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Check if Specific Hotfix installed on a Collection – SCCM

Recently we got a request from our Platform Team whether we can fetch any report from System Center Configuration Manager to check if specific Hotfixes installed on all the servers managed by them.

After further discussion, we got to know that they wanted to check all the systems that miss the WannaCry related hotfixes.

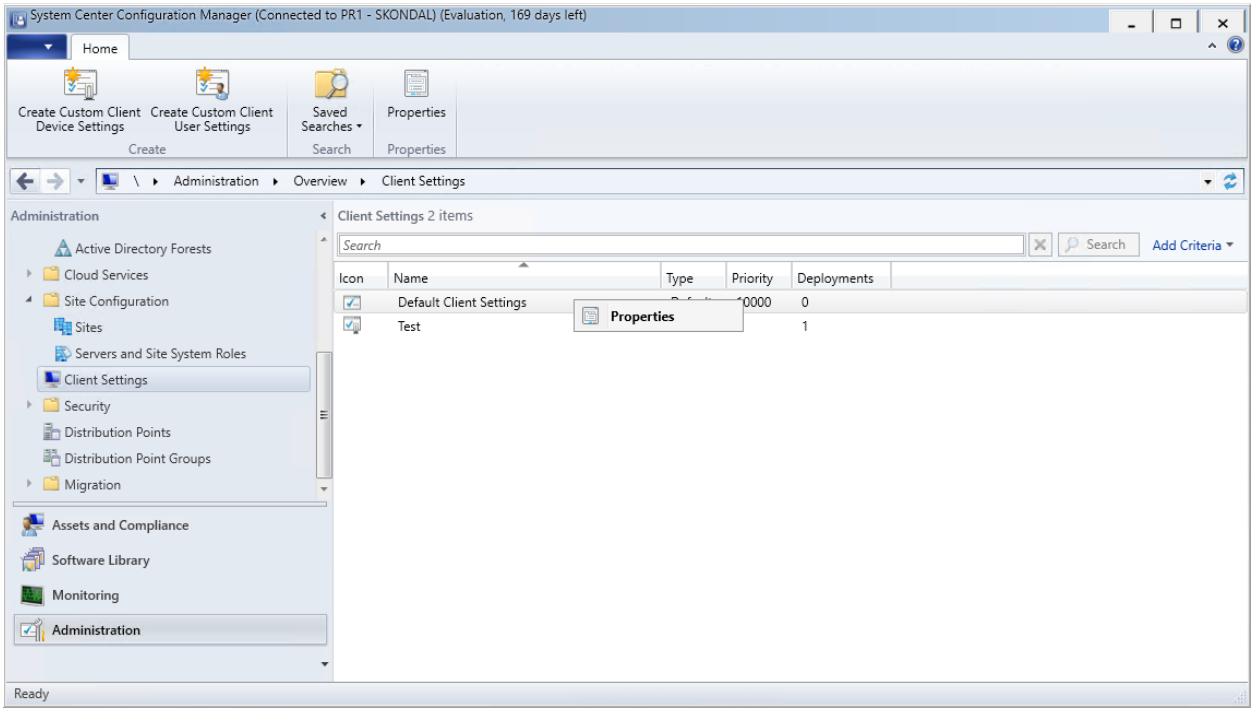
Let's create the report using Microsoft SQL Server Report Builder. Before that, we need to leverage the Win32_QuickFixEngineering WMI class otherwise we will not get the data in our report. This WMI class is specifically designed to reflect the presence of all system-wide updates deployed. We also have an added advantage that this class specifically excludes any update supplied by Windows Update - so the result set we get from this WMI class comes pre-filtered with just the supplemental data we want. You can read more about the Win32_QuickFixEngineering class here.

Let's start…

Enable Win32_QuickFixEngineering WMI class

1: Launch SCCM console and click on **Administration** tab.

2: Click on **Client Settings**, right click **Default Client Settings** and click **Properties**.



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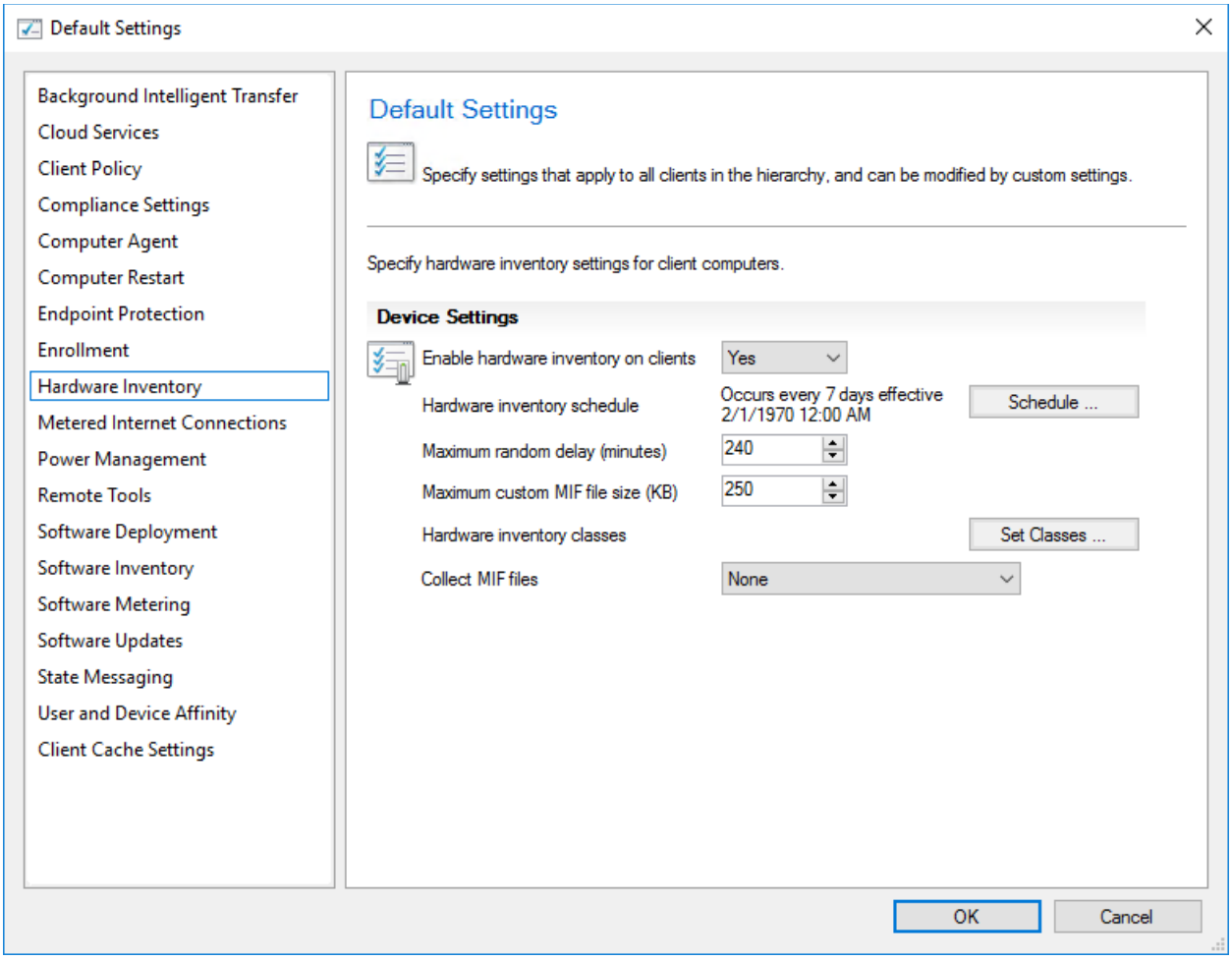
3: Click on **Hardware Inventory** and click on **Set Classes** button under **Device Settings** option.



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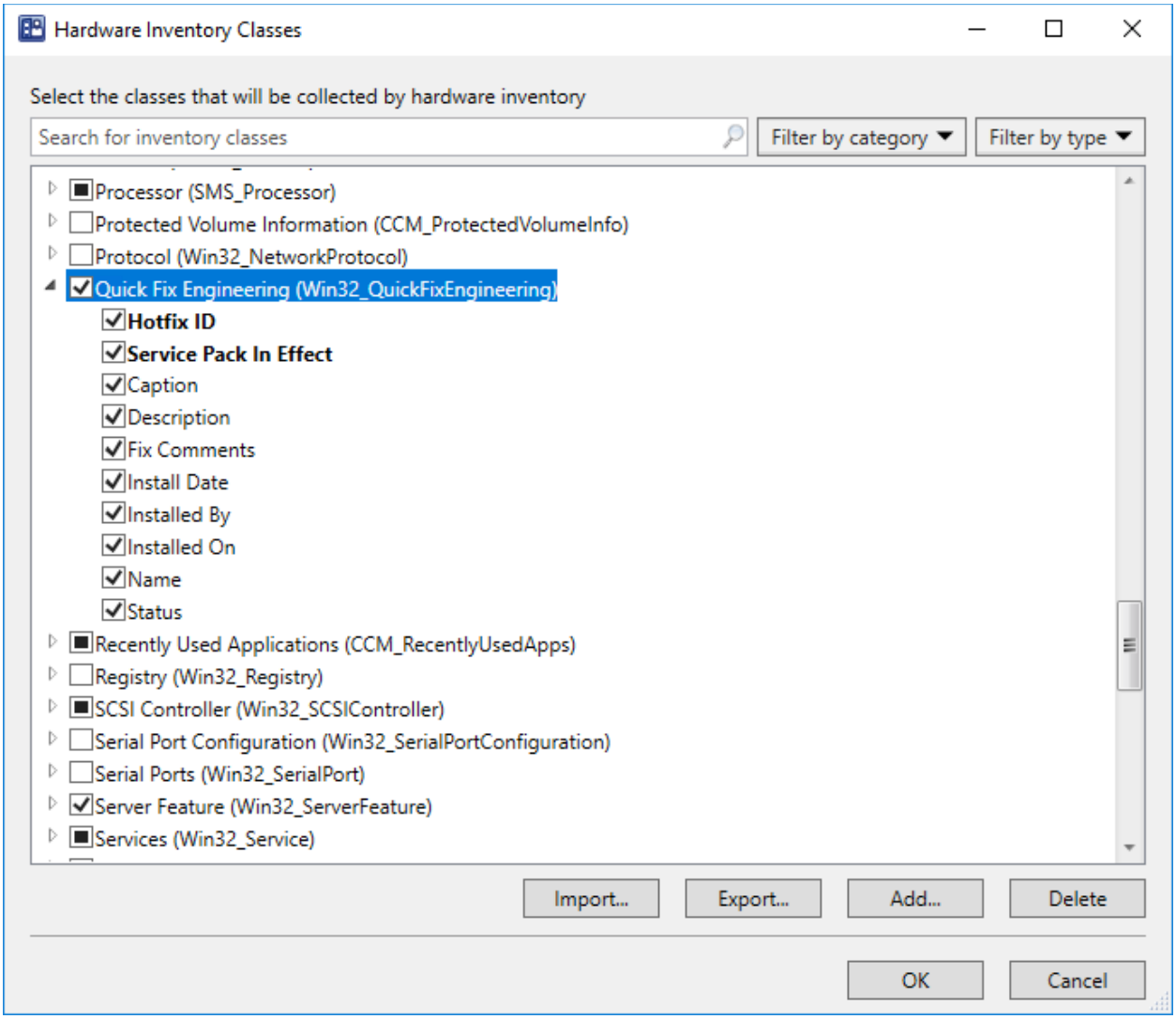
4: Put check mark on **Quick Fix Engineering (Win32_QuickFixEngineering)** and click **OK**.



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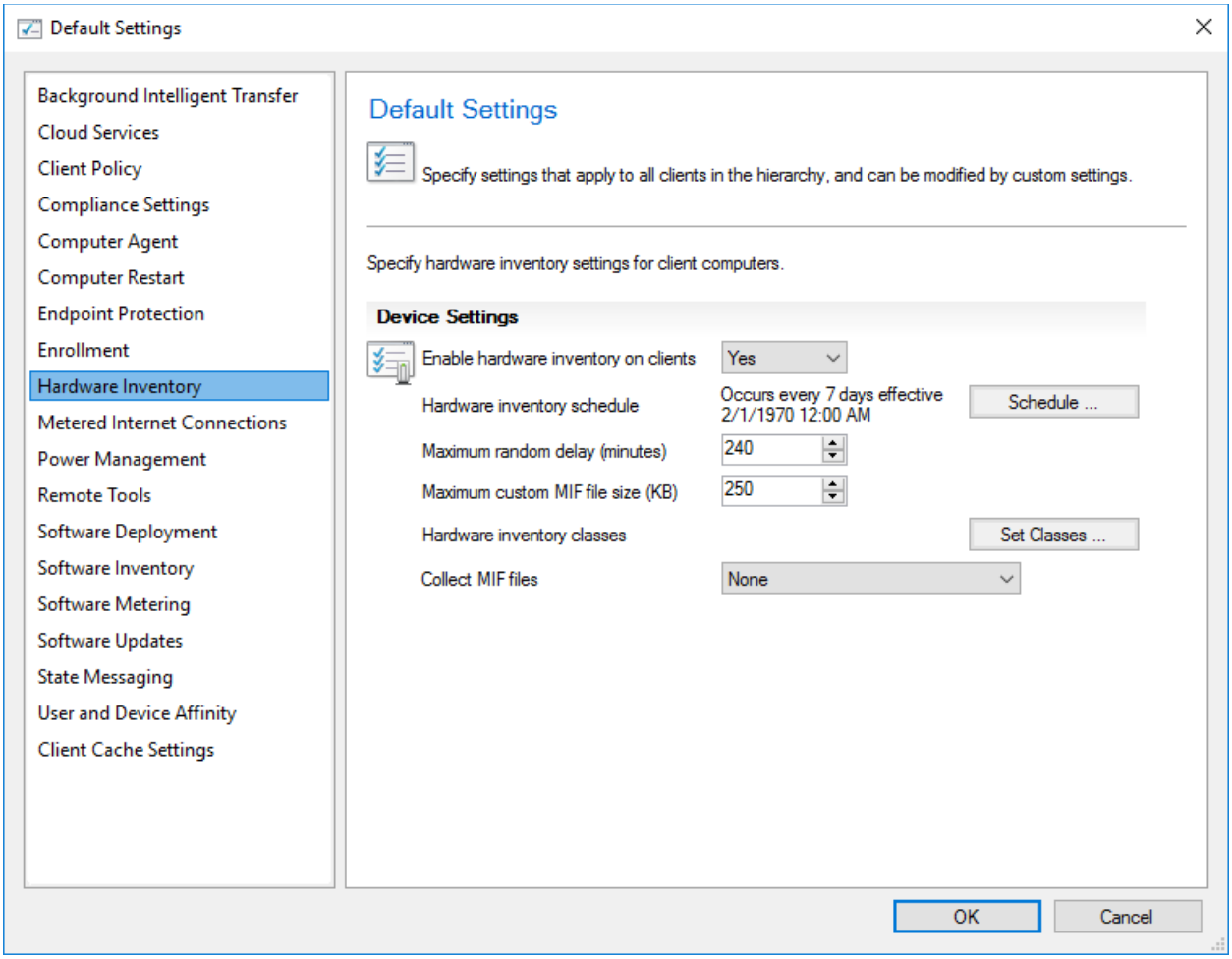
5: Click **OK** button to save the settings.



We have enabled the *Win32_QuickFixEngineering* class, let's create our report.

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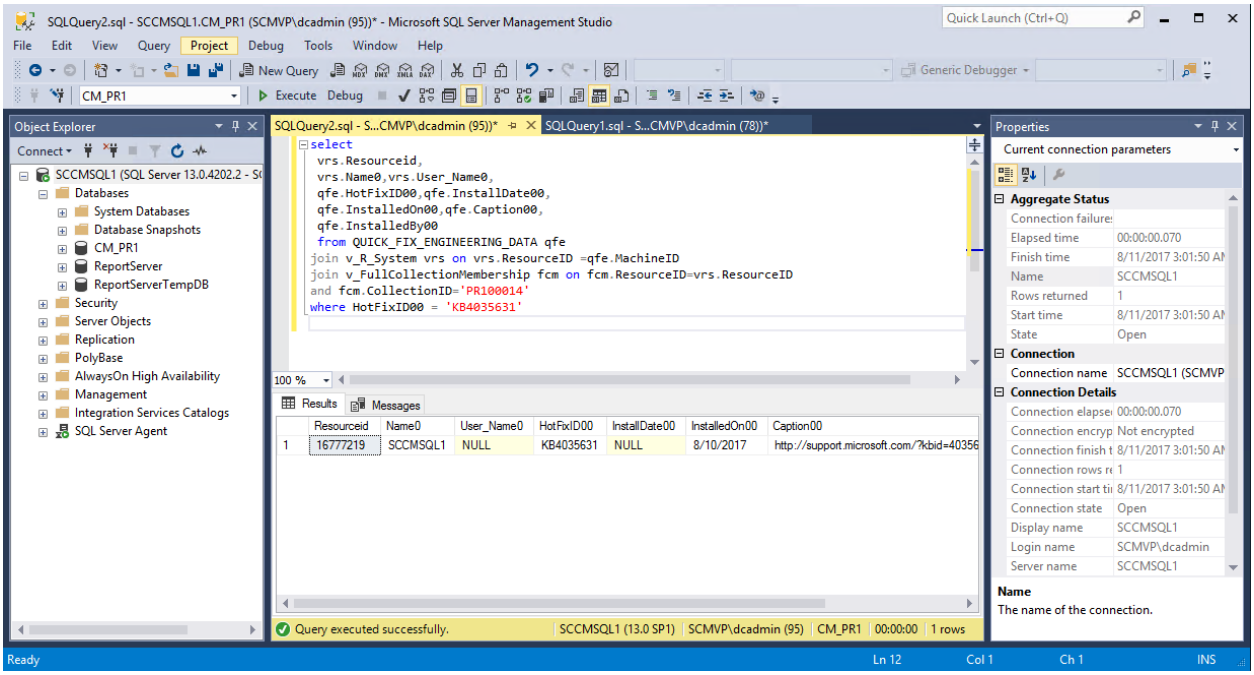
Creating Report using Report Builder

Below is the query we are going to use to check if specific HotFix installed on a collection of servers:

```
select
 vrs.Resourceid,
 vrs.Name0,vrs.User_Name0,
 qfe.HotFixID00,qfe.InstallDate00,
 qfe.InstalledOn00,qfe.Caption00,
 qfe.InstalledBy00
 from QUICK_FIX_ENGINEERING_DATA qfe
join v_R_System vrs on vrs.ResourceID =qfe.MachineID
join v_FullCollectionMembership fcm on fcm.ResourceID=vrs.ResourceID
and fcm.CollectionID='Provide Collection ID'
where HotFixID00 = 'Provide HotFix ID'
```

After running the SQL query in SSMS, we are getting the desired results.



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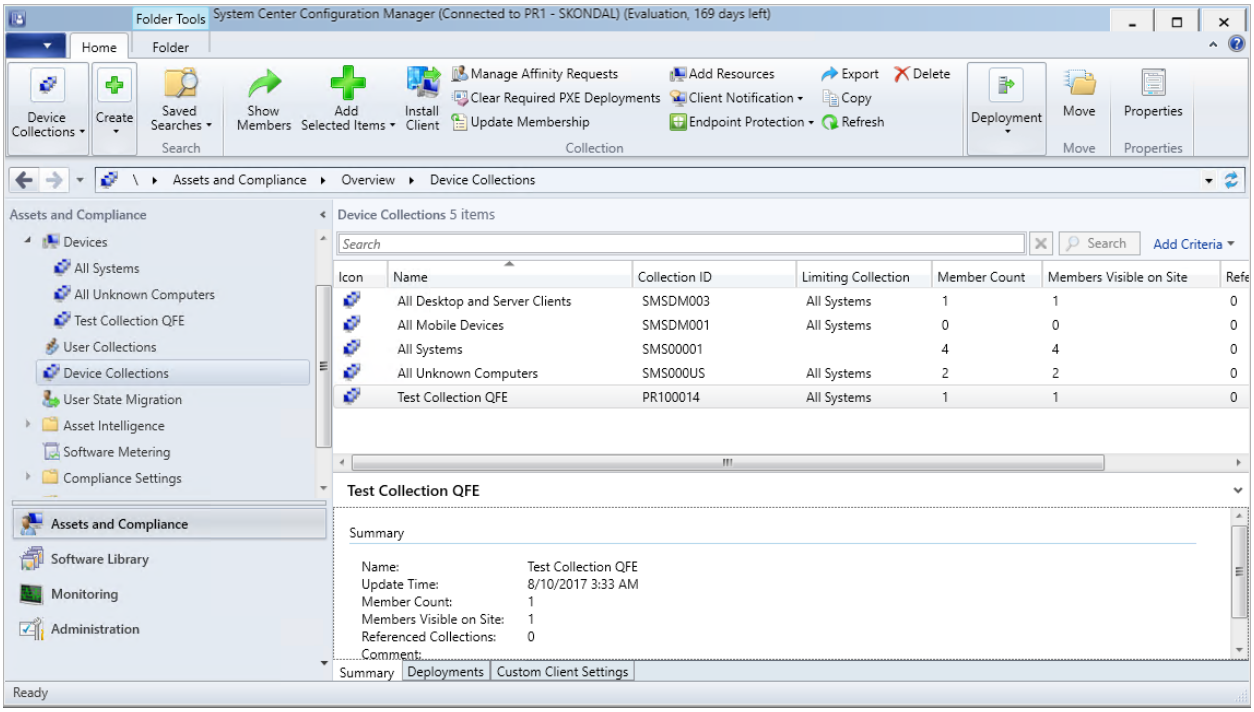
I have created a Test collection for this demo, and using same in our query. Anyway, I will be giving an option in our report to choose the Collection from available list.



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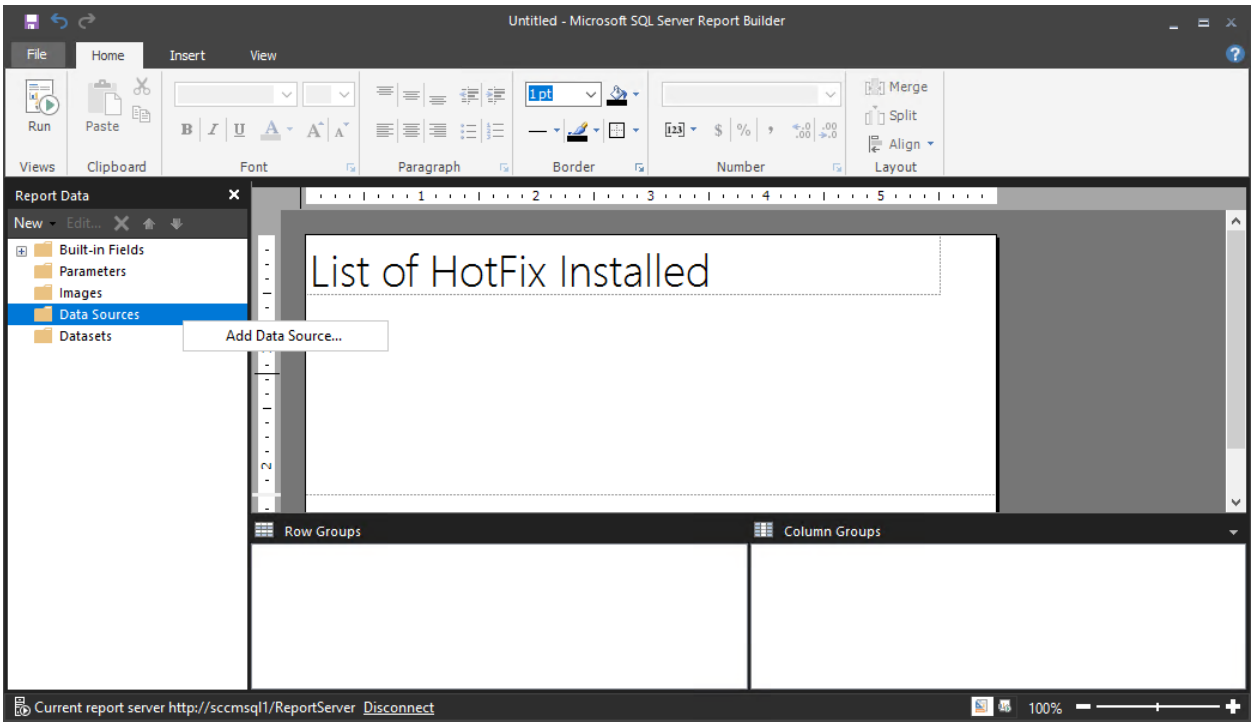
Let's create the report.

1: Open **SQL Server Report Builder**, right click **Data Sources** folder and click **Add Data Source**.



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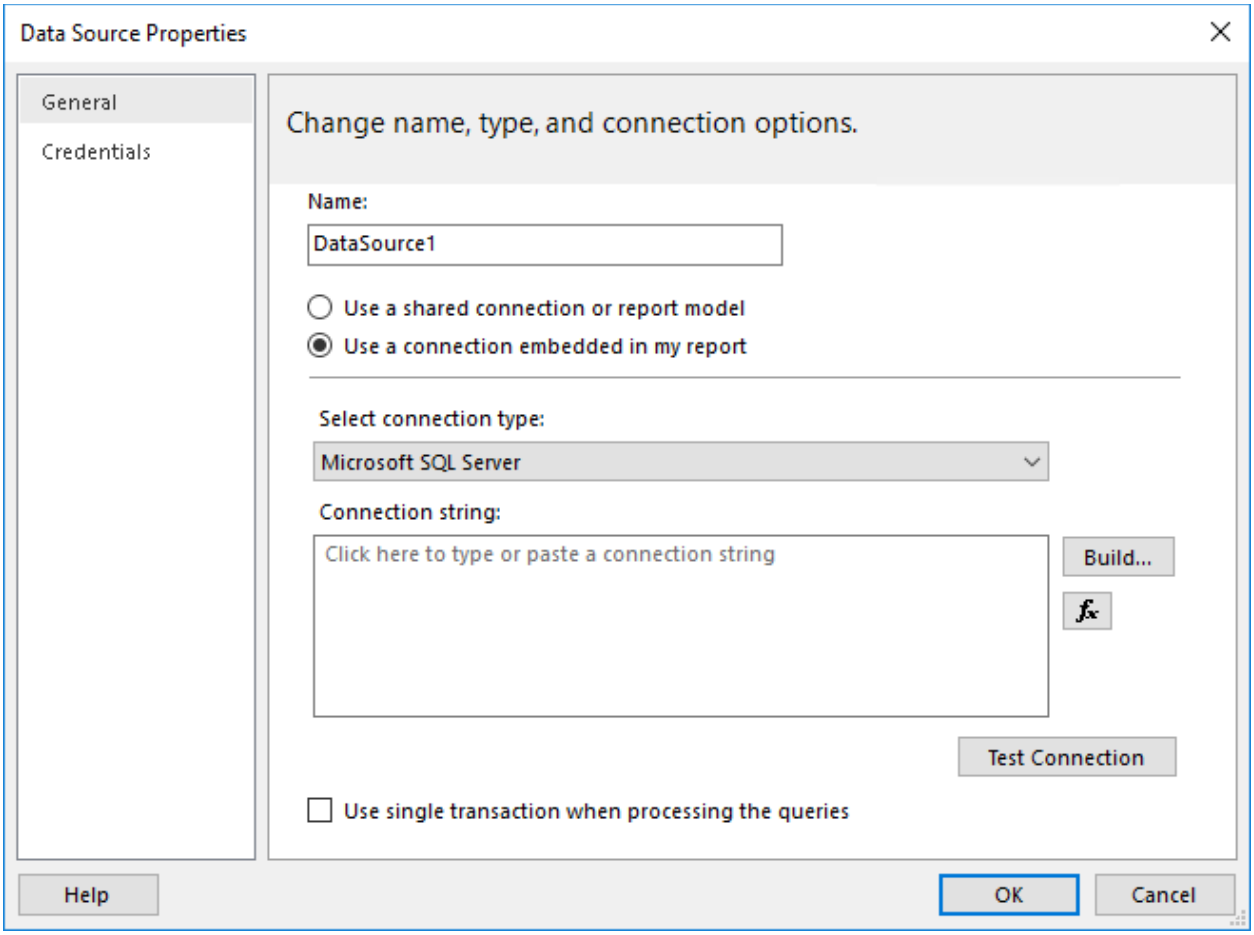
2: Select **Use a connection embedded in my report** option and click **Build** button.



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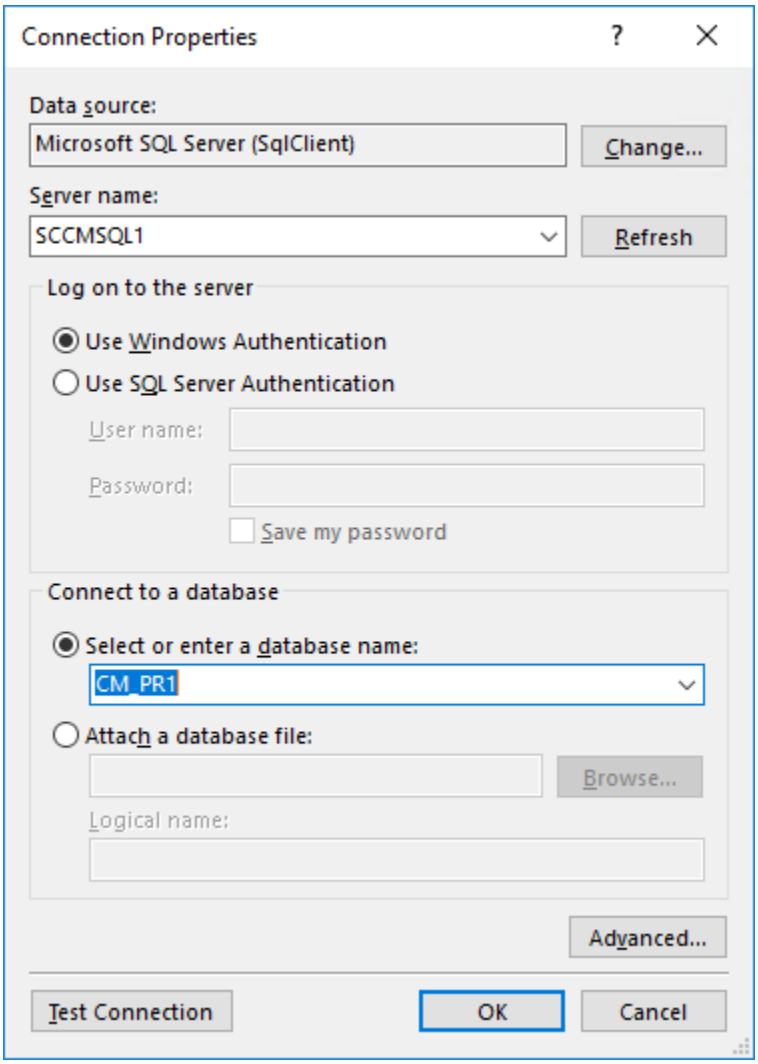
3: Under **Server name** field, provide SQL Server / Cluster Name holding SCCM Database.

4: Select SCCM database name and click **OK**.



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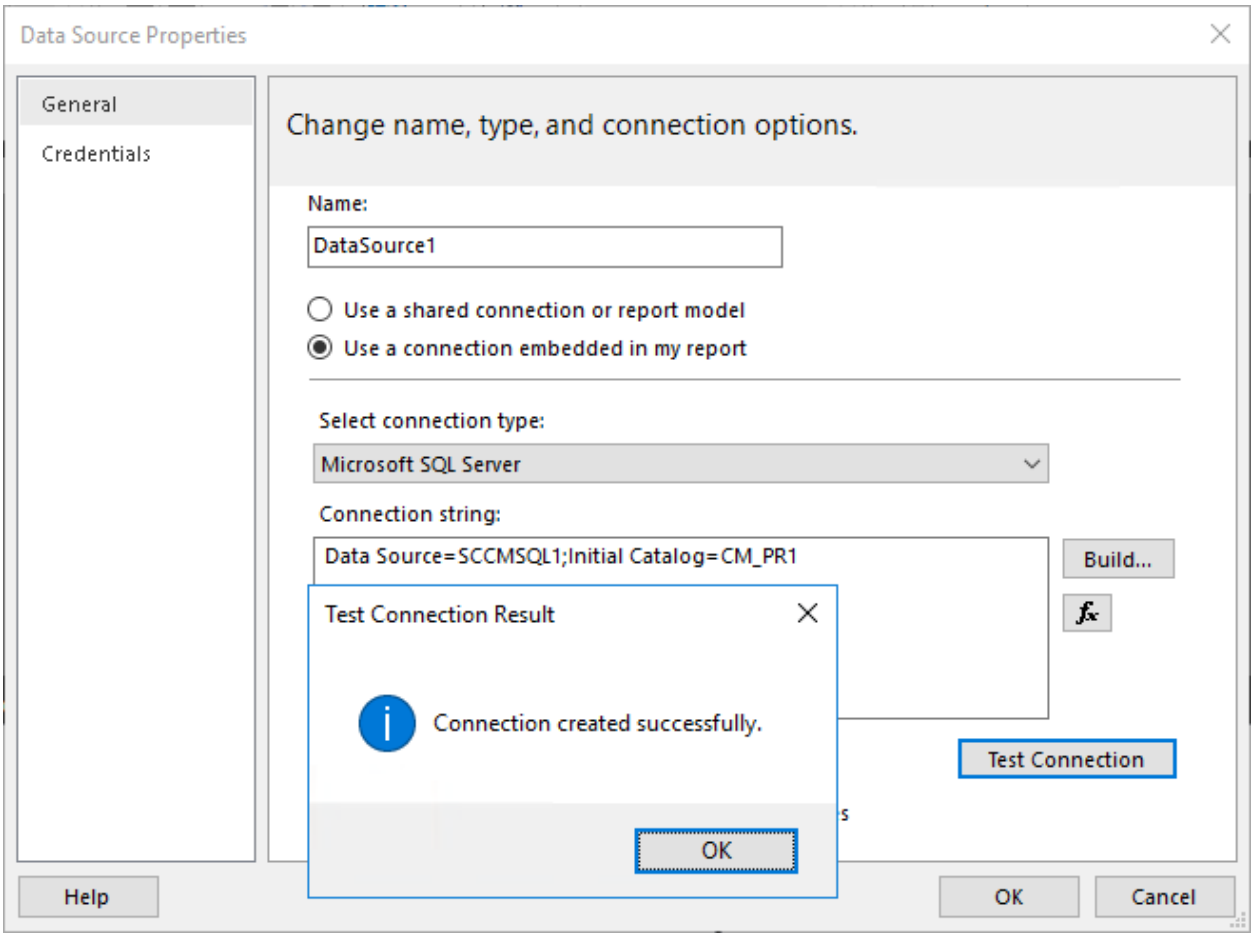
5: Click on **Test Connection** button and make sure connection is created successfully.

6: Click **OK** to close **Data Source** Properties window.



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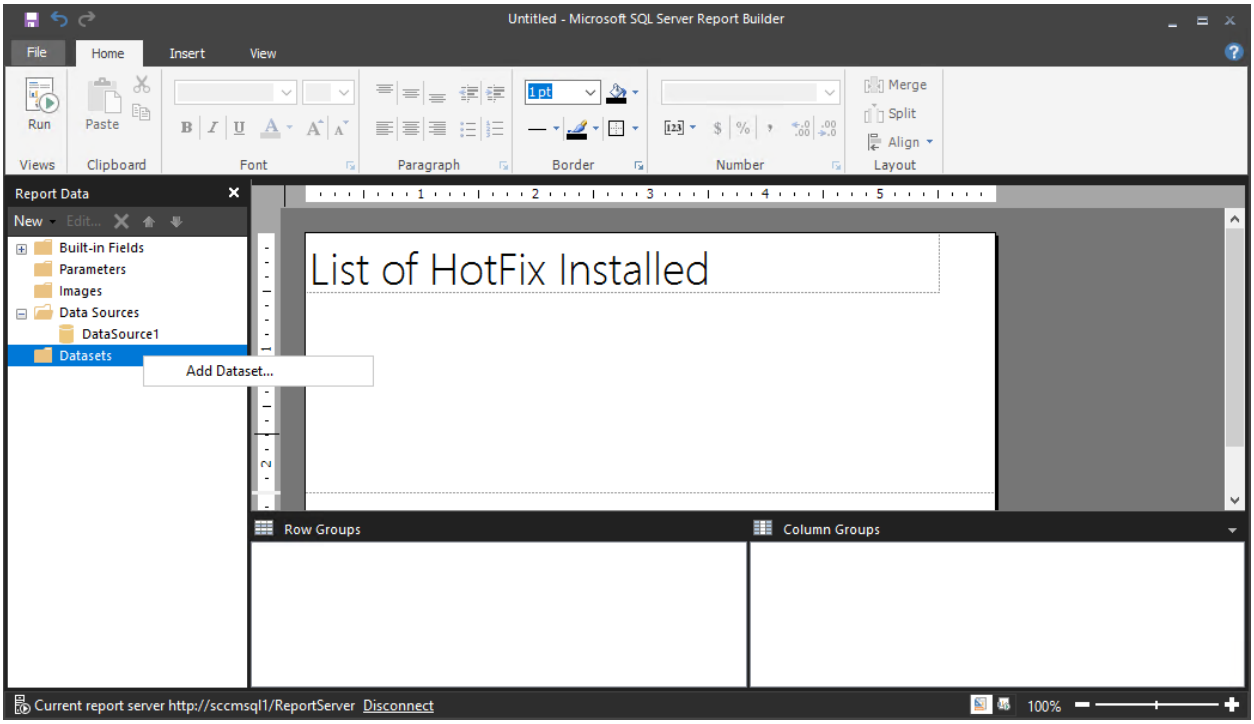
7: Right click **Datasets** and click **Add Dataset** option.



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8: Select option **Use a dataset embedded in my report**.

9: Select the **Data source** which we created.

10: Select **Text** as Query type and past below SQL query here.

```
select
 vrs.Resourceid,
 vrs.Name0,vrs.User_Name0,
 qfe.HotFixID00,qfe.InstallDate00,
 qfe.InstalledOn00,qfe.Caption00,
 qfe.InstalledBy00
 from QUICK_FIX_ENGINEERING_DATA qfe
join v_R_System vrs on vrs.ResourceID =qfe.MachineID
join v_FullCollectionMembership fcm on fcm.ResourceID=vrs.ResourceID
and fcm.CollectionID= @CollID
where HotFixID00 = @HotFixID
```

The SQL query will fetch data from SCCM Database and will show it in our report.

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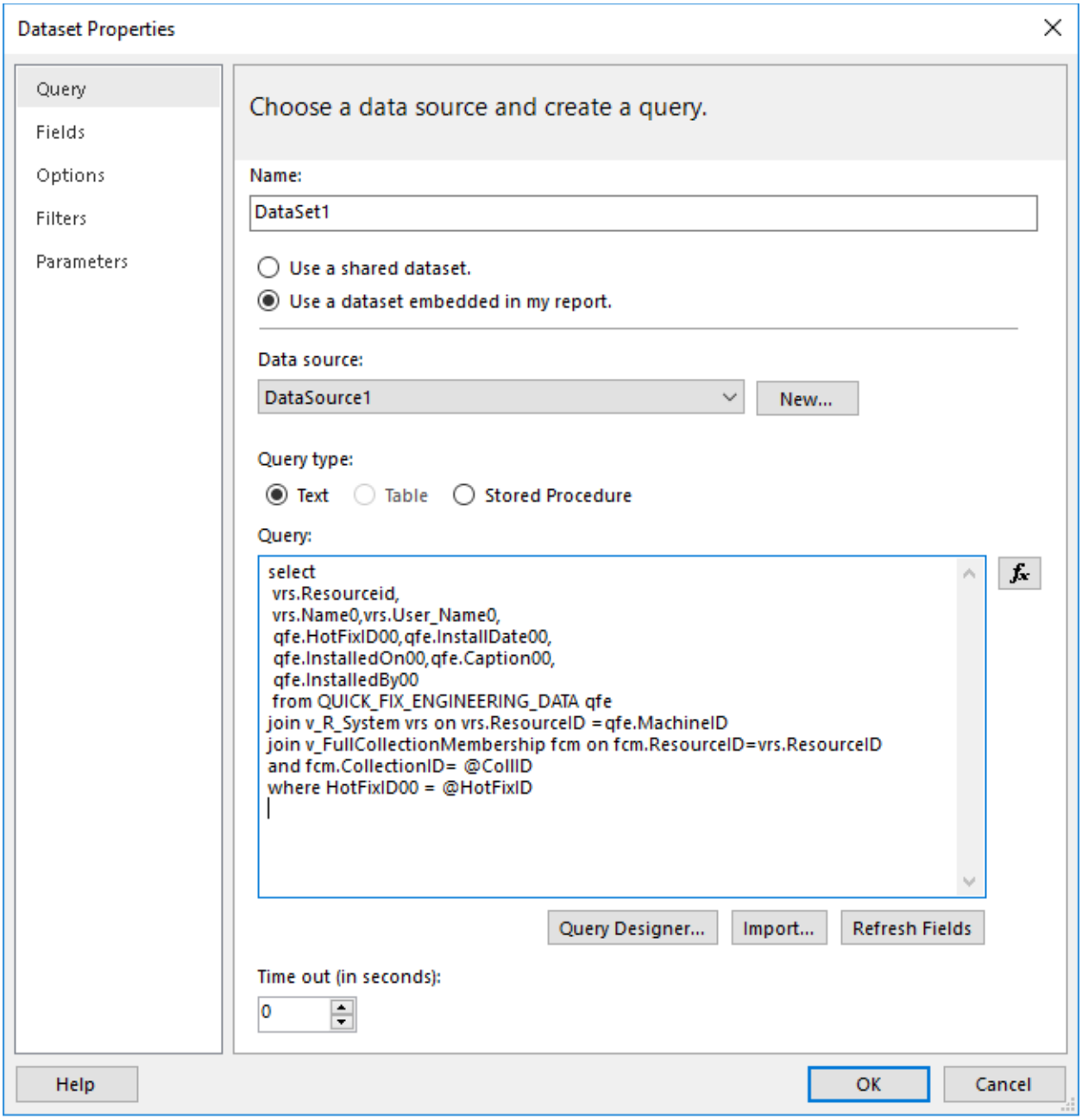
11: Click **OK** to close the **Dataset Properties**.



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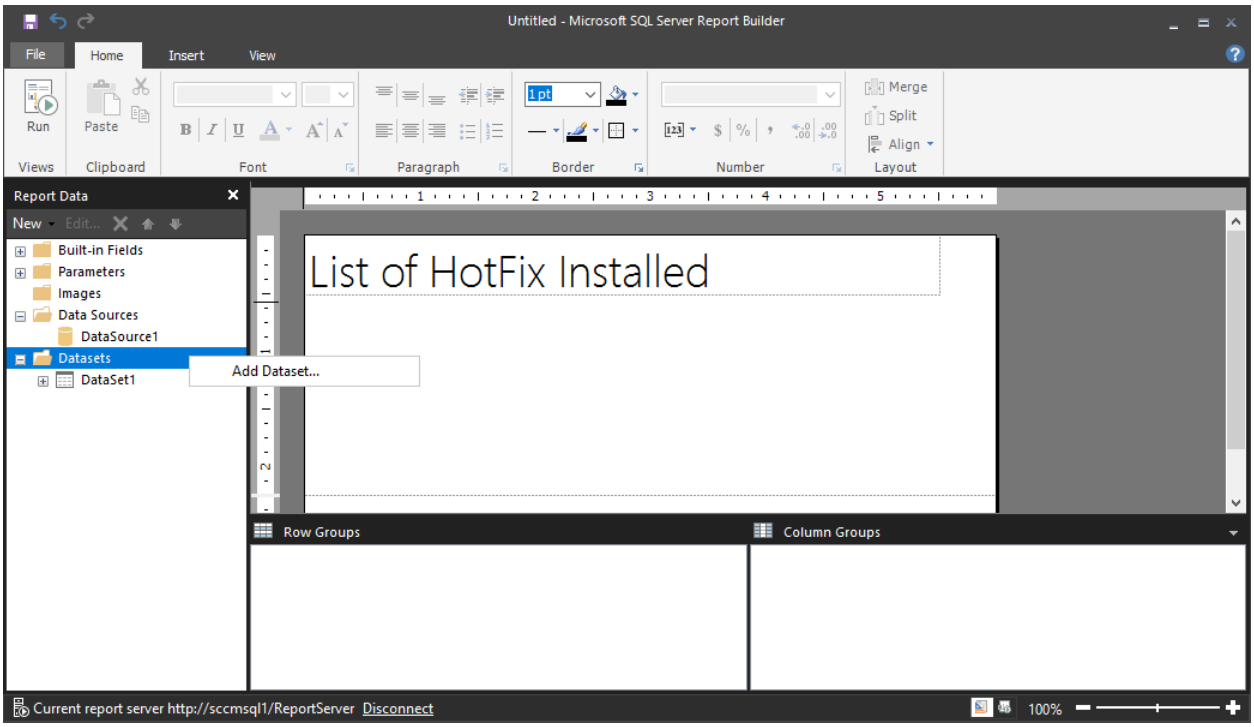
Now, since we want to select the Collection from list, we need to create one more Dataset for it.

12: Right click **Datasets** and click **Add Dataset** option.



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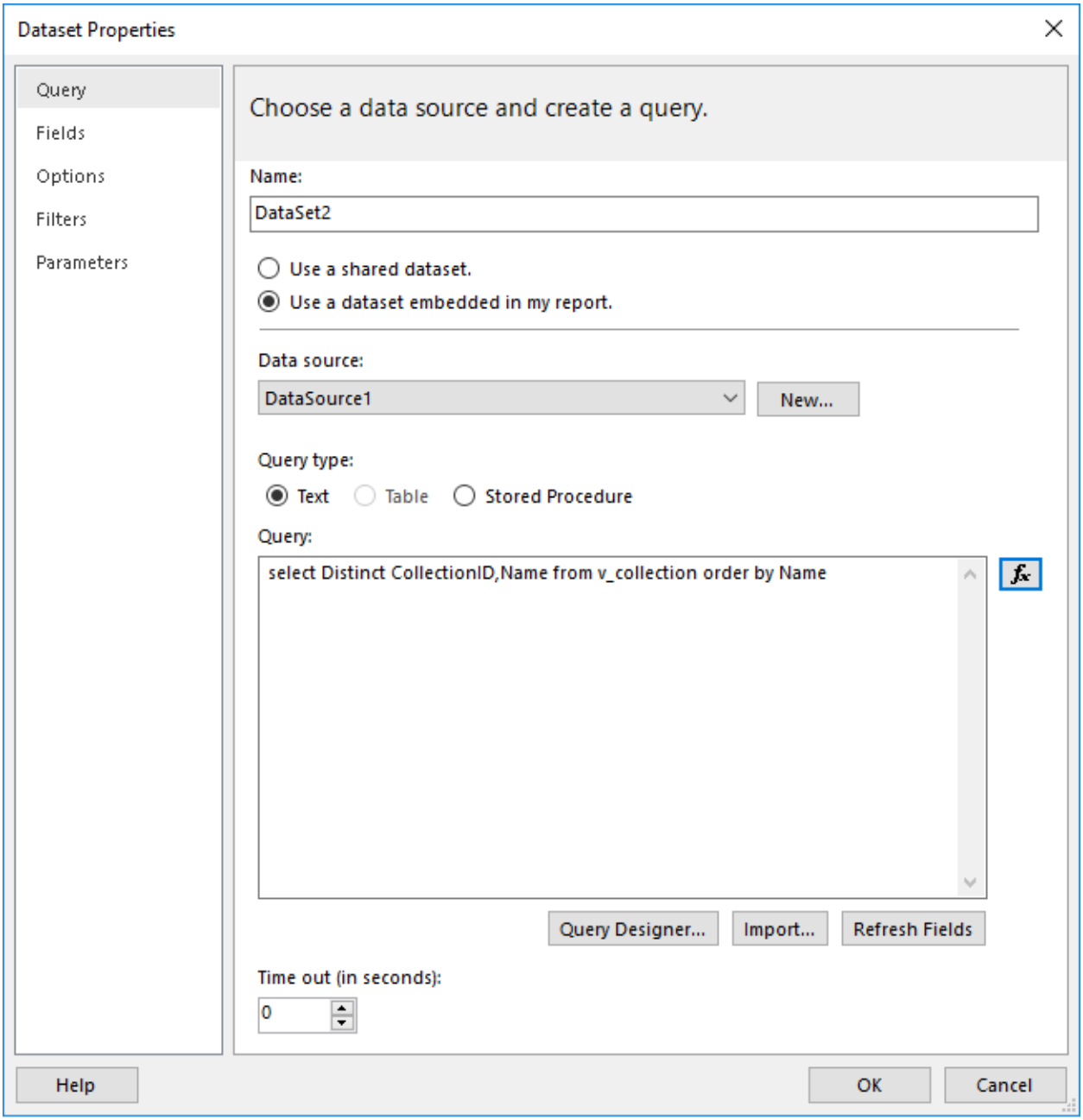
13: Select option **Use a dataset embedded in my report**.

14: Select the **Data source** which we created.

15: Select **Text** as Query type and past below SQL query here.

select Distinct CollectionID,Name from v_collection order by Name

16: Click **OK** to close the **Dataset Properties**.



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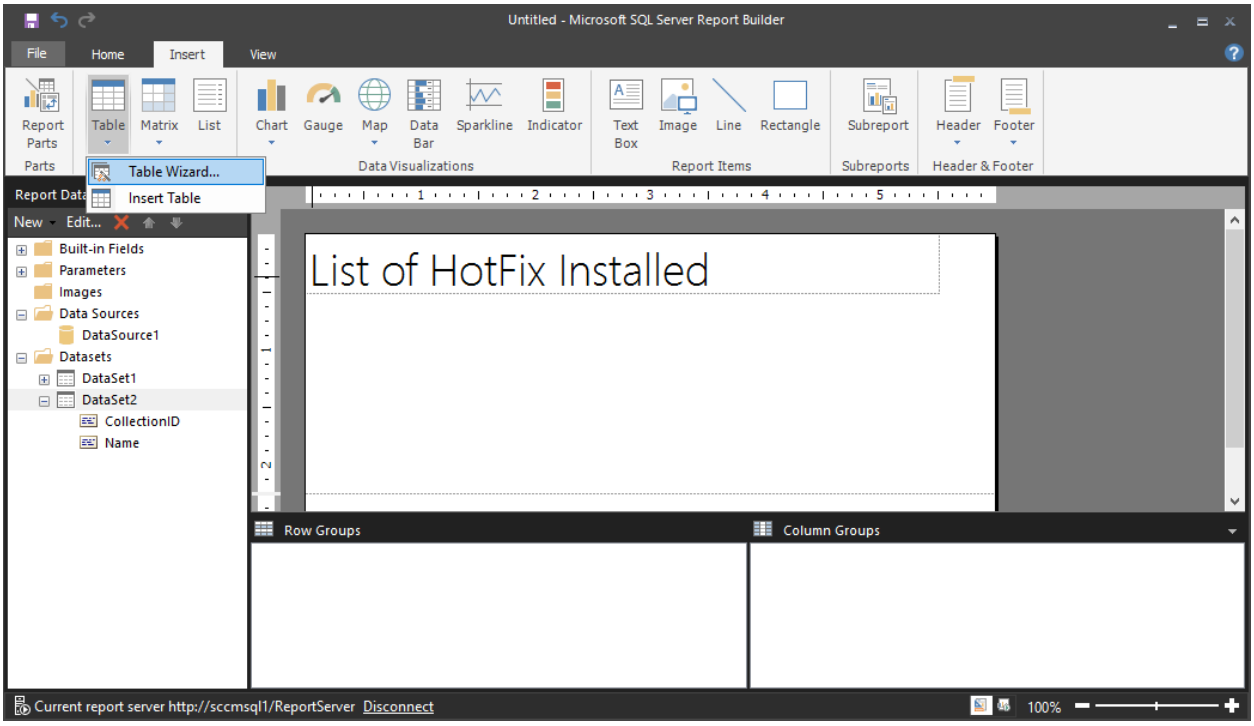
Now we need the fields which should be displayed in our report.

17: Click on **Insert** tab, click **Table** and select **Table Wizard** option.



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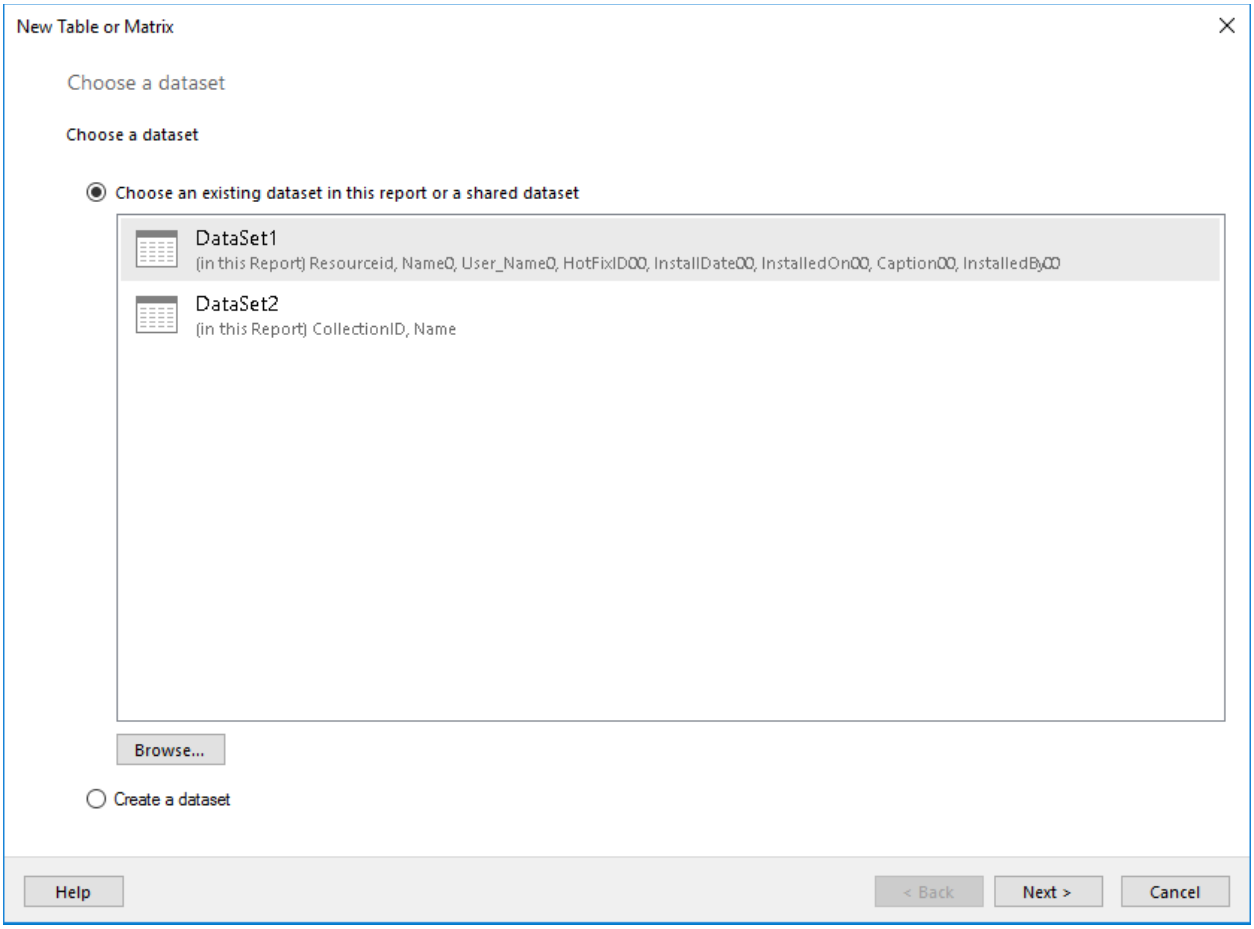
18: Select **DataSet1** and click Next.



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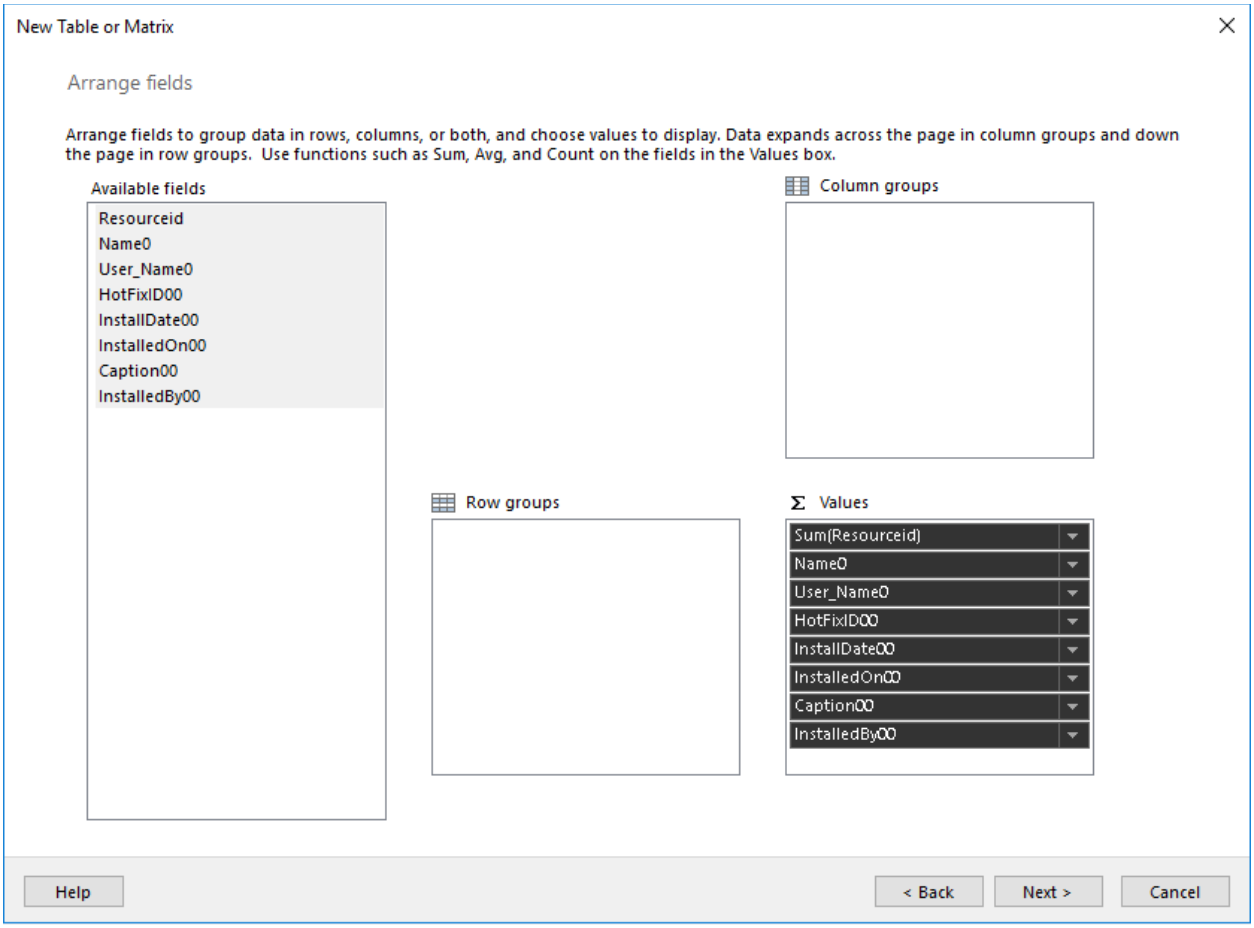
19: Select the fields which you want to show in your report and drag it to **Values** box.



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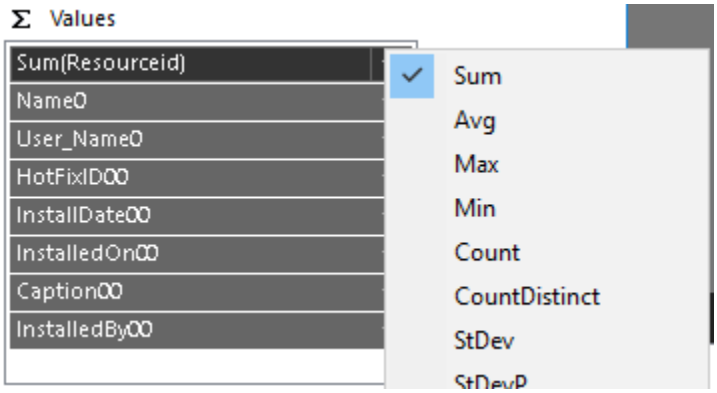
After dragging the required fields under **Values** box, you may get few fields starting from **Sum**.

We don't need these fields, so remove all such fields by clicking dropdown option against those fields and unchecking the **Sum** option.



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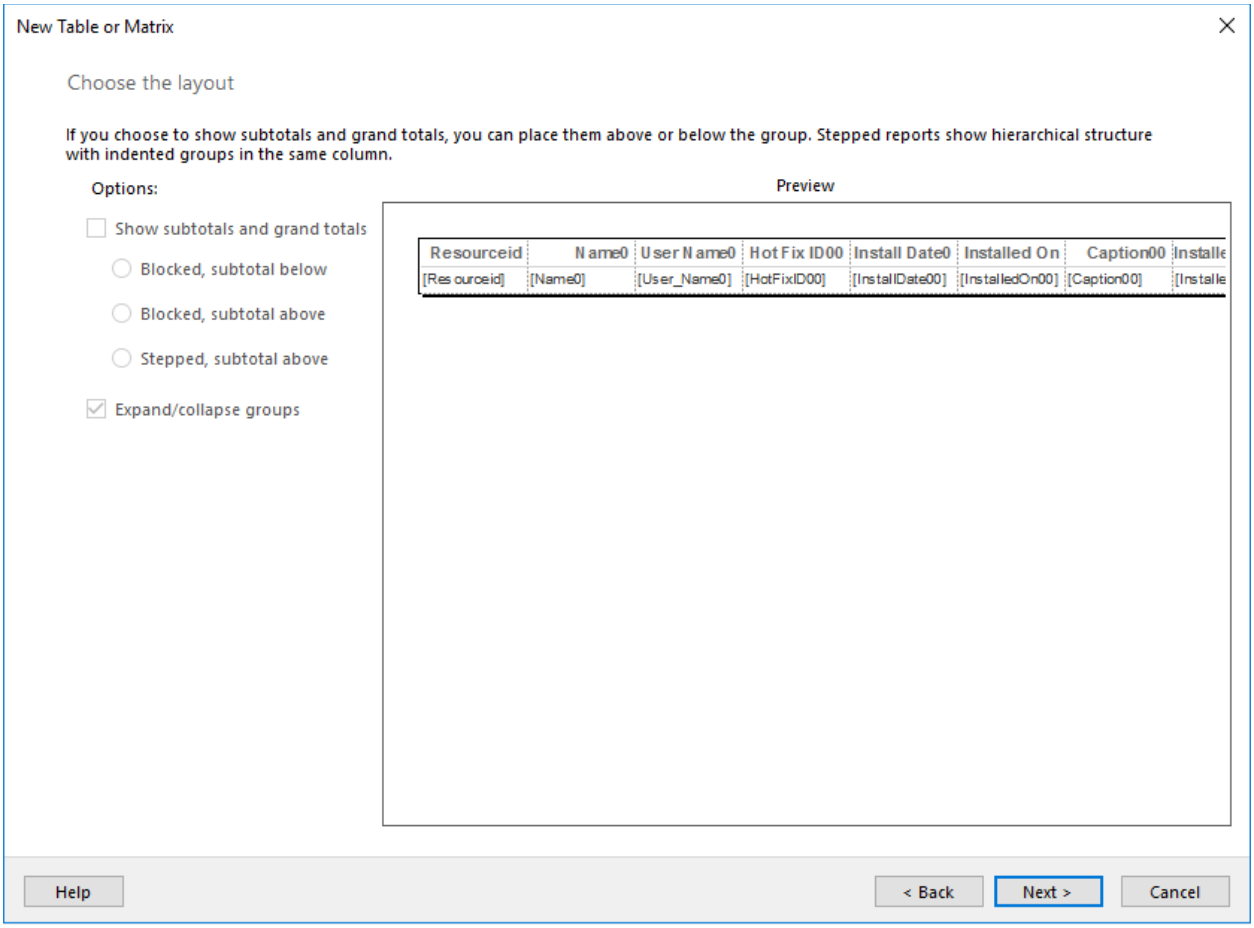
20: Layout preview will appear, click **Next** to continue.



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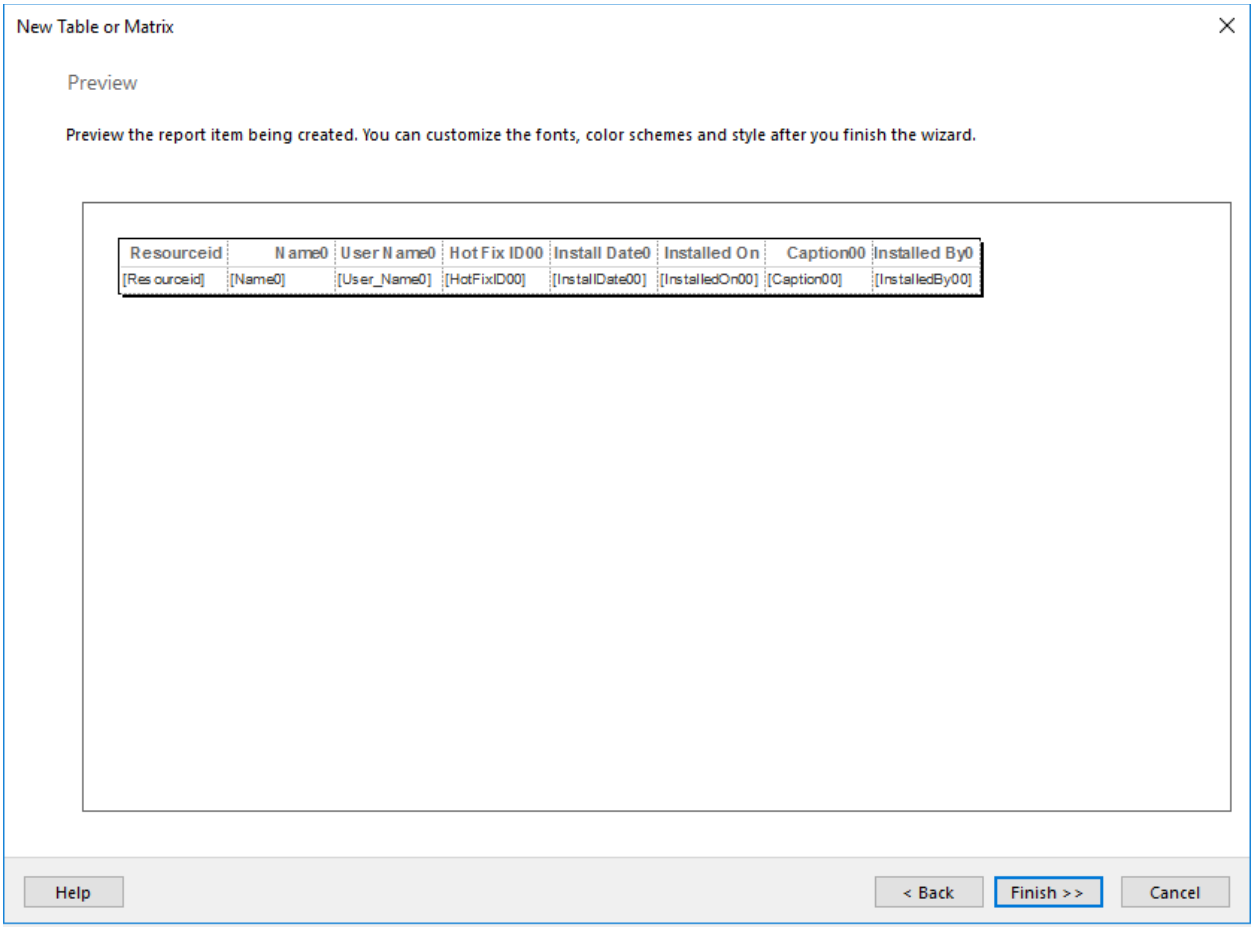
21: Click **Finish** button.



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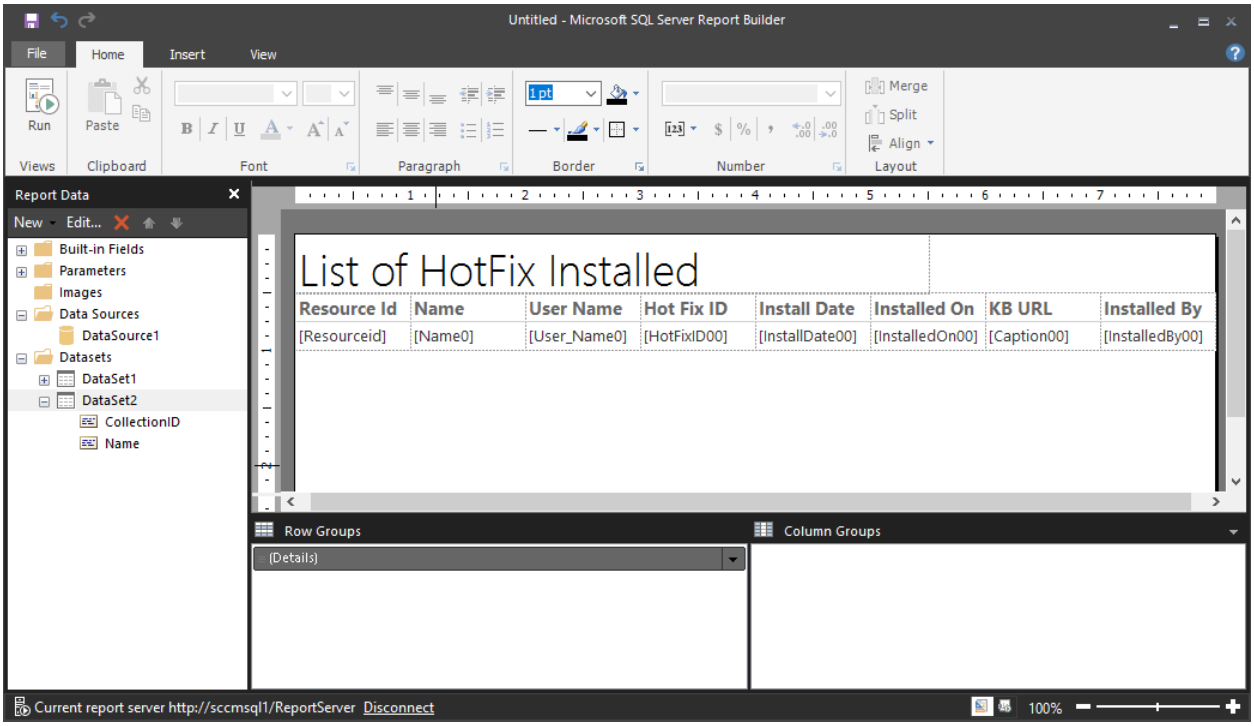
The Report Builder Interface will show you all the created Data Sources, Datasets, Parameters used and the Fields which we want to show in our report.

22: Modify the field names and expand the fields as per the requirement.



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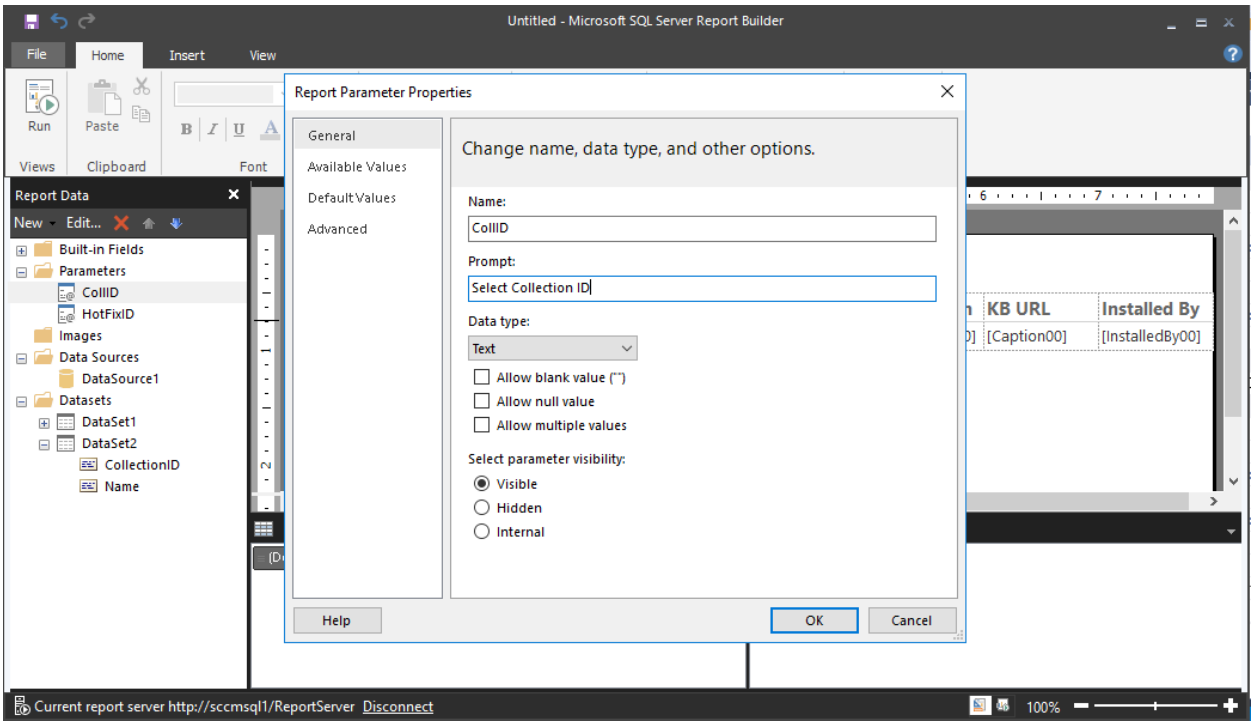
23: Expand **Parameters** folder and double click **@CollID** parameter.

24: Provide a suitable caption under **Prompt** field.



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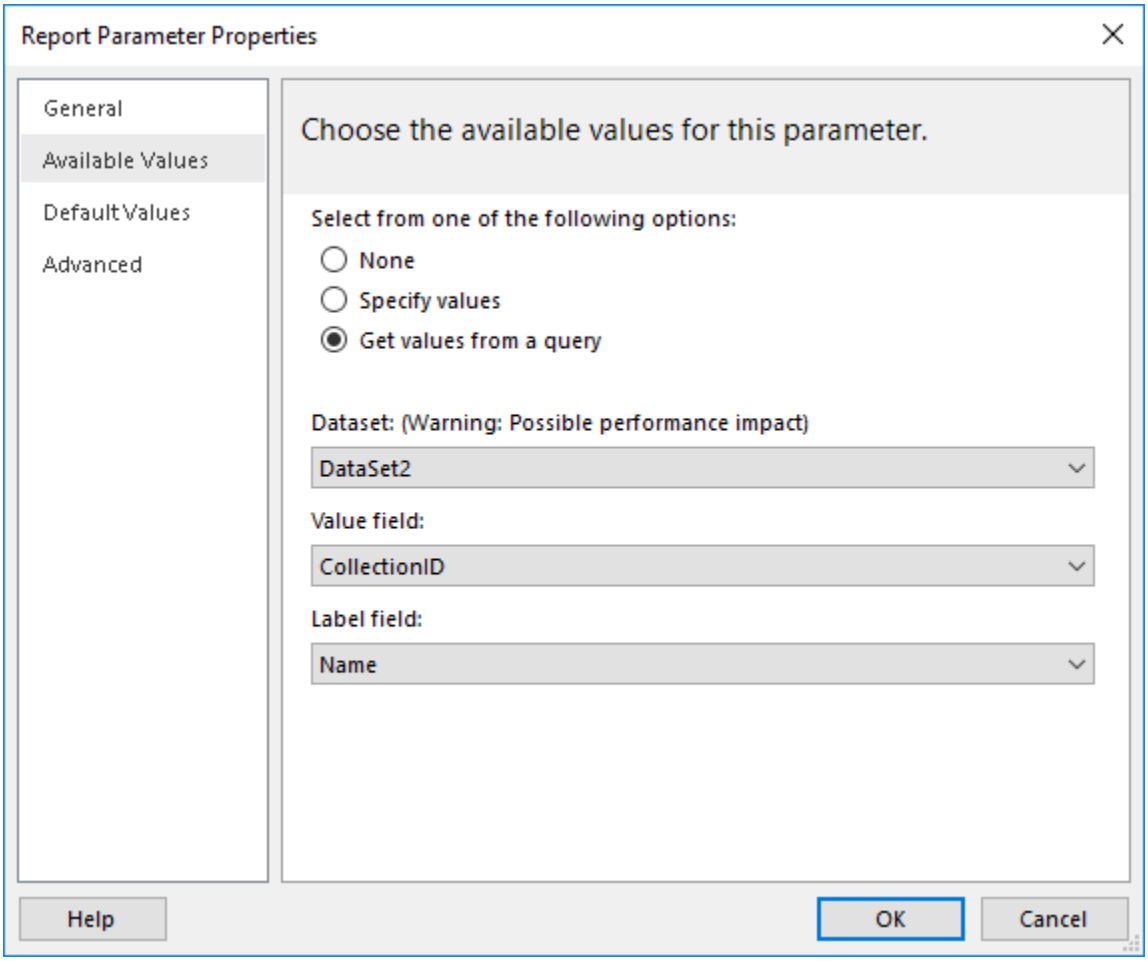
25: Click on **Available Values** tab and select **Get values from a query** option.

26: Select **DataSet2** under **Dataset** field.

27: Select **CollectionID** under **Value field** and **Name** under **Label field**.

28: Click **OK** to continue.



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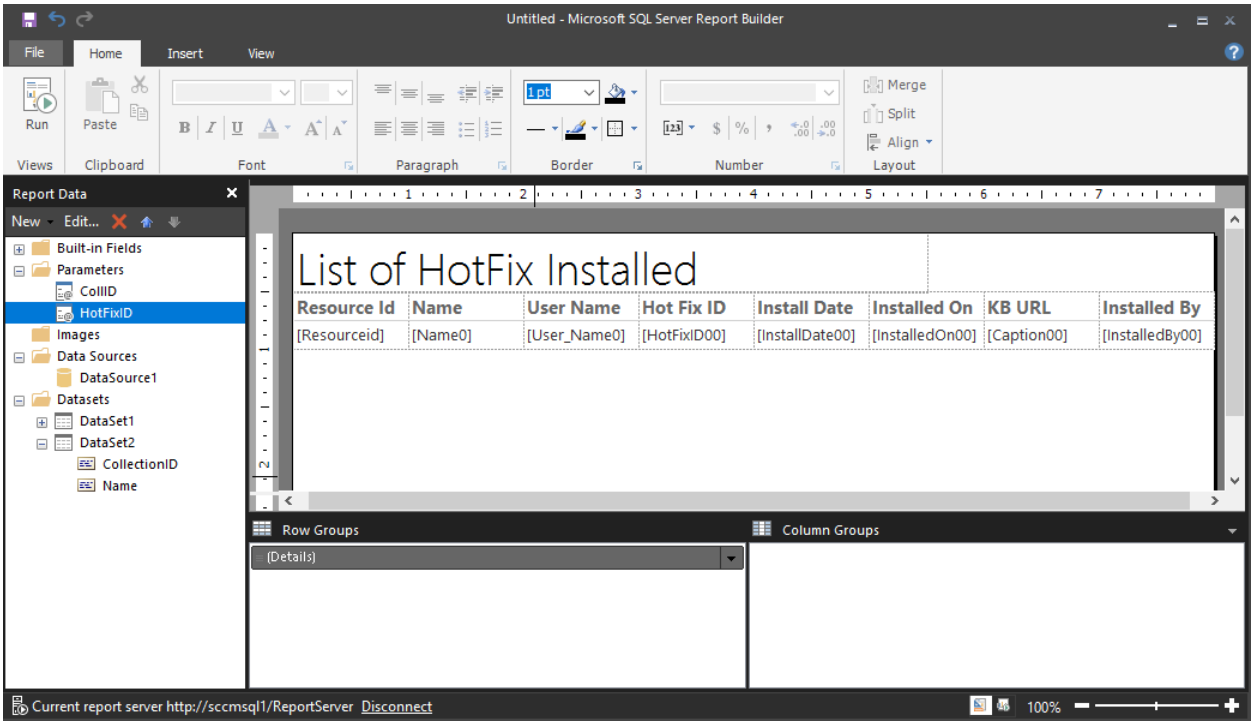
29: Perform **Step 24** for **HotFixID** parameter and click **OK** button.



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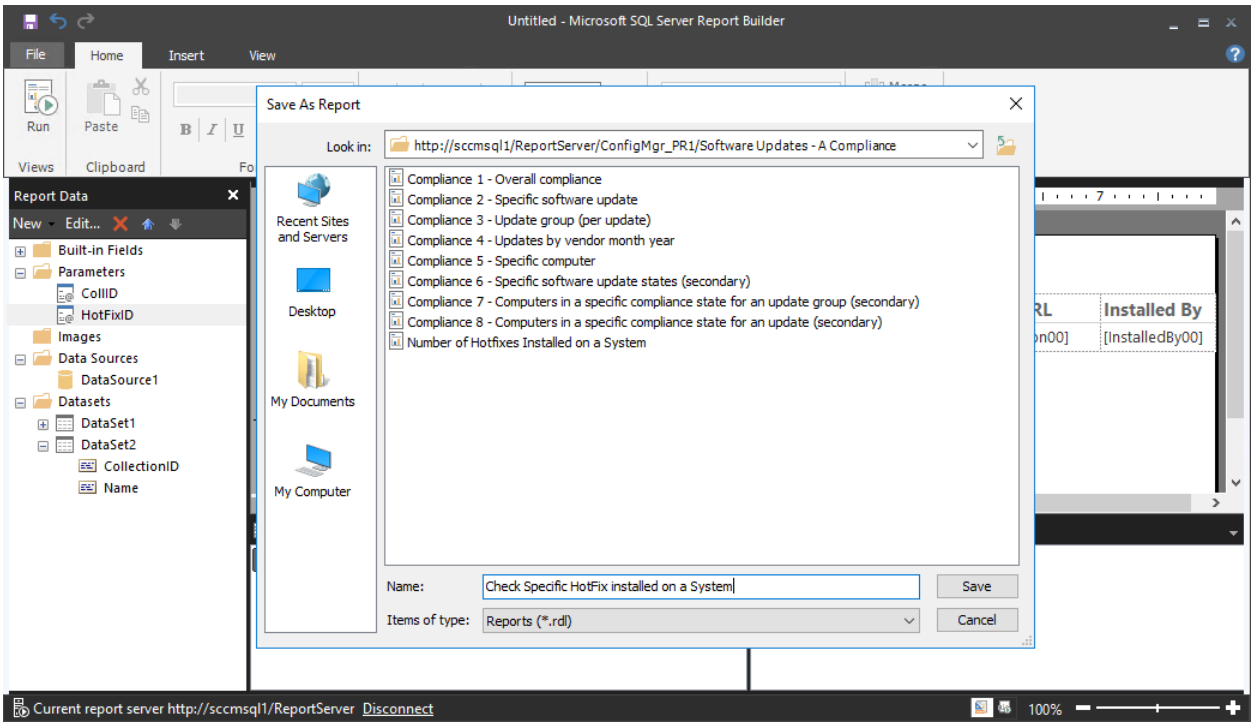
30: Click on **Save** button and select the folder under which report will be stored.

31: Provide suitable name to the report and click **Save** button.



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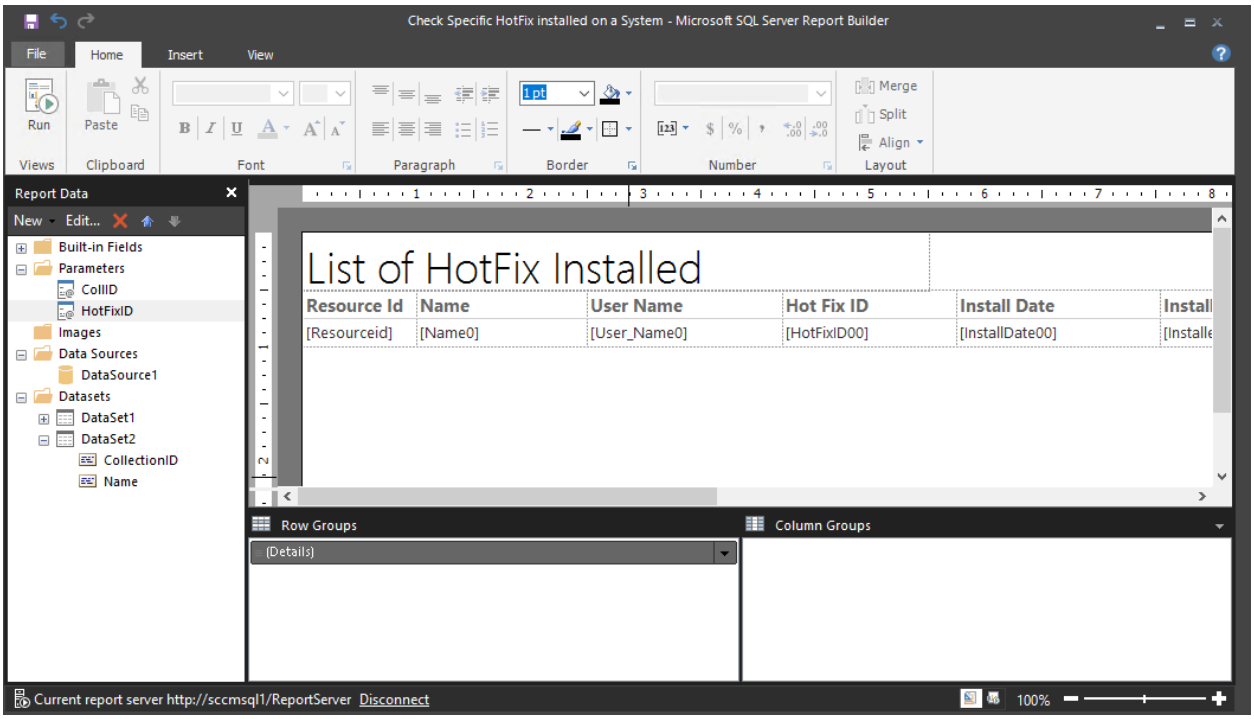
Report is created, now let's run it through Report Builder itself.

32: Click on **Run** button.



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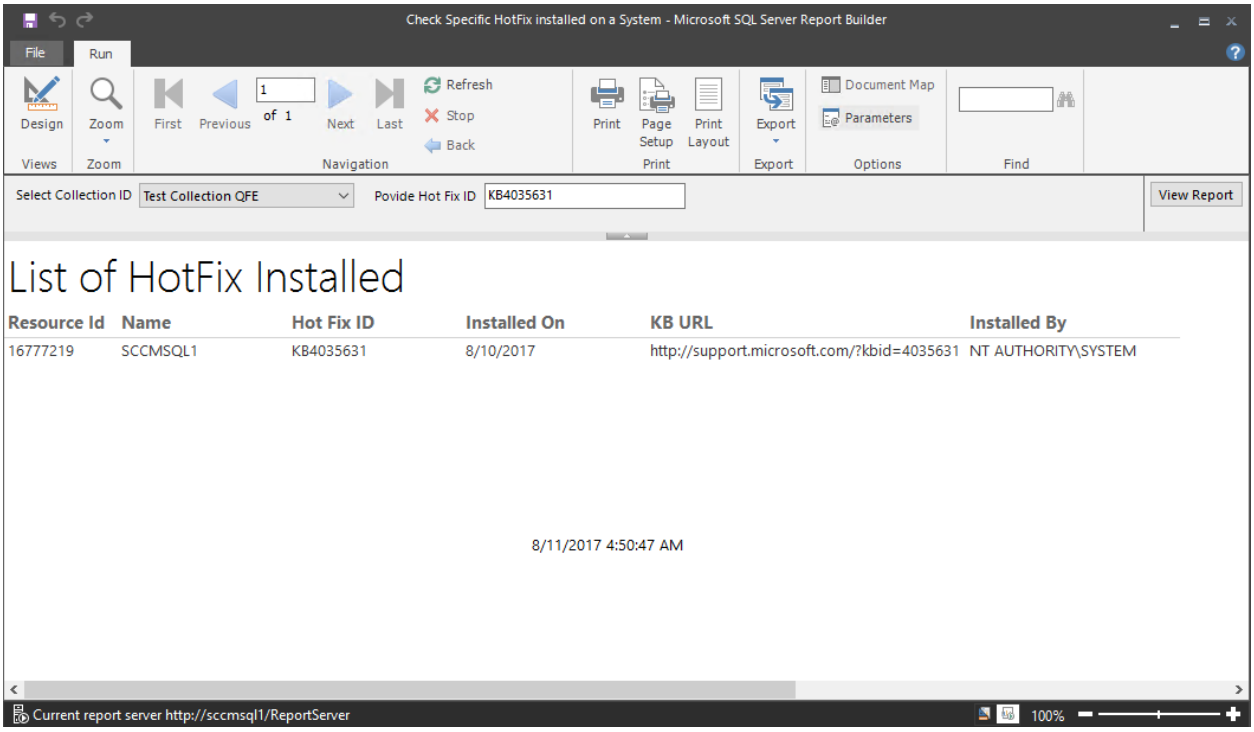
33: Select the Collection ID from dropdown list and provide Hot Fix ID.

24: Click on **View Report** Button.

That's it, the report will show you the list of servers on which this specific Hot Fix is installed.



The report can be accessible through SCCM console as well.

Hope it helps.