How to Implement SQL Server Policy-Based Management

Policy-Based Management is a system for managing one or more instances of SQL Server. When SQL database administrators use Policy-Based Management, they use SQL Server Management Studio to create policies to manage entities on the server, such as the instance of SQL Server, databases, or other SQL Server objects. Policy-Based Management can automate the database administration in a large database environment.

Below is an example on how to implement the Policy-Based Management.

Create the Finance Name Policy

In this task, you will create a database named Finance, and then create a condition that requires all tables to start with the letters fintbl. Then, you will create a policy and policy category to enforce a naming standard for tables in the Finance database.

To create the Finance database

1. In Management Studio, open a query window and execute the following statement:

   ```
   CREATE DATABASE Finance ;
   GO
   ```

2. In Object Explorer, click Databases, and then press F5 to refresh the list of databases.

To create the Finance Tables condition

1. In Object Explorer, expand Management, expand Policy Management, right-click Conditions, and then click New Condition.
2. In the Create New Condition dialog box, in the Name box, type Finance Tables.
3. In the Facet box, select Multipart Name.
4. In the Expression area, in the Field box, select @Name; in the Operator box, select Like; and in the Value box, type 'fintbl%' to force all table names to start with the letters fintbl.
5. On the Description page, type Finance table names must begin with fintbl, and then click OK to create the condition.

To create the Finance Name policy

1. In Object Explorer, right-click Policies, and then click New Policy.
2. In the Create New Policy dialog box, in the Name box, type Finance Name.
3. In the Check condition box, select Finance Tables. This is in the Multipart Name area.
4. In the Against area you will see a list of the database objects that could apply this policy. Select the check box for Every Table.
5. In the Every Database area, expand Every, and then click New condition.
6. In the Create New Condition dialog box, in the Name box, type Finance Database.

7. In the Expression box, complete the expression to include @Name = 'Finance', and then click OK to close the condition page.

Note

You might have to tab out of the Value box to enable the OK button.

8. In the Evaluation Mode box, select On change: prevent. This will enforce the policy by creating a database trigger on the Finance database.
9. Select the Enabled box. (The Enabled box does not apply to On demand policies.)
10. In the Server restriction box, select None.
11. Click OK.

To create the Finance policy category

1. In Object Explorer, expand Management, right-click Policy Management, and then click Manage Categories.
2. In the Manage Policy Categories dialog box, under Name, enter Finance in the blank box, and then unselect Mandate Database Subscriptions. Mandate Database Subscriptions will force every database in the instance to subscribe to the policies that belong to this policy category. For this lab, only the Finance database should subscribe to the Finance Name policy.
3. Click OK.

Subscribe to and Check the Finance Name Policy

In this task, you will configure the Finance database to subscribe to the Finance policy category. Then, you will test the Finance Name policy.

To subscribe to the Finance policy category

1. In Object Explorer, expand Databases, right-click Finance, point to Policies, and then click Categories.
2. Select the Subscribed box for the Finance category.
3. Click OK.

To test the enforcement of the Finance Name policy

1. In Management Studio, open a query window. Execute the following statements that try to create a table that violates the Finance Name policy. The table violates the policy because the table name does not begin with the letters fintbl.

```
USE Finance ;
GO
```

```
CREATE TABLE NewTable
(Col1 int) ;
GO
```

Notice that the policy prevents the table from being created and returns an informational message that provides the policy name.

2. To provide a valid name, modify the code as follows and run the statement again.

```
USE Finance ;
GO
CREATE TABLE fintblNewTable
(Col1 int) ;
GO
```

This time, the table is created.

To apply the policy to the whole server

1. Currently, only the Finance database subscribes to the Finance policy category. In many cases, it is easier to apply the policy category to the whole server. In Object Explorer, expand Management, right-click Policy Management, and then click Manage Categories.
2. In the Manage Policy Categories dialog box, locate the Finance category, and select the Mandate Database Subscriptions box for the Finance category.
3. Click OK. Now the Finance category applies to all databases, but the condition that you have created restricts the Finance Name policy to the Finance database. This shows how you can use complex combinations of conditions to target policies in ways that will apply correctly on many servers.

[Summary](#)

This lab has shown you how to create Policy-Based Management conditions, policies and policy groups, and how to apply filters and check the compliance of Policy-Based Management targets.