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Lab Guide

Reporting 101:

Basic Reporting with

A Side of Metrics

Ryan Fraser & David D'Agostino

Lab instance: https://<<name>>.lab.service-now.com

Login / Passwords:

admin / Knowledge14

itil / Knowledge14

employee / Knowledge14

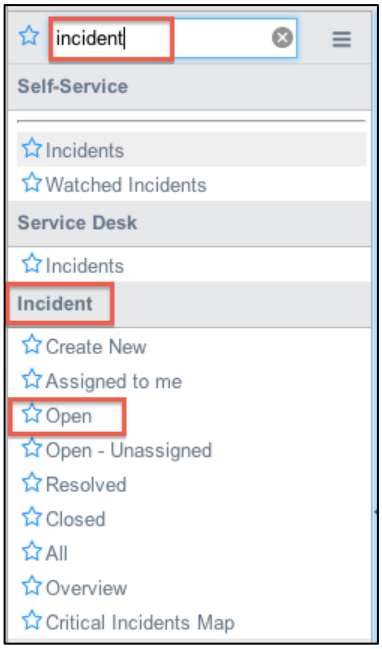
Lab Goal

This lab explores the basics of reporting within ServiceNow. In the exercises, you explore ways to presenting convenient data to end users.

Lab 1
Create list filter

Log on to Your Training Instance

1. Login to the provided training instance URL using the **admin** credentials on the cover
2. Navigate to **Incident > Open**.

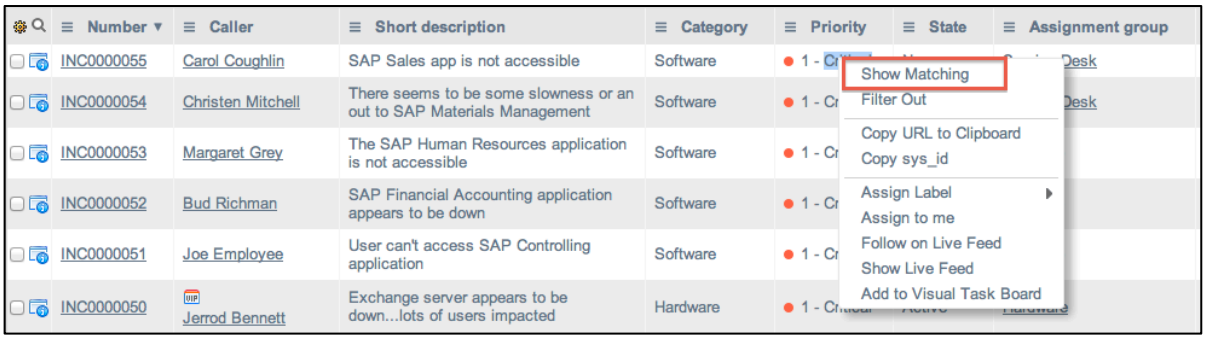


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Create a List Filter

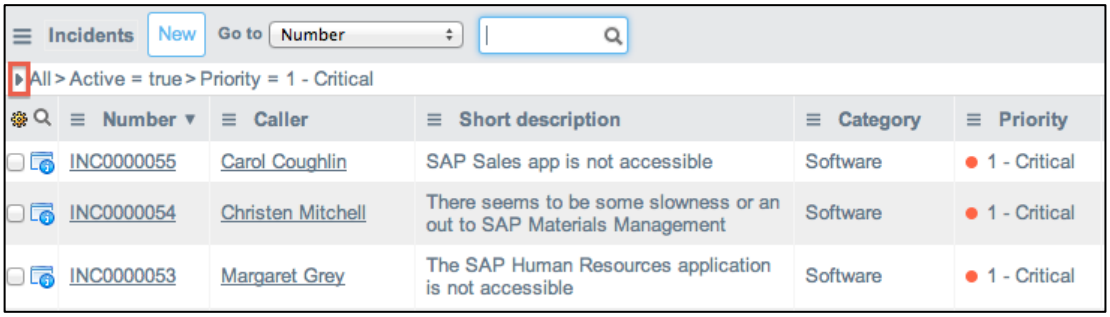
1. Right-click a field that contains the value **1 – Critical.**

2. Click **Show Matching** on the list.



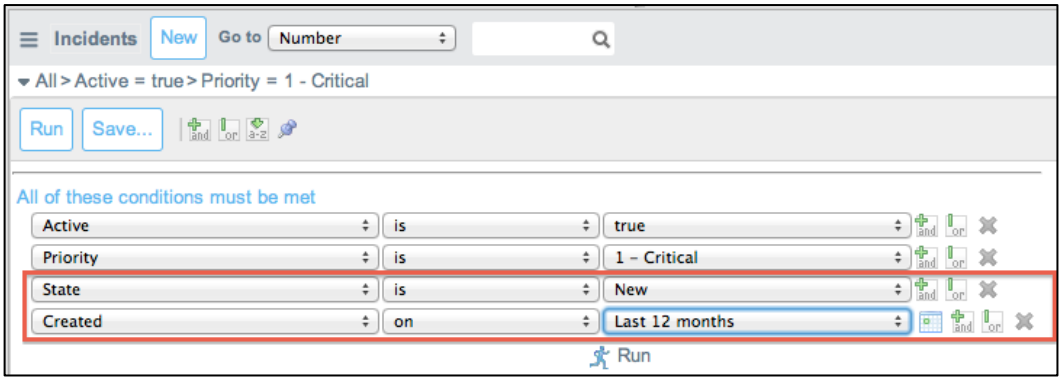
NOTE: The breadcrumb trail now includes the additional filter of **Priority = 1- Critical.**

3. Expand the Report Builder by clicking on the arrow left of the breadcrumb trail.



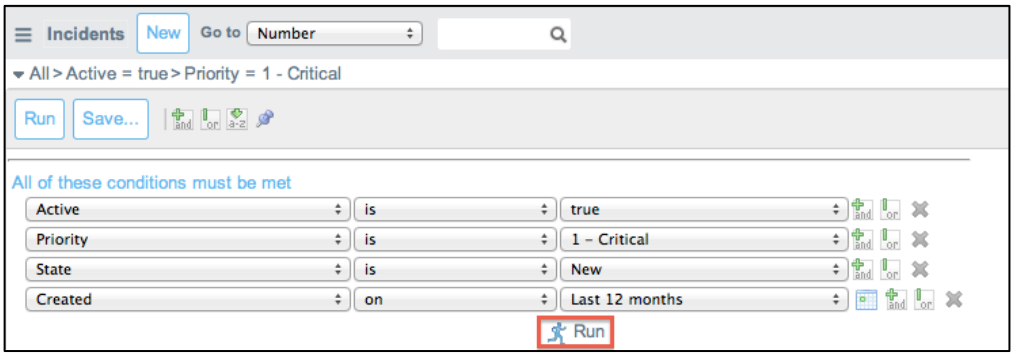
4. Add the following conditions to the Condition Builder:

   +AND condition **State** is **New**
   +AND condition **Created** on **Last 12 Months**



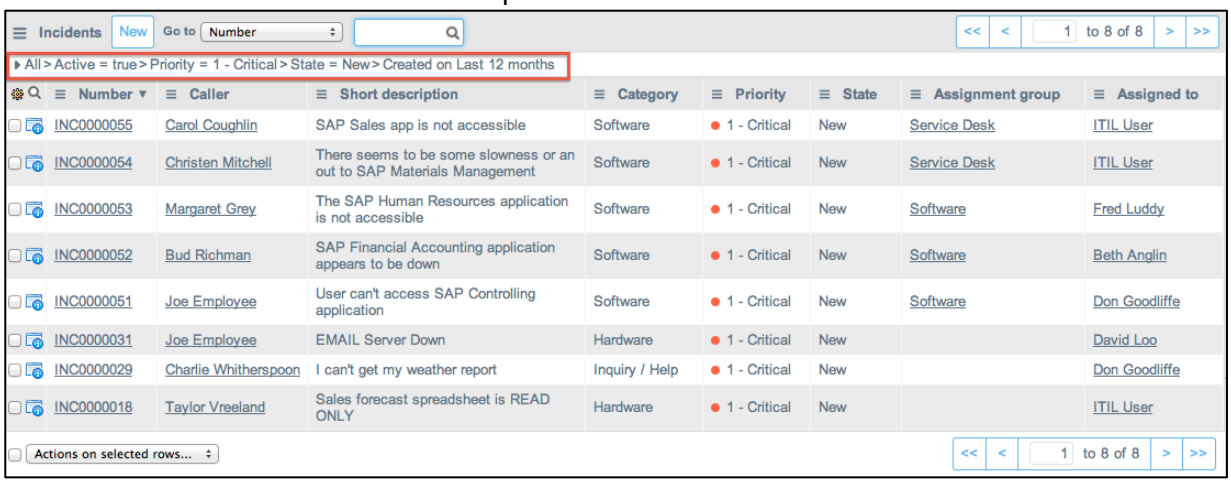
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5. Select **Run**.



Lab Success Verification

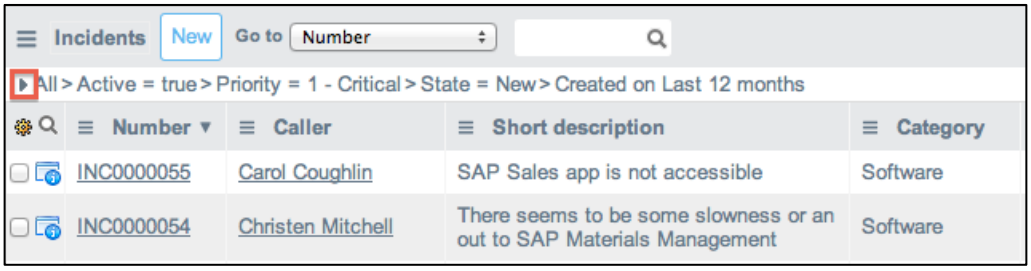
1. The list view should look like the example below.



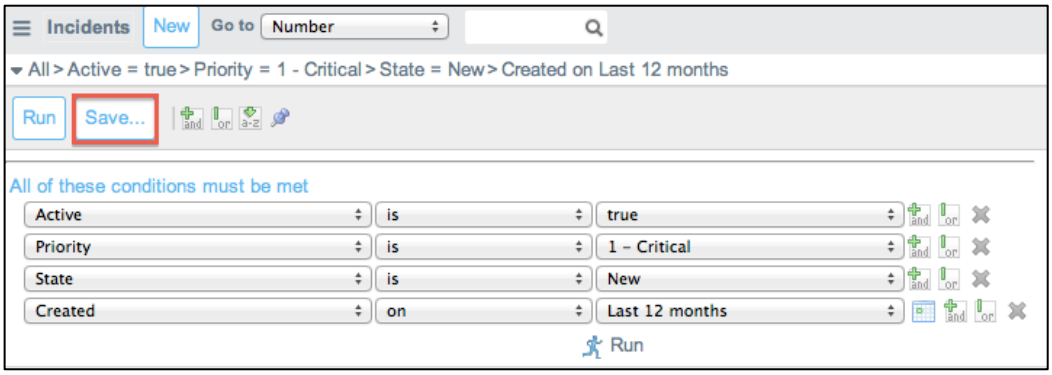
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Lab Challenge – Create Personal Filter

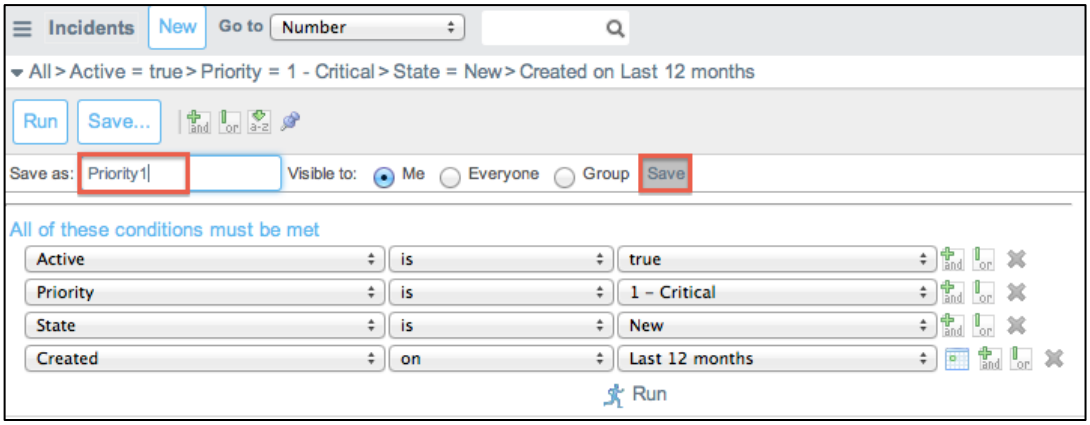
1. Expand the **Condition Builder**, by clicking on the arrow left of the breadcrumb trail.



2. Click **Save**.



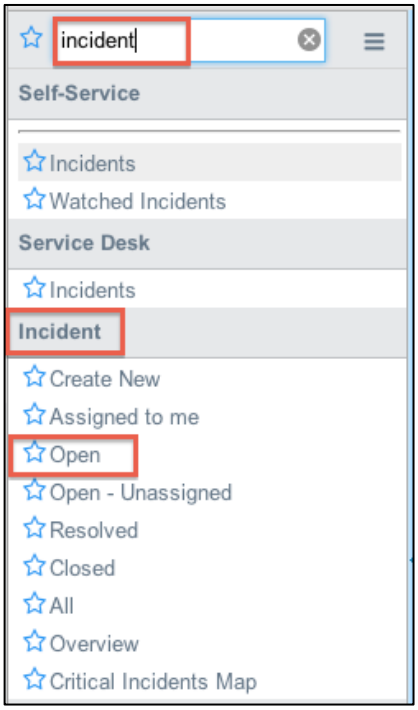
3. Enter **Priority 1** as the filter name, and click **Save**.



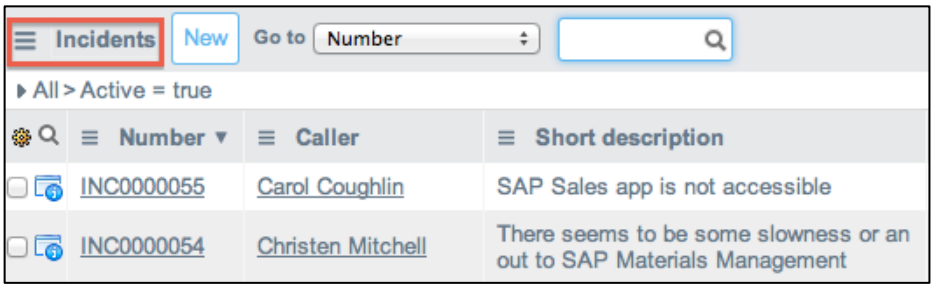
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Lab Challenge Verification

1. Navigate to **Incident > Open.**

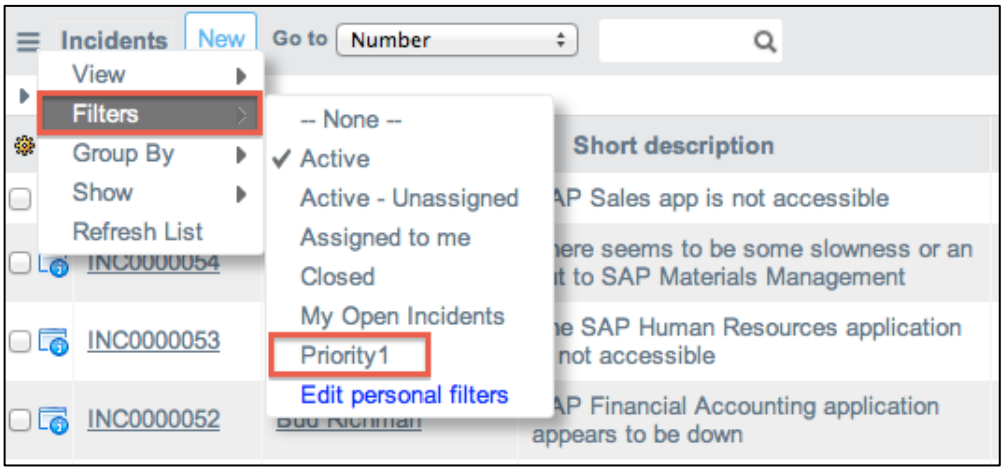


2. Click the table **Incidents.**

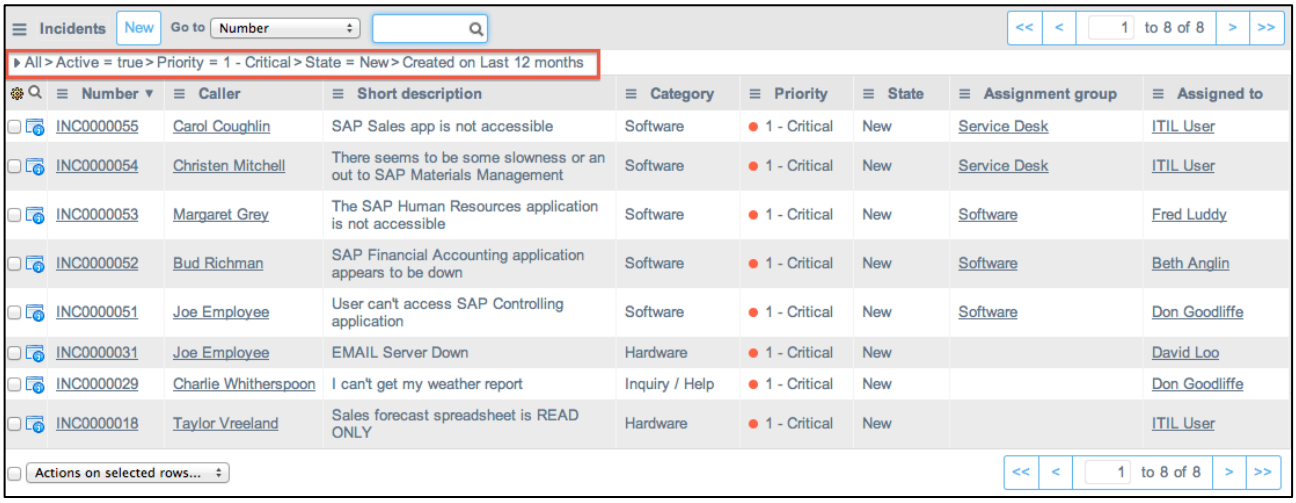


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3. Select **Filters > Priority 1.**



4. The filter view should look like the example below.



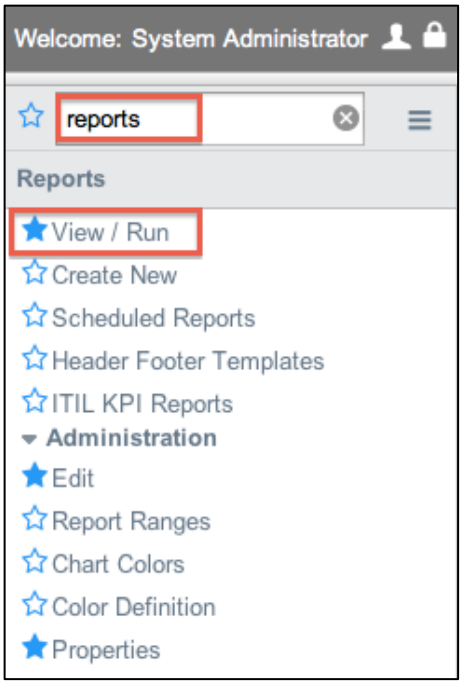
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Lab Goal

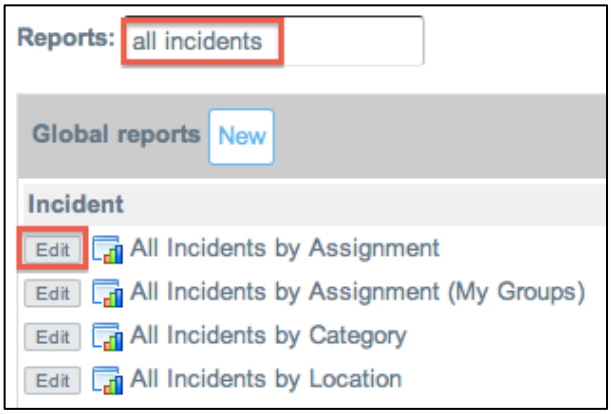
This lab, explains how to leverage an existing report and modify it to build a new report.

Lab 2
Modify an Existing Incident Report

1. Navigate to **Reports > View/Run**.

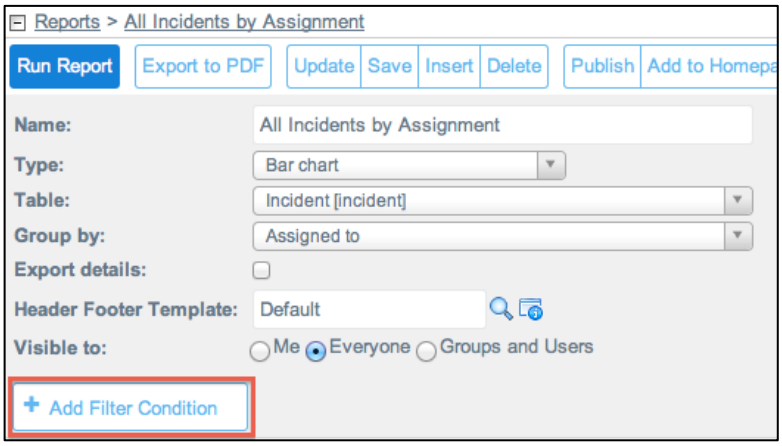


2. Select the **Edit** button next to the **All Incidents by Assignment** report.



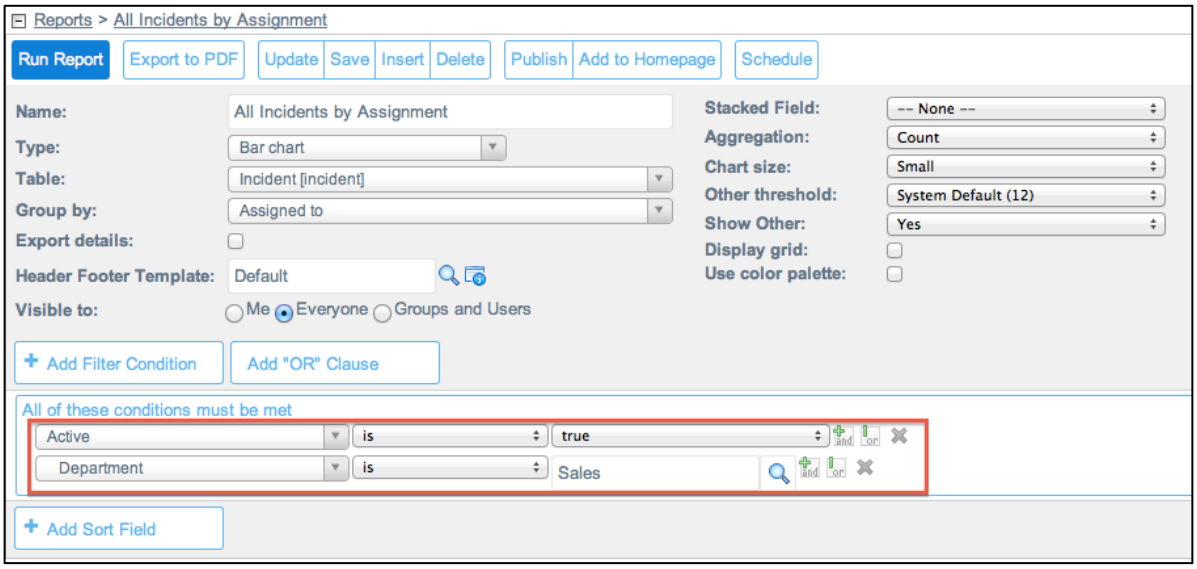
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3. Within the **Report Builder**, click **+ Add Filter Condition.**



4. Add the following conditions:

Active is **True**
Caller.Department is **Sales**



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"Dot.Walk" to Access the Caller.Department Table/Field

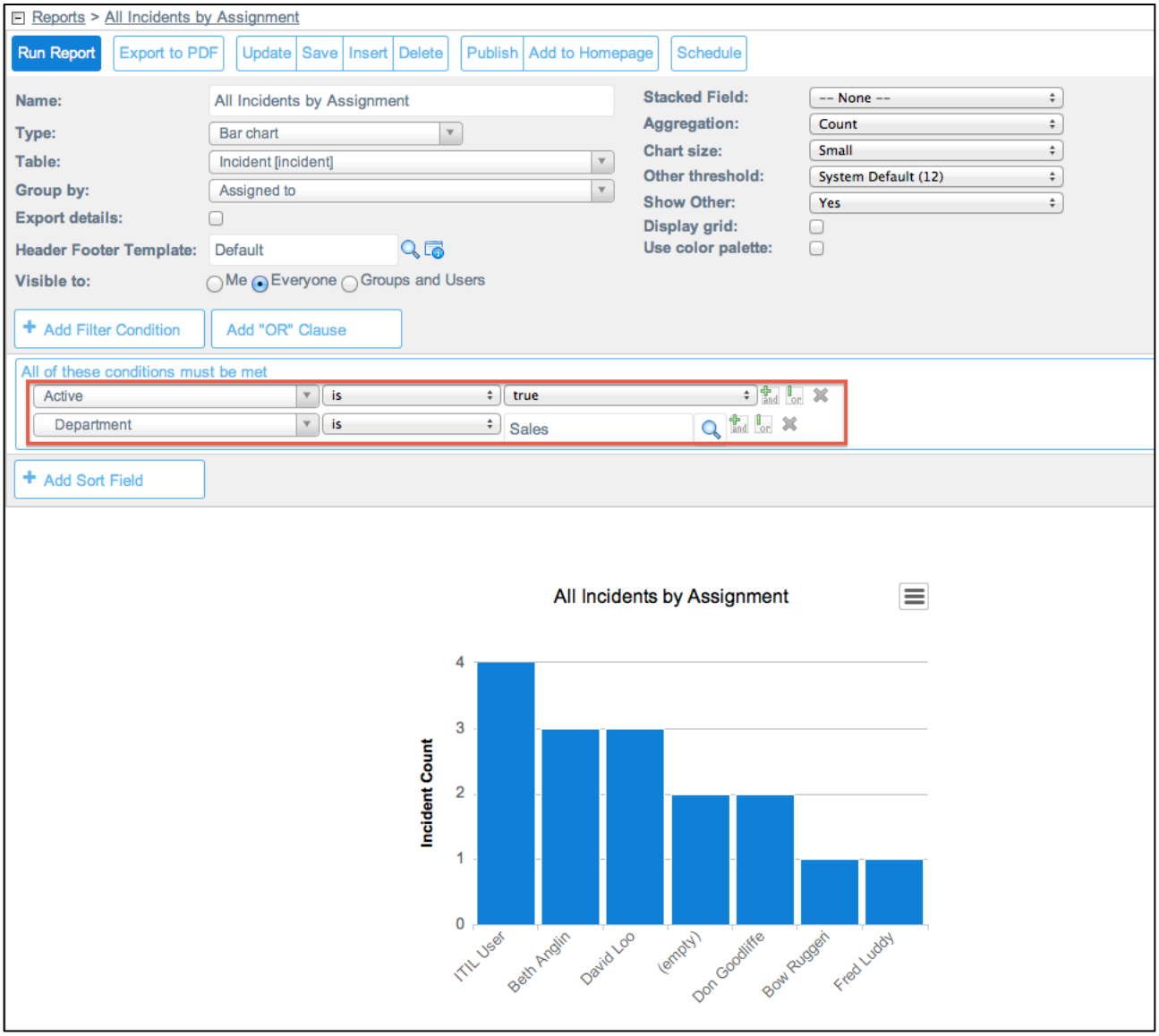
In order to get to the **Caller.Department** table/field, follow these steps to successfully **Dot.Walk** to **Caller.Department**.

1. From the Condition Builder, select **Show Related Fields** from the bottom of the field list.
2. Select **Caller --> User Fields**.
3. Select **Department**.

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Lab Success Verification

1. The list view should look like the example below.



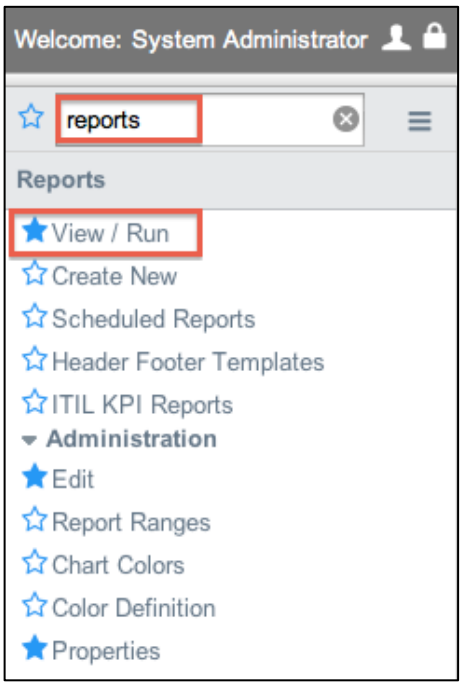
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Lab Goal

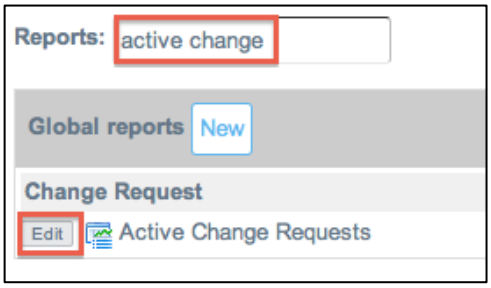
This lab digs deeper into the power of Reporting on the ServiceNow platform. The exercise uses an existing Change Report and modifies it for a new Change Report.

Lab 3
Modify an Existing Change Report

1. Navigate to **Reports > View/Run**.



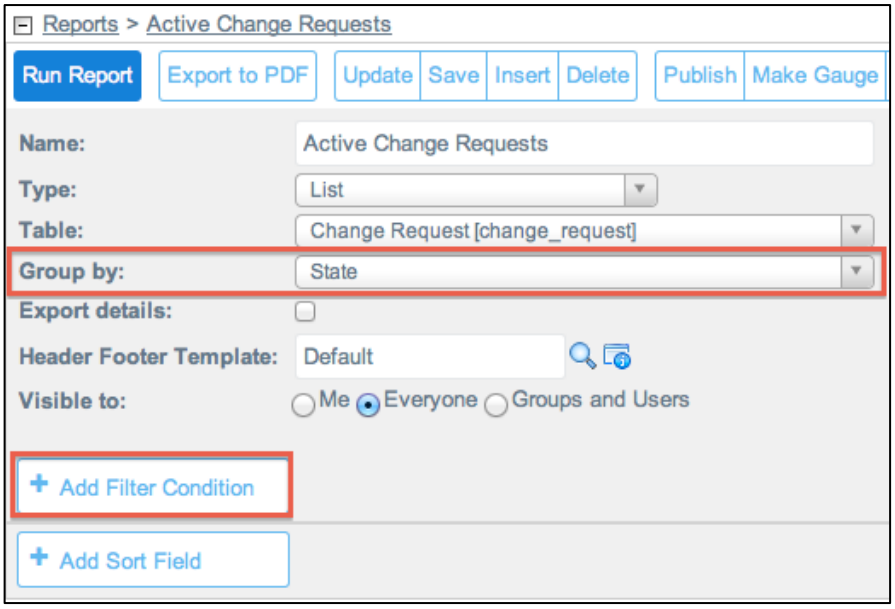
2. Search for the **Active Change Requests** report, and click **Edit**.



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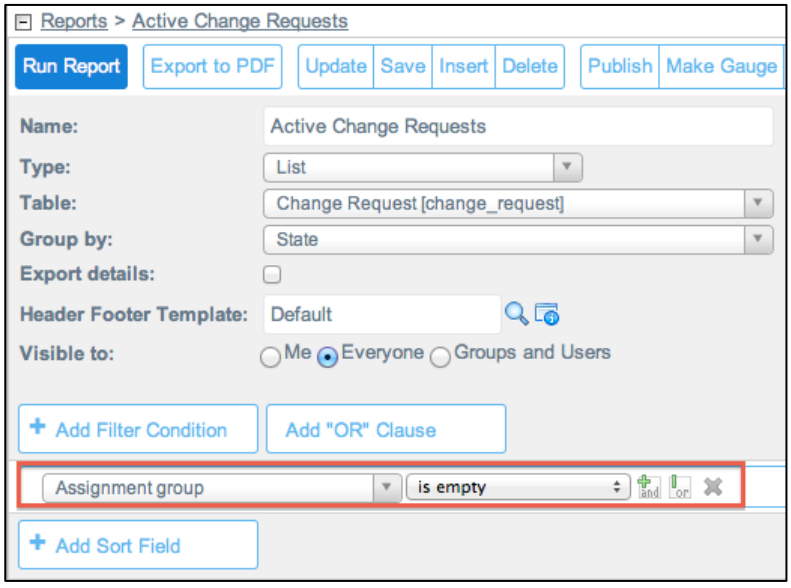
3. Within the **Report Builder**, complete the following:

   Group by: **State**
   Click **+ Add Filter Condition**



4. Add the following condition:

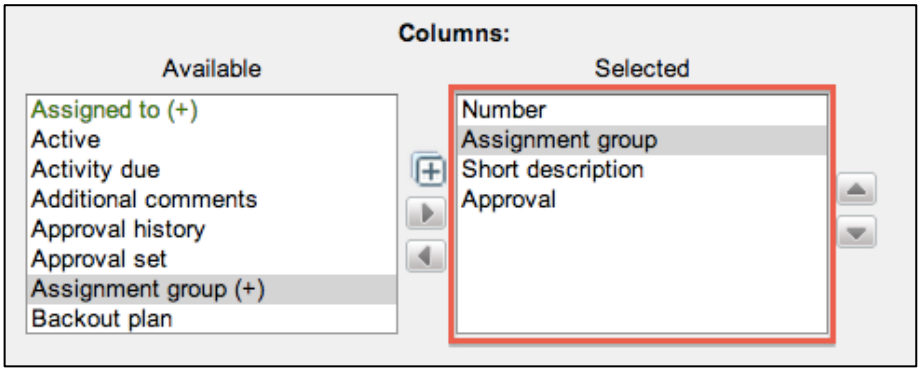
   Assignment group is Empty



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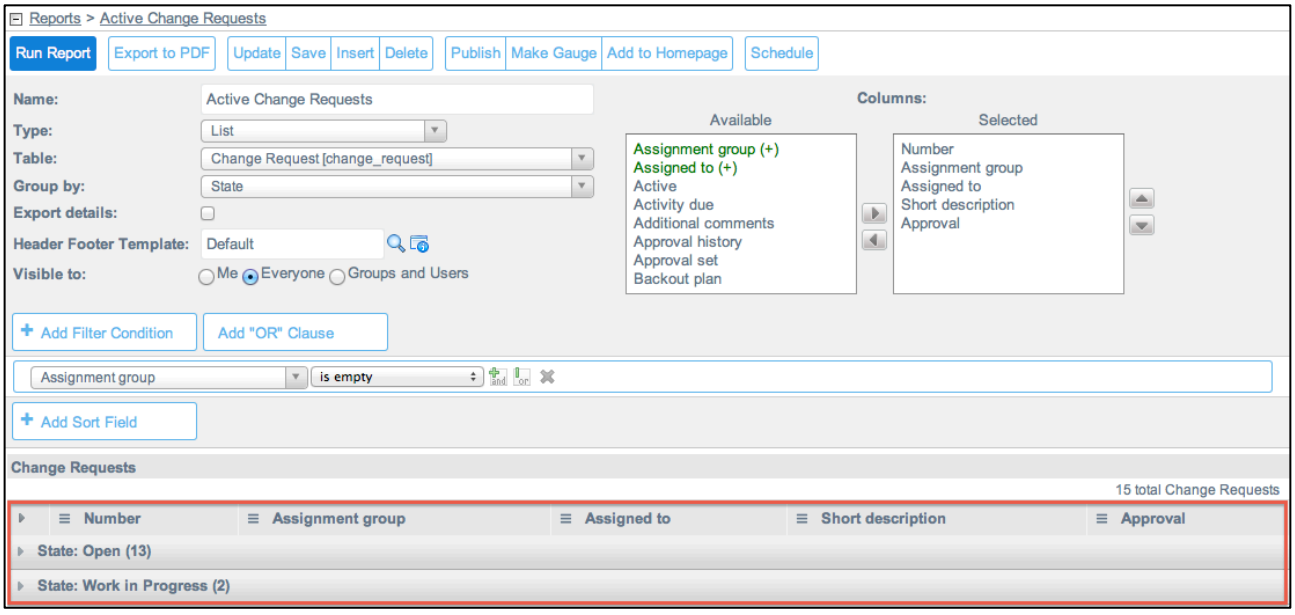
5. Using the slush buckets, click the right arrow to add the following fields to the report:

Number
Assignment group
Short description
Approval



Lab Success Verification

1. Click **Run Report**. The report should look like the example below.



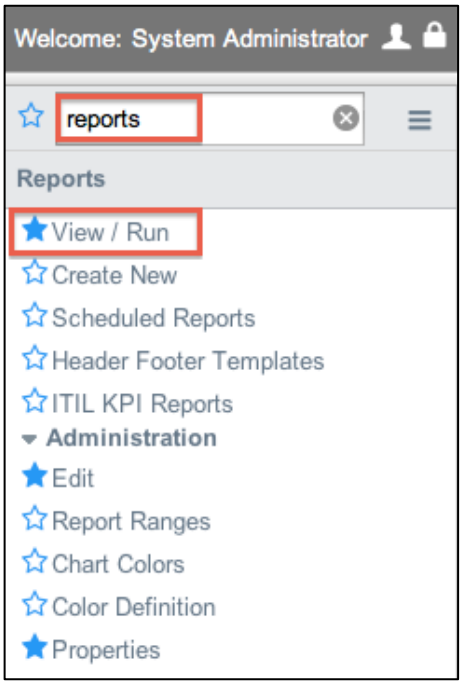
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Lab Goal

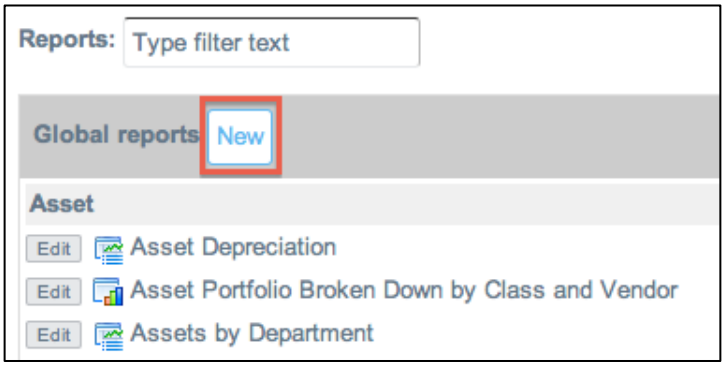
This lab explains how to create a new List Chart when it is not possible to modify an existing report to fill specific needs.

Lab 4
Create a New List Chart

1. Navigate to **Reports > View/Run**.



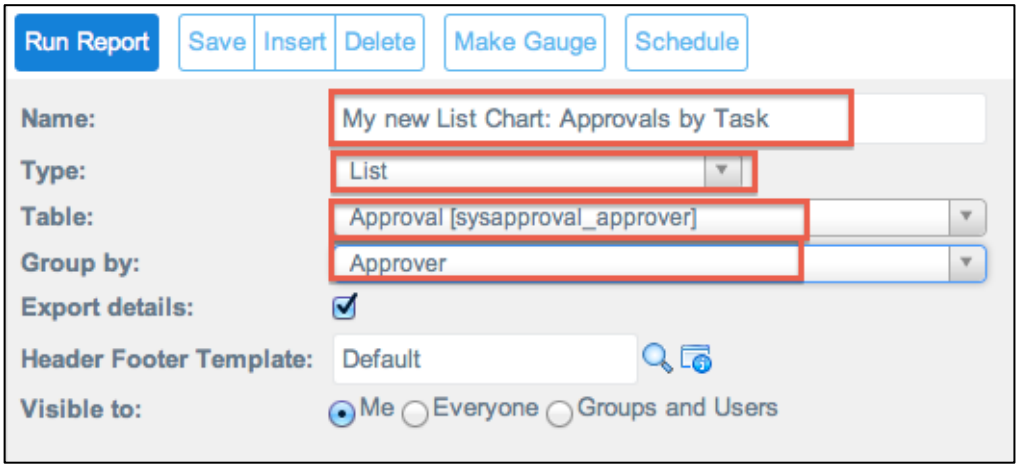
2. Select **New** report.



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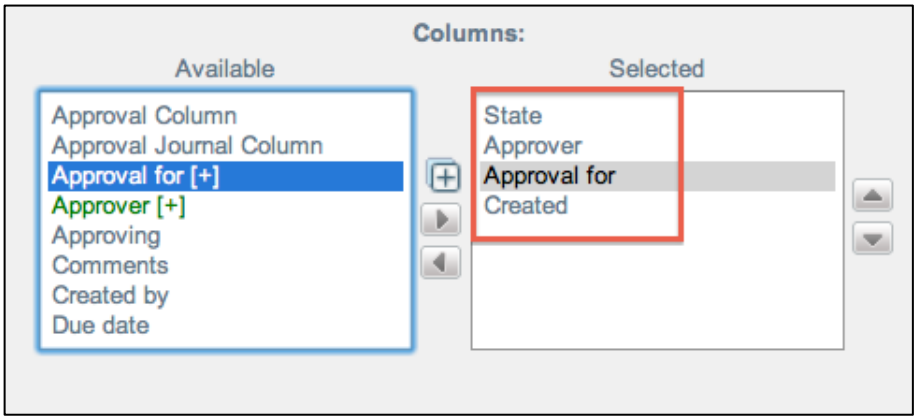
3. Within the **Report Builder**, complete the following:

   Name: **My new List Chart: Approvals by Task**
   Type: **List**
   Table: **Approval [sysapproval_approver]**
   Group by: **Approver**



4. Using the slush buckets, click the right arrow to add the following fields to the report:

   State
   Approver
   Approval for
   Created



5. **Save** Report.

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Lab Success Verification

1. The report should look like the example below.

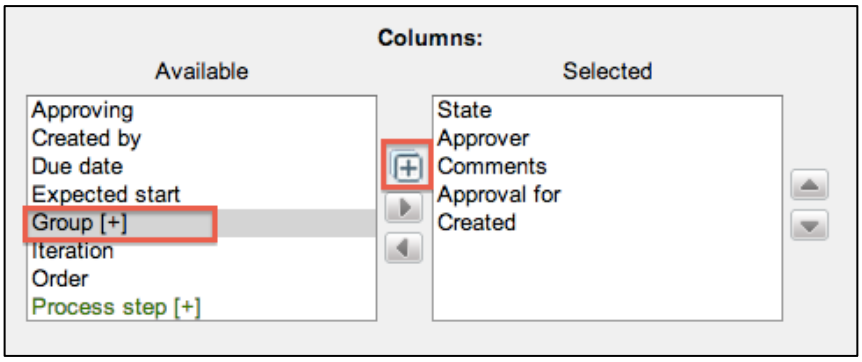


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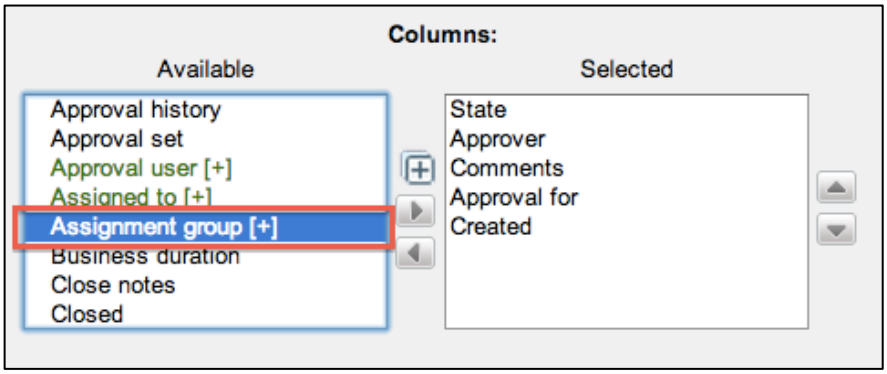
Lab Challenge – Dot Walk to Add Fields to the List Report

Add Assignment Group (from Group table)

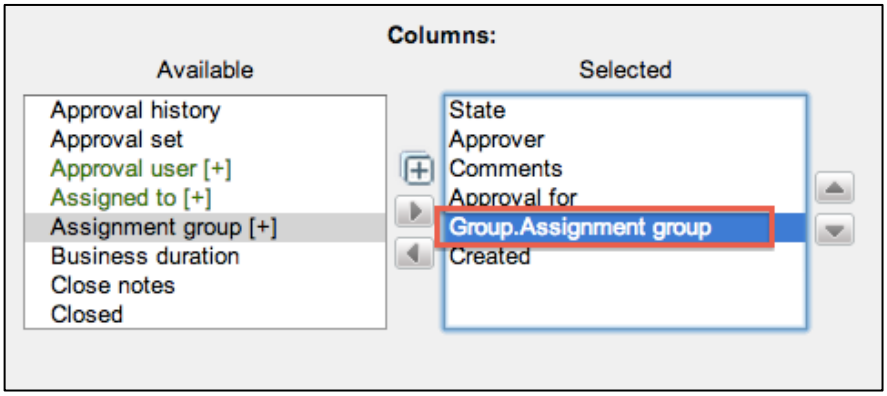
1. Within the right bucket, click **Group [+]** and select the **+** button between the buckets to expand the **Group** table.



2. In the expanded **Group** columns list, select **Assignment group [+]** and use the right arrow to add it to the **Selected** bucket on the left.



3. Confirm that the result looks like the example below.



4. Select **Save**.

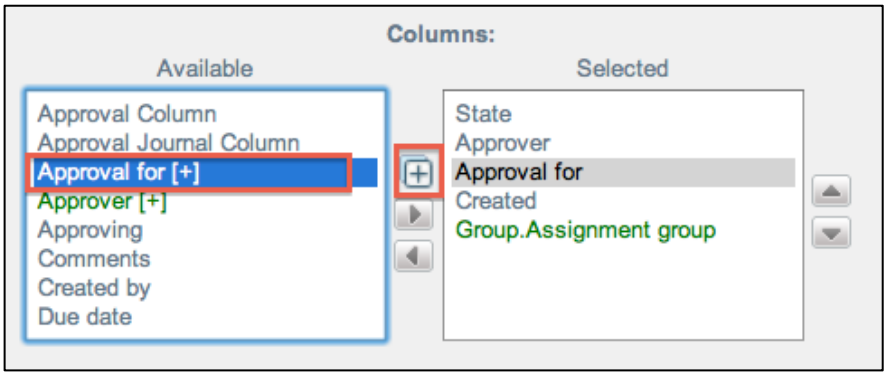
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Add Short Description (from "Approval For" table)

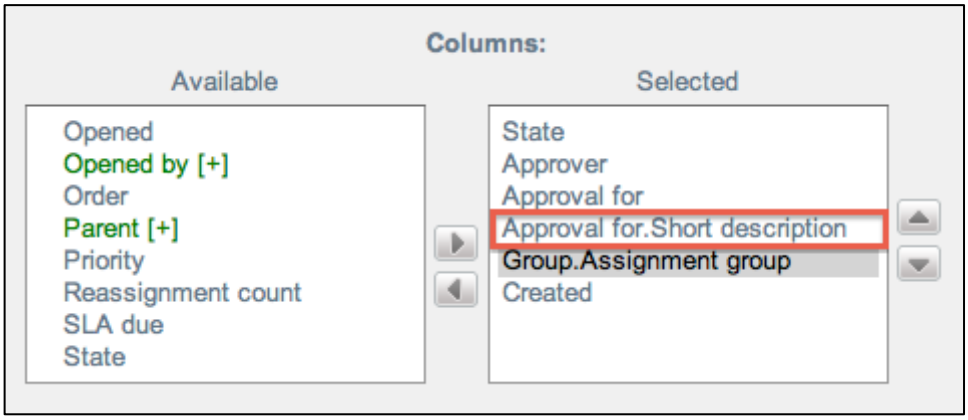
1. Double-click **Approval fields** in the left bucket to return to the **Approval** table fields.



2. Click **Approval for [+]** and select the **+** button between the buckets to expland the **Approval for** table.



3. In the expanded **Approval for** table, select **Short Description** and add it to the **Selected** bucket.

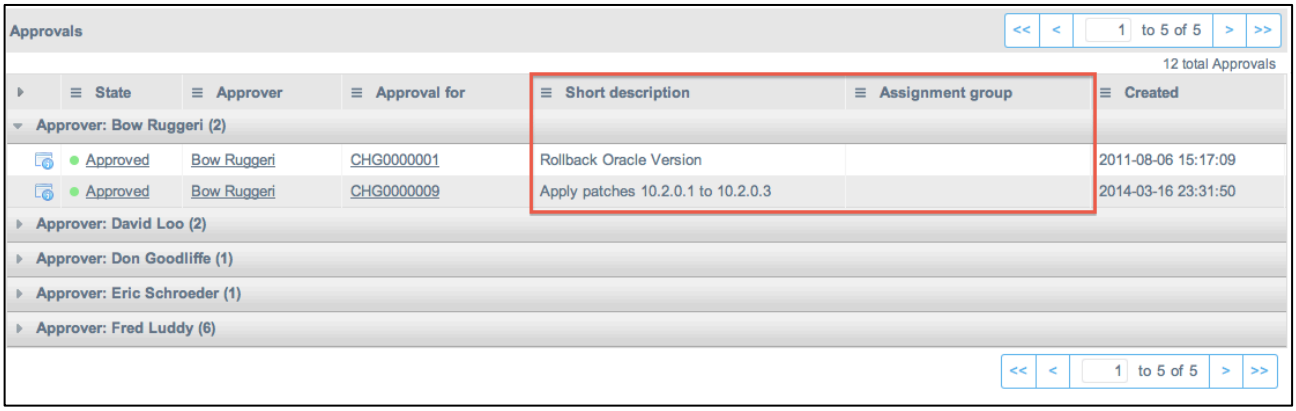


4. **Save** the report.

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Lab Challenge Verification

1. The report should look like the example below.



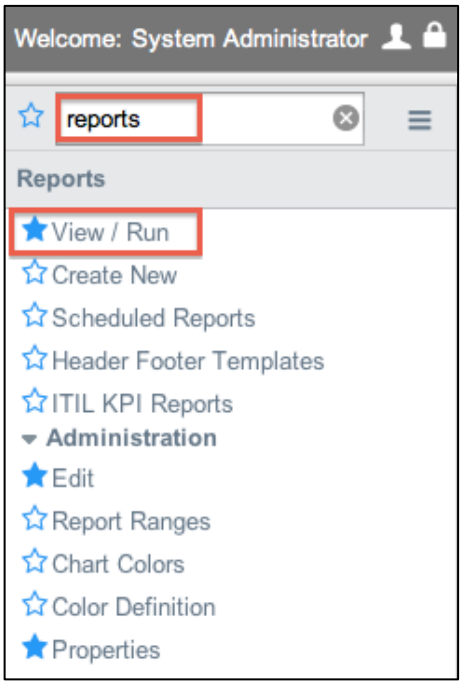
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Lab Goal

This lab explains how to create a visual graphic-based report using the Pie Chart feature. Graphics visualize data that allow the end user to “see” the data at a glance.

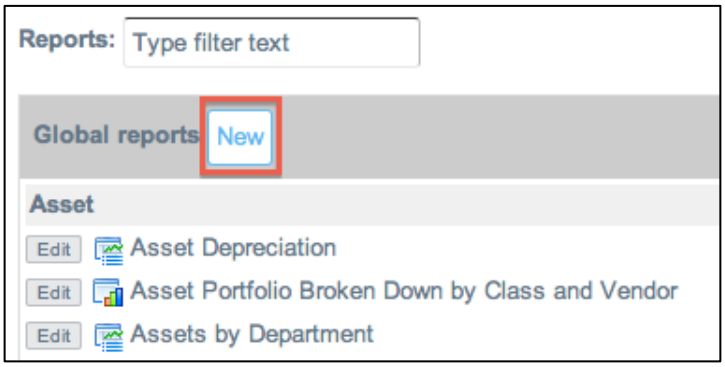
Lab 5
Create a Pie Chart

1. Navigate to **Reports > View/Run**.



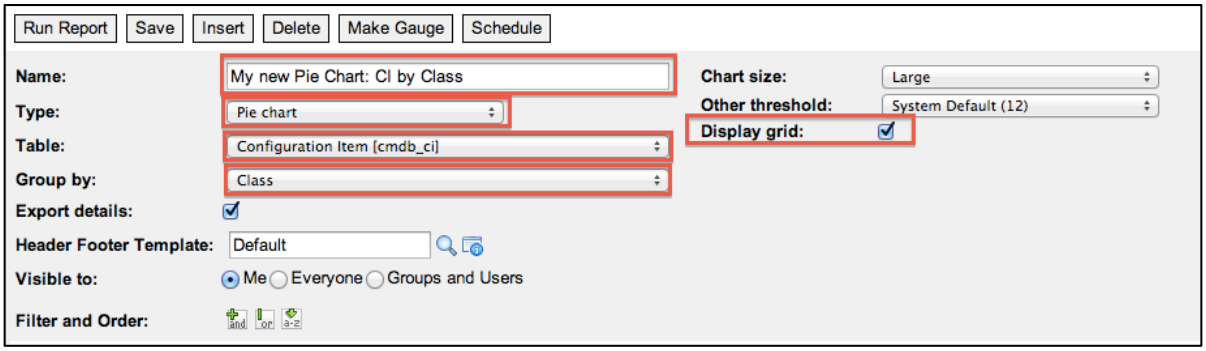
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2. Select **New** report.



3. Within the **Report Builder**, complete the following:

   Name: **My new Pie Chart: CI by Class**
   Type: **Pie Chart**
   Table: **Configuration Item [cmdb_ci]**
   Group by: **Class**
   Select the option: **Display Grid**

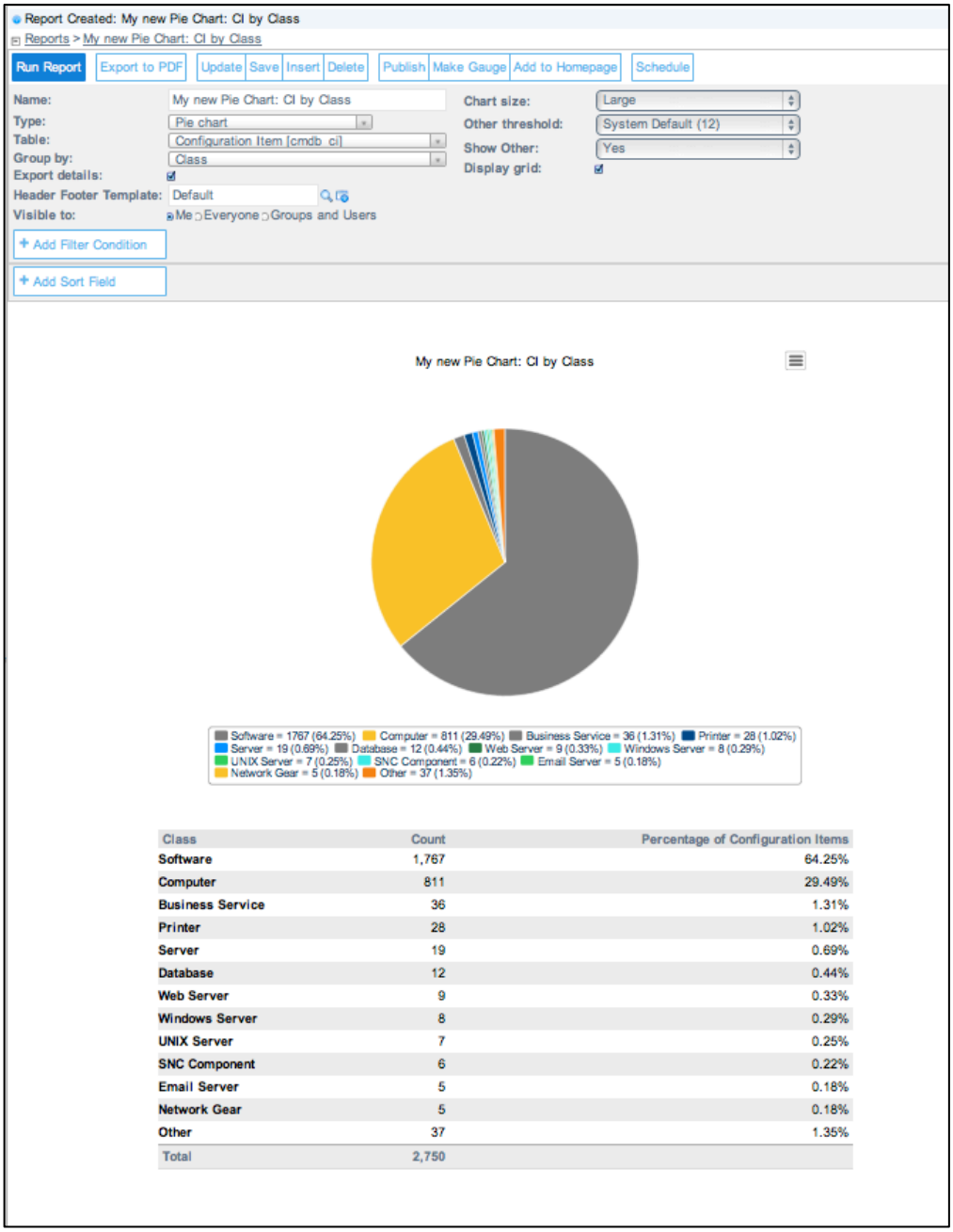


4. **Save** the report.

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Lab Success Verification

1. The report should look like the example below.



Class	Count	Percentage of Configuration Items
Software	1,767	64.25%
Computer	811	29.49%
Business Service	36	1.31%
Printer	28	1.02%
Server	19	0.69%
Database	12	0.44%
Web Server	9	0.33%
Windows Server	8	0.29%
UNIX Server	7	0.25%
SNC Component	6	0.22%
Email Server	5	0.18%
Network Gear	5	0.18%
Other	37	1.35%
Total	2,750	

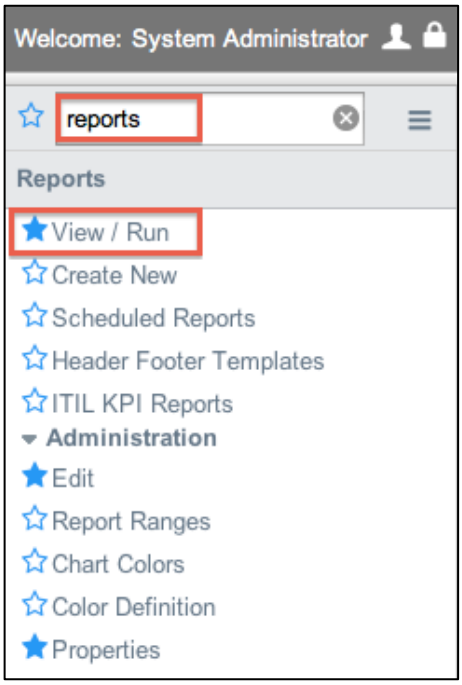
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Lab Goal

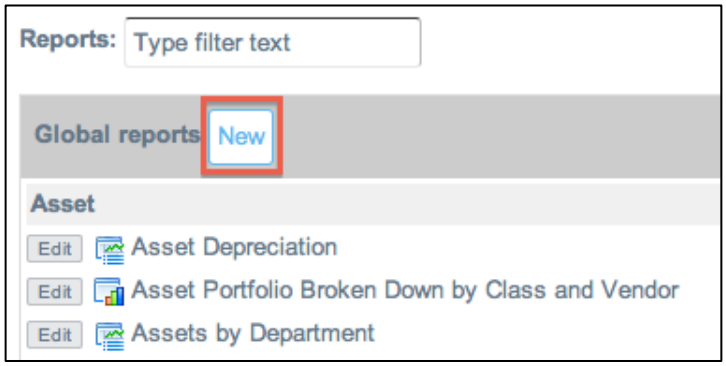
This lab explores the client side chart rendering of the newly created Pie Chart.

Lab 6
Interacting with charts

1. Navigate to **Reports > View/Run**.



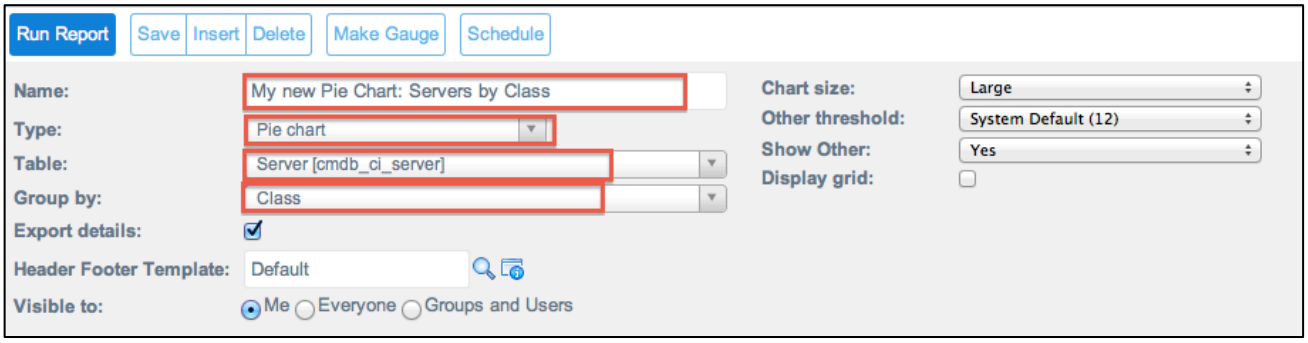
2. Select **New** report.



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3. Within the **Report Builder**, complete the following:

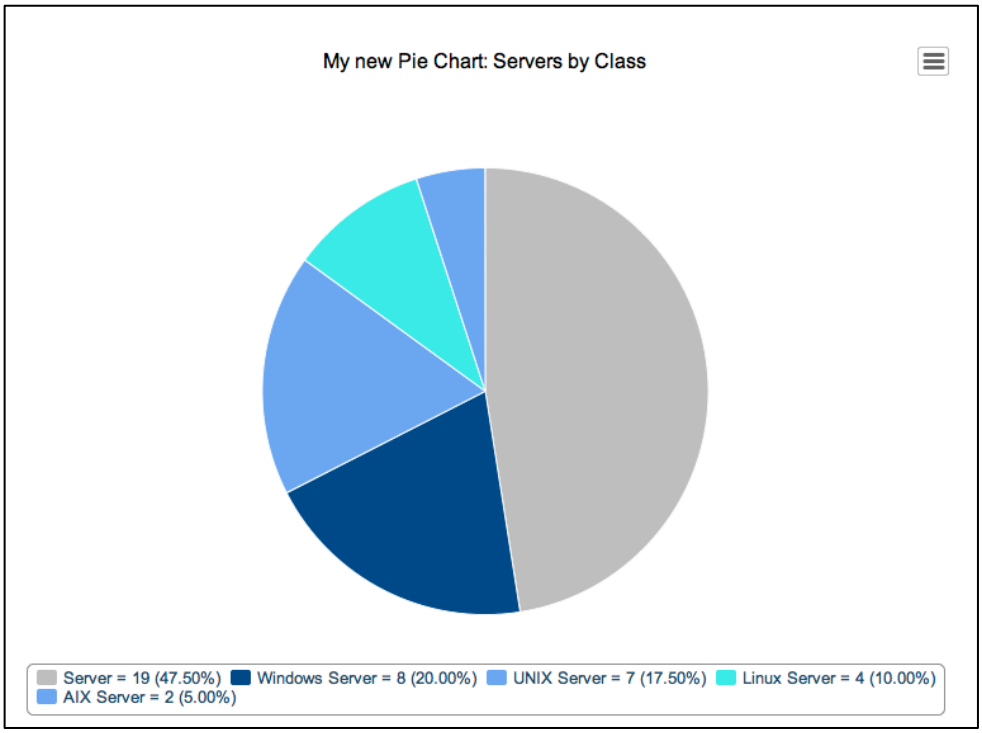
   Name: **My new Pie Chart: Servers by Class**
   Type: **Pie Chart**
   Table: **Server [cmdb_ci_server]**
   Group by: **Class**



4. **Save** the report.

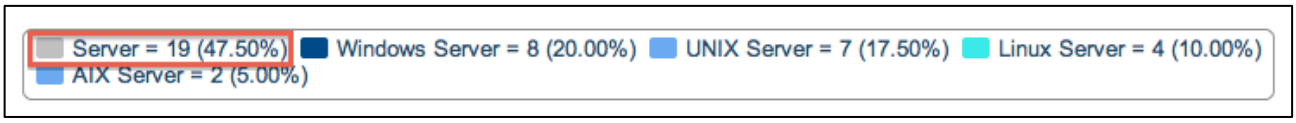
Lab Success Verification

1. The report should look like the example below.

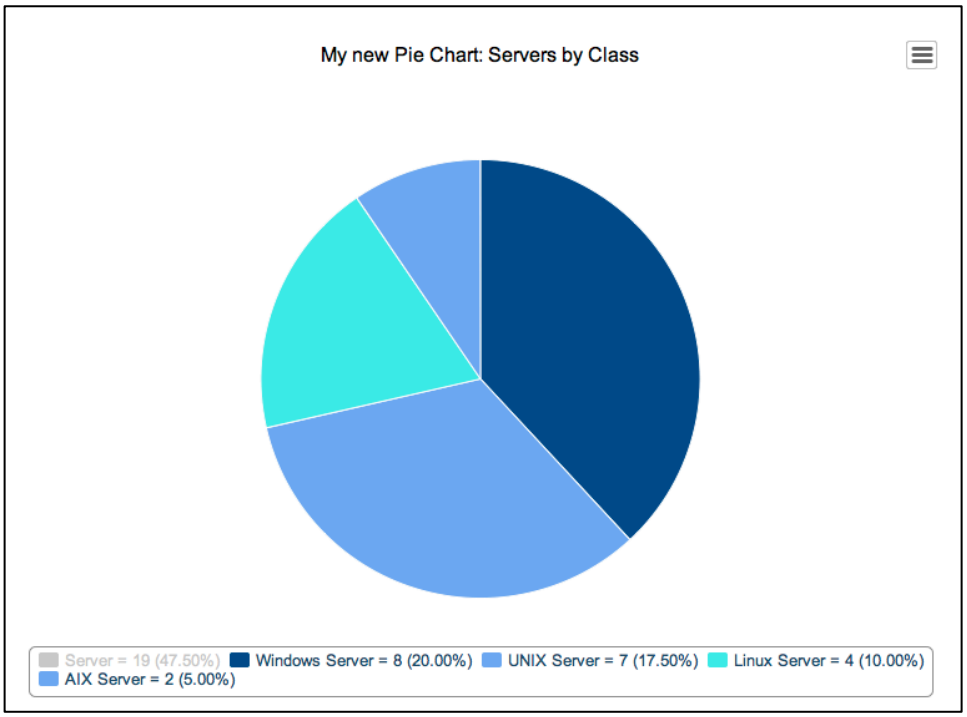


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2. Click **Server** in the report legend on the bottom.



3. The report should look like the example below.



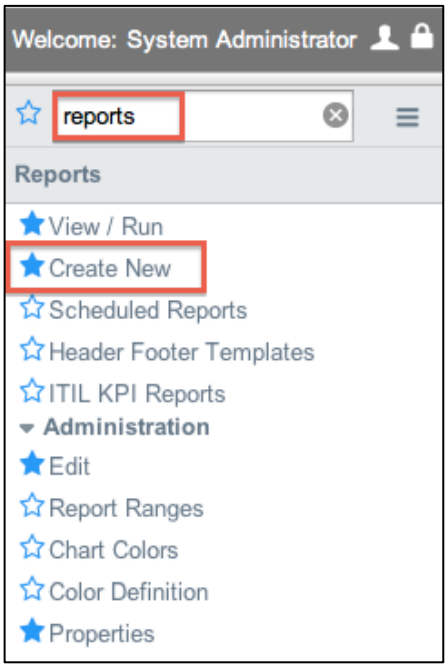
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Lab Goal

This lab explains how to create a Bar Chart, another graphic-based method for presenting data that needs to be broken down further than with a Pie Chart.

Lab 7
Create a New Bar Chart

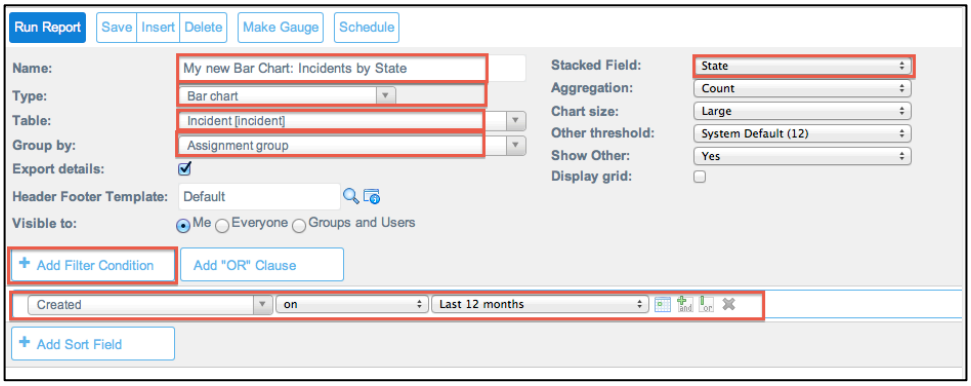
1. Navigate to **Reports > Create New**.



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2. Within the **Report Builder**, complete the following:

   Name: **My new Bar Chart: Incidents by State**
   Type: **Bar Chart**
   Table: **Incident [incident]**
   Group by: **Assignment group**
   Stacked Field: **State**
   Filter and Order: Add an **AND** condition for **Created on Last 12 Months**

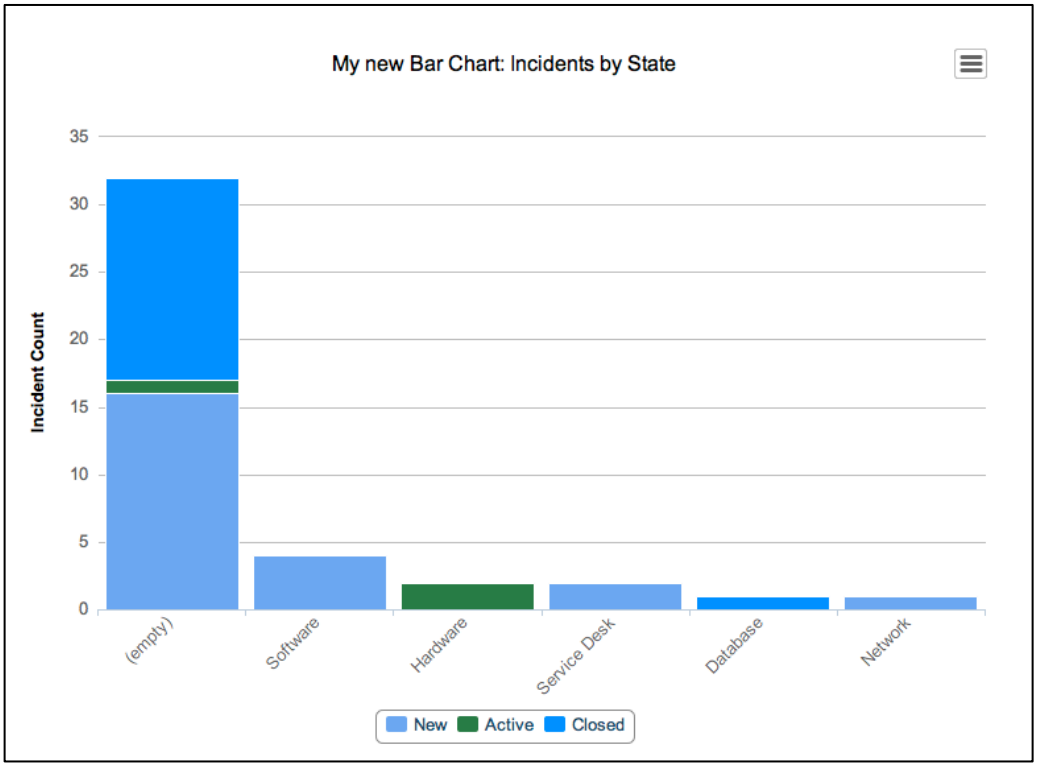


3. **Save** the report.

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Lab Success Verification

1. The report should look like the example below.



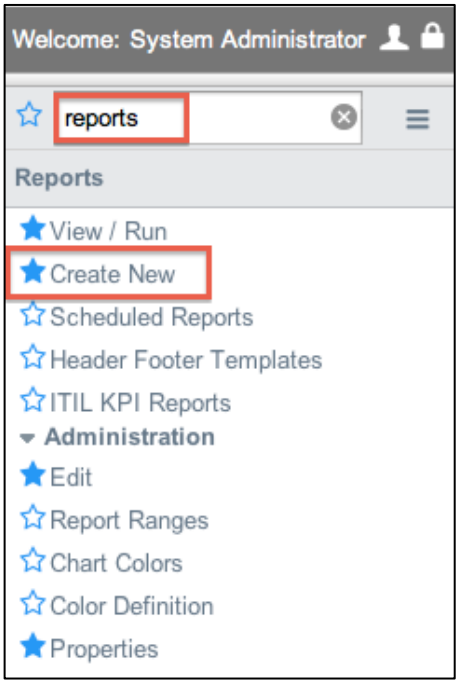
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Lab Goal

This lab explains how to create a new Line chart, which highlights trending information. The steps below create a report that shows an annual trend of which resources have been assigned to Change Requests.

Lab 8
Create a New Line Chart

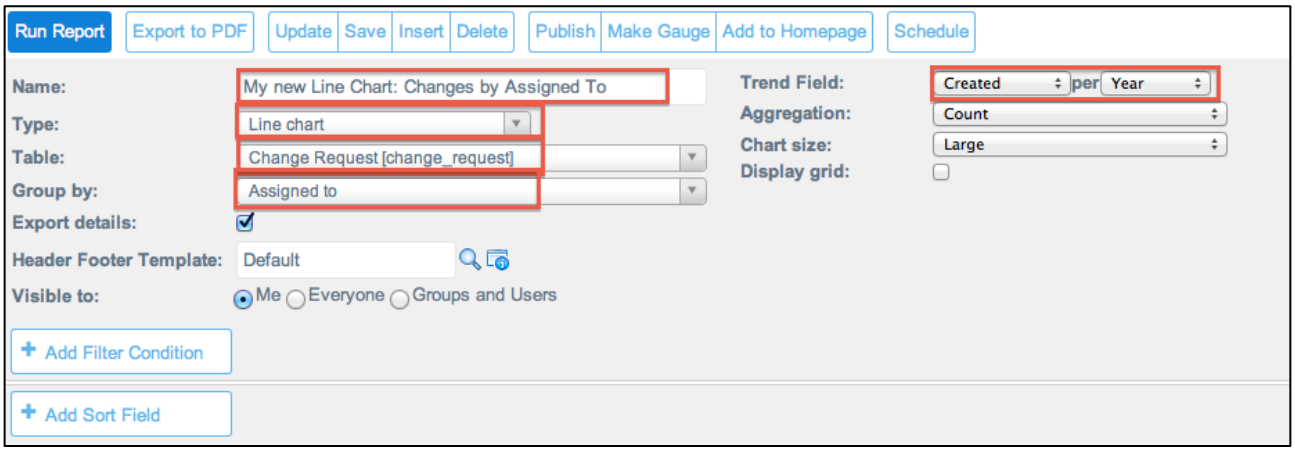
1. Navigate to **Reports > Create New**.



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2. Within the **Report Builder**, complete the following:

   Name: **My new Line Chart: Changes by Assigned To**
   Type: **Line chart**
   Table: **Change Request [change_request]**
   Group by: **Assigned to**
   Trend Field: **Created** per **Year**

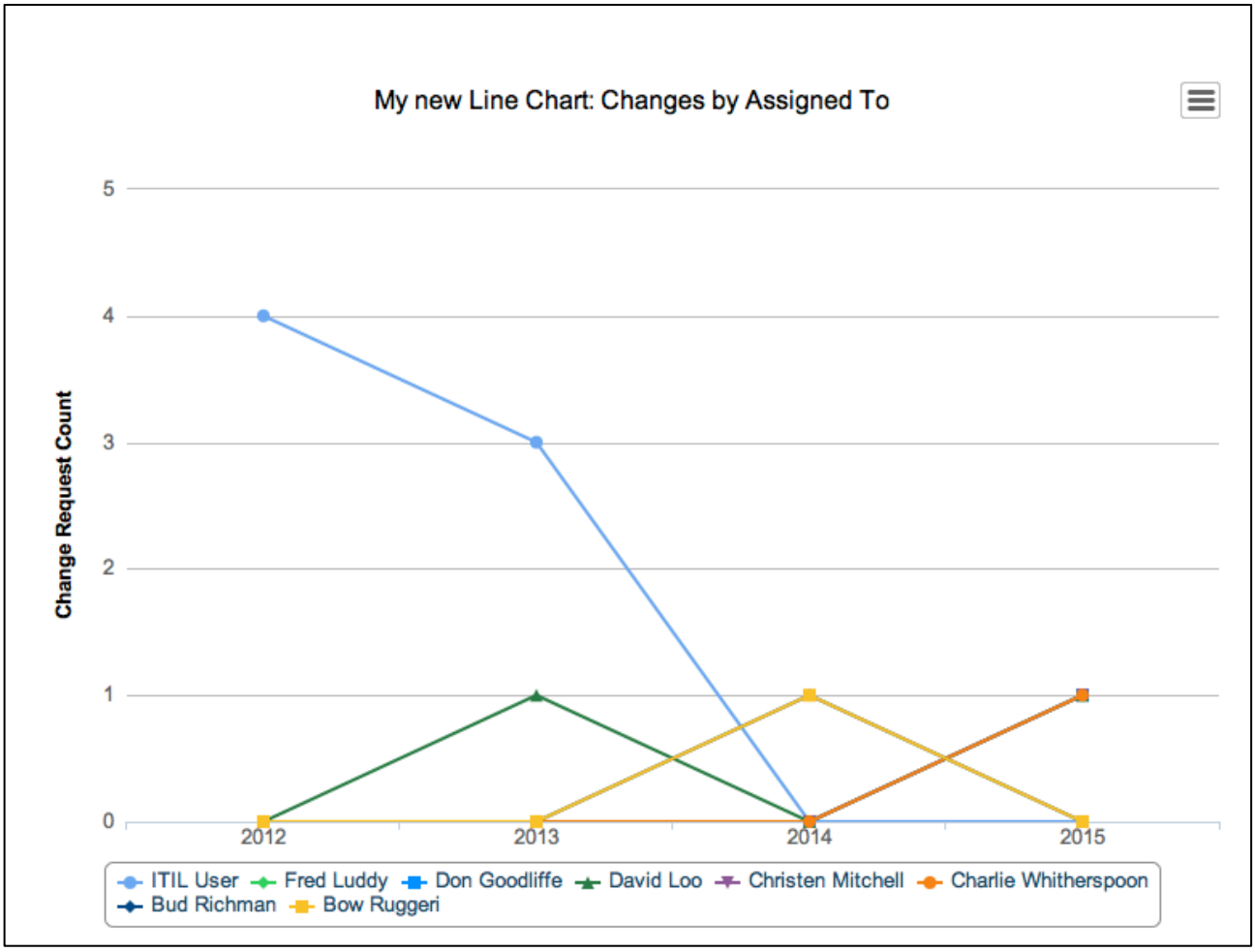


3. **Save** the report.

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Lab Success Verification

1. The report should look like the example below.



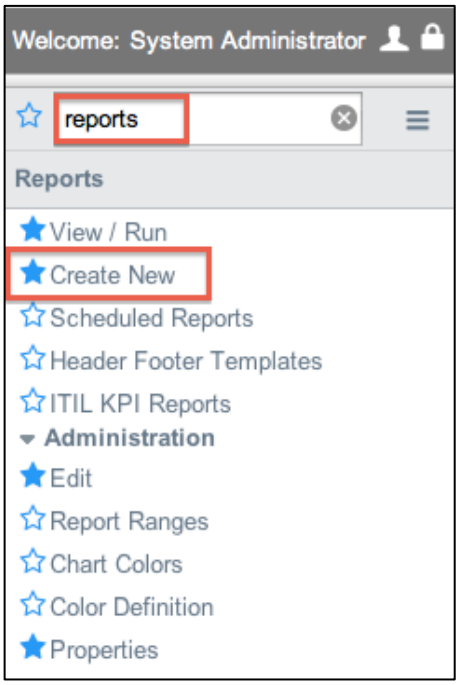
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Lab Goal

This lab explains how to create a Pivot Table, which enables comparisons of multiple data inputs in a single visualization

Lab 9
Create a Pivot Table

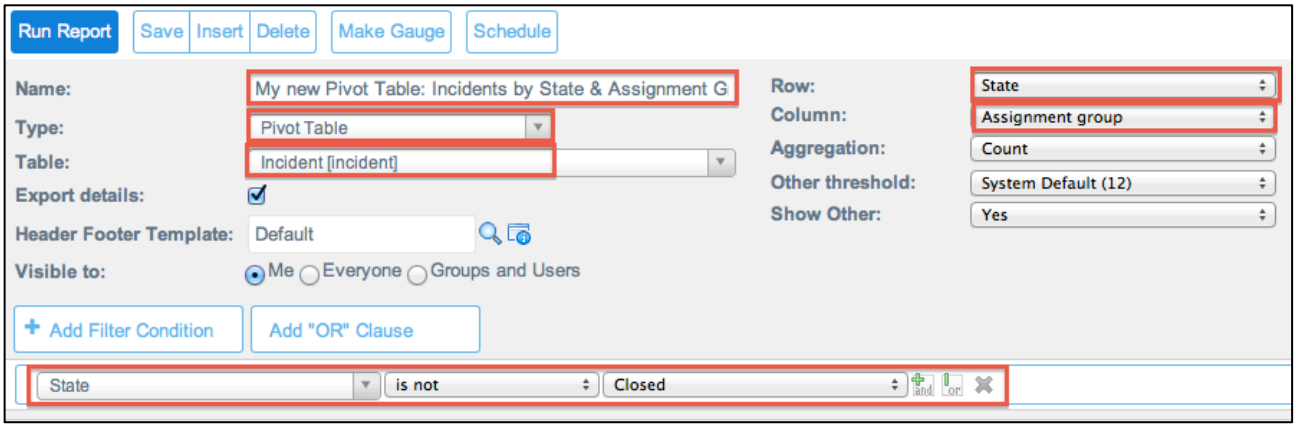
1. Navigate to **Reports > Create New**.



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2. Within the **Report Builder**, complete the following:

   Name: **My new Pivot Table: Incidents by State & Assignment Group**
   Type: **Pivot Table**
   Table: **Incident [incident]**
   Row: **State**
   Column: **Assignment group**
   Filter Condition: **State is not Closed**



3. **Save** the report.

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Lab Success Verification

1. The report should look like the example below.

My new Pivot Table: Incidents by State & Assignment Group

State	Assignment group					
	Hardware	Network	Service Desk	Software	(empty)	Total
New	0	1	2	4	17	24
Active	2	0	0	0	3	5
Awaiting Problem	0	0	0	0	1	1
Total	2	1	2	4	21	30

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Lab Goal

Lab 10 Creating a Pareto Chart

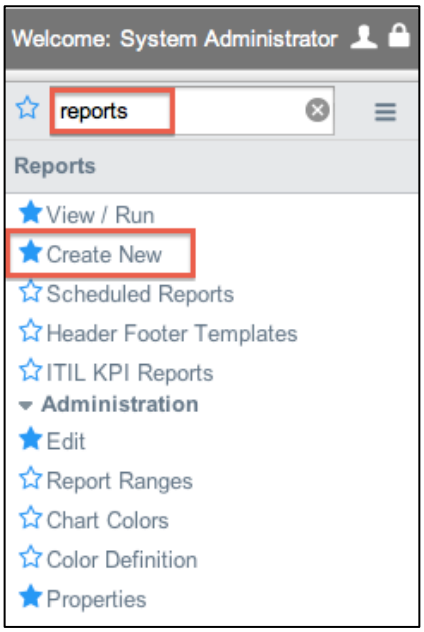
This lab how to use a Pareto Chart to identify the most important factors in a large set of factors. Pareto charts contain both bar and line graphs.

The bars display the data in descending order from left to right, and the line graph shows the cumulative totals from each category in the same order. The left **Y** axis is the record count, and the right **Y** axis is the cumulative percentage of the total number of records evaluated.

The blue line at the 80% mark helps to determine which data are the most influential in the process.

The data to the left of the intersection of the line graph and the 80% mark have the greatest effect on the overall outcome.

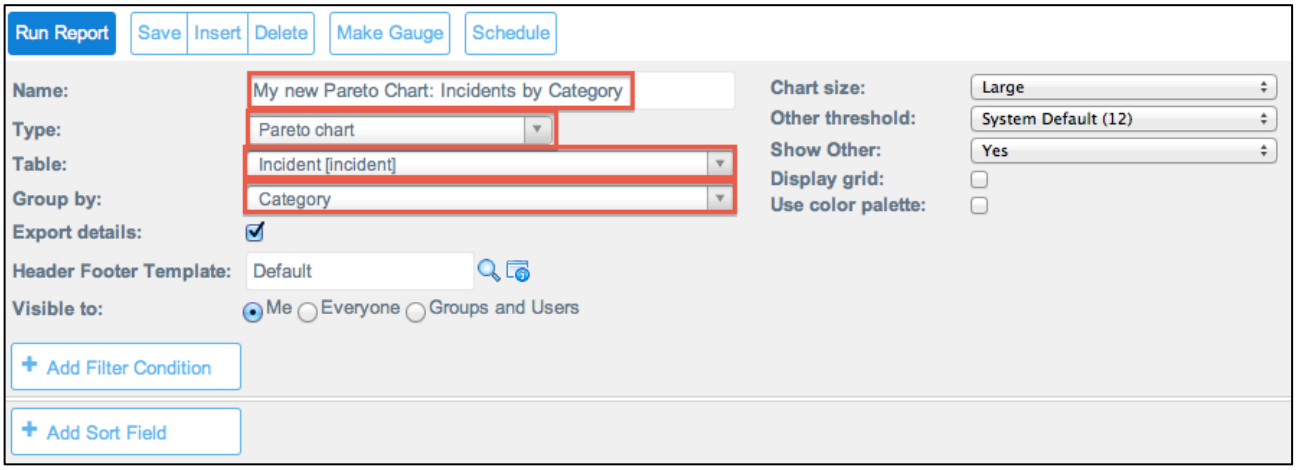
1. Navigate to **Reports > Create New**.



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2. Within the **Report Builder**, complete the following:

   Name: **My new Pareto Chart: Incidents by Category**
   Type: **Pareto Chart**
   Table: **Incident [incident]**
   Group by: **Category**

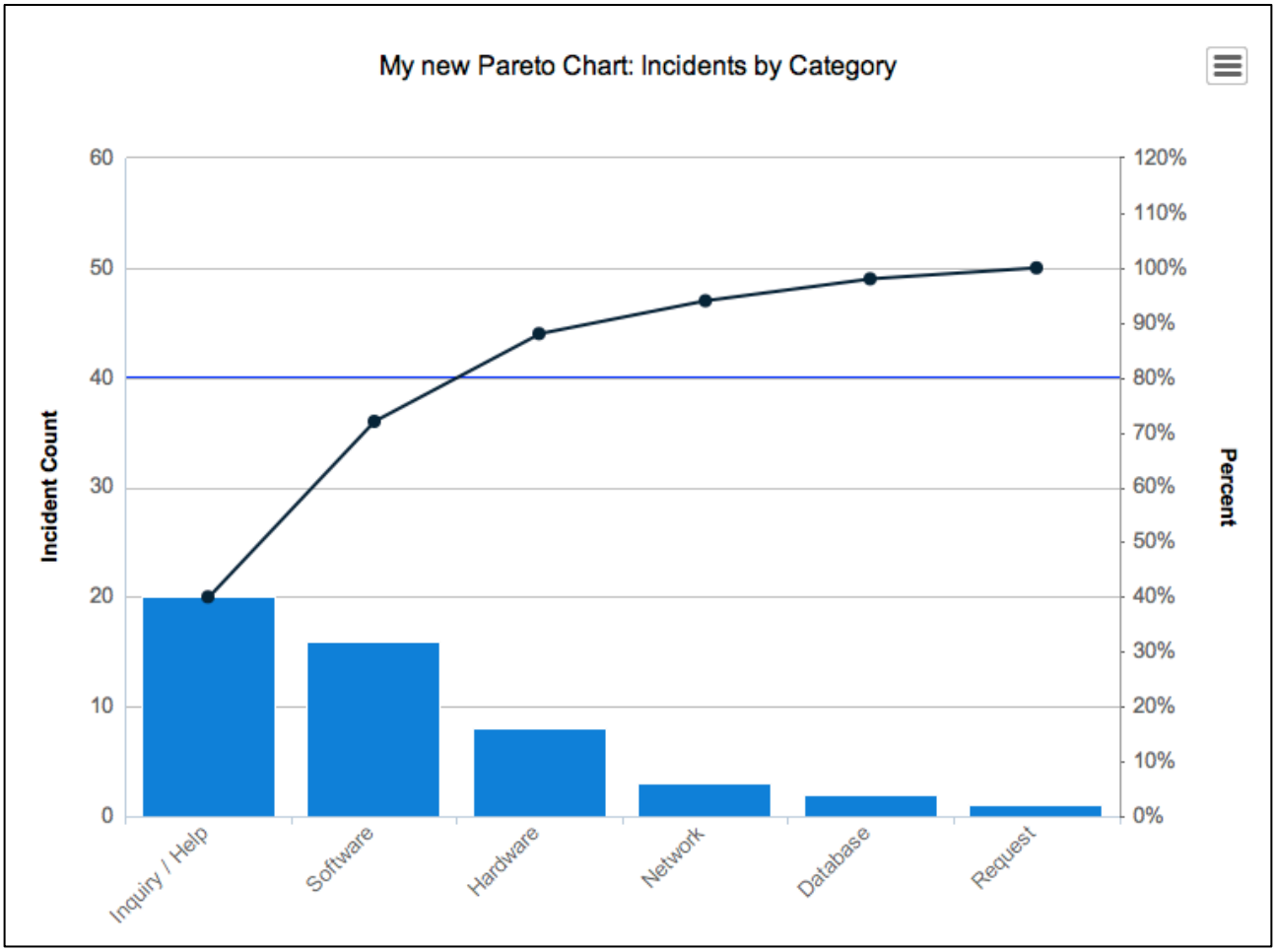


3. **Save** the report.

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Lab Success Verification

1. The report should look like the example below.



Eureka! Something new: Include the use of multiple colors by selecting **Use Color Palette** in the Report Builder, and select **Run Report.**

Verification: Each column in the Pareto Chart should display in different colors.

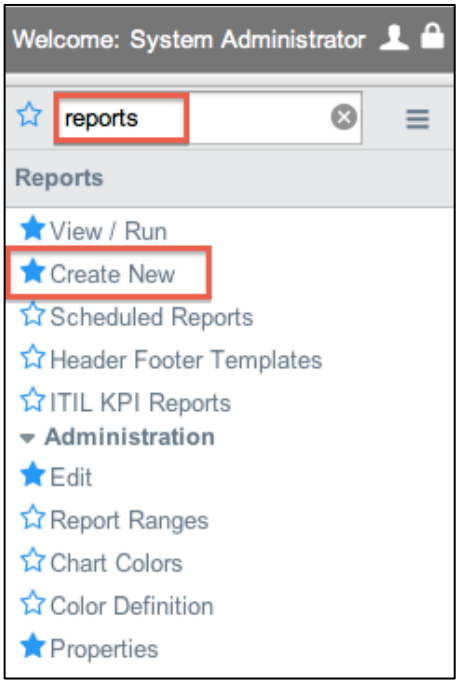
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Lab Goal

Calendars help with planning and scheduling. This lab explains how to create Change calendars to filter and highlight potential impact and risks to an organization. A calendar clarifies change request information over time better than a report or chart.

Lab 11 Creating a Change Calendar

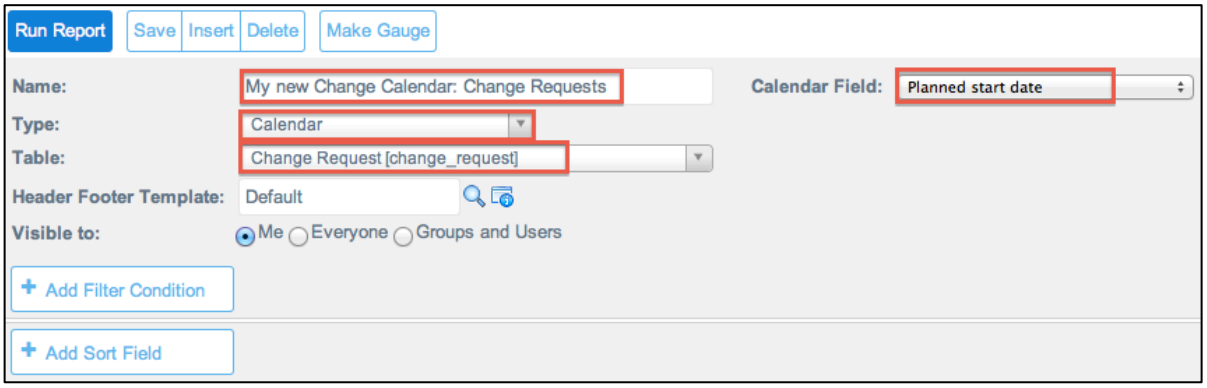
1. Navigate to **Reports > Create New**.



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2. Within the **Report Builder**, complete the following:

   Name: **My new Calendar: Change Requests**
   Type: **Calendar**
   Table: **Change Requests [change_requests]**
   Calendar Field: **Planned start date**

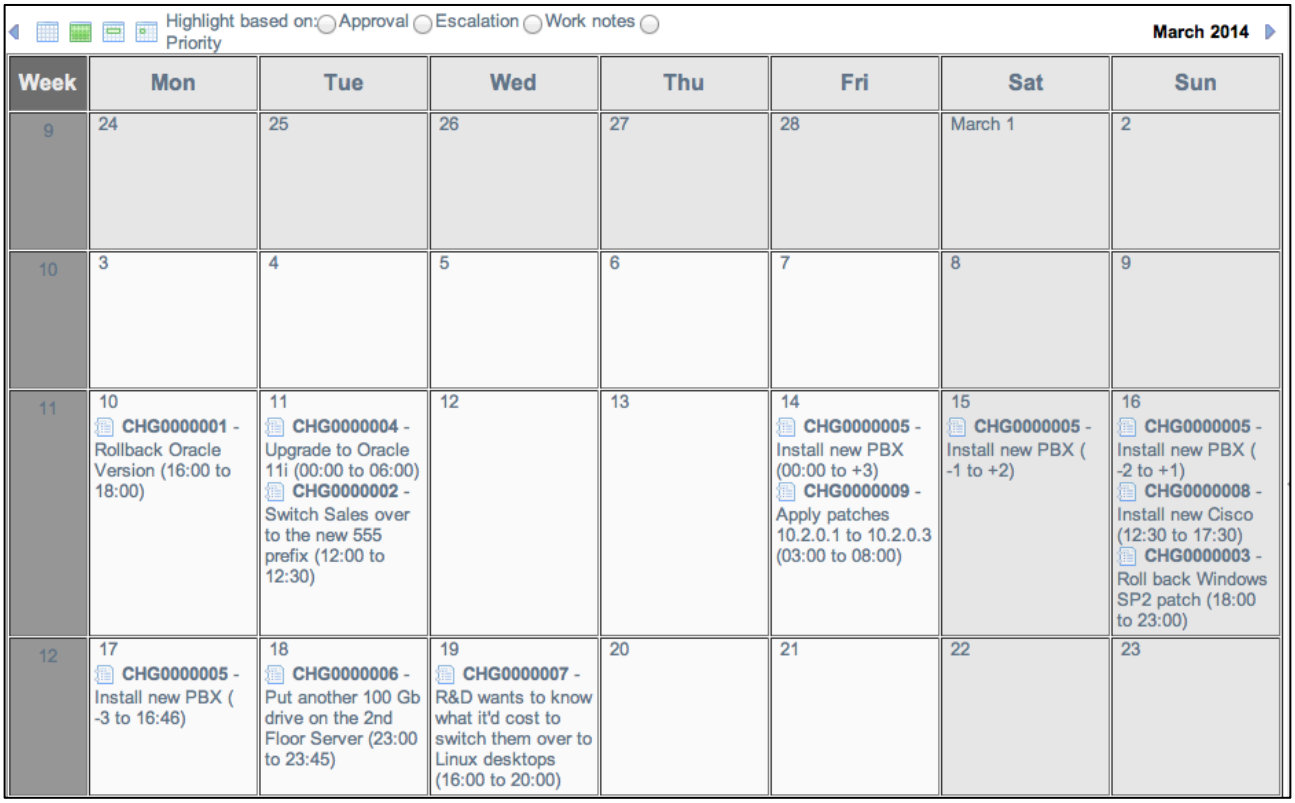


3. **Save** the report.

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Lab Success Verification

1. The report should look like thisthe example below.


Highlight based on: Approval Escalation Work notes Priority

March 2014

Week	Mon	Tue	Wed	Thu	Fri	Sat	Sun
9	24	25	26	27	28	March 1	2
10	3	4	5	6	7	8	9
11	10 **CHG0000001** - Rollback Oracle Version (16:00 to 18:00)	11 **CHG0000004** - Upgrade to Oracle 11i (00:00 to 06:00) **CHG0000002** - Switch Sales over to the new 555 prefix (12:00 to 12:30)	12	13	14 **CHG0000005** - Install new PBX (00:00 to +3) **CHG0000009** - Apply patches 10.2.0.1 to 10.2.0.3 (03:00 to 08:00)	15 **CHG0000005** - Install new PBX (-1 to +2)	16 **CHG0000005** - Install new PBX (-2 to +1) **CHG0000008** - Install new Cisco (12:30 to 17:30) **CHG0000003** - Roll back Windows SP2 patch (18:00 to 23:00)
12	17 **CHG0000005** - Install new PBX (-3 to 16:46)	18 **CHG0000006** - Put another 100 Gb drive on the 2nd Floor Server (23:00 to 23:45)	19 **CHG0000007** - R&D wants to know what it'd cost to switch them over to Linux desktops (16:00 to 20:00)	20	21	22	23

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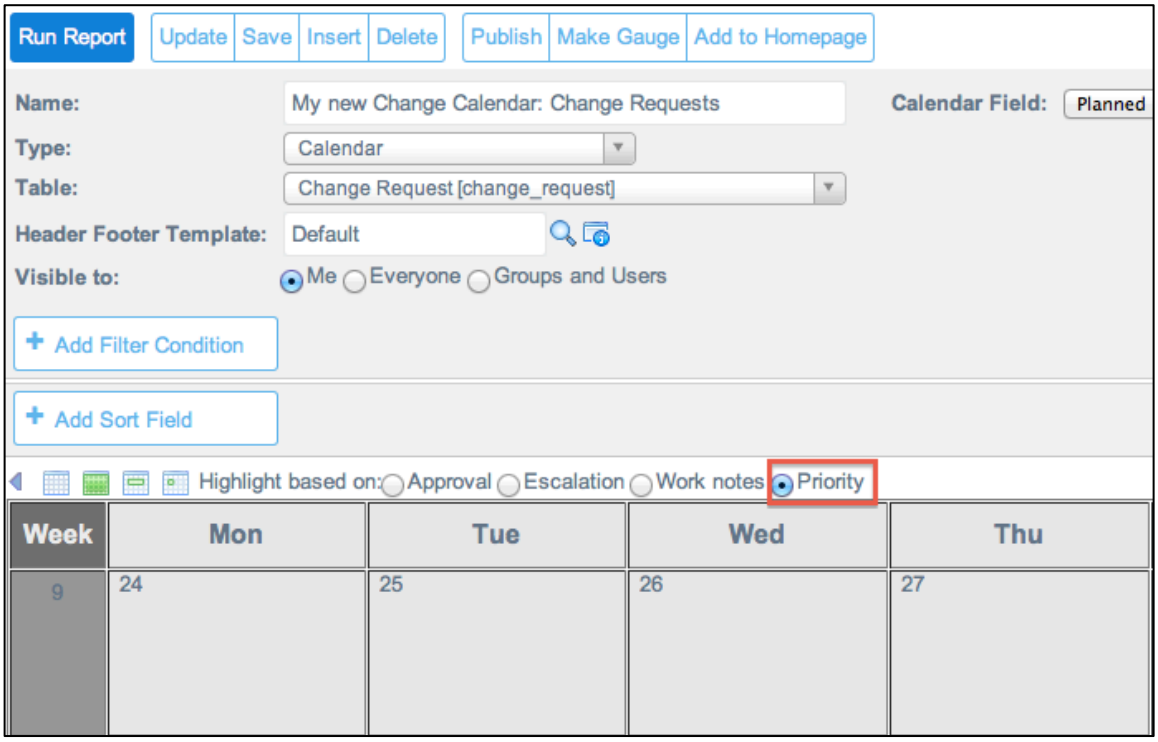
Lab Challenge – Add Some Color to the Calendar

Colors can be easily applied to Calendars based on a number of field values, such as:

- **Approval State**
- **Escalation**
- **Work Notes**
- **Priority**

This challenge highlights Change Requests based on their **Priority**.

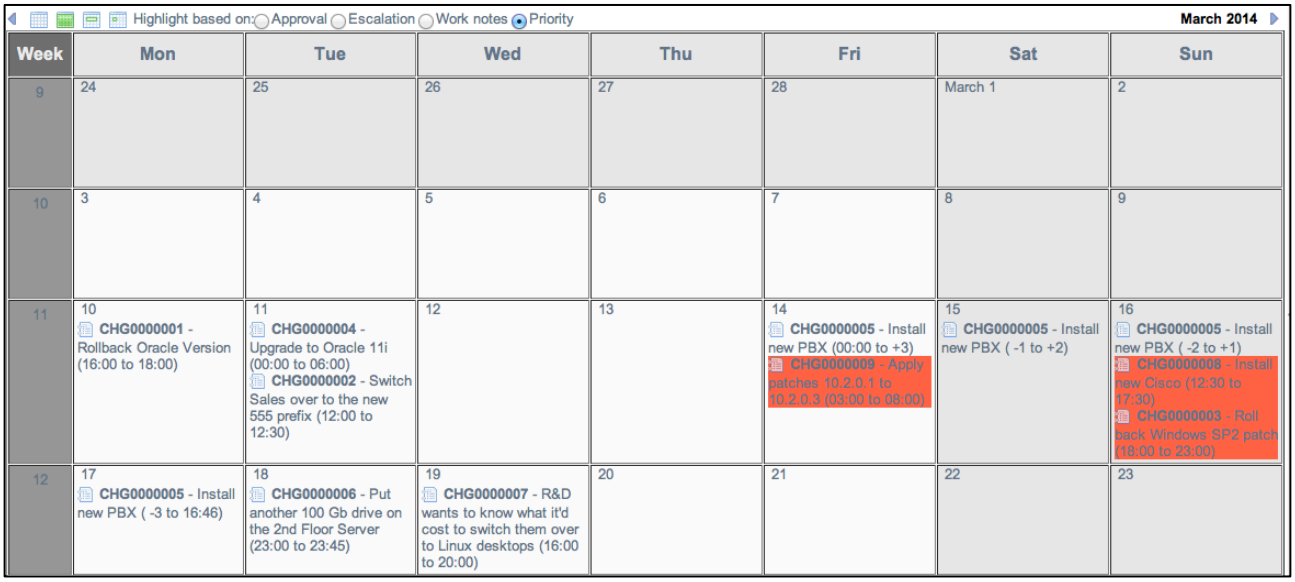
1. Select the **Priority** option at the top of the Calendar report.



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Lab Challenge Success Verification

1. The report should look like the example below.



Highlight based on: Approval Escalation Work notes Priority — March 2014

Week	Mon	Tue	Wed	Thu	Fri	Sat	Sun
9	24	25	26	27	28	March 1	2
10	3	4	5	6	7	8	9
11	10 CHG0000001 - Rollback Oracle Version (16:00 to 18:00)	11 CHG0000004 - Upgrade to Oracle 11i (00:00 to 06:00) CHG0000002 - Switch Sales over to the new 555 prefix (12:00 to 12:30)	12	13	14 CHG0000005 - Install new PBX (00:00 to +3) CHG0000009 - Apply patches 10.2.0.1 to 10.2.0.3 (03:00 to 08:00)	15 CHG0000005 - Install new PBX (-1 to +2)	16 CHG0000005 - Install new PBX (-2 to +1) CHG0000008 - Install new Cisco (12:30 to 17:30) CHG0000003 - Roll back Windows SP2 patch (18:00 to 23:00)
12	17 CHG0000005 - Install new PBX (-3 to 16:46)	18 CHG0000006 - Put another 100 Gb drive on the 2nd Floor Server (23:00 to 23:45)	19 CHG0000007 - R&D wants to know what it'd cost to switch them over to Linux desktops (16:00 to 20:00)	20	21	22	23

NOTE: Try additional highlighting options to see how you can change the look and impact of the report.

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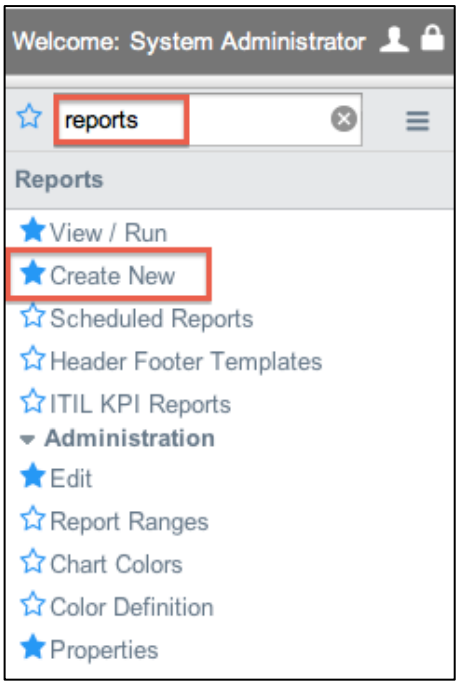
Lab Goal

This lab explains how to create a Trend Chart, which is useful for showing how the value of one or more items changes over time. Values along the horizontal axis of the trend chart represent the time measurement. Values on the vertical axis represent the changes to the items being monitored.

The lab example creates a Trend Chart for the number and type of Change Approvals on a monthly basis.

Lab 12 Creating a Trend Chart

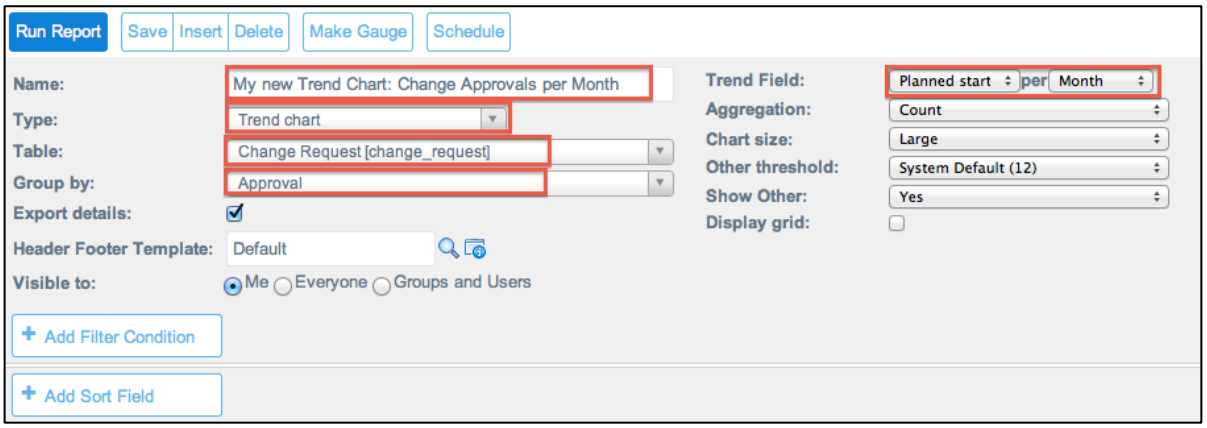
1. Navigate to **Reports > Create New**.



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2. Within the **Report Builder**, complete the following:

   Name: **My new Trend Chart: Change Approvals per Month**
   Type: **Trend chart**
   Table: **Change Requests [change_requests]**
   Group by: **Approval**
   Trend Field: **Planned start** per **Month**

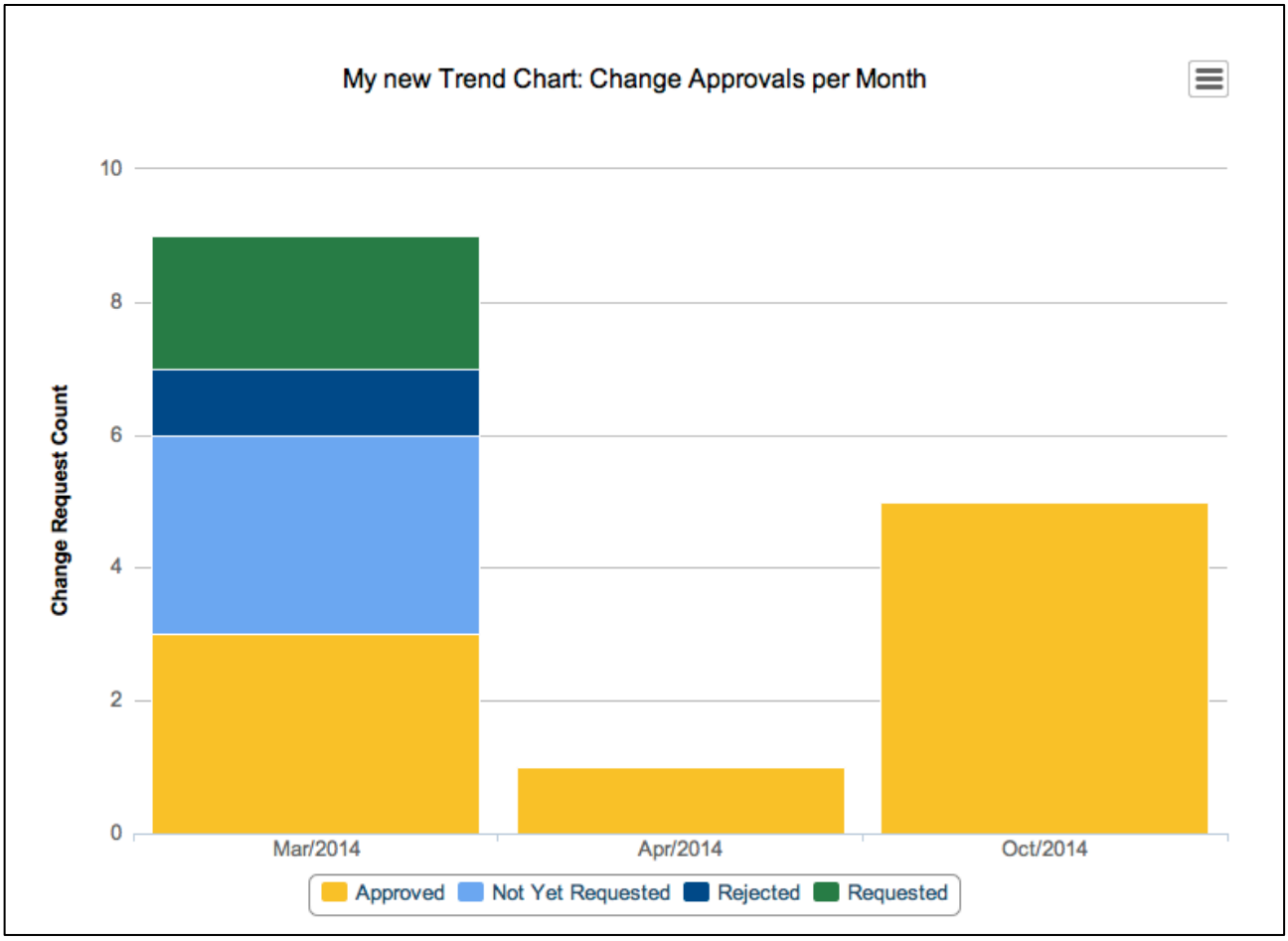


3. **Save** the report.

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Lab Success Verification

1. The report should look like the example below.

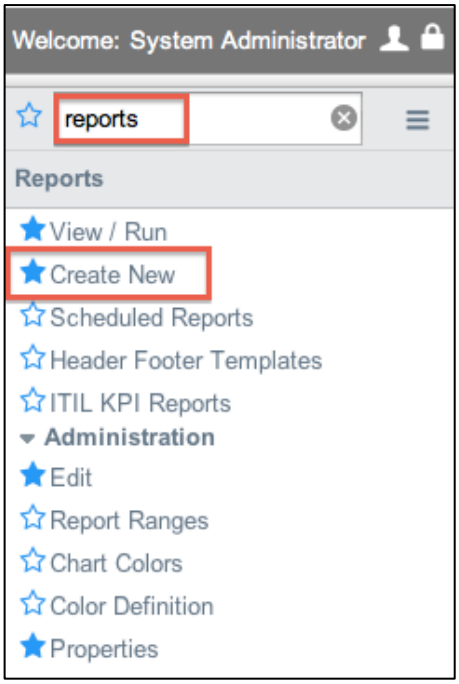


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Lab Challenge – Trending Without Using Trend Charts

Trending information over time can also be accomplished without the use of Trend Charts. This Lab Challenge explores how to use a bar chart for trending purposes.

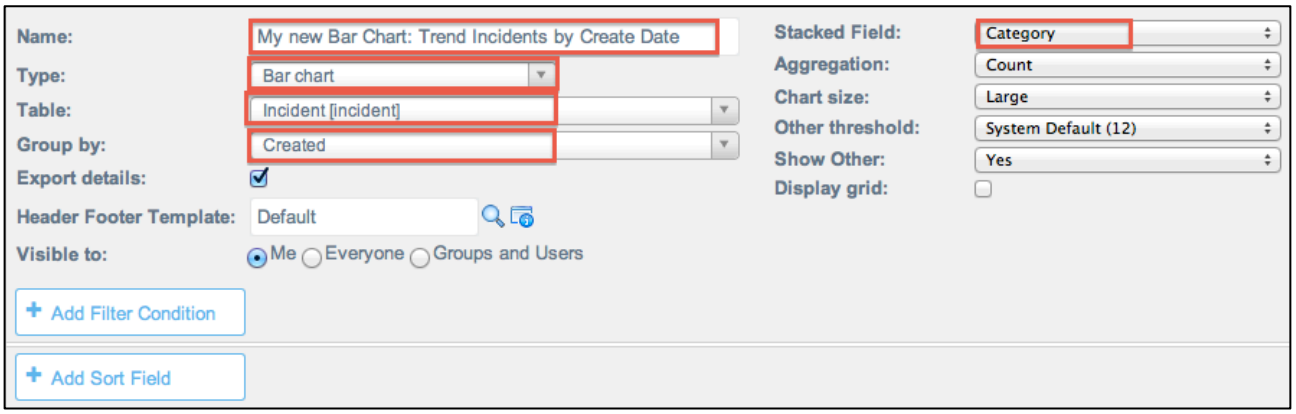
1. Navigate to **Reports > Create New**.



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2. Within the **Report Builder**, complete the following:

   Name: **My new Bar Chart: Trend Incidents by Create Date**
   Type: **Bar chart**
   Table: **Incident [incident]**
   Group by: **Created**
   Stacked Field: **Category**

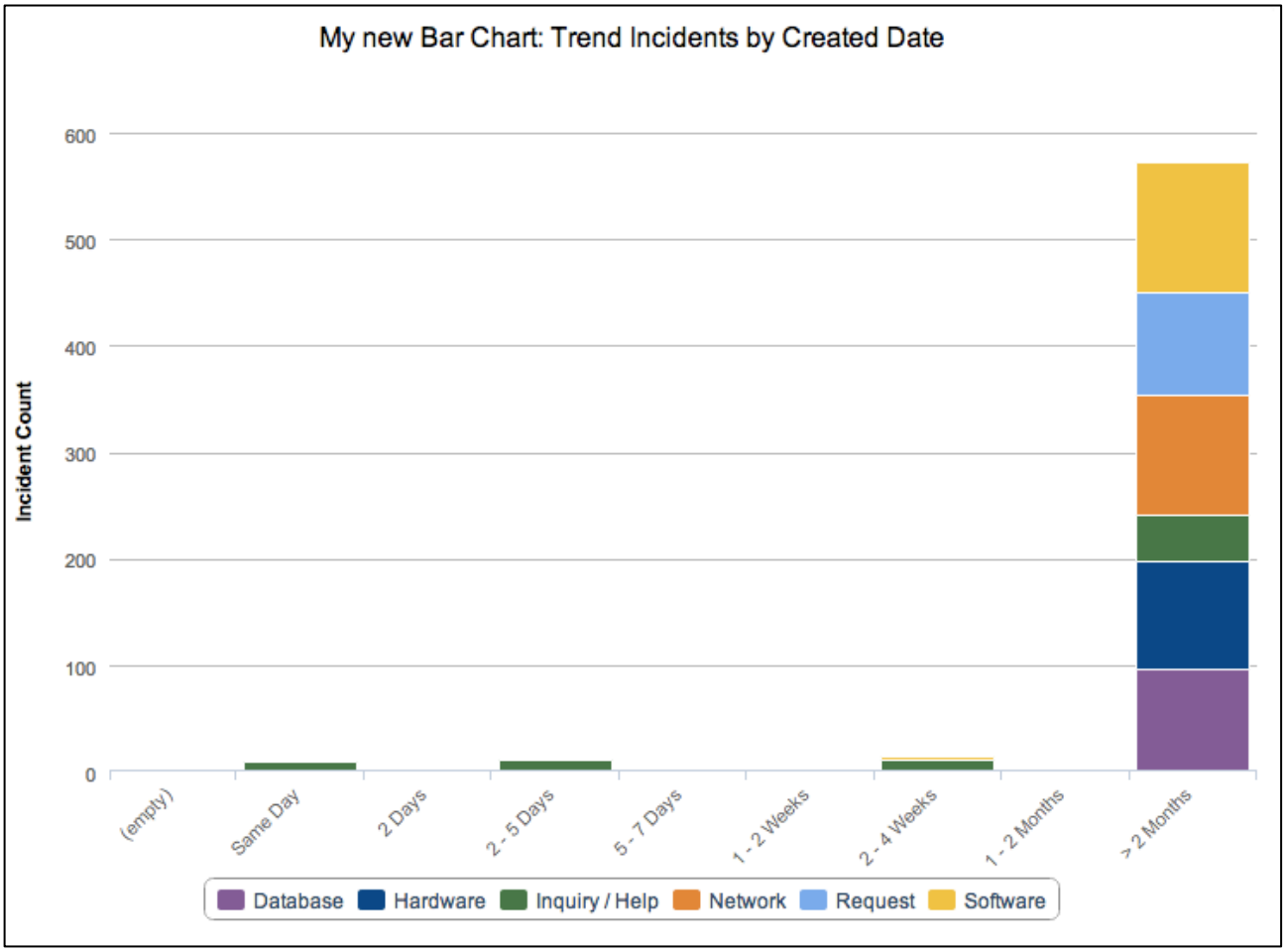


3. **Save** the report.

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Lab Challenge Success Verification

1. The report should look like the example below.



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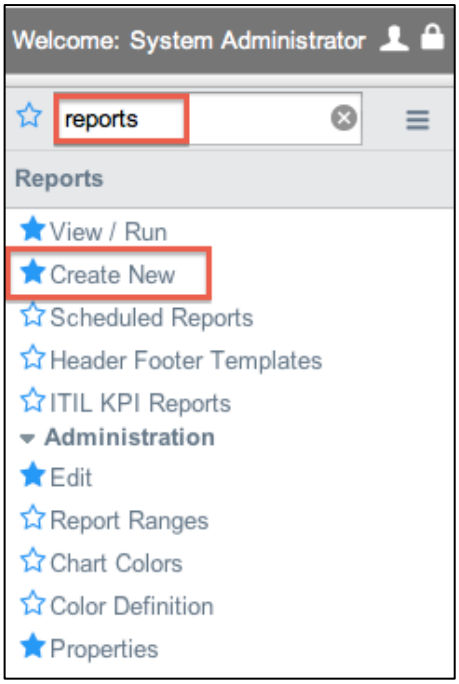
Lab Goal

A metric measures and evaluates the effectiveness of IT service management processes. For example, a metric could measure the effectiveness of the incident resolution process by calculating how long it takes to resolve an incident.

This lab explains how to create a Bar Chart of incident metrics captured for each incident, broken down by the metric definitions being tracked per incident.

Lab 13 Reporting with Metrics

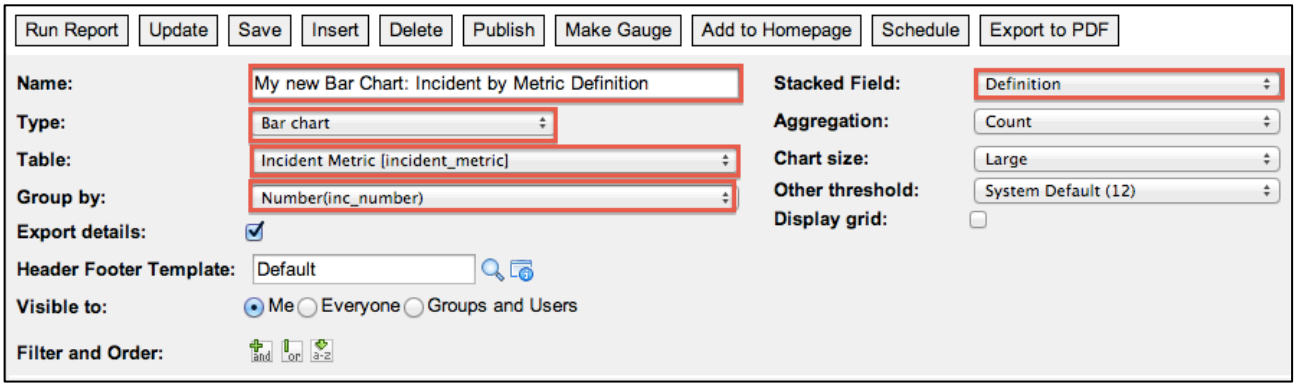
1. Navigate to **Reports > Create New**.



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2. Within the **Report Builder**, complete the following:

   Name: **My new Bar Chart: Incident by Metric Definition**
   Type: **Bar Chart**
   Table: **Incident Metric [incident_metric]**
   Group by: **Number [inc_number]**
   Stacked Field: **Definition**

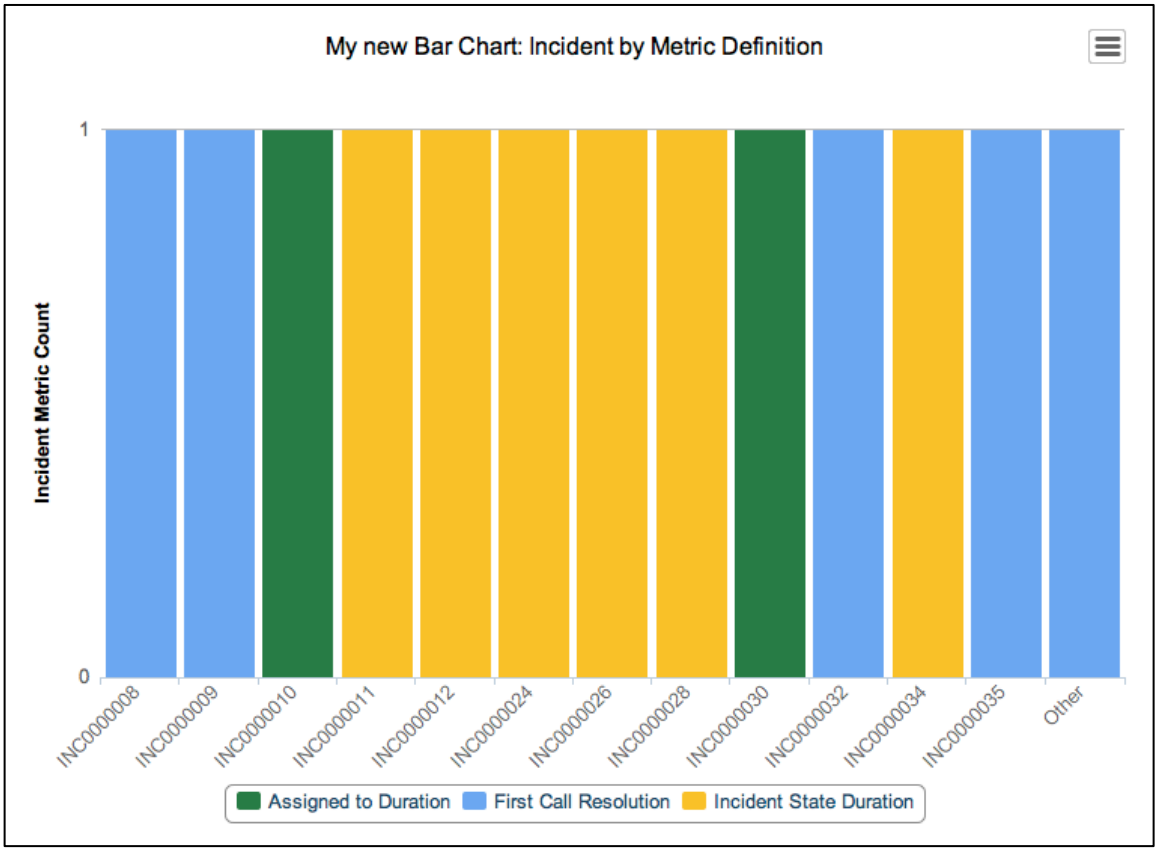


3. **Save** the report.

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Lab Success Verification

1. The report should look like the example below.



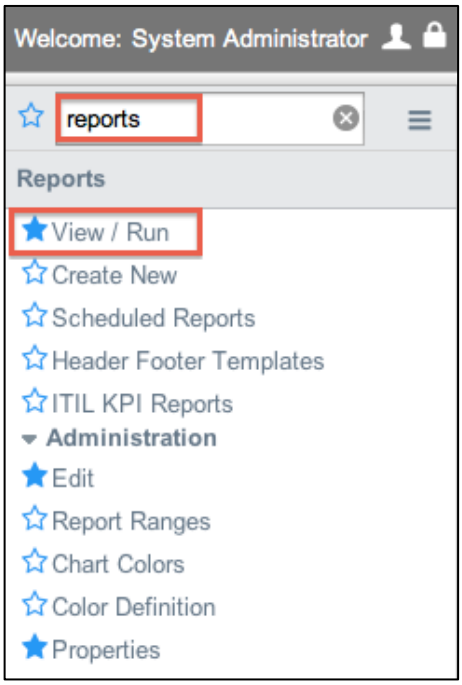
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Lab Goal

Creating a report as a gauge makes it possible to add that report to a homepage. (NOTE: You need the gauge_maker role in order to do this.) This lab explains how to create a gauge from one of the reports that already created.

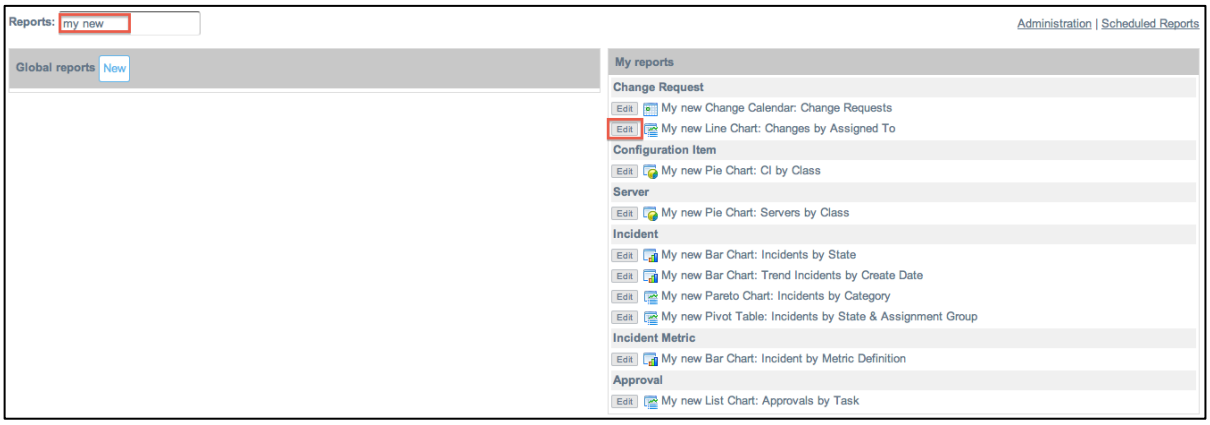
Lab 14 Creating Gauges from Reports

1. Navigate to **Reports > View/Run**.

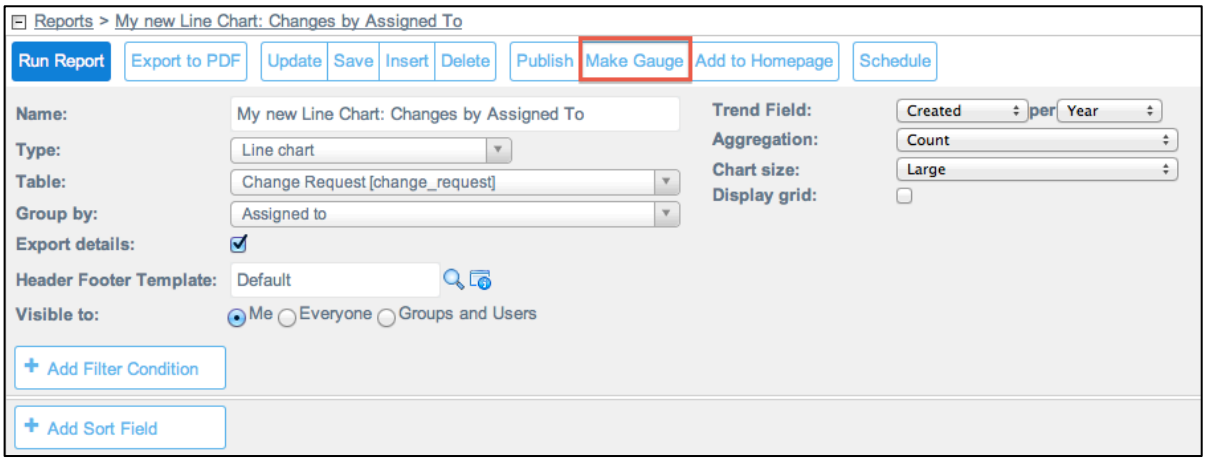


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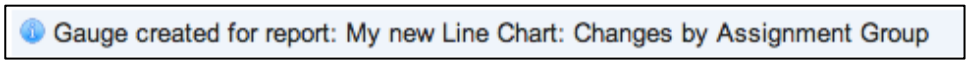
2. Select **Edit** for the report: **My new Line Chart: Changes by Assignment Group**.



3. Within the **Report Builder**, select the **Make Gauge** button.

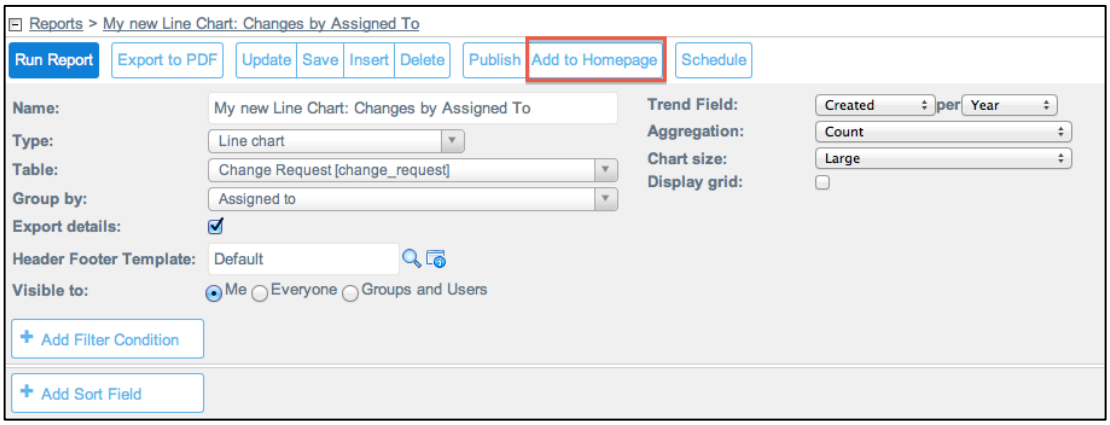


4. A confirmation prompt appears, indicating that the gauge has been created.

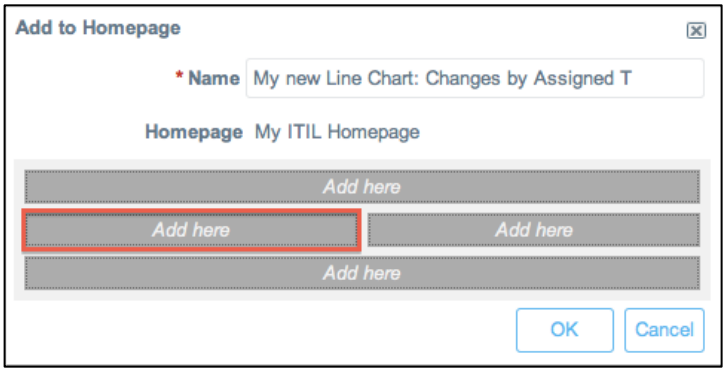


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5. Add the gauge to a homepage by clicking the **Add to Homepage** button.



6. Select the area of the Homepage to add the Gauge into, by clicking on one of the **Add Here** sections.

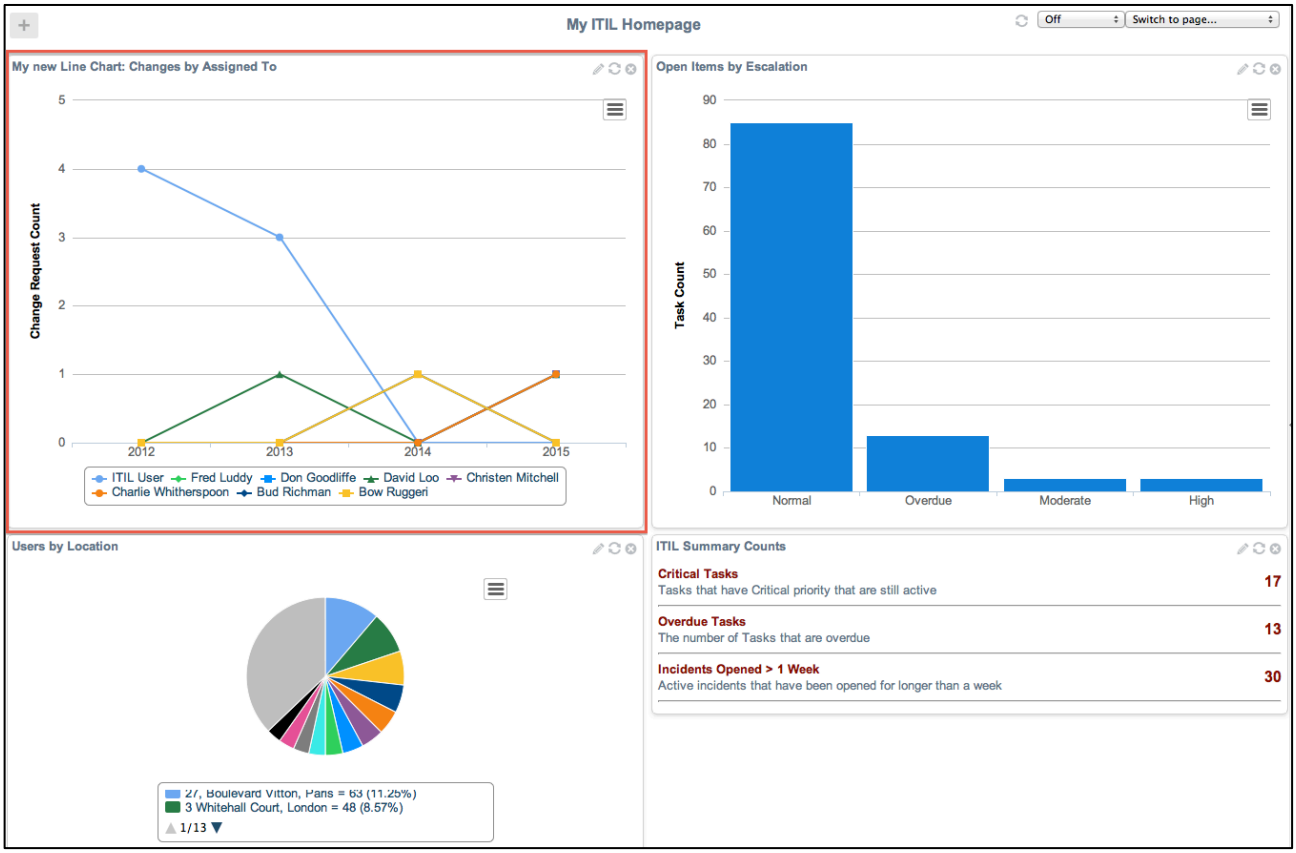


7. Click **OK.**

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Lab Success Verification

1. The updated homepage should look like the example below.



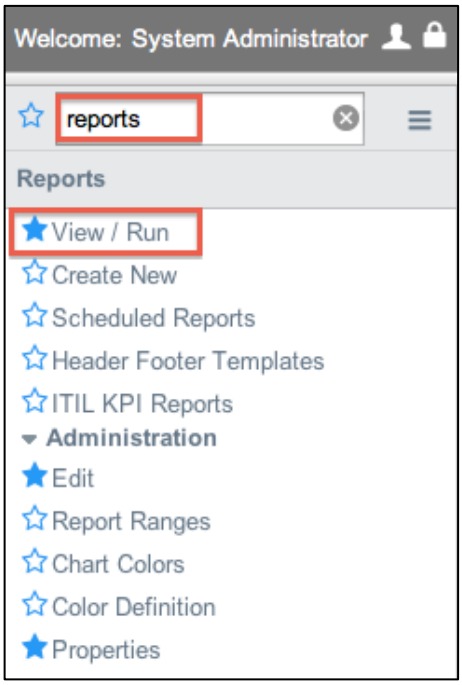
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Lab Goal

This lab explains how to share reports with others in an organization, which broadens the use of the created reports.

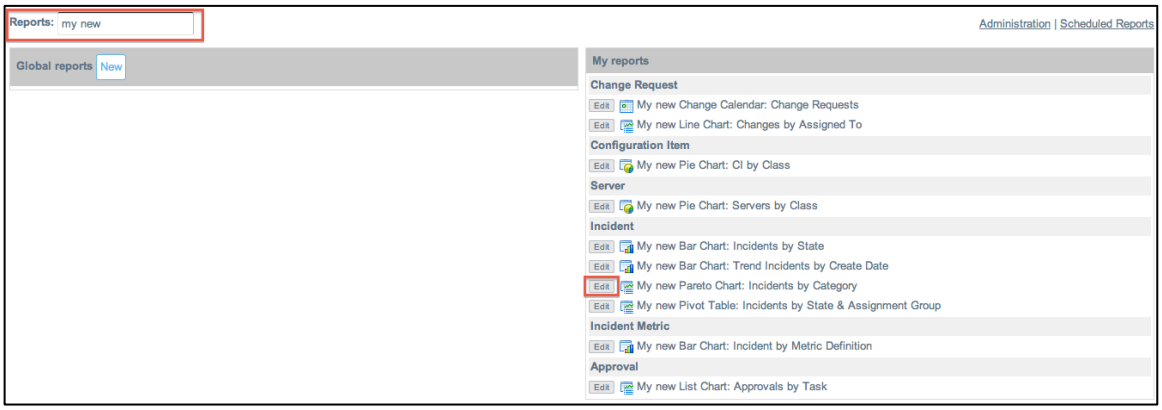
Lab 15 Sharing Reports with Security

1. Navigate to **Reports > View/Run**.

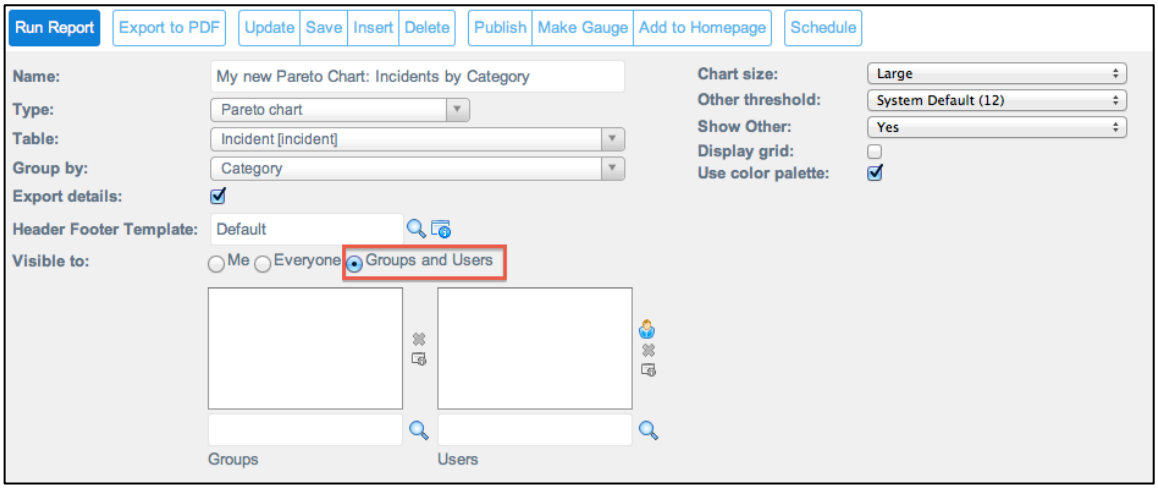


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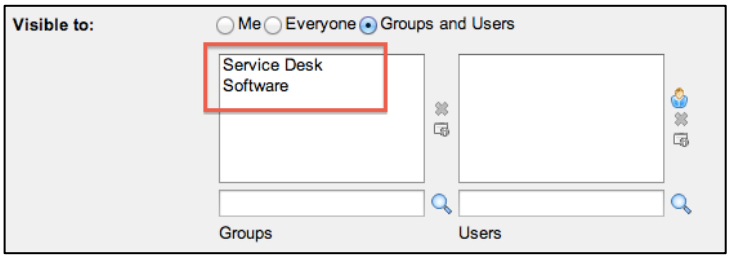
2. Select **Edit** for the report**: My new Pareto Chart: Incidents by Category**.



3. Within the **Report Builder**, select the **Visible to > Groups and Users** option.



4. Within the **Groups** section, add the following groups to the report:
   Service Desk
   Software



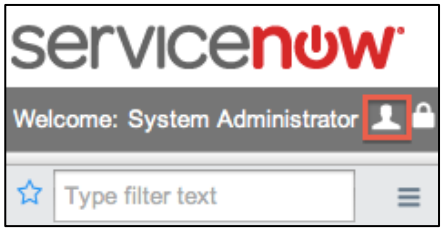
5. **Save** the report.

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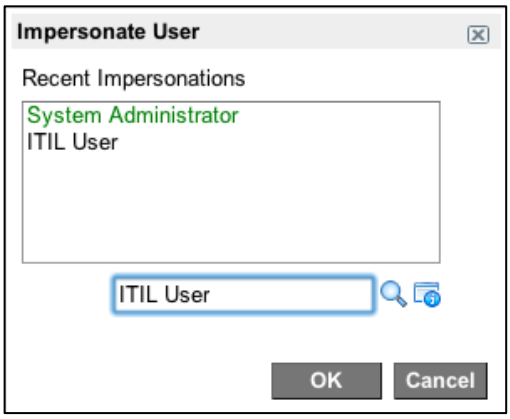
Lab Success Verification

In order to verify that the report has been shared, impersonate a member of the Service Desk team.

1. Click on the impersonate icon next to the logged in user name.

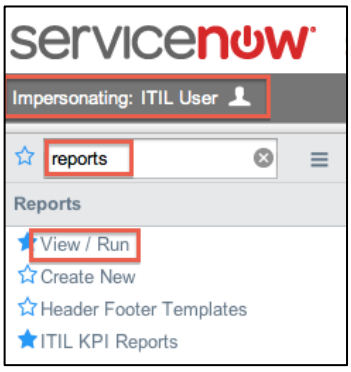


2. Enter **ITIL User** into the reference field at the bottom of the **Impersonate User** window.



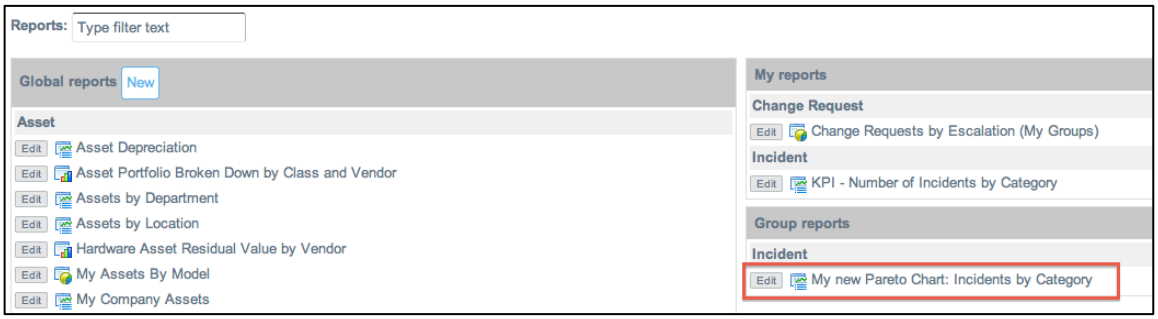
3. Click **OK**.

4. While impersonating ITIL User, navigate to **Reports > View/Run**.

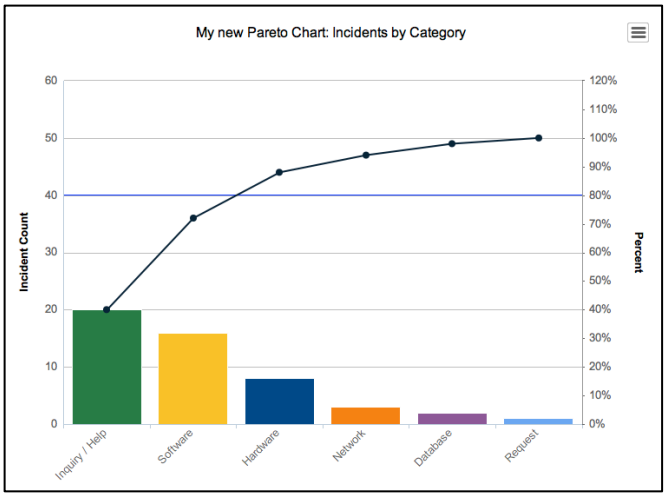


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5. Under **Group Reports**, click on the shared report **My new Pareto Chart: Incidents by Category**.



6. The shared report should look like the example below.



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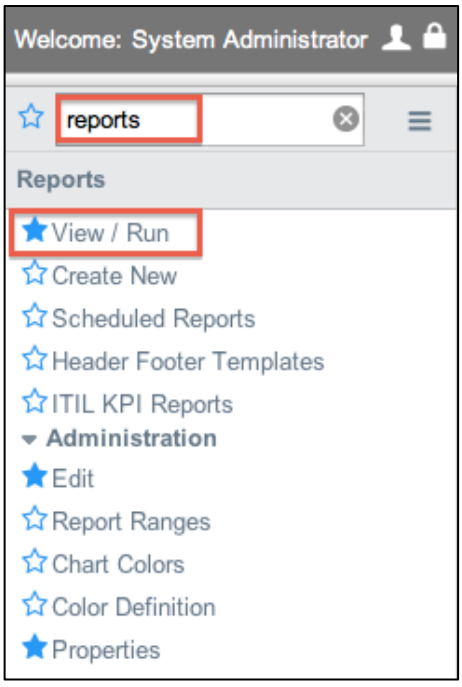
Lab Goal

This lab explains how to share reports with others outside an organization.

Lab 16 Publishing Reports to a Public URL

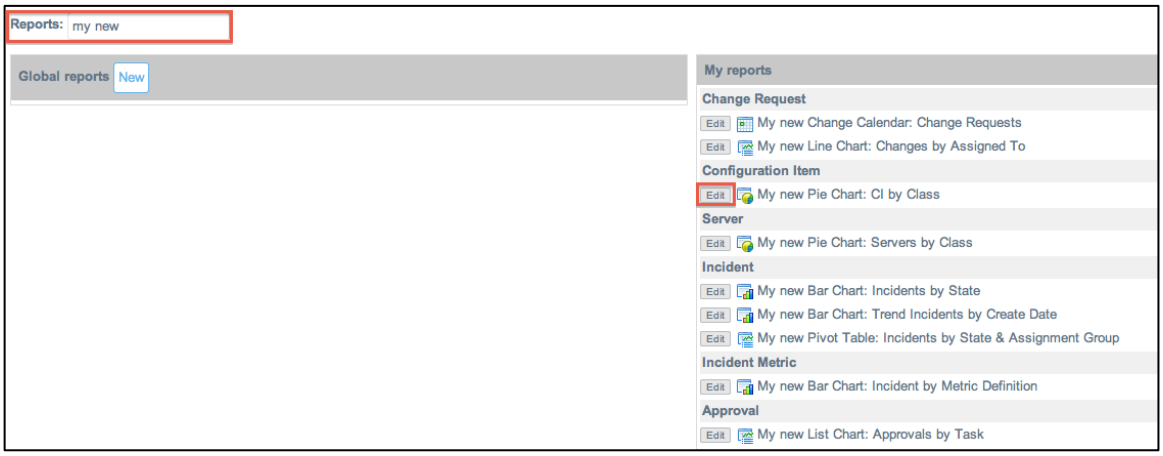
NOTE: Before starting this lab, be sure to discontinue impersonating ITIL user. Log on as Administrator for this lab exercise.

1. Navigate to **Reports > View/Run**.

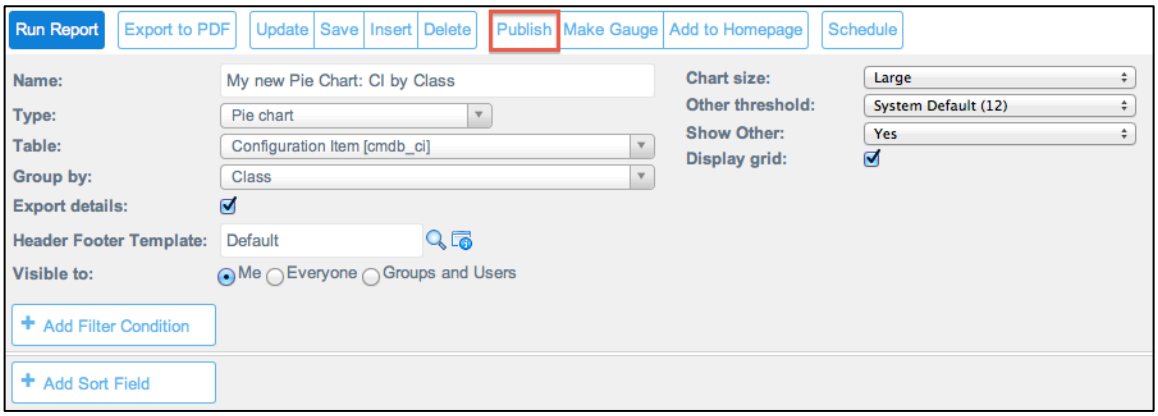


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2. Select **Edit** for the report: **My new Pie Chart: CI by Class**



3. Within the **Report Builder**, click the **Publish** button at the top of the report.



4. A confirmation prompt with a URL appears, confirming that the report has been published.



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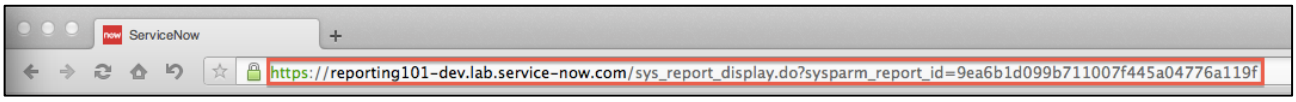
Lab Success Verification

In order to verify that the report is now available on the Internet, follow the steps below.

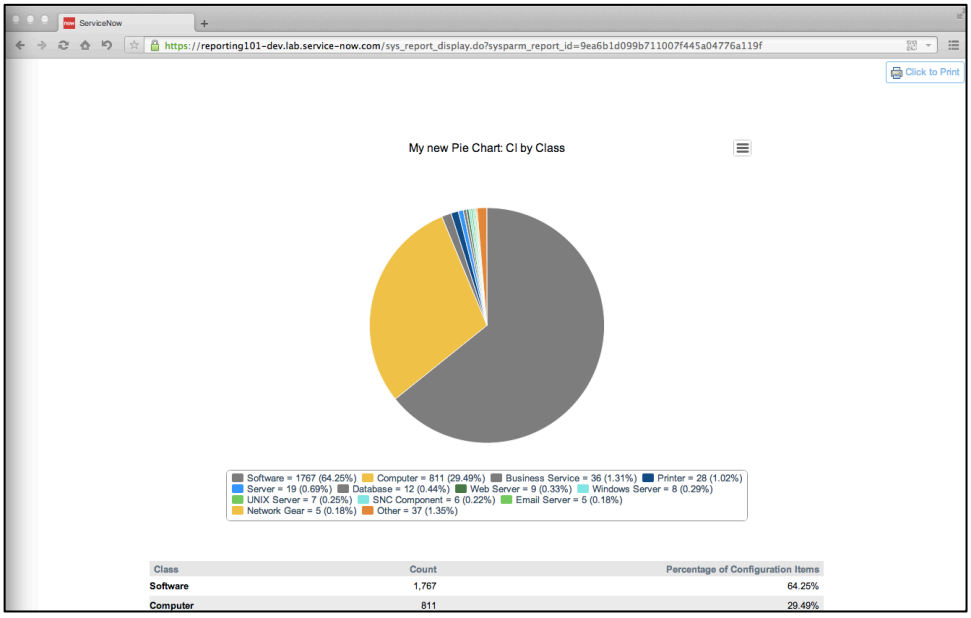
1. Copy the URL that appears in the confirmation prompt.



2. Paste it into a new web browser.



3. The published report should now be available, without requiring any login credentials.



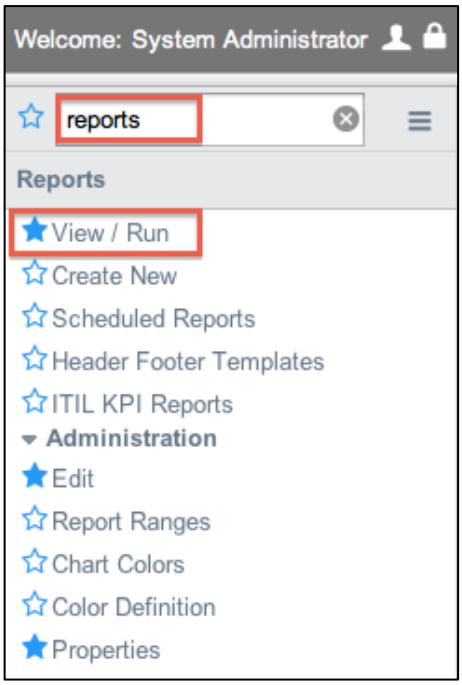
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Lab Goal

This lab explains how to create a scheduled distribution for a report. ServiceNow can schedule reports to be distributed to various audiences based on desired schedules. Scheduled report distribution eliminates the time-consuming need to create and distribute reports manually.

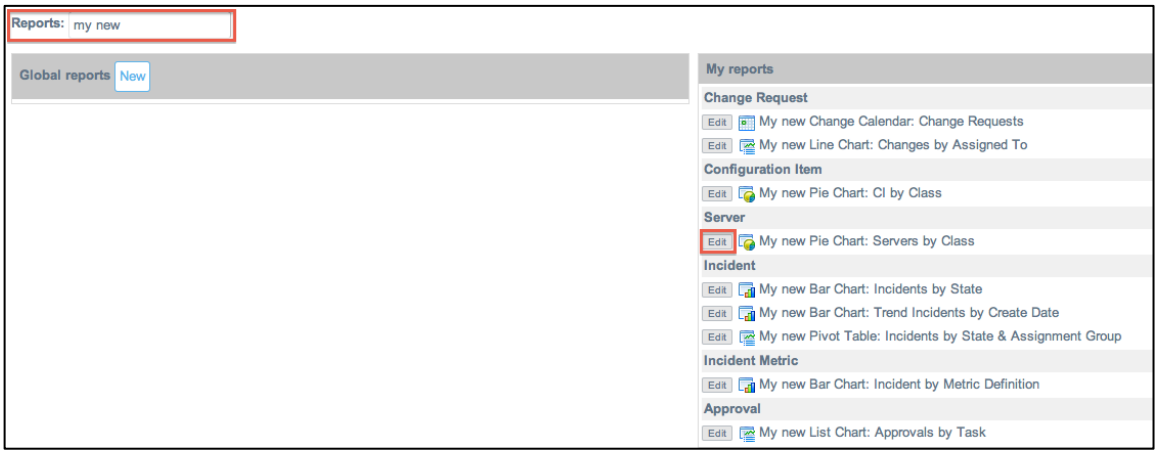
Lab 17
Scheduling a Report

1. Navigate to **Reports > View/Run**.

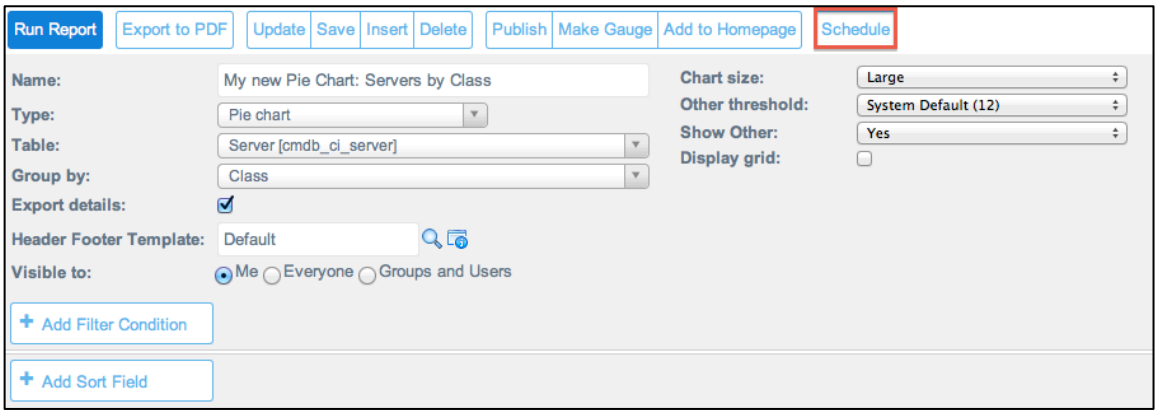


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2. Select **Edit** for the report: **My new Pie Chart: Servers by Class**.



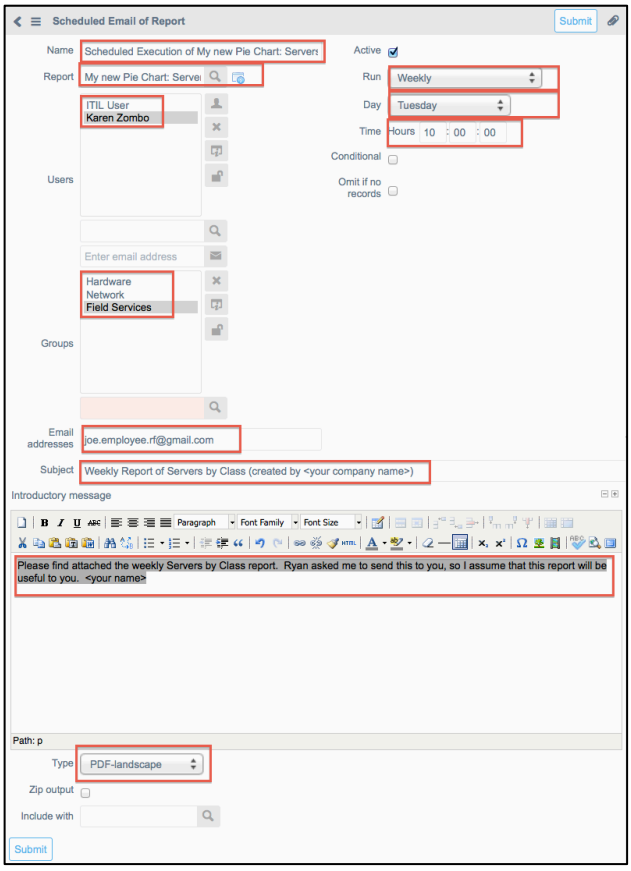
3. Within the **Report Builder**, click the **Schedule** button at the top of the report.



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4. Within the **Scheduled Email of Report** window, fill in the form with the following values.

Name: **Scheduled Execution of My new Pie Chart: Servers by Class**
Users: **ITIL User, Karen Zombo**
Groups: **Network, Hardware, Field Services**
Email Addresses**: joe.employee.rf@gmail.com**
Run: **Weekly**
Day: **Tuesday**
Time: **10:00:00**
Subject: **Weekly Report of Servers by Class (created by <your company name>)**
Introductory Message: **Please find attached the weekly Servers by Class report. Ryan asked me to send this to you, so I assume that this report will be useful to you. <your name>**
Type: **PDF – landscape**



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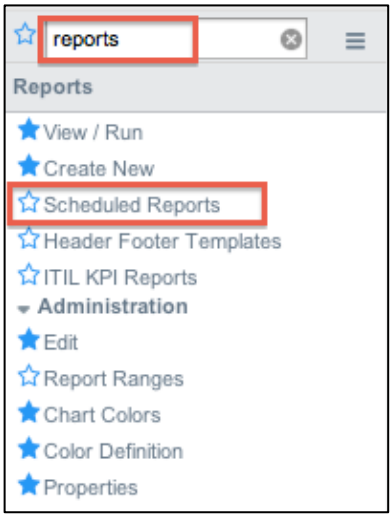
5. Click **Submit.**



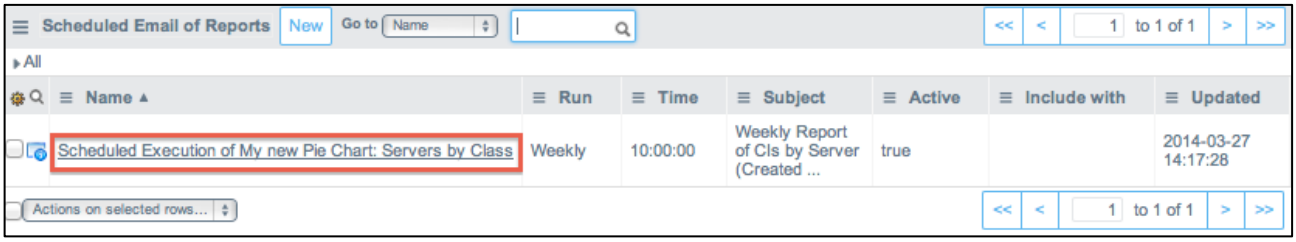
Lab Success Verification

In order to verify that the report has been scheduled, review the list of scheduled reports.

1. Navigate to **Reports > Scheduled Reports**.



2. Review the list of scheduled reports, and find the **CI by Server (Pie Chart)** report that was scheduled in this exercise.



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Useful Links

Base System Reports

- https://wiki.servicenow.com/index.php?title=Base_System_Reports

Generating Reports

- https://wiki.servicenow.com/index.php?title=Generating_Reports

Report Types

- http://wiki.servicenow.com/index.php?title=Reporting#Report_Types

Thank you

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