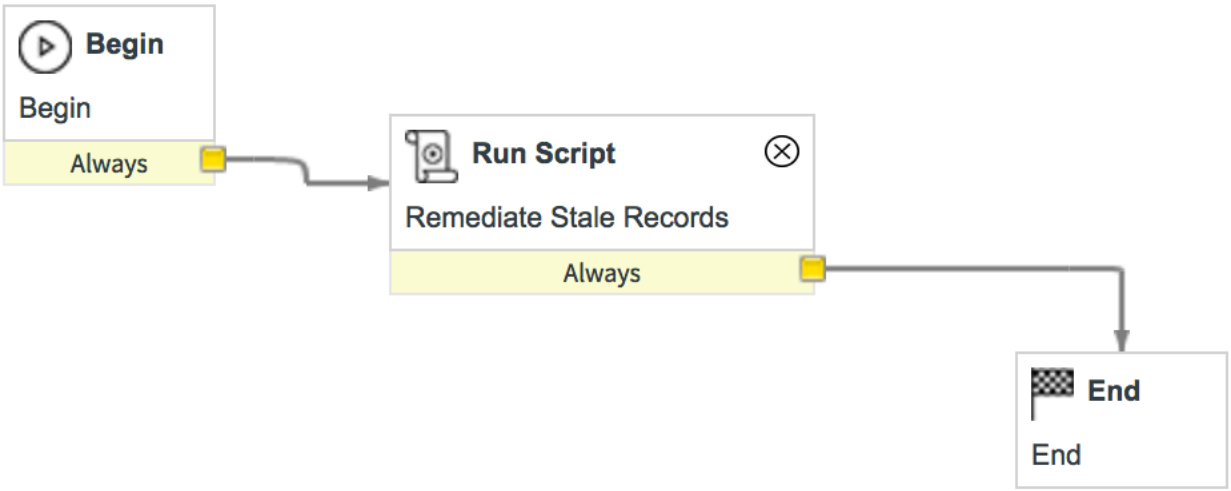
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6. Copy script **remediate_stale_records** to the workflow activity.



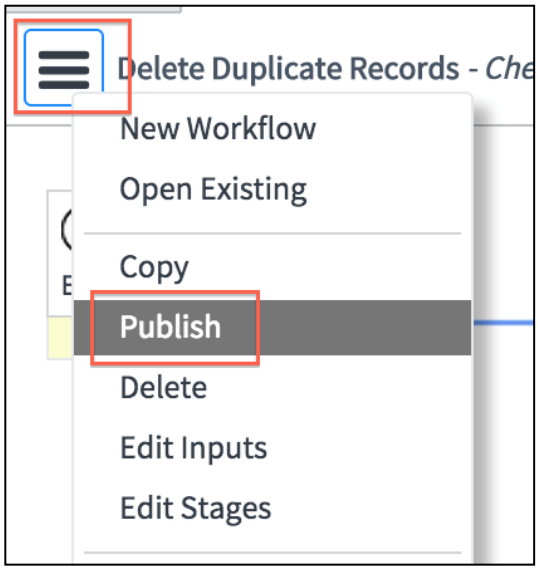
7. Click on **Submit**.

8. Make sure the arrows point to the new “run Script” task.

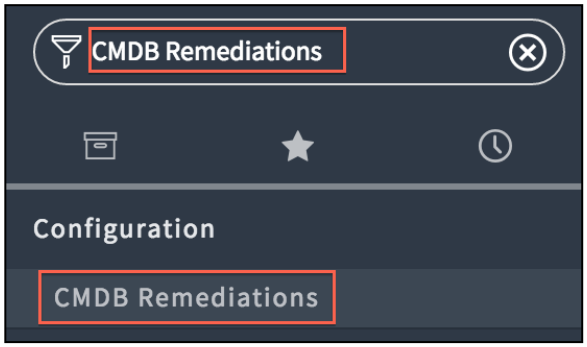


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9. Click the **Workflow Actions** button next to the name of the workflow and **Publish** the workflow.



10. Navigate to **CMDB Remediations**.



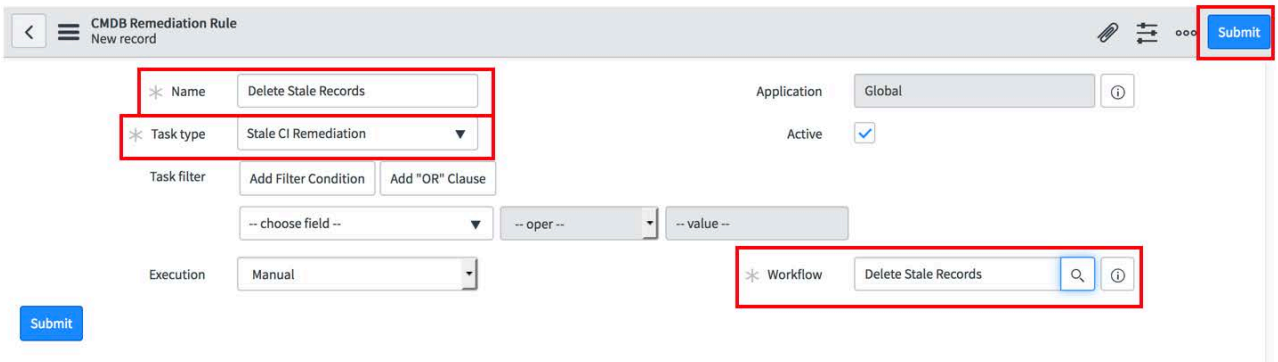
11. Click on **New**.



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12. Populate the following fields:

    Name: **Delete Stale Records**
    Task Type: **Stale CI Remediation**
    Orchestration Workflow: **Delete Stale Records**
    Execution: Manual

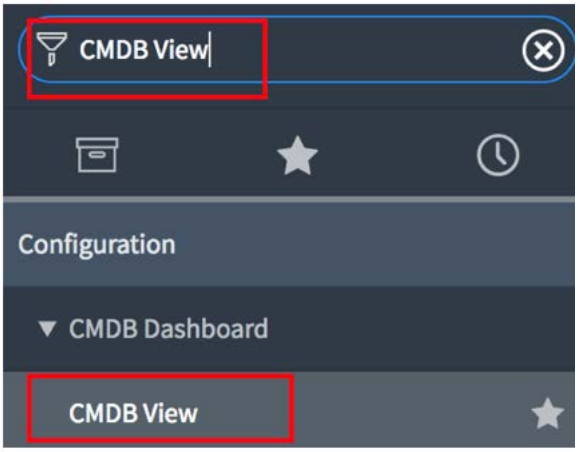


13. Click on **Submit**.

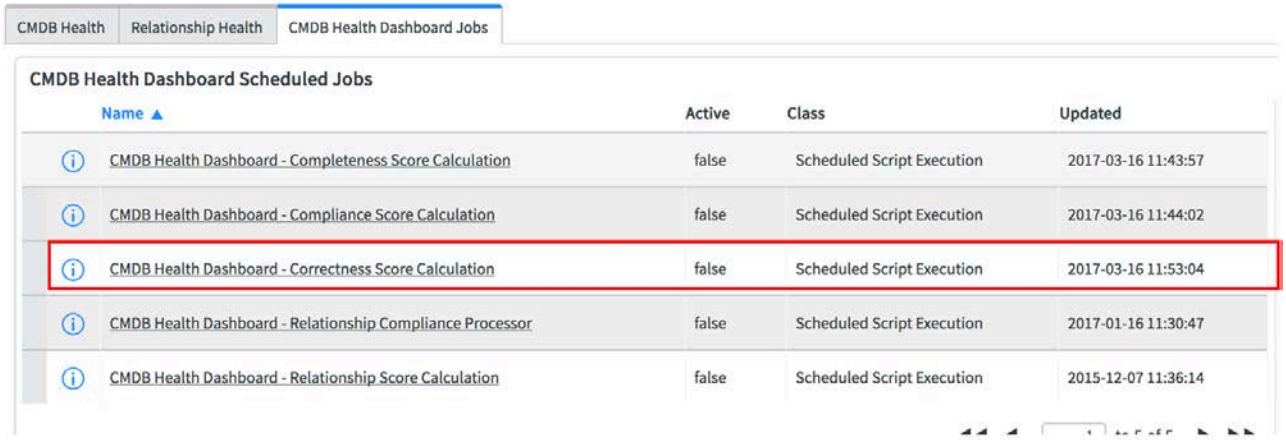
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Lab Success Verification

1. Navigate to **CMDB Dashboard**.

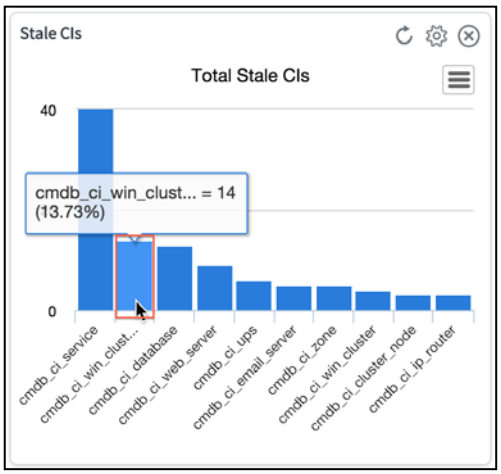


2. Click on the CMDB Health Dashboard Jobs and run the Correctness Score Calculation and **Clear the browser history**.

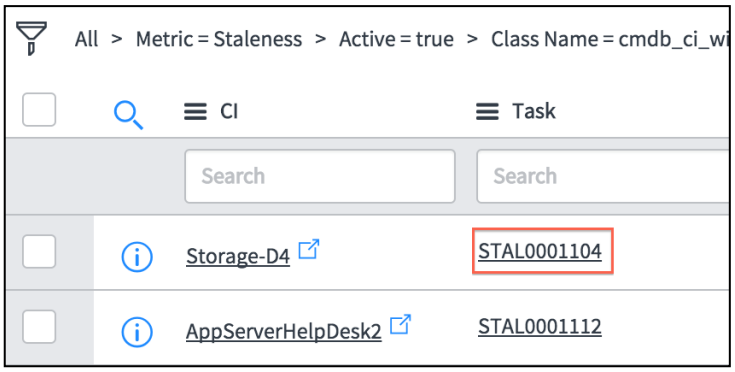


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3. Click on any of the lines in the bar chart showing failures for Stale CIs.

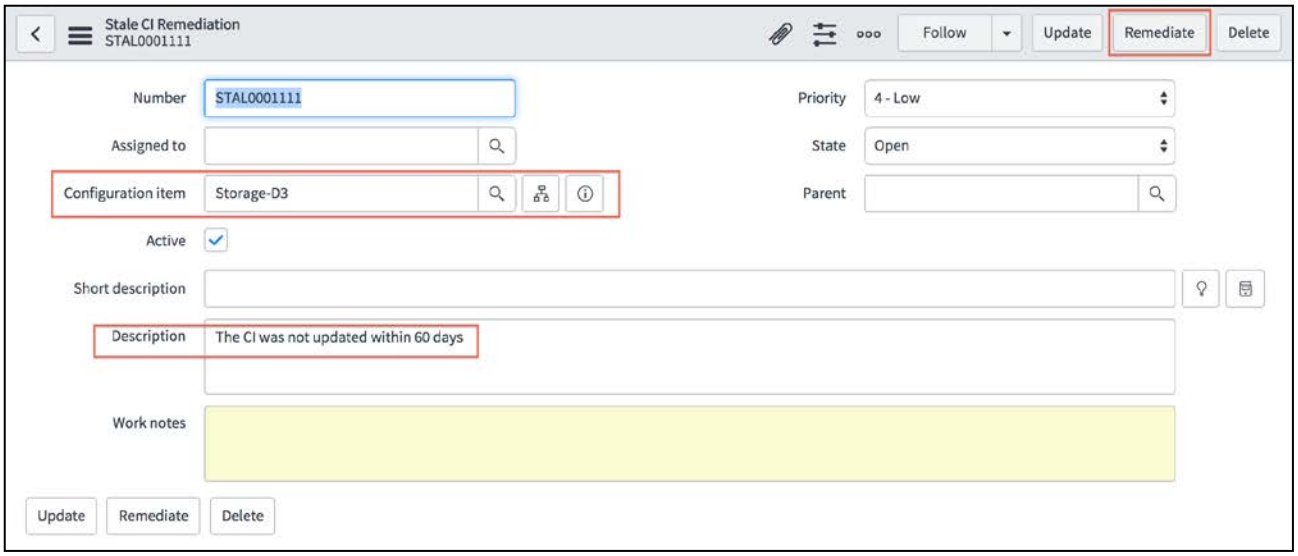


4. Click on any of the **tasks** shown in the list of failures.

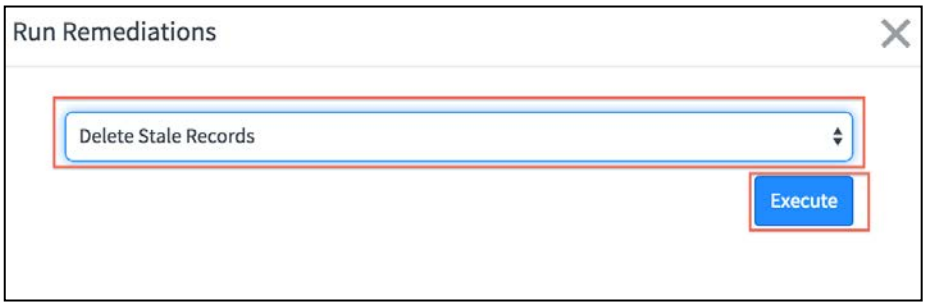


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5. You will see the task detailing the CI and the reason it was marked as stale. Click on Remediate in the top-right.



6. Pick the remediation action **Delete Duplicate Records**. Then click **Execute**.

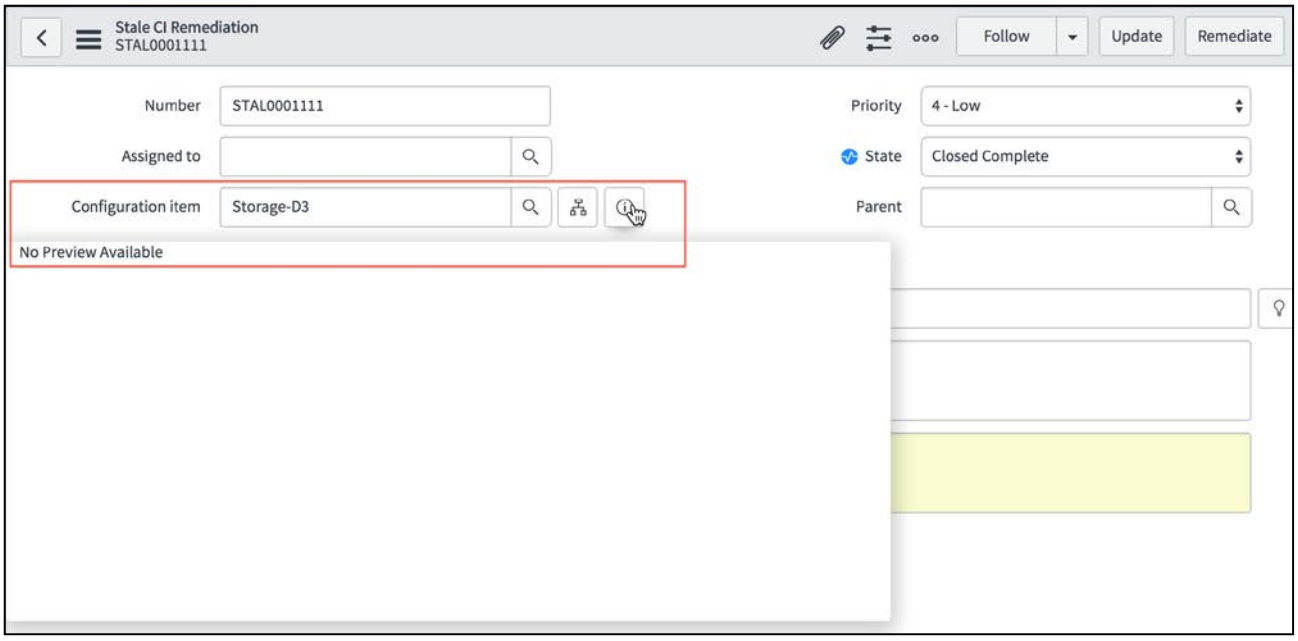


7. Wait for the green popup message “Remediation Started” to fade away.



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8. When hovering over the 'information' icon next to the CI, you will see a message "**No Preview Available**" and clicking on the CI will show a message '**Record Not Found**'.



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