

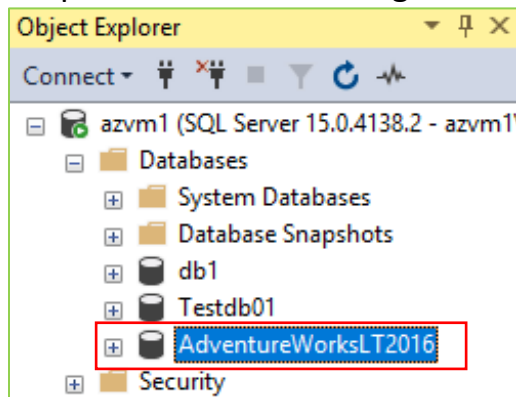
Take full, transactional ,differential backup on sql server 2016 b2ms automate this backup using maintenance plan, automate full back every 1hr, transaction- 5min, diff - 15 min

Prerequisite:

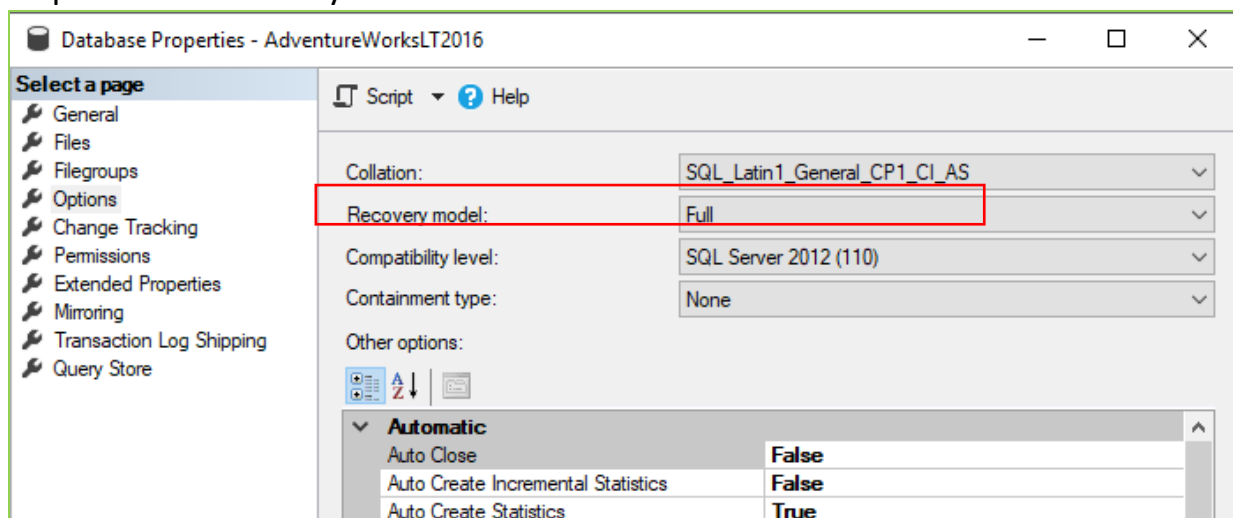
- Need a SQL-Server.
- Need a database.

Prerequisite settings:

step 1 select Database Right-click goto properties



step 2 select Recovery Model: Full



Three types of backup steps show in below.

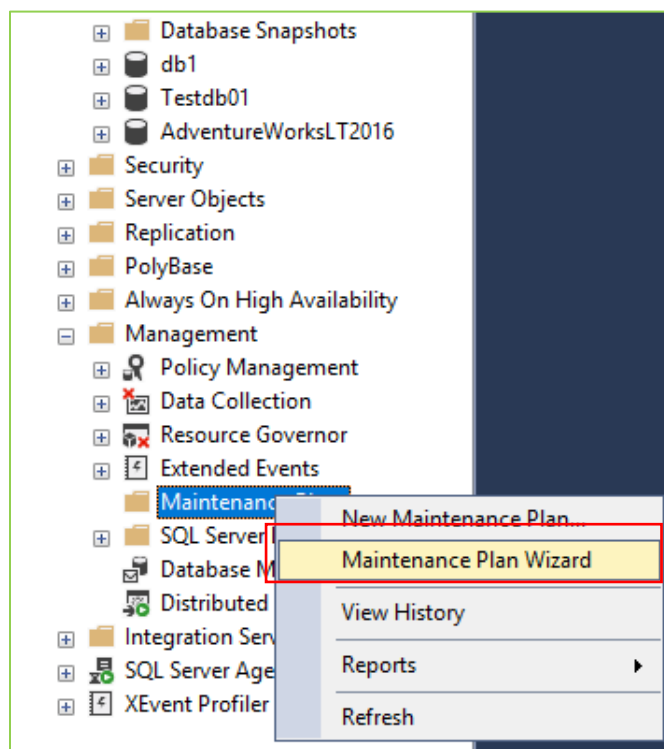
A Full Backup

B Differential Backup

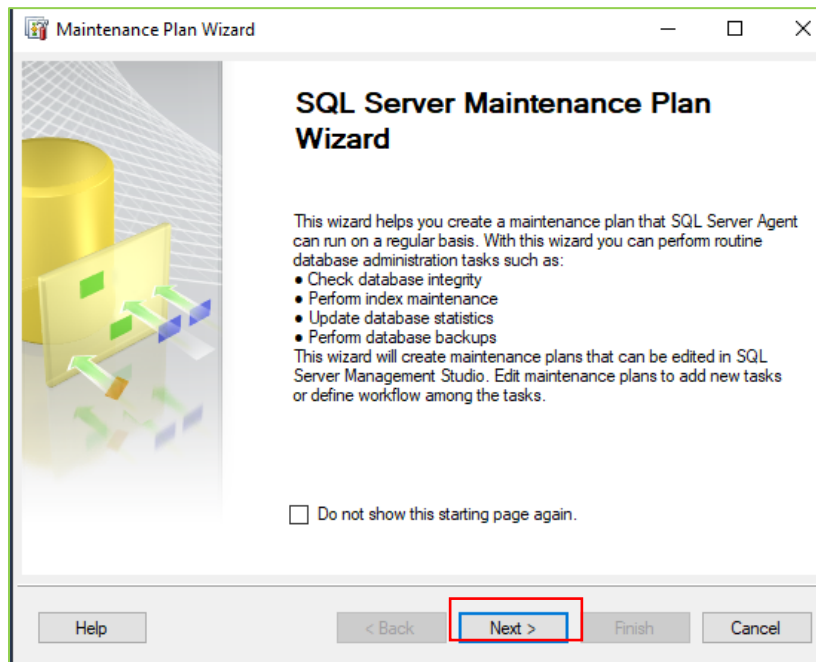
C Transactional Log Backup

A Full Backup

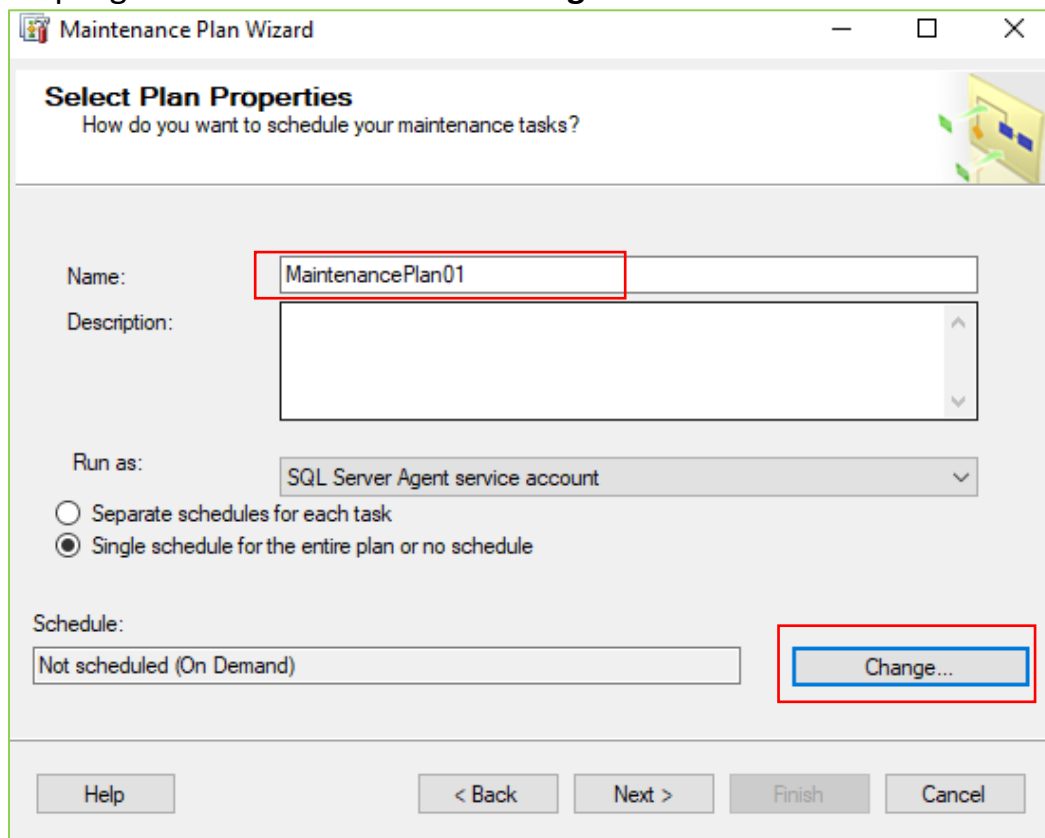
step 1 open Management folder select Maintenance Right-click



Step 2 Click the Next button.



Step 3 give name & click on the **Change** button.



Step 4 Full backup schedule Config.

Occurs: Daly

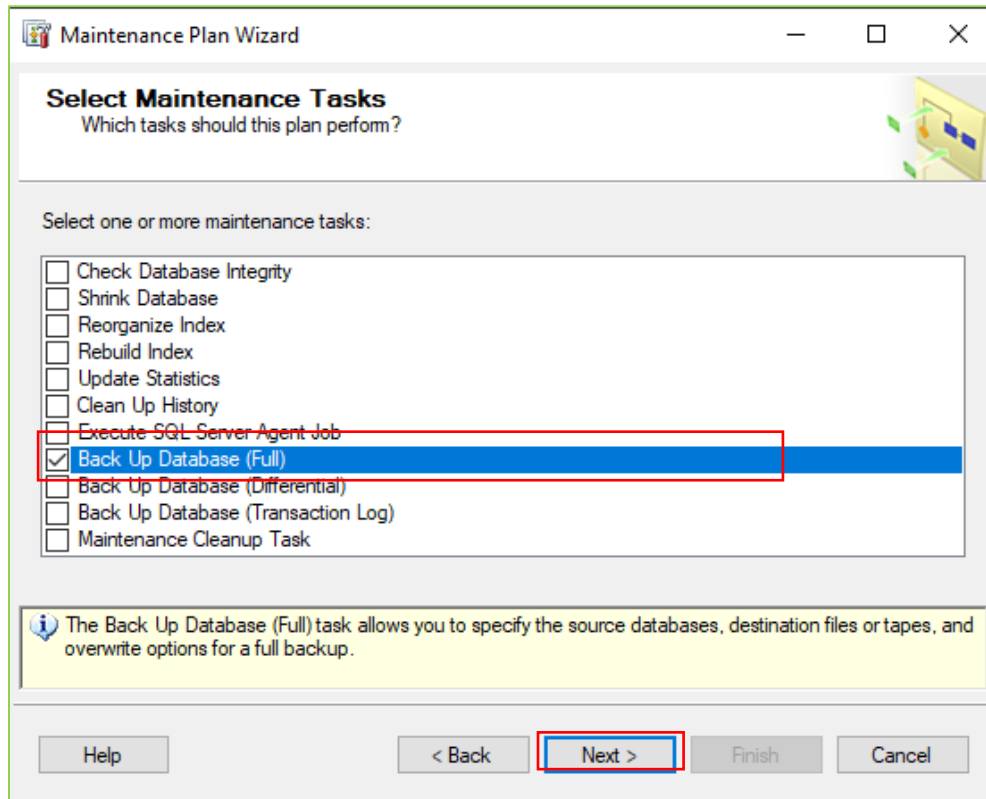
Recurs every: 1 day

Occurs every: 1 Hour(s)

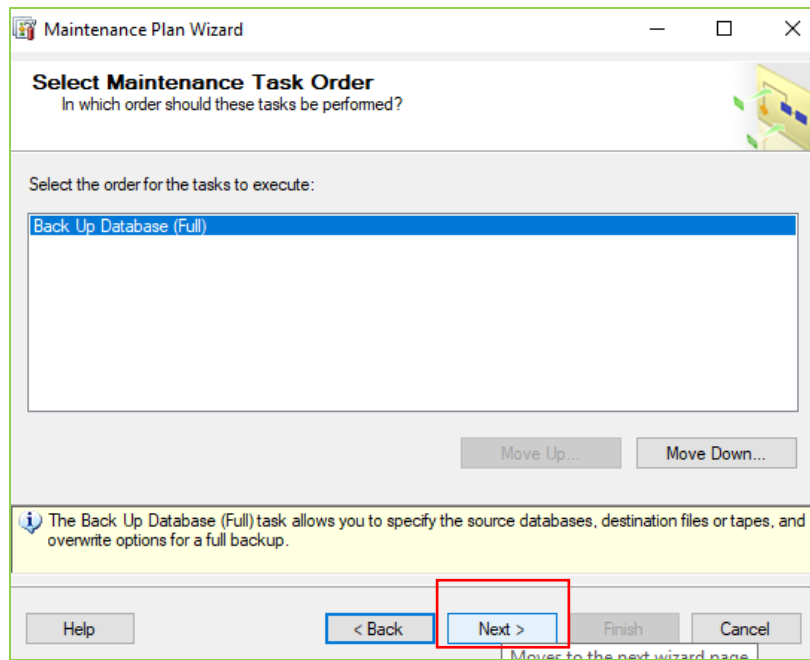
The screenshot shows the 'New Job Schedule' dialog box with the following configuration:

- Name:** MaintenancePlan01
- Schedule type:** Recuring (dropdown menu)
- Enabled:** ☒ Enabled
- One-time occurrence:**
 - Date:** 7/ 2/2021
 - Time:** 9:26:21 AM
- Frequency:**
 - Occurs:** Daily
 - Recurs every:** 1 day(s)
- Daily frequency:**
 - ☐ Occurs once at: 12:00:00 AM
 - ☒ Occurs every: 1 hour(s) (This section is highlighted with a red box)
 - Starting at:** 9:00:00 AM
 - Ending at:** 11:59:59 PM
- Duration:**
 - Start date:** 7/ 2/2021
 - ☒ **End date:** 7/ 3/2021
 - ☐ No end date:
- Summary:**
 - Description:** Occurs every day every 1 hour(s) between 9:00:00 AM and 11:59:59 PM. Schedule will be used between 7/2/2021 and 7/3/2021.
- Buttons:** OK (highlighted with a red box), Cancel, Help

Step 5 select the Backup database (full) option.



Step 6 Click the Next button.



Step 7 In General wizard select Database(s) : 'any db witch you want to take a backup'

Maintenance Plan Wizard

Define Back Up Database (Full) Task

Configure the maintenance task.

General Destination Options

Backup type: Full

Database(s): <Select one or more>

Backup component

☒ Database

☐ Files and filegroups:

Back up to:

Schedule:

Not scheduled (On Demand)

Help

☐ All databases

☐ System databases

☐ All user databases (excluding master, model, msdb, tempdb)

☒ These databases:

☒ AdventureWorksLT2016

☐ db1

☐ distribution

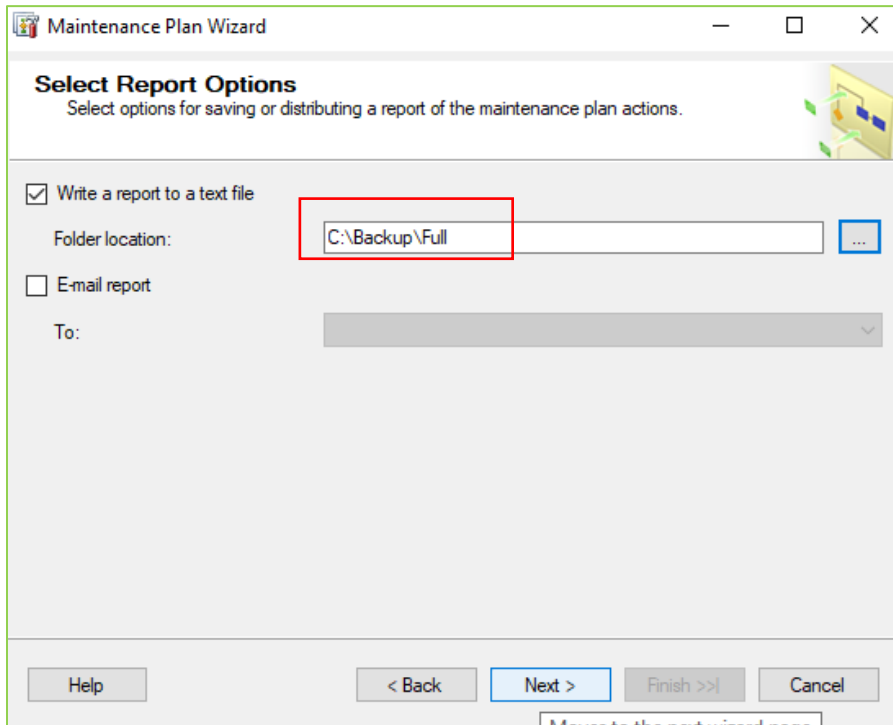
☐ master

☐ Ignore databases where the state is not online

OK Cancel

< Back Next > Cancel

Step 8 Give a folder Path and click on next



The screenshot shows the 'Select Report Options' window of the Maintenance Plan Wizard. The window title is 'Maintenance Plan Wizard'. The main heading is 'Select Report Options' with the instruction 'Select options for saving or distributing a report of the maintenance plan actions.' There are two checkboxes: 'Write a report to a text file' (checked) and 'E-mail report' (unchecked). The 'Folder location:' text is followed by a text box containing 'C:\Backup\Full' and a blue ellipsis button. Below this is a 'To:' label and a grey dropdown menu. At the bottom, there are buttons for 'Help', '< Back', 'Next >', 'Finish >>', and 'Cancel'. A small link 'Move to the next wizard page' is visible below the 'Next >' button.

Select Report Options
Select options for saving or distributing a report of the maintenance plan actions.

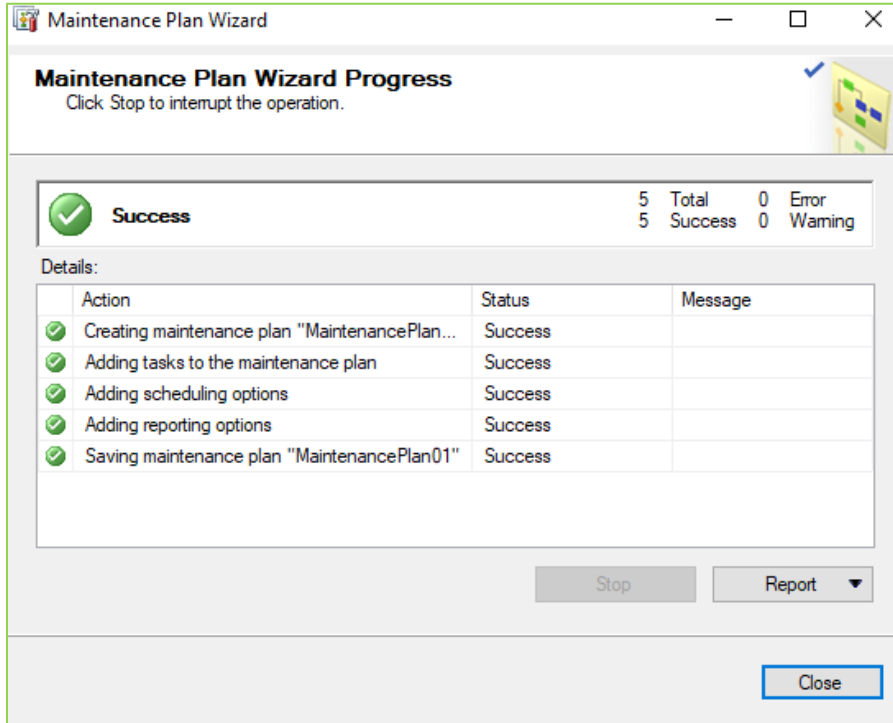
☒ Write a report to a text file
Folder location: C:\Backup\Full ...

☐ E-mail report
To: [Dropdown]

Help < Back Next > Finish >> Cancel


[Move to the next wizard page](#)

Step 9 Click on close.








The screenshot shows the 'Maintenance Plan Wizard Progress' window. The title is 'Maintenance Plan Wizard'. The heading is 'Maintenance Plan Wizard Progress' with the instruction 'Click Stop to interrupt the operation.' A green checkmark icon is in the top right. Below this is a summary bar showing a green checkmark, the word 'Success', and a table with 5 Total, 0 Error, 5 Success, and 0 Warning. Under 'Details:', there is a table with 3 columns: Action, Status, and Message. The table lists five actions, all with a status of 'Success'. At the bottom, there are 'Stop' and 'Report' buttons, and a 'Close' button at the very bottom.

Maintenance Plan Wizard Progress
Click Stop to interrupt the operation.

 **Success** 5 Total 0 Error
5 Success 0 Warning

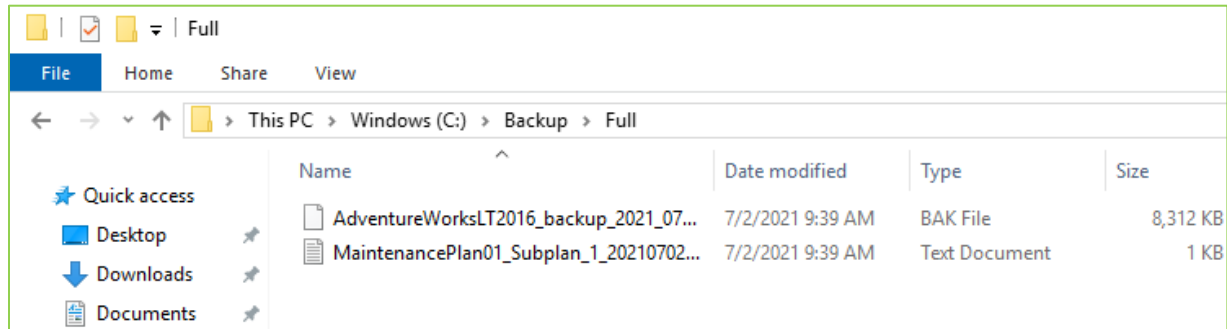
Details:

Action	Status	Message
 Creating maintenance plan "MaintenancePlan..."	Success	
 Adding tasks to the maintenance plan	Success	
 Adding scheduling options	Success	
 Adding reporting options	Success	
 Saving maintenance plan "MaintenancePlan01"	Success	

Stop Report ▼

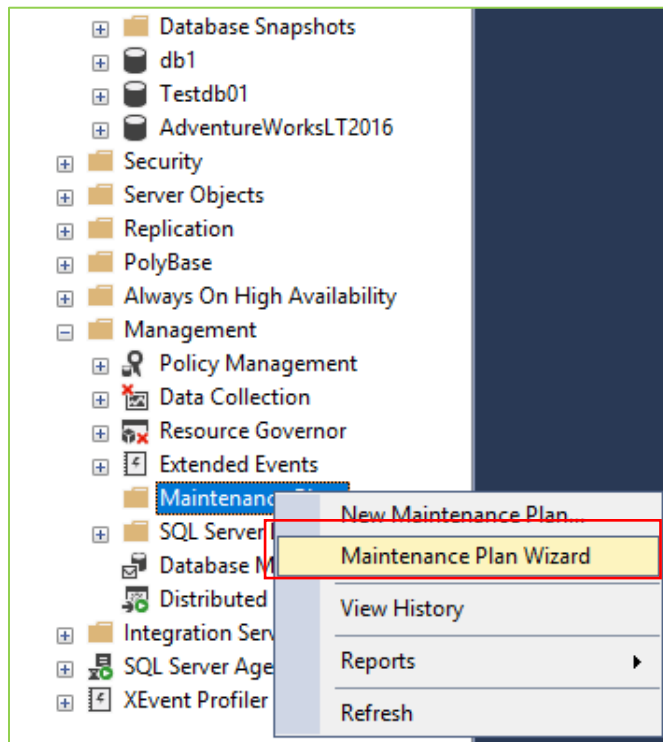
Close

Step 10 : Backup files will be generate in selected folder.

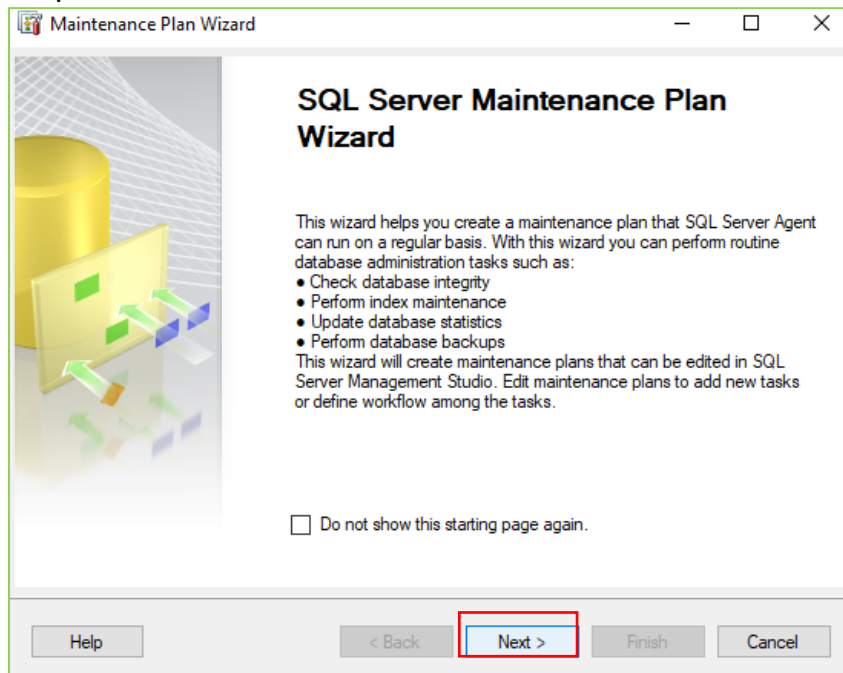


B Differential Backup

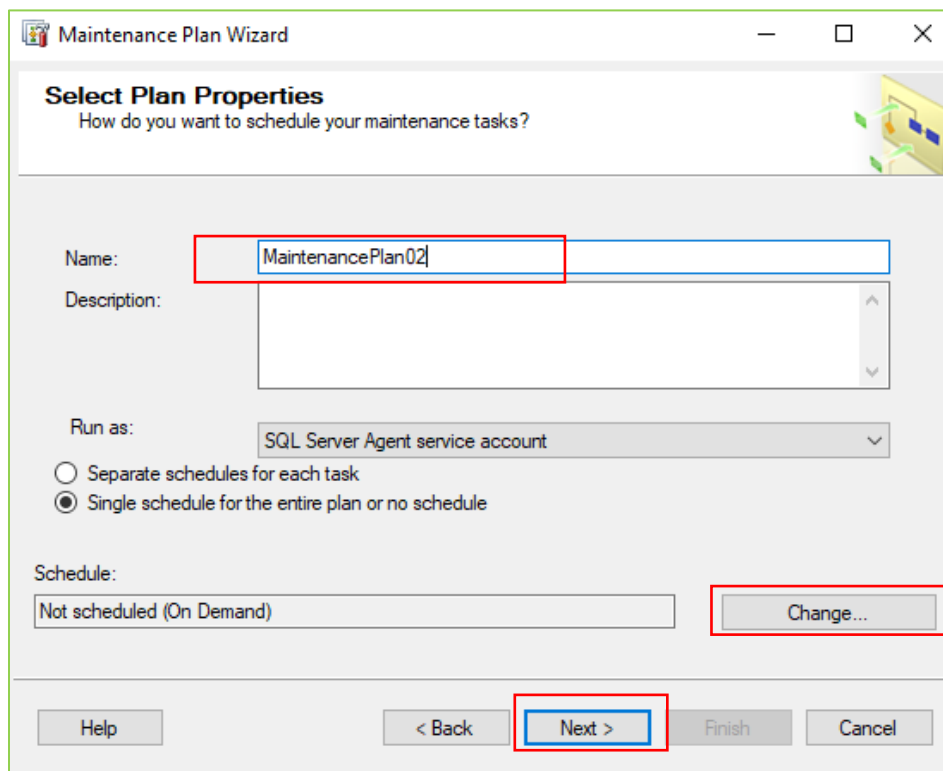
step 1 open Management folder select Maintenance Right-click



Step 2 Click the Next button.



Step 3 Give name & click on the **Change** button.



Step 4 Full backup schedule Config. Config.

Occurs: Daily

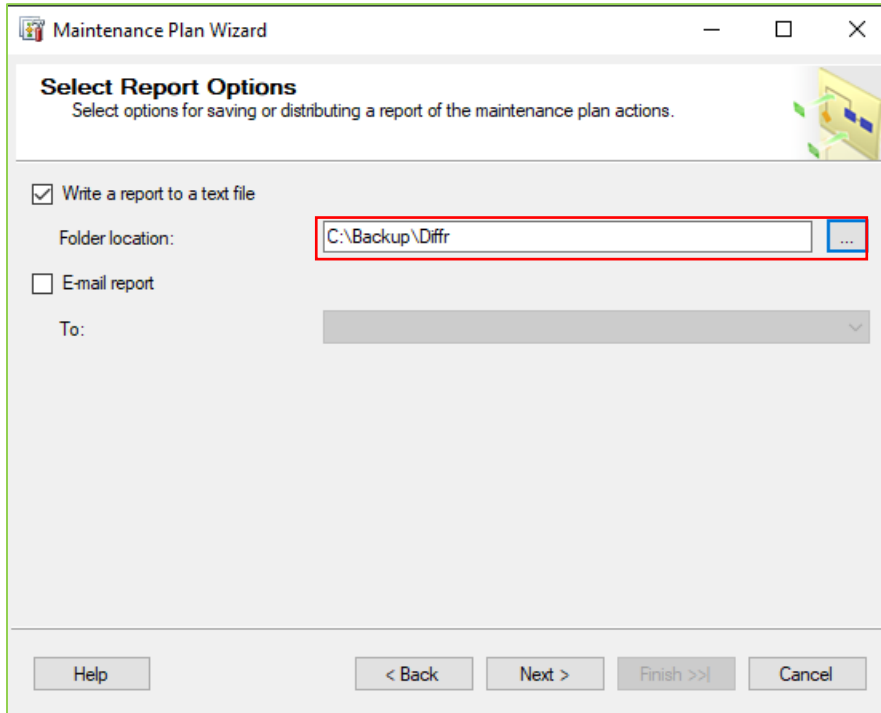
Recurs every: 1 day

Occurs every: 15 Min

The screenshot shows the 'New Job Schedule' dialog box with the following configuration:

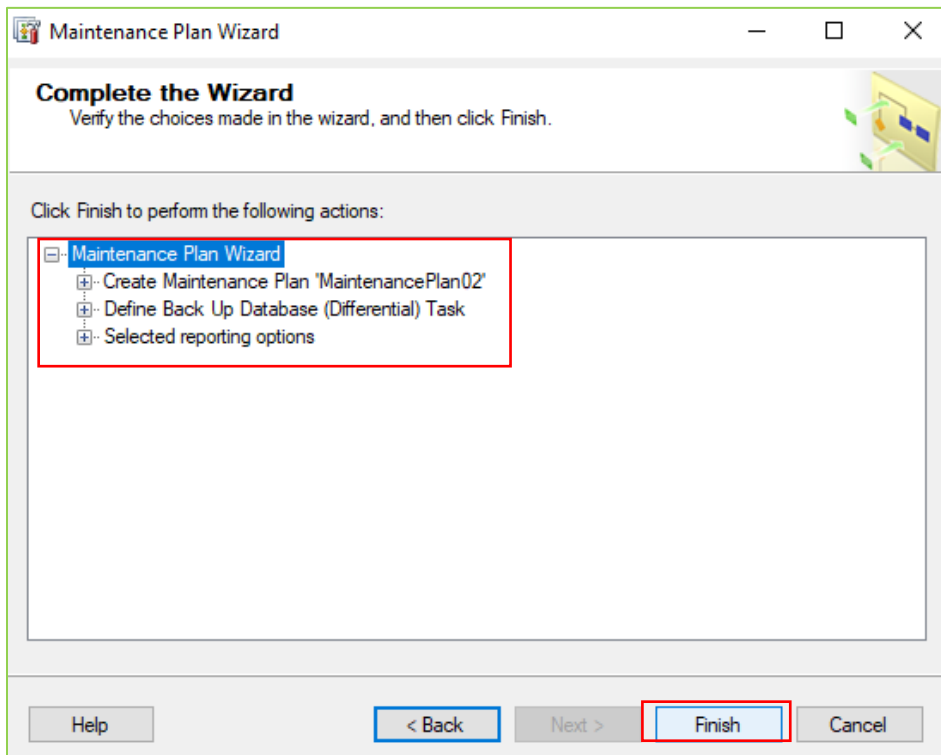
- Name:** MaintenancePlan02
- Schedule type:** Recuring (dropdown), ☒ Enabled
- One-time occurrence:** Date: 7/ 2/2021, Time: 9:30:44 AM
- Frequency:**
 - Occurs:** Daily (dropdown)
 - Recurs every:** 1 day(s)
- Daily frequency:**
 - ☐ Occurs once at: 12:00:00 AM
 - ☒ Occurs every: 15 minute(s)
 - Starting at:** 9:00:00 AM
 - Ending at:** 11:59:59 PM
- Duration:**
 - Start date:** 7/ 2/2021
 - ☒ **End date:** 7/ 3/2021
 - ☐ No end date:
- Summary:**
 - Description:** Occurs every day every 15 minute(s) between 9:00:00 AM and 11:59:59 PM. Schedule will be used between 7/2/2021 and 7/3/2021.
- Buttons:** OK, Cancel, Help

Step 5 Give a folder Path and click on next



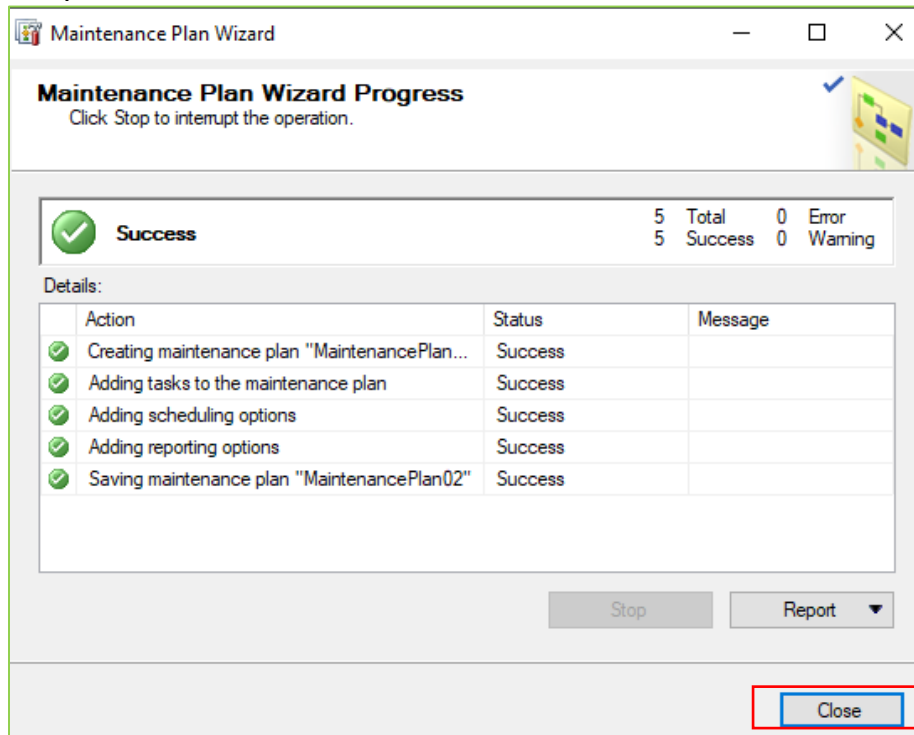
The screenshot shows the 'Select Report Options' step of the Maintenance Plan Wizard. The window title is 'Maintenance Plan Wizard'. The main heading is 'Select Report Options' with the instruction 'Select options for saving or distributing a report of the maintenance plan actions.' There are two checkboxes: 'Write a report to a text file' (checked) and 'E-mail report' (unchecked). Below the first checkbox, the 'Folder location:' is set to 'C:\Backup\Diff', which is highlighted with a red rectangle. To the right of the text box is a blue button with three dots. Below the second checkbox is a 'To:' label and a dropdown menu. At the bottom, there are five buttons: 'Help', '< Back', 'Next >', 'Finish >>', and 'Cancel'.

Step 6 Click on Finish

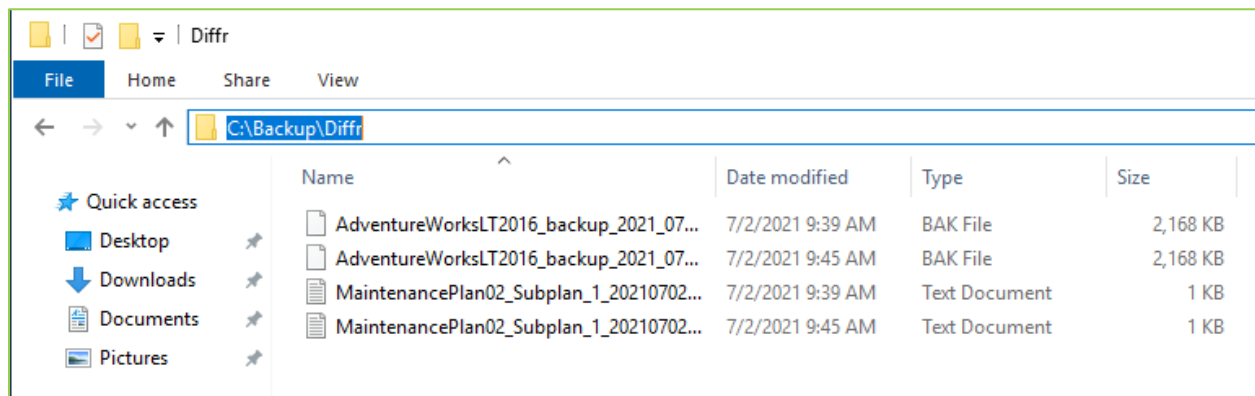


The screenshot shows the 'Complete the Wizard' step of the Maintenance Plan Wizard. The window title is 'Maintenance Plan Wizard'. The main heading is 'Complete the Wizard' with the instruction 'Verify the choices made in the wizard, and then click Finish.' Below this, it says 'Click Finish to perform the following actions:'. A list box contains three items: 'Maintenance Plan Wizard', 'Create Maintenance Plan 'MaintenancePlan02'', 'Define Back Up Database (Differential) Task', and 'Selected reporting options'. The first item is highlighted with a blue selection bar, and the entire list box is outlined with a red rectangle. At the bottom, there are five buttons: 'Help', '< Back', 'Next >', 'Finish', and 'Cancel'. The 'Finish' button is highlighted with a red rectangle.

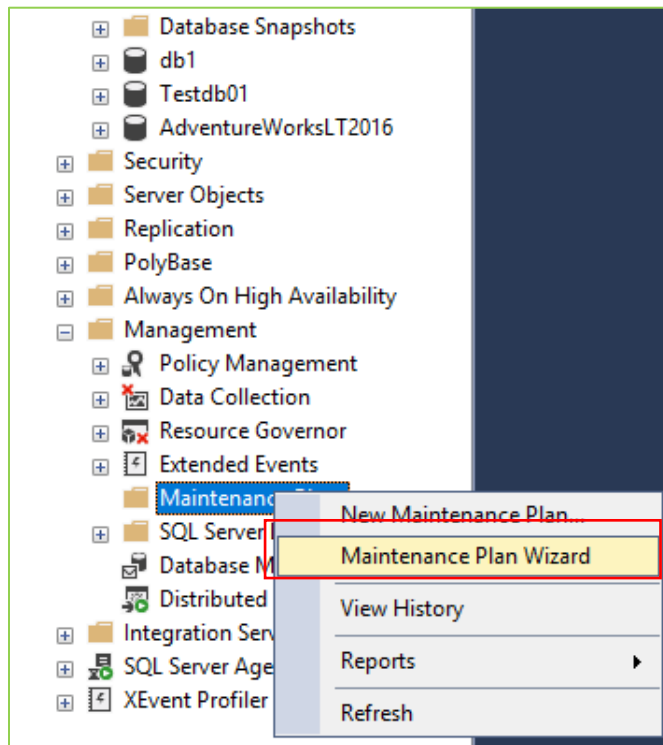
Step 7 Click on close.



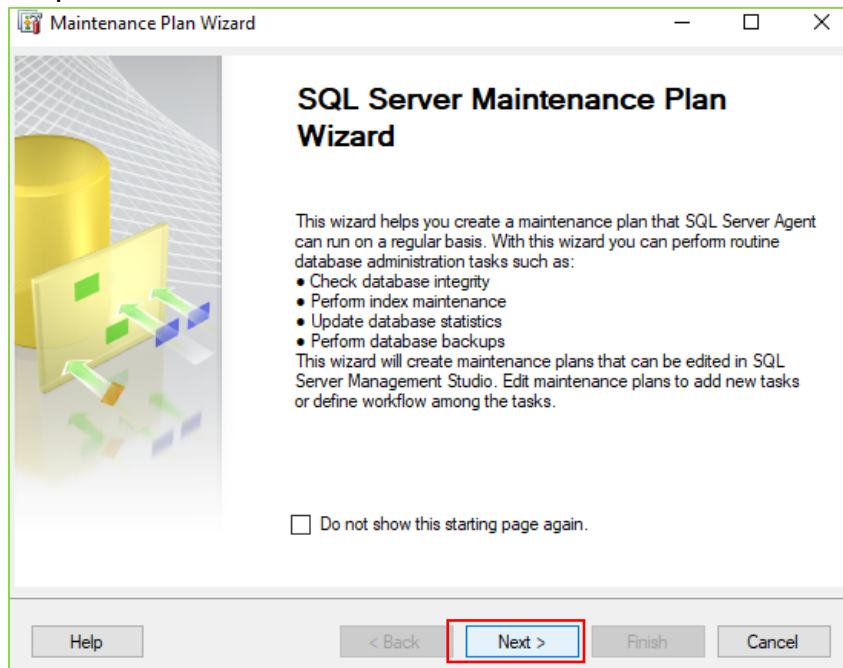
Step 8 Backup File Will be in selected Folder.



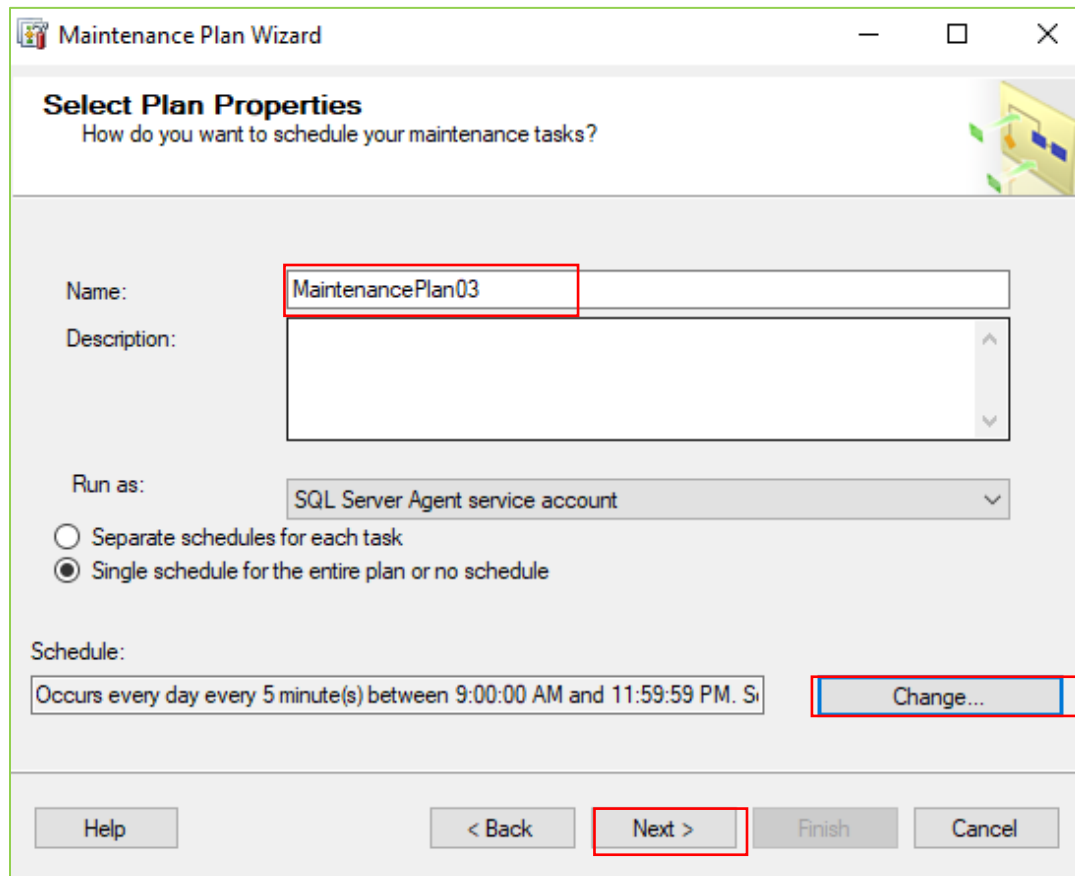
step 1 open Management folder select Maintenance Right-click



Step 2 Click the Next button.



Step 3 Give name & click on the **Change** button.



The screenshot shows the 'Maintenance Plan Wizard' window, specifically the 'Select Plan Properties' step. The window title is 'Maintenance Plan Wizard'. The subtitle is 'Select Plan Properties' with the question 'How do you want to schedule your maintenance tasks?'. The 'Name' field is 'MaintenancePlan03'. The 'Description' field is empty. The 'Run as' dropdown is 'SQL Server Agent service account'. The 'Schedule' section has two radio buttons: 'Separate schedules for each task' (unselected) and 'Single schedule for the entire plan or no schedule' (selected). The 'Schedule' text box shows 'Occurs every day every 5 minute(s) between 9:00:00 AM and 11:59:59 PM. S'. The 'Change...' button is highlighted. The 'Next >' button is also highlighted. The 'Back', 'Finish', and 'Cancel' buttons are disabled.

Maintenance Plan Wizard

Select Plan Properties
How do you want to schedule your maintenance tasks?

Name: MaintenancePlan03

Description:

Run as: SQL Server Agent service account

☐ Separate schedules for each task
☒ Single schedule for the entire plan or no schedule

Schedule:
Occurs every day every 5 minute(s) between 9:00:00 AM and 11:59:59 PM. S

Change...

Help < Back Next > Finish Cancel

Step 4 Trn backup schedule Config. Config.

Occurs: Daly

Recurs every: 1 day

Occurs every: 5 Min

New Job Schedule

Name: Jobs in Schedule

Schedule type: Recurring ☒ Enabled

One-time occurrence

Date: 7/ 2/2021 Time: 9:33:53 AM

Frequency

Occurs: Daily

Recurs every: 1 day(s)

Daily frequency

☐ Occurs once at: 12:00:00 AM

☒ Occurs every: 5 minute(s)

Starting at: 9:00:00 AM

Ending at: 11:59:59 PM

Duration

Start date: 7/ 2/2021 ☒ End date: 7/ 3/2021

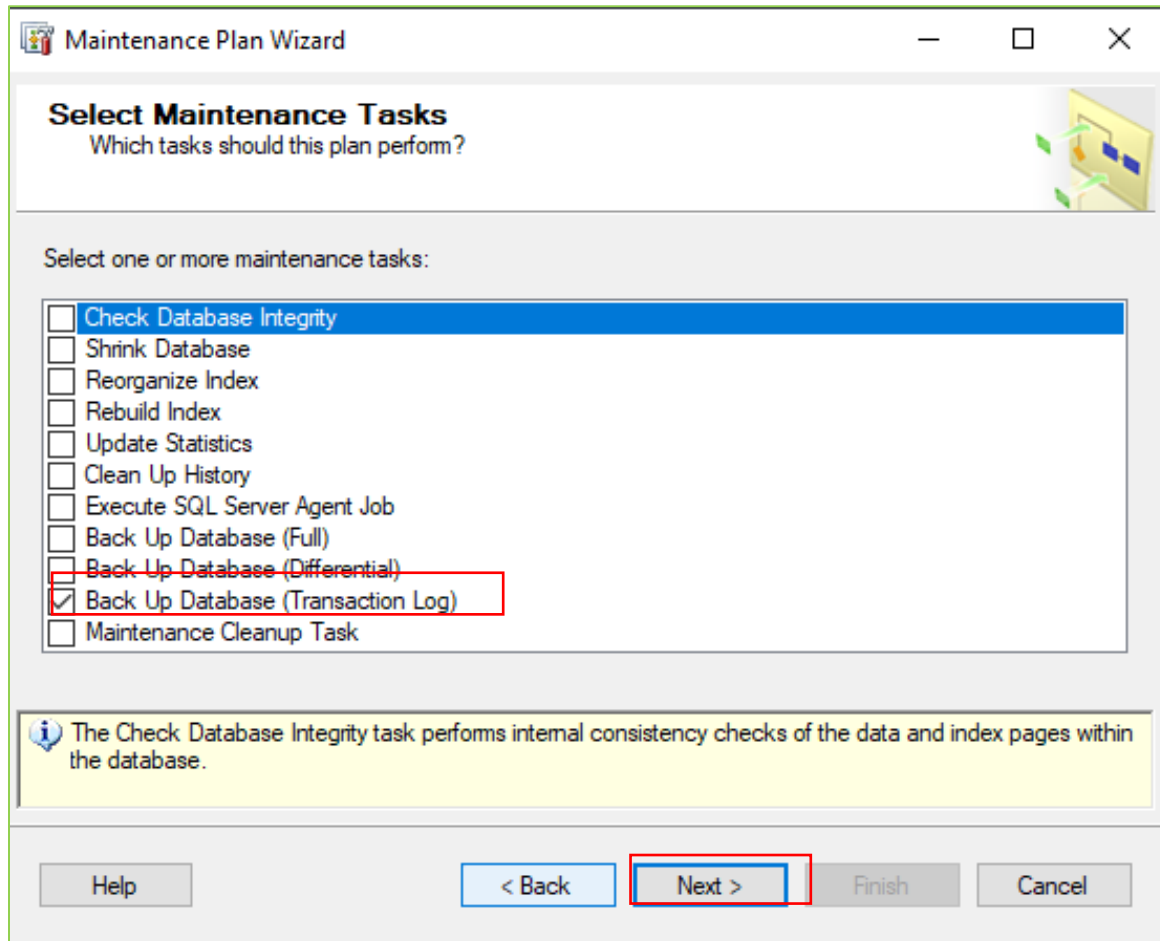
☐ No end date:

Summary

Description: Occurs every day every 5 minute(s) between 9:00:00 AM and 11:59:59 PM. Schedule will be used between 7/2/2021 and 7/3/2021.

OK Cancel Help

Step 5 select the Backup database (Transaction log) option.



The screenshot shows the 'Maintenance Plan Wizard' window, specifically the 'Select Maintenance Tasks' step. The window title is 'Maintenance Plan Wizard'. The subtitle is 'Select Maintenance Tasks' with the question 'Which tasks should this plan perform?'. Below this, it says 'Select one or more maintenance tasks:'. A list of tasks is shown with checkboxes: 'Check Database Integrity' (checked), 'Shrink Database', 'Reorganize Index', 'Rebuild Index', 'Update Statistics', 'Clean Up History', 'Execute SQL Server Agent Job', 'Back Up Database (Full)', 'Back Up Database (Differential)', 'Back Up Database (Transaction Log)' (checked), and 'Maintenance Cleanup Task'. A red box highlights the 'Back Up Database (Transaction Log)' option. At the bottom, there is a yellow information box stating: 'The Check Database Integrity task performs internal consistency checks of the data and index pages within the database.' The navigation buttons at the bottom are 'Help', '< Back', 'Next >' (highlighted with a red box), 'Finish', and 'Cancel'.

Maintenance Plan Wizard

Select Maintenance Tasks
Which tasks should this plan perform?

Select one or more maintenance tasks:

- ☒ Check Database Integrity
- ☐ Shrink Database
- ☐ Reorganize Index
- ☐ Rebuild Index
- ☐ Update Statistics
- ☐ Clean Up History
- ☐ Execute SQL Server Agent Job
- ☐ Back Up Database (Full)
- ☐ Back Up Database (Differential)
- ☒ Back Up Database (Transaction Log)
- ☐ Maintenance Cleanup Task

The Check Database Integrity task performs internal consistency checks of the data and index pages within the database.

Help < Back **Next >** Finish Cancel

Step 6 Click the Next button.

The screenshot shows the 'Maintenance Plan Wizard' window, specifically the 'Define Back Up Database (Transaction Log) Task' step. The window has a title bar with standard Windows controls. The main area is divided into tabs: 'General', 'Destination', and 'Options'. The 'General' tab is active. It contains several sections: a radio button for 'Back up databases across one or more files:' with an empty list box and 'Add', 'Remove', and 'Contents' buttons; a section for 'If backup files exist:' with a dropdown set to 'Append'; a section for 'Create a backup file for every database' with a checked radio button and an unchecked checkbox for 'Create a sub-directory for each database'; a 'Folder:' field containing 'C:\Backup\Tran' with a red border and an ellipsis button; 'SQL credential:', 'Azure storage container:', and 'URL prefix:' fields; and a 'Backup file extension:' field containing 'tm'. At the bottom, there is a 'Schedule:' section with a dropdown set to 'Not scheduled (On Demand)' and a 'Change...' button. The bottom-most bar contains 'Help', '< Back', 'Next >' (highlighted with a red rectangle), 'Finish >>', and 'Cancel' buttons.

Maintenance Plan Wizard

Define Back Up Database (Transaction Log) Task

Configure the maintenance task.

General Destination Options

☐ Back up databases across one or more files:

☒ Create a backup file for every database

☐ Create a sub-directory for each database

Folder: C:\Backup\Tran

SQL credential:

Azure storage container:

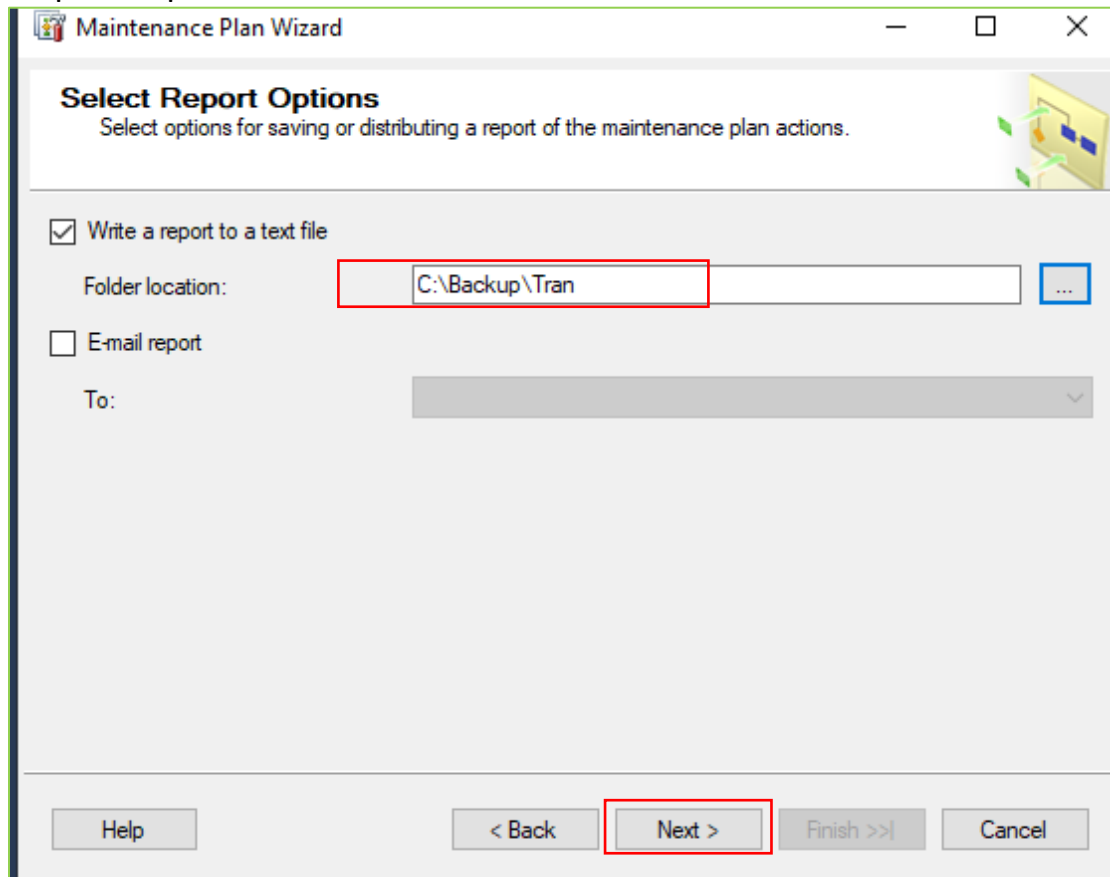
URL prefix: https://<storageaccount>.blob.core.windows.net/

Backup file extension: tm

Schedule: Not scheduled (On Demand)

Help < Back Next > Finish >> Cancel

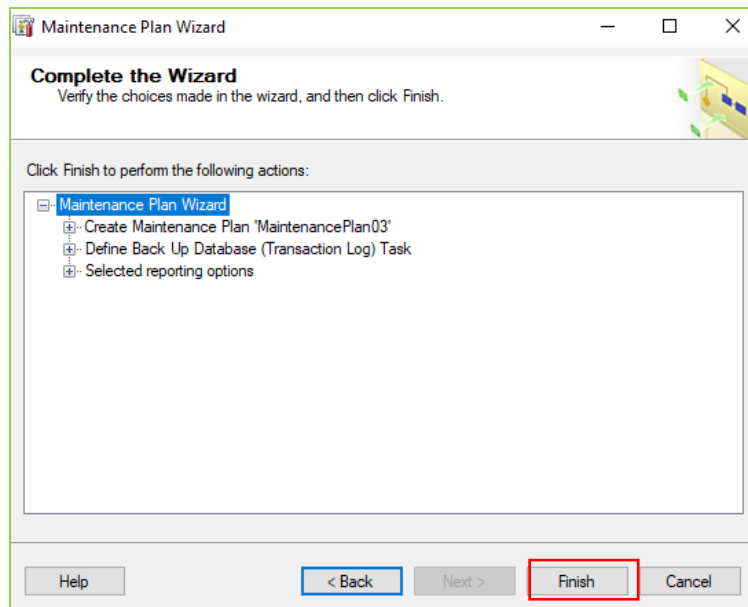
Step 7 Set path Click on next.



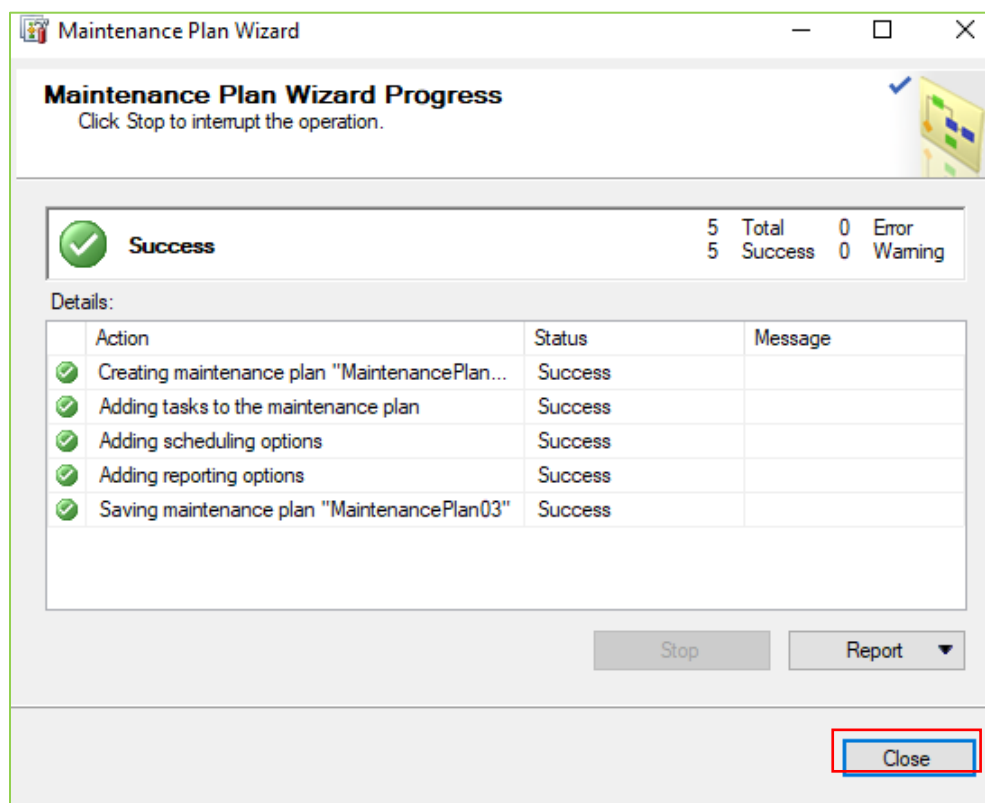
The screenshot shows the 'Maintenance Plan Wizard' window, specifically the 'Select Report Options' step. The window has a title bar with standard Windows controls. The main area contains the following elements:

- Title:** Maintenance Plan Wizard
- Section Header:** Select Report Options
- Instruction:** Select options for saving or distributing a report of the maintenance plan actions.
- Options:**
 - ☒ Write a report to a text file
 - ☐ E-mail report
- Folder location:** A text box containing 'C:\Backup\Tran' with a blue ellipsis button to its right.
- To:** A dropdown menu.
- Buttons:** Help, < Back, Next > (highlighted with a red box), Finish >>, and Cancel.

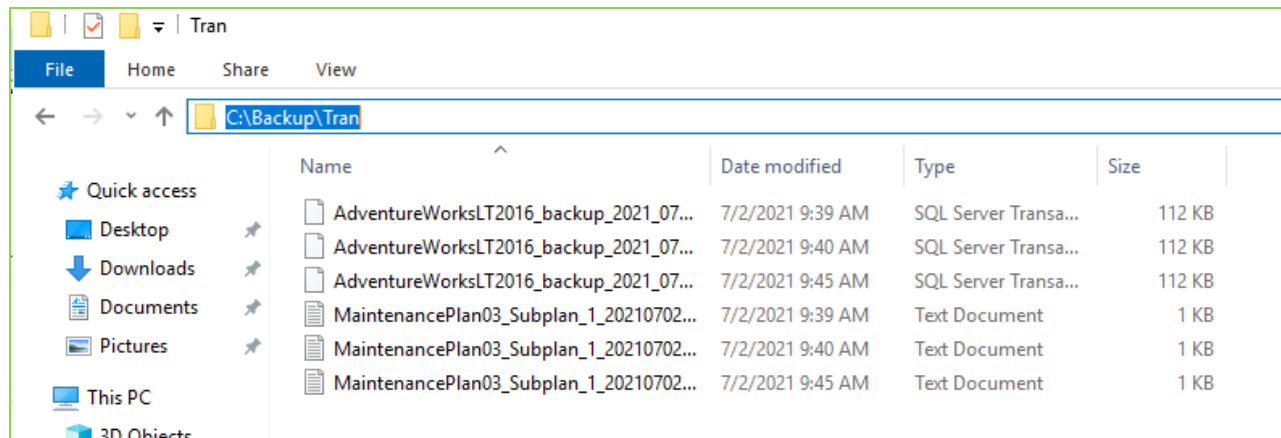
Step 8 Click the Next button.



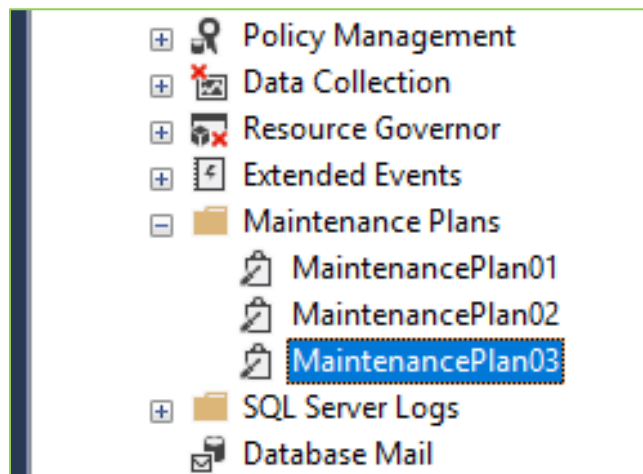
Step 9 Click the Close button.



Step 10 Backup File Will be in selected Folder.



All 3 Back up Plans are listed below.



Overview of Microsoft SQL Server Backup Types

Backup Types	Description
Full	All data files and part of the transaction log
Differential	The parts of the database that have changed since the last full database backup
Partial	The primary filegroup, every read/write filegroup, and any specified read-only filegroups
Transaction Log	Any database changes recorded in the log files
Tail-Log Backup	Log backup taken of the tail of the log just before a restore operation
File/File Group	Specified files or filegroups
Copy Only	The database or log (without affecting the backup sequence)



Benefits and drawbacks to types of backup

TYPE	BENEFITS	DRAWBACKS
Full	<ul style="list-style-type: none">■ Provides full copy of data set■ Offers arguably best protection	<ul style="list-style-type: none">■ Time-consuming■ Requires lots of storage space
Incremental	<ul style="list-style-type: none">■ Less time and storage space than full backup	<ul style="list-style-type: none">■ Time-consuming to restore■ Need all the backups in backup chain to restore
Differential	<ul style="list-style-type: none">■ Shorter restore time than incremental	<ul style="list-style-type: none">■ Can grow to much bigger size than incremental
Synthetic full	<ul style="list-style-type: none">■ Reduced restore time■ Less bandwidth usage	<ul style="list-style-type: none">■ Newer, so not as well-known
Incremental-forever	<ul style="list-style-type: none">■ Availability of data■ Automated restoration process	<ul style="list-style-type: none">■ Newer, so not as well-known■ Need all the backups in backup chain to restore

