SARAS - Test & Assessment

Deployment Guide



This document provides step-by-step guidelines to complete the deployment of Test and Assessment application.

CONTENTS

[Setting-up Best Practices in App Server 3](#_Toc9339)

[1. Pre-requisite Installation Check 3](#_Toc5061)

[2. Setting Server to Adjust for Best Performance 4](#_Toc28968)

[3. Disabling Access to Shut-down / Restart Power Menu 5](#_Toc15661)

[4. IIS Logs File Settings 8](#_Toc15043)

[5. IIS Limits Setting 12](#_Toc12926)

[Impersonation Account Creation 13](#_Toc31112)

[1. Registering Dot Net Frameworks with IIS 16](#_Toc23207)

[Application Pool Creation & Build Copy 20](#_Toc4548)

[1. Application Pool Creation & Best Practice 20](#_Toc9590)

[2. Setting Queue Length and Idle Timeout 25](#_Toc9712)

[3. Application Build Copy to Server 29](#_Toc32189)

[4. Content Copy and VD Creation 41](#_Toc1755)

[Application Deployment 47](#_Toc9573)

[1. Test & Assessment Application VD Creation 47](#_Toc6604)

[Post Deployment Best Practices 69](#_Toc4983)

[1. IIS Caching 69](#_Toc3330)

[2. Error Page Setting 71](#_Toc27434)

[Web.Config File Changes 76](#_Toc13576)

[1. Test & Assessment Configuration Changes 76](#_Toc7266)

[DATABASE RESTORE 89](#_Toc421)

Setting-up Best Practices in App Server

# Pre-requisite Installation Check

Please ensure that, the below mentioned Software are installed in the server before you start deployment:

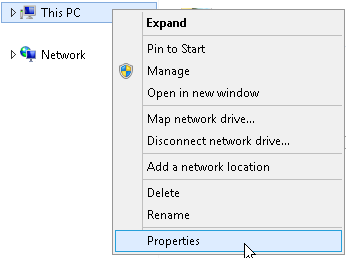
|  |  |  |
| --- | --- | --- |
| SL NO. | Software Name | Notes |
| 1. | SQL Server Installation | **Reporting Service should be Enabled** |
| 2. | Microsoft .Net Frameworks | **Versions 2.0, 3.0, 4.0 & 4.5 to be Installed** |
| 3. | ASP.NET MVC’s | **Versions 1.0, 2, 3, 4 to be Installed** |
| 4. | Microsoft Report Viewer Redistributable | **Versions 2005, 2008, 2010 to be installed** |
| 5. | Notepad ++ | **NA** |
| 6. | 7zip | **NA** |
| 7. | IIS (Internet Information Services) | **Make sure all the Components are Installed.** |

Please ensure the below mentioned items are available in the server to proceed with deployment:

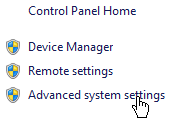
|  |  |  |
| --- | --- | --- |
| SL NO. | Server Specific Pre-requisite | Notes |
| 1. | DNS Name | Create DNS Name if Necessary.(DNS Name OR Public IP for Accessing Application Outside Network) |
| 2. | SSL (HTTPS) | Create SSL Certificate if Necessary |
| 3. | Configure SMTP Details | Configure SMTP Details if Necessary |
| 4. | LDAP Enabling | Enable the Ports, if LDAP is Required |
| 5. | Load Balancer | Configure Load Balancer if it is under Multiple App Servers |

# Setting Server to Adjust for Best Performance

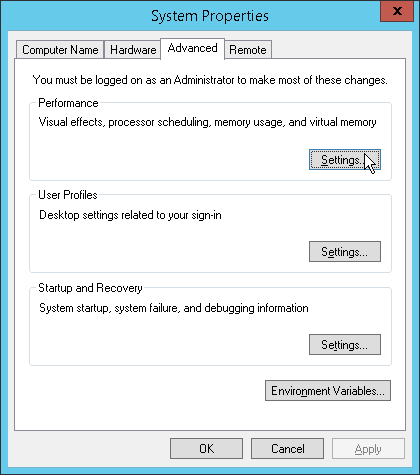
Follow the steps below to set server to adjust for the best performance:



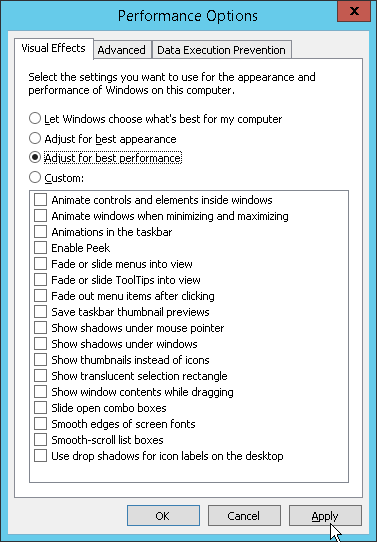
1. Go **My Computer** ->**Right** Click -> Select **Properties**.



1. On the **Properties** Window Navigate to **Advanced system settings**.



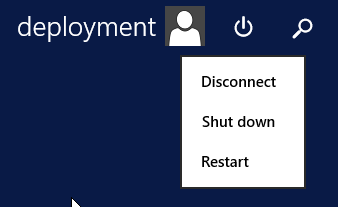
1. Click **Advanced** tab and click **Settings** Button on Performance section.



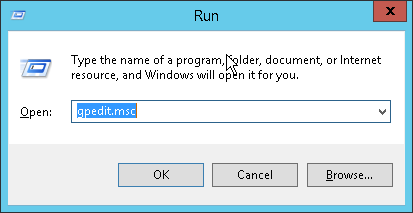
1. Select **Adjust to best performance** option.
2. After you complete, click **Apply**.

# Disabling Access to Shut-down / Restart Power Menu

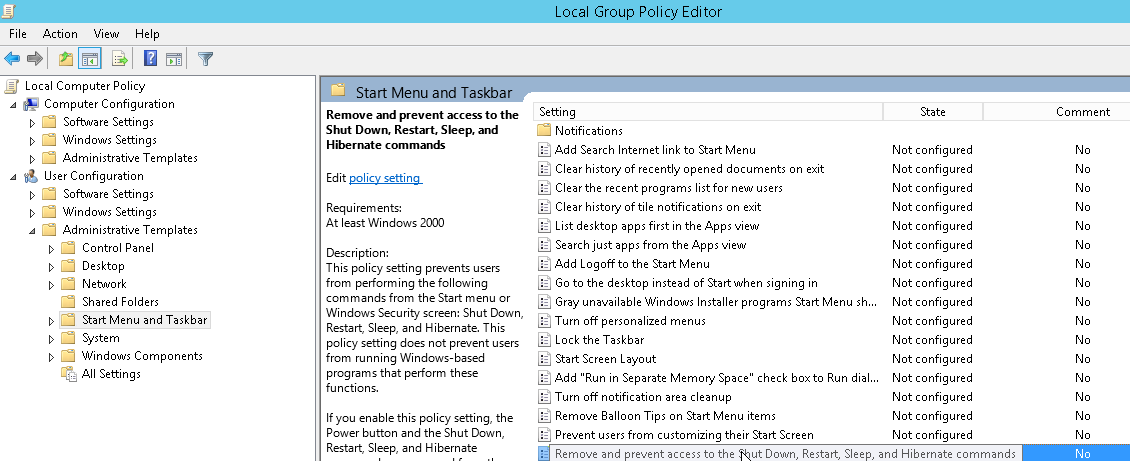
Follow the steps below to disable access to shut-down / restart power menu:



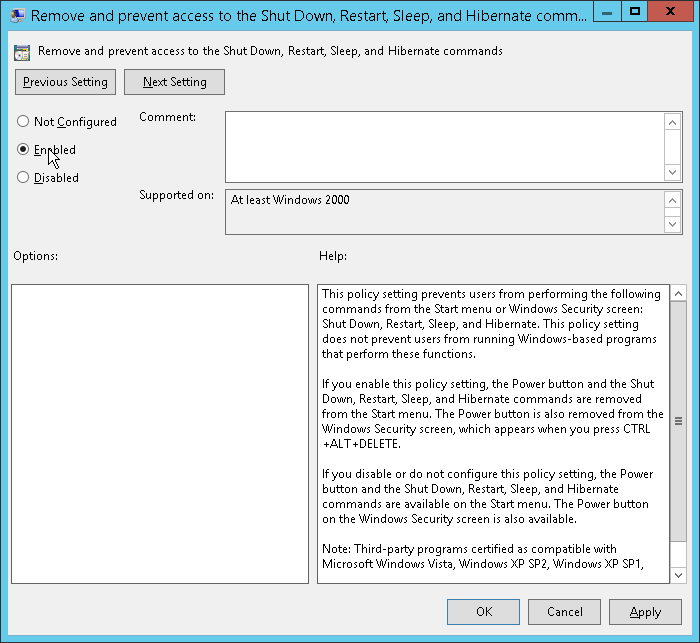
1. Click **Start Button** and Click **Power Menu** (We need to disable Shutdown & Restart Option).



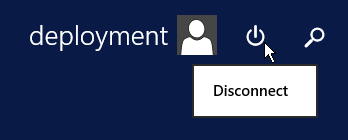
1. Click **Start** ->**Run** or “**Windows Button + R**” Type **gpedit.msc** (Group Policy Editor).



1. Under **User Configuration** Expand **Administrative Templates** -> Click on **Start Menu and Taskbar**.
2. On the **Right Pane** Select or Double-Click “**Remove and prevent access to the Shut Down, Restart, Sleep and Hibernate Commands**”.



1. Select **Enabled** option to Disable shutdown & restart from Power Menu.

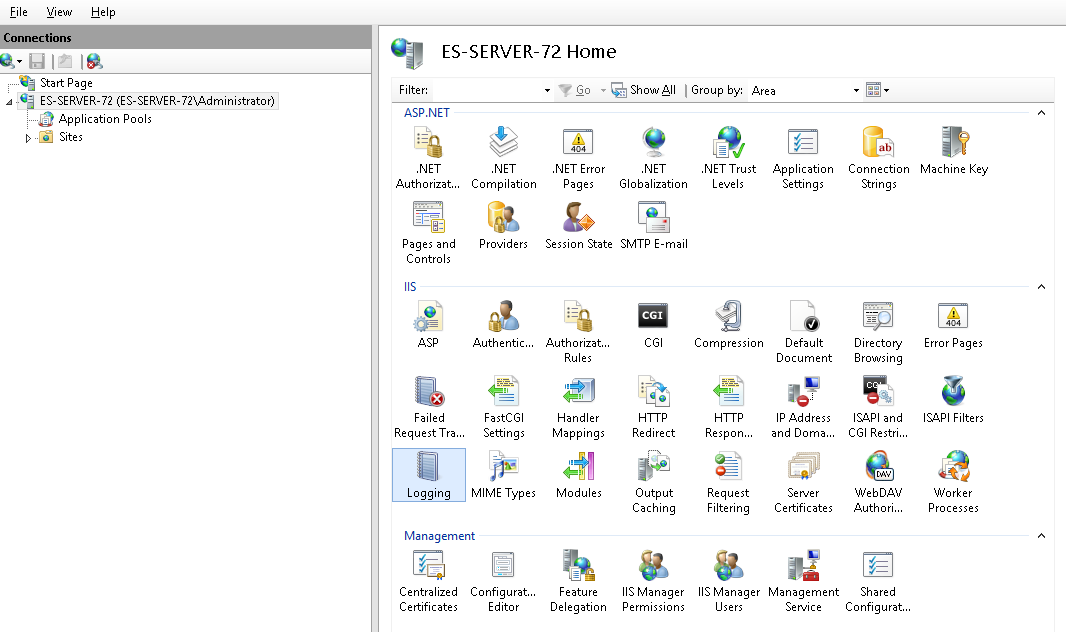


1. To verify, click **Start Button** and Click **Power Menu** (We have disabled Shutdown & Restart Option).

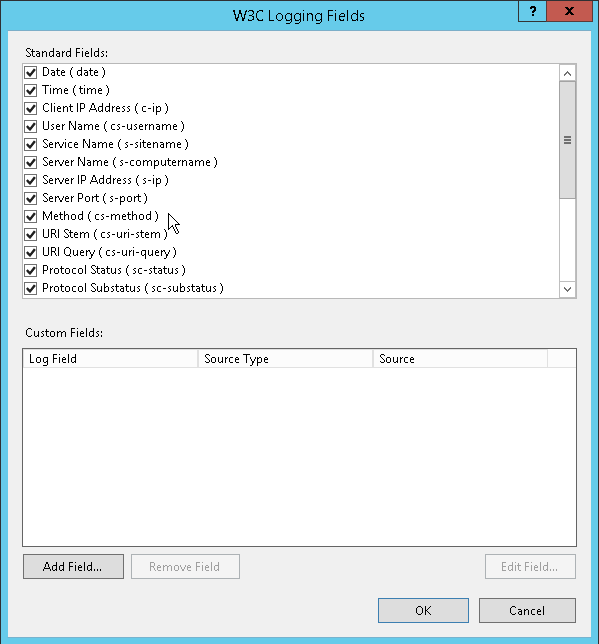
# IIS Logs File Settings

Follow the steps below to set IIS log files:

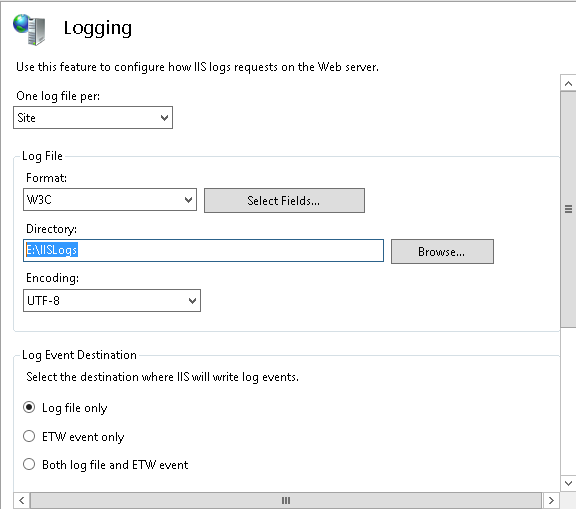
1. Click Start -> Run or “**Windows Button + R**” Type “**inetmgr”** (Internet Information Services Manager) and hit Enter.



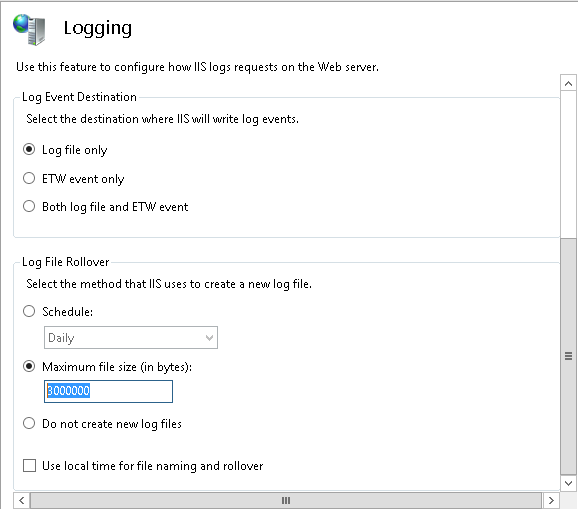
1. After launching the IIS Manger on the **Feature View** Select **Logging** Option.



1. **Select all the Fields** in the logging option.



1. Change the **IISLogs Directory** to move to other drive.

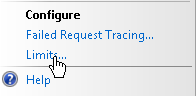


1. Select **Maximum Files size** and Provide **Maximum Files size (in bytes)** 3MB - 3000000 in bytes.
2. Scroll down to view Apply button Click **Apply** button to complete.

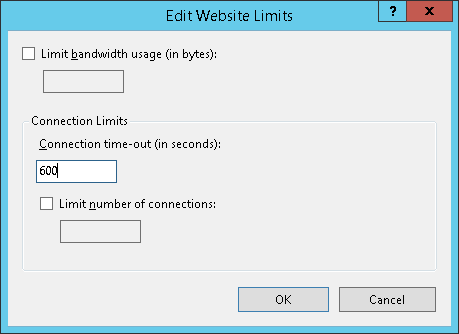
# IIS Limits Setting

Follow the steps below to set IIS limits:

1. Click Start -> Run or “**Windows Button + R**” Type “**inetmgr”** (Internet Information Services Manager).

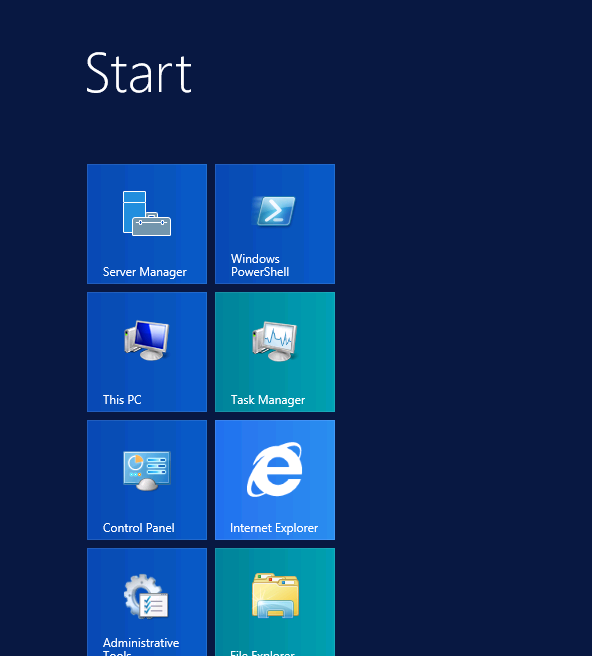


1. After launching the IIS Manger **Navigate** to **Default Web Site** on the Feature View **Select Limits** Option on Right pane.

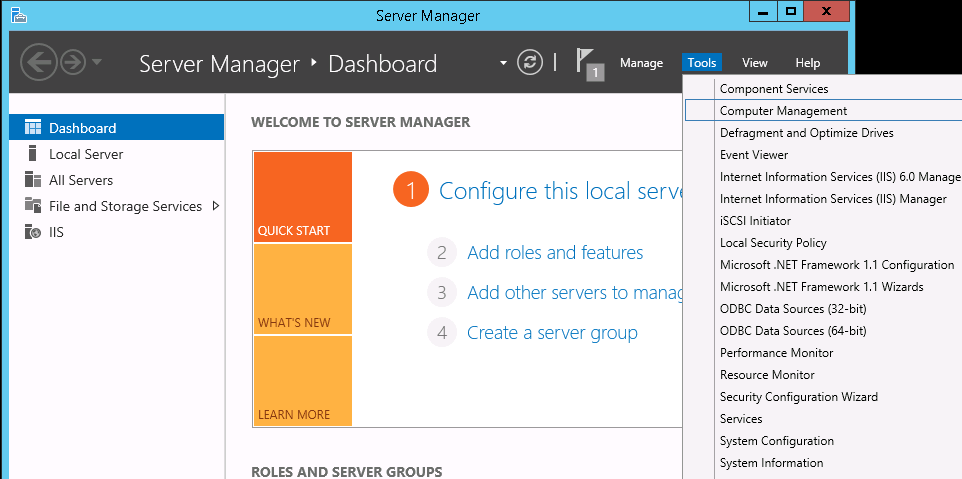


1. In Connection Limits **change** the value from “**120**” to “**600**”.
2. Click **OK** to complete.

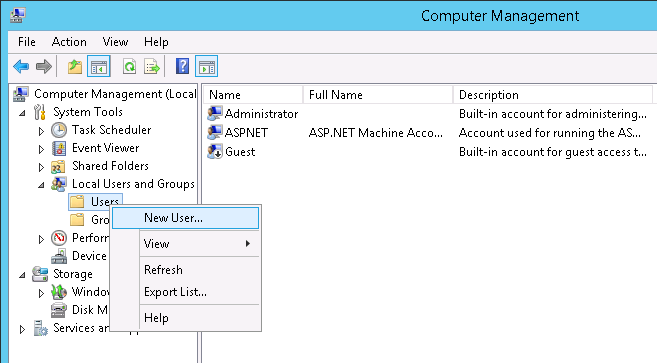
Impersonation Account Creation



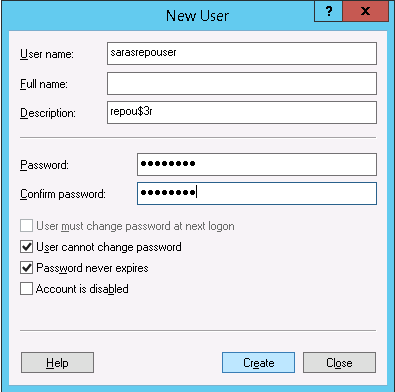
1. Goto Start and Click on Server Manager to Open the same.



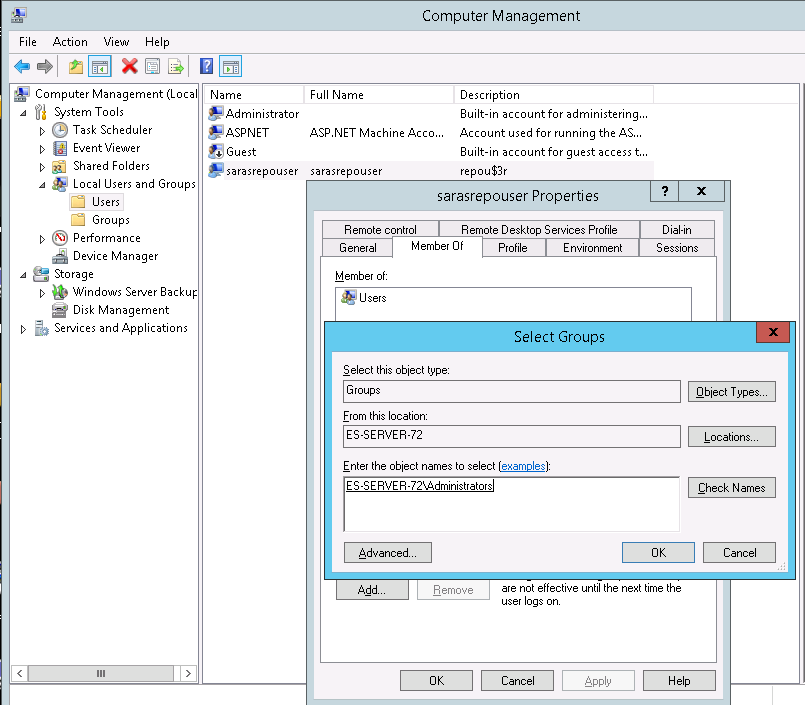
1. Go to **Computer Management.**



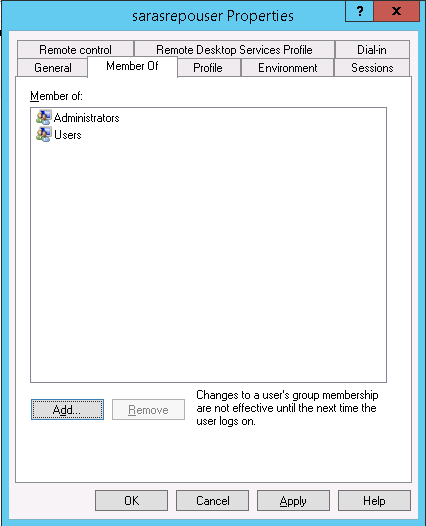
1. Expand Local Users and Groups -> Right Click on Users on left pane and click **New User** to create new Login Account.



1. Type the Credentials for below mentioned (**User Name & Password**) and select check boxes as mentioned below and Click on **OK.**



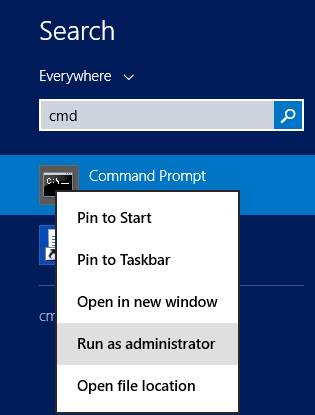
1. Right click on **SarasRepouser -> Goto Properties - > Goto Member of Tab ->** Type the word **‘Administrators’** and click **check Names ->** Click **OK.**



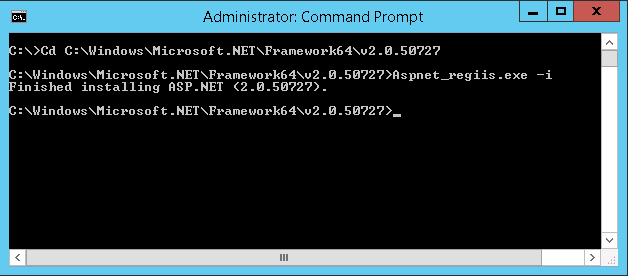
1. Click on **Apply** and **OK.**

**Note: Repeat the Step No. 5 (1, 2, 3, 4, 5, 6) to create the SarasRepousr Account in Database Server or in Repository Server Where the Repository Folder is Placed.**

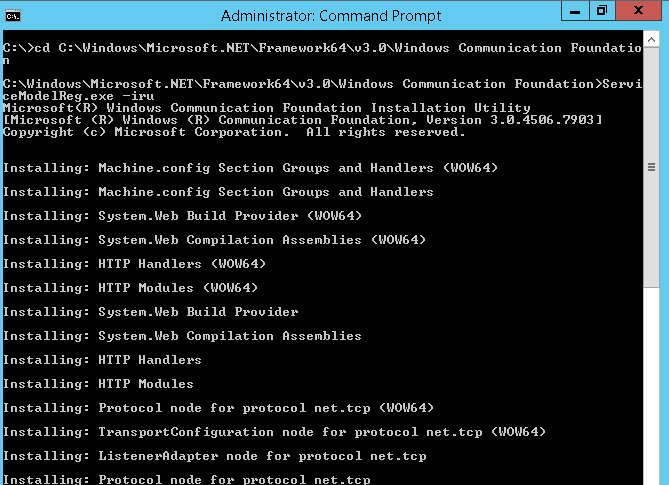
# Registering Dot Net Frameworks with IIS



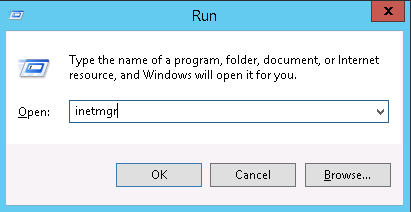
1. Goto ‘**Run’** or Search and type ‘**cmd’**(make sure this is opened with Run as Administrator) command as shown above and click **OK**.



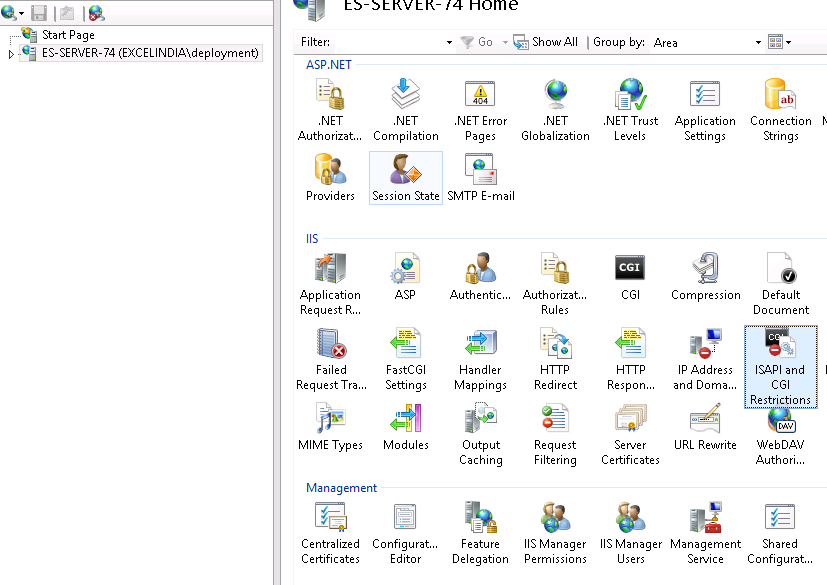
1. To Register 2.0 Framework with IIS, Type command (**Cd C:\Windows\Microsoft.NET\Framework64\v2.0.50727)**
2. Once the path is navigated type the command “**Aspnet\_regiis.exe -i”** and hit Enter, which should show the Finished installing message as above.



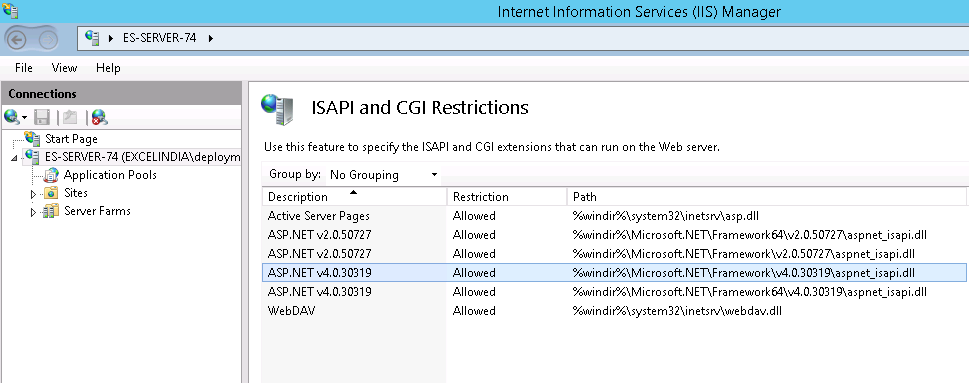
1. To Register 3.0 Communication Foundation framework with IIS Type Command (**Cd C:\Windows\Microsoft.NET\Framework64\v3.0\Windows Communication Foundation)**
2. Once the path is navigated type the command “**ServiceModelReg.exe -iru”** and hit Enter, which should show the Finished installing message as above.



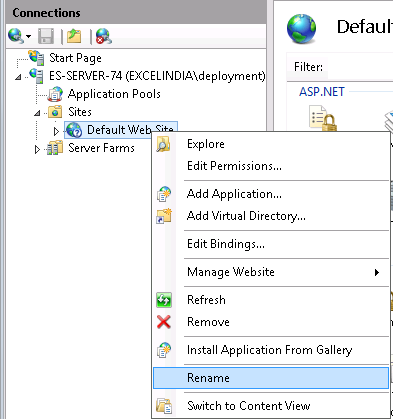
1. Goto ‘**Run**’ and type ‘**Inetmgr**’ command as shown above and click **OK**.



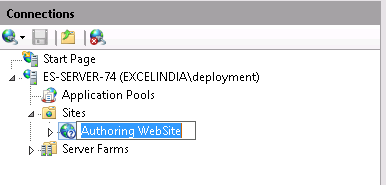
1. Click on server Name and double click on **ISAPI and CGI Restriction** on Right Pane.



1. Right-click and Select ‘**Allow’** option for both the ASP.NET version which are displaying as ‘**Not Allowed**’.



1. Can Rename the ‘**Default Web site’** if required, Specify the Suitable Name for Deployment.

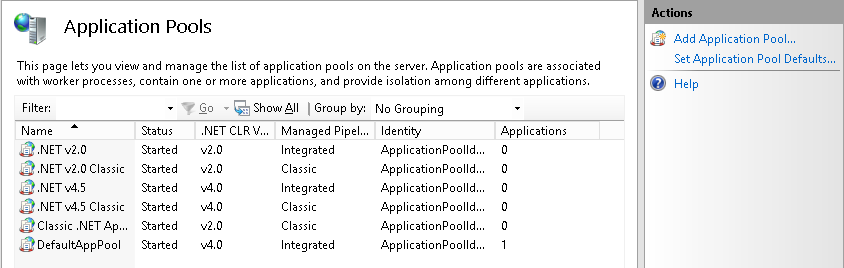


1. Default Web site is Renamed as ‘**Authoring WebSite**’ in above. Refer the above screenshot for your reference.

Application Pool Creation & Build Copy

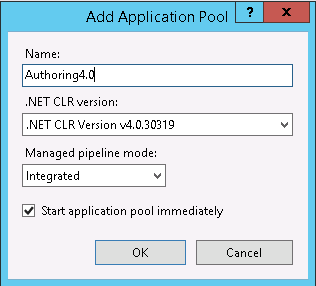
# Application Pool Creation & Best Practice

Follow the steps below to create Application Pool:

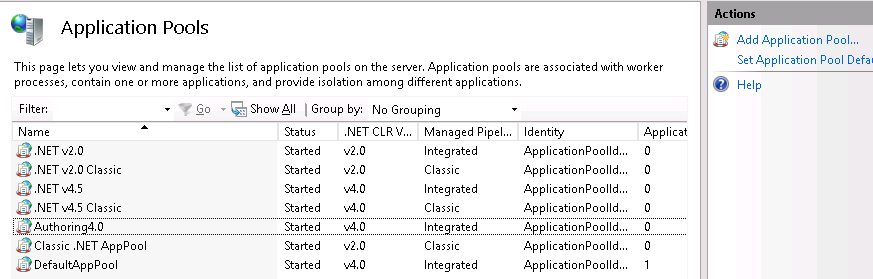


Setting up .**NET Framework** Version:

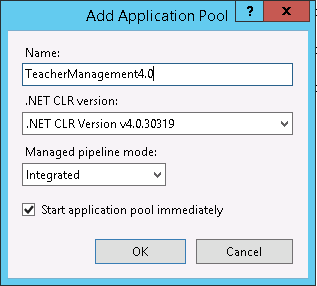
1. Click **Add Application Pool** on the right pane.



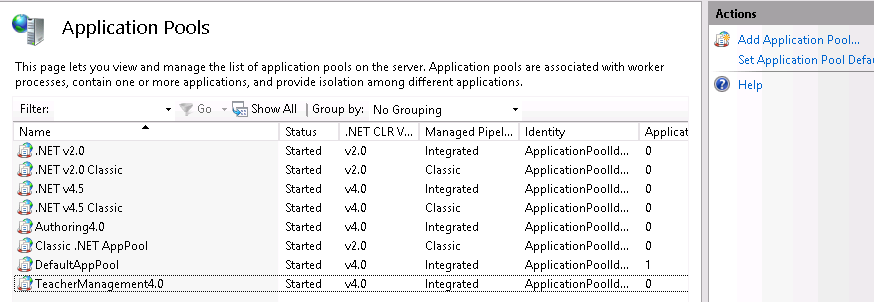
1. Provide name for the application pool “**Authoring4.0**” Under .NET Framework Version, Set **.NET Framework v4.0** and Under Managed pipeline mode, Set **Integrated** from the drop down list.
2. Click **OK**.



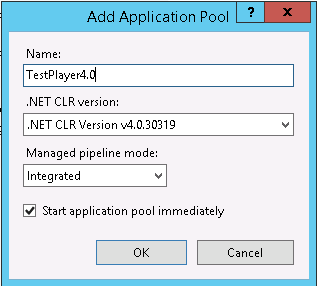
1. Click **Add Application Pool** on the right pane.



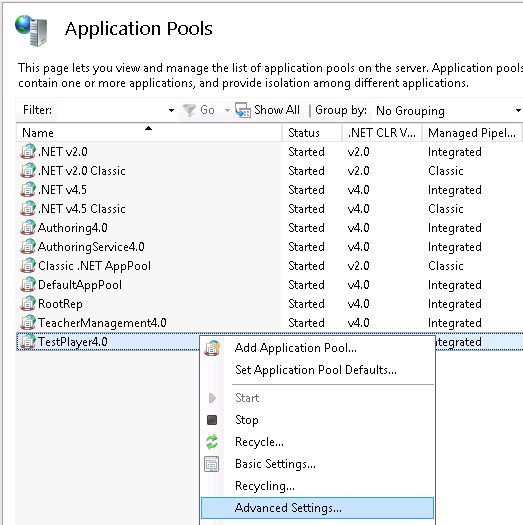
1. Provide name for the application pool “**TeacherManagement4.0**” Under .NET Framework Version, Set **.NET Framework v4.0** and Under Managed pipeline mode, Set **Integrated** from the drop down list.
2. Click **OK**.



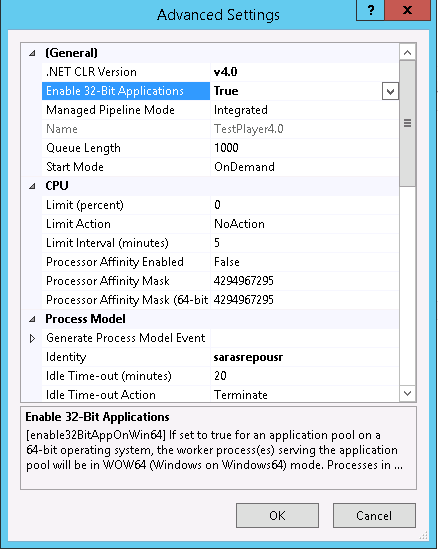
1. Click **Add Application Pool** on the right pane.



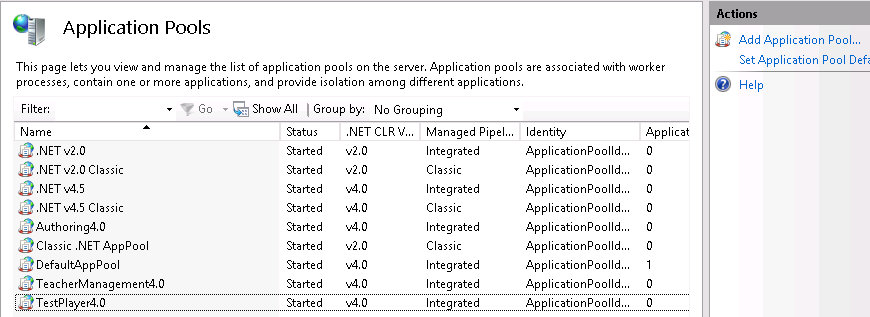
1. Provide name for the application pool “**TestPlayer4.0**” Under .NET Framework Version, Set **.NET Framework v4.0** and Under Managed pipeline mode, Set **Integrated** from the drop down list.



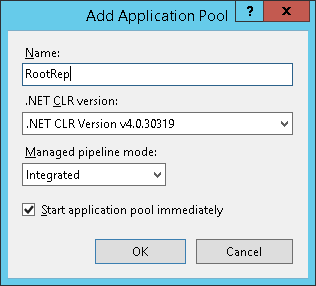
1. Right click on **TestPlayer4.0** pool and click **Advanced Settings**.



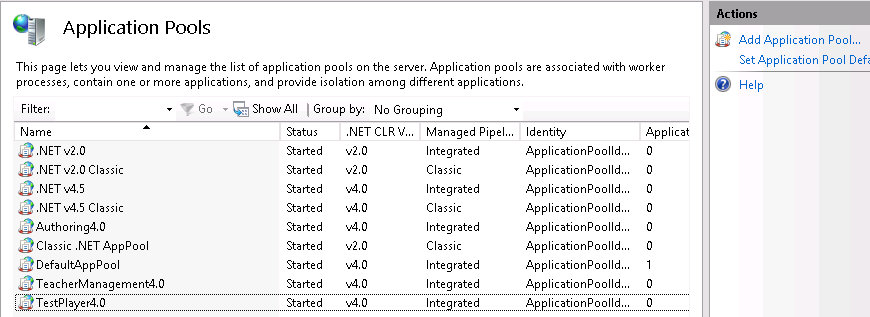
1. Select **“True”** option in Enable 32-Bit Applications.



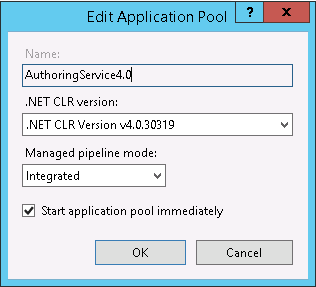
1. Click **Add Application Pool** on the right pane.



1. Provide name for the application pool “**RootRep**” Under .NET Framework Version, Set **.NET Framework v4.0** and Under Managed pipeline mode, Set **Integrated** from drop down list.
2. Click **OK**.



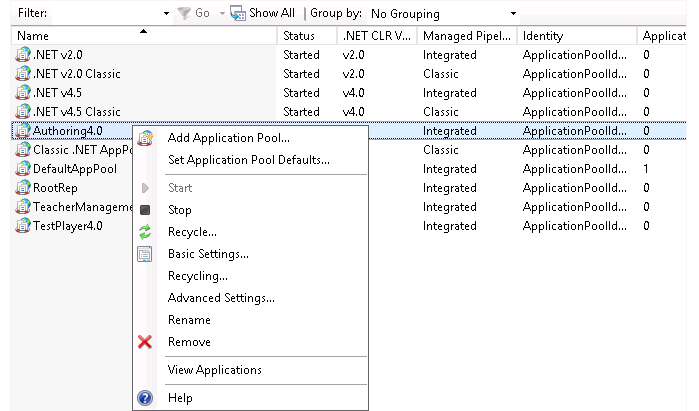
1. Click **Add Application Pool** on the right pane.



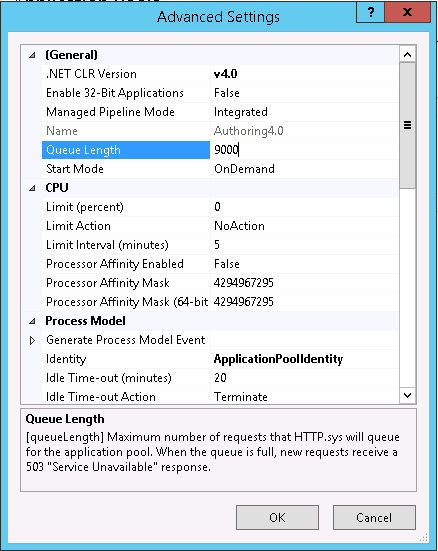
1. Provide name for the application pool “**AuthoringService4.0**” Under .NET Framework Version, Set **.NET Framework v4.0** and Under Managed pipeline mode, Set **Integrated** from drop down list.
2. Click **OK**.

# Setting Queue Length and Idle Timeout

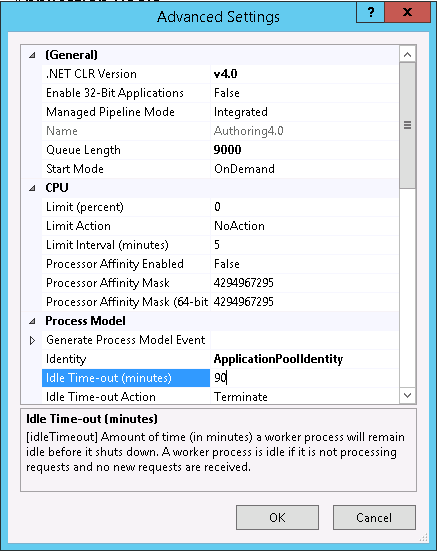
1. Right Click on any one of the Application Pools.



1. Select **Advanced Settings.**

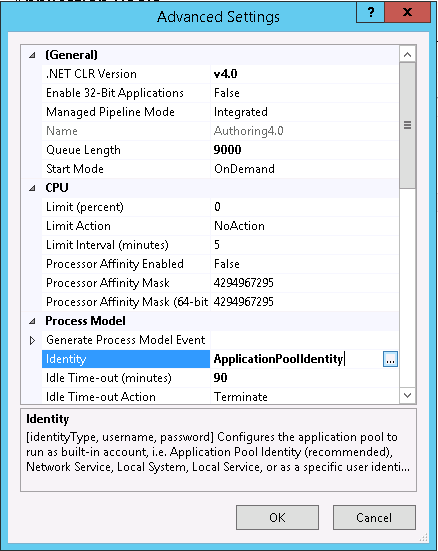


1. Under (**General**) –>**Queue Length** (Default Value = 1000) – Set the Value to **9000**.

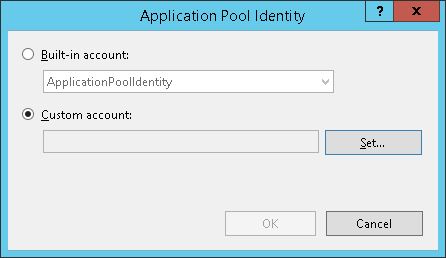


1. Under **Process Model** –>**Idle Time-out** (minutes) (Default Value =20) – Set the Value to
2. Click **OK**.

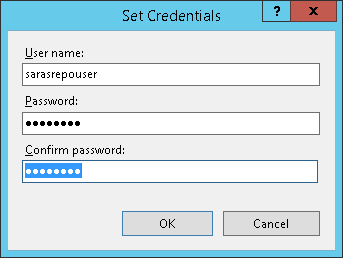
**Note: Similarly Apply Advance Settings for all the Created Application Pools.**



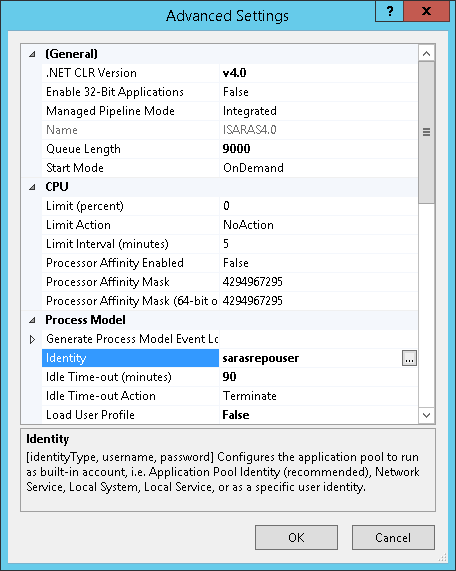
1. Under **Process Model** –> Identity -> click on Customization(…) Provide the Impersonation username and password (Account UserName & Password of sarasrepouser).



1. Select custom account -> Click **Set.**



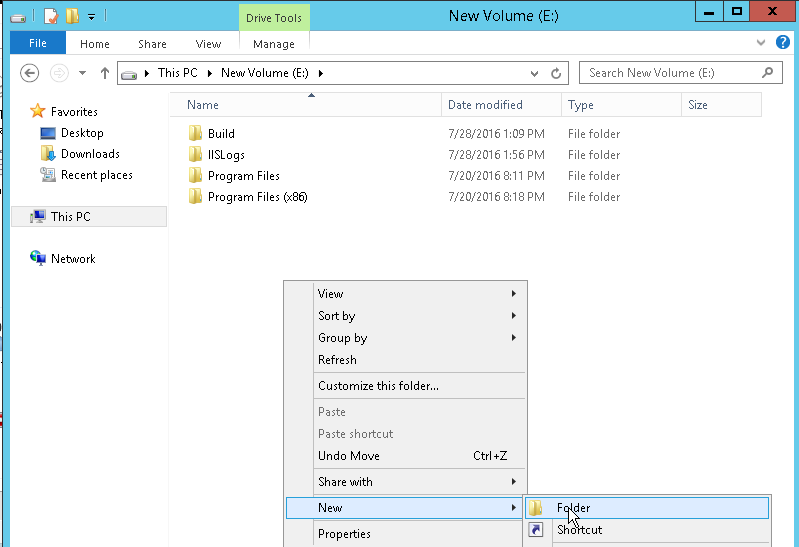
1. Click **OK**.



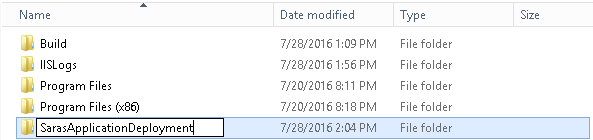
1. After you complete, click **OK**.

# Application Build Copy to Server

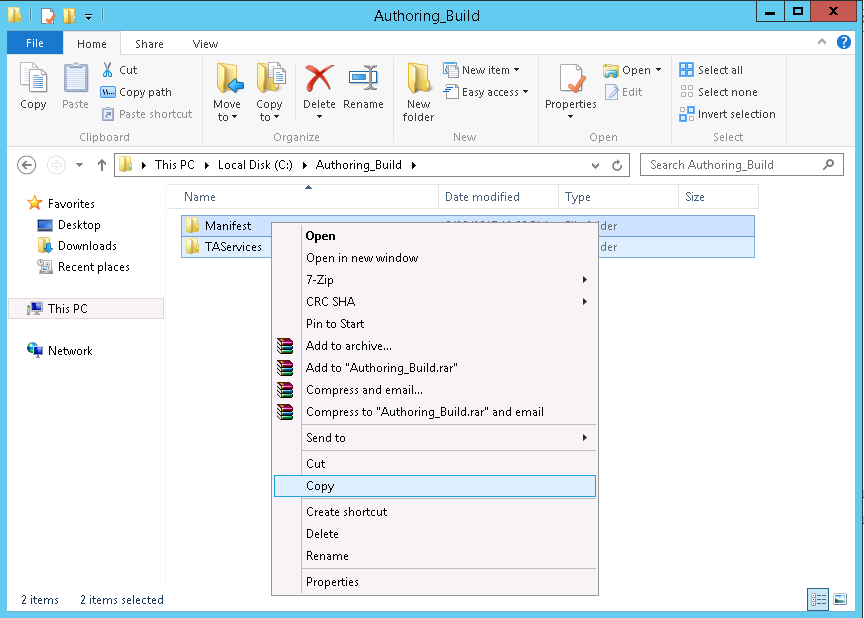
Follow the steps below to copy the application build from download path or source path to server:



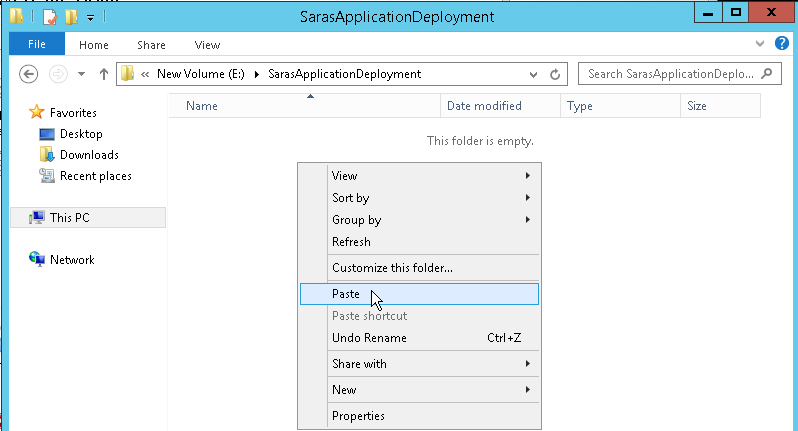
1. Navigate to **My Computer** -> Open **Drive** ->**Right Click** ->**New** ->**Folder.**



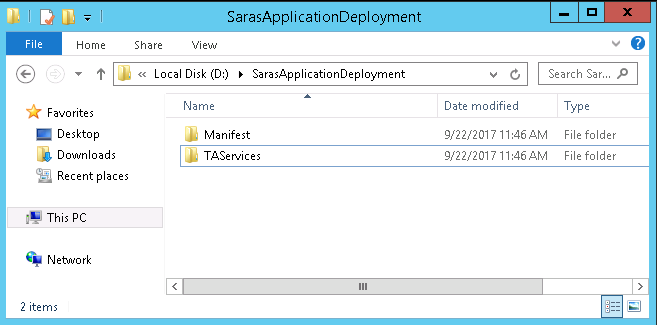
1. Name the folder as “**SarasApplicationDeployment”**.



1. Copy the **Build Files** from Source Path.

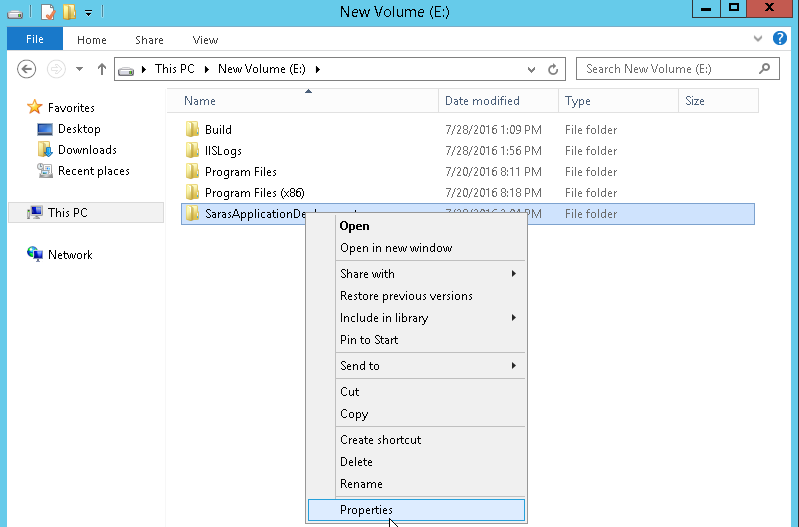


1. **Copy** the Build from “**Download Path \ Source Path**” to “**SarasApplicationDeployment”**.

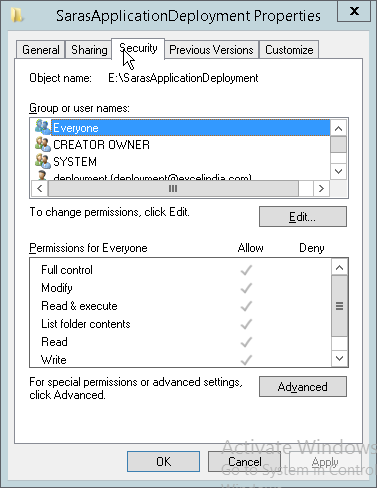


1. **Copy** the Build from “**Download Path \ Source Path**” to “**SarasApplicationDeployment”**.

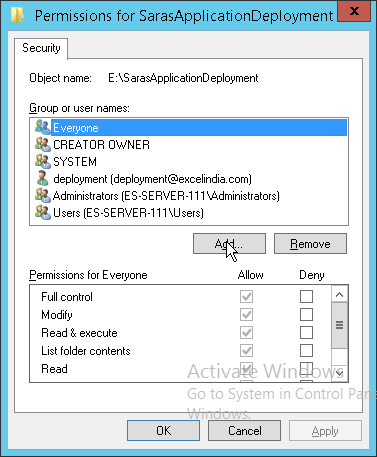
Folder Permission



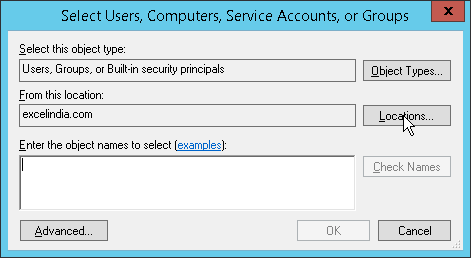
1. **Right-click** “**SarasApplicationDeployment”** and Select **Properties.**



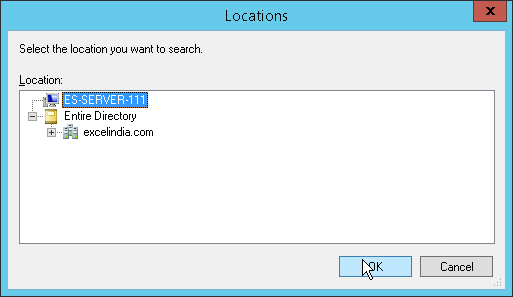
1. In **Properties** Dialog box select **Security** Tab and Click **Edit.**



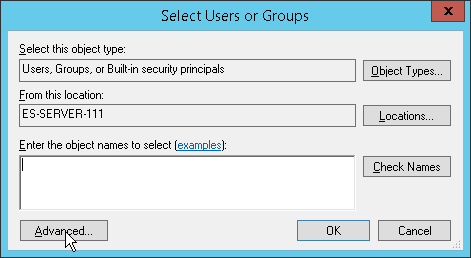
1. Click **Add.**



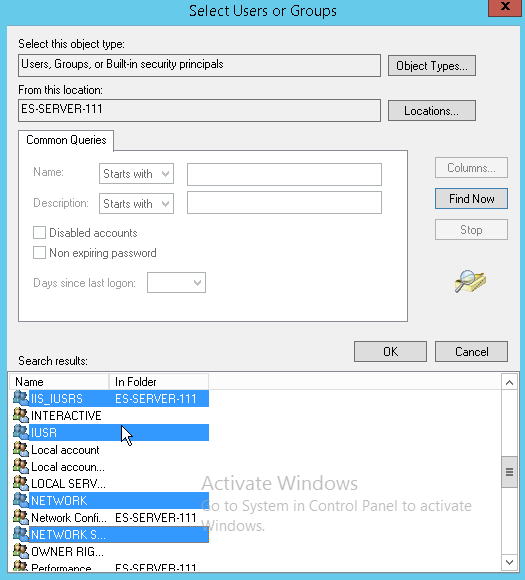
1. Click **Locations.**



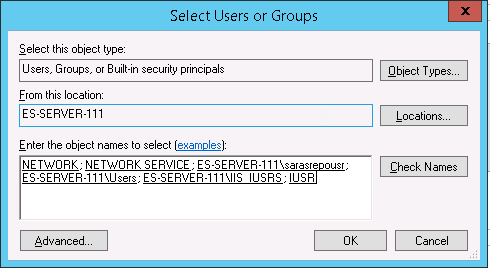
1. Select the **local Server** and click **OK**.



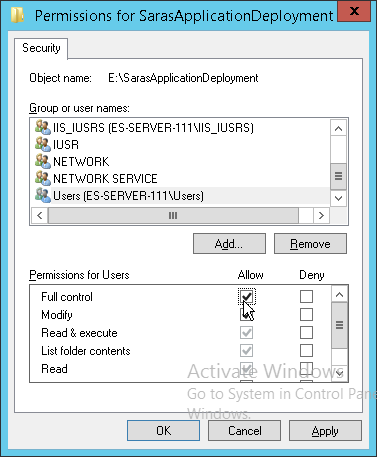
1. Click **Advanced.**



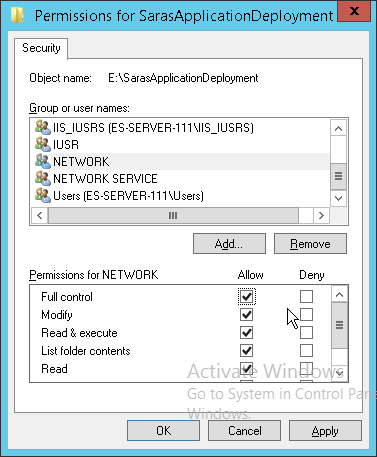
1. Click **Find Now**, Hold Ctrl and select the Users (IIS\_IUSRS, IUSR, NETWORK & NETWORK SERVICE,SARASREPOUSR).



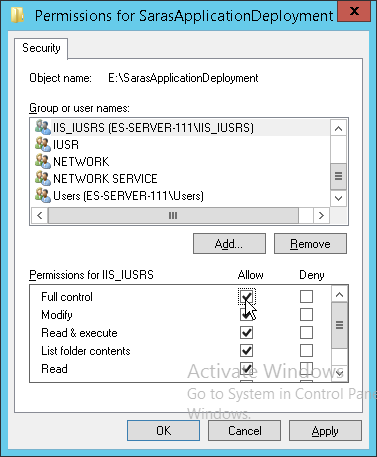
1. Click **OK.**



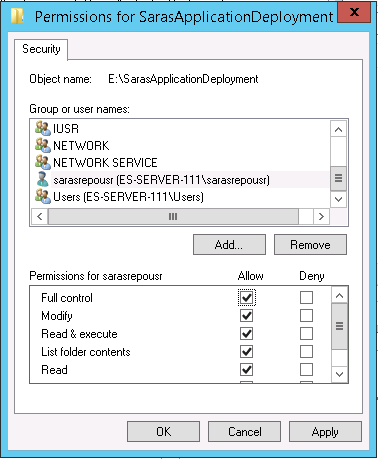
1. Provide or **Select Full Control** in the **allow** section for the user.



1. Provide / **Select Full Control** in the **Allow** section for the user.

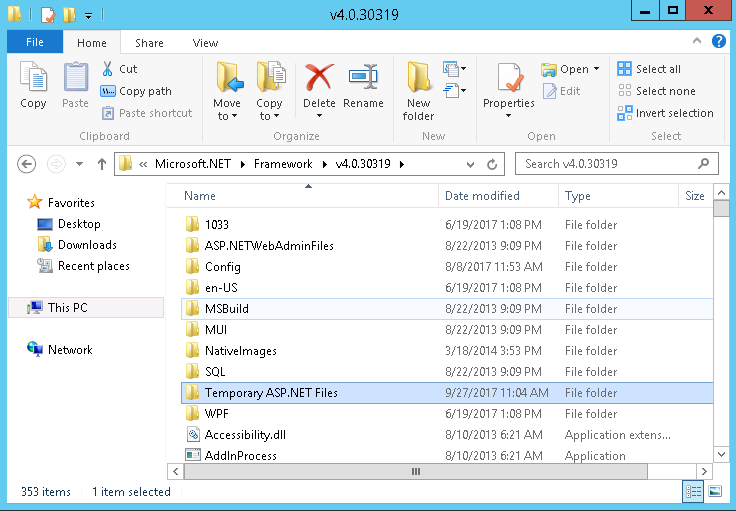


1. Provide / **Select Full Control** in the **Allow** section for the user.
2. After you complete, click **Apply** and click **OK**.

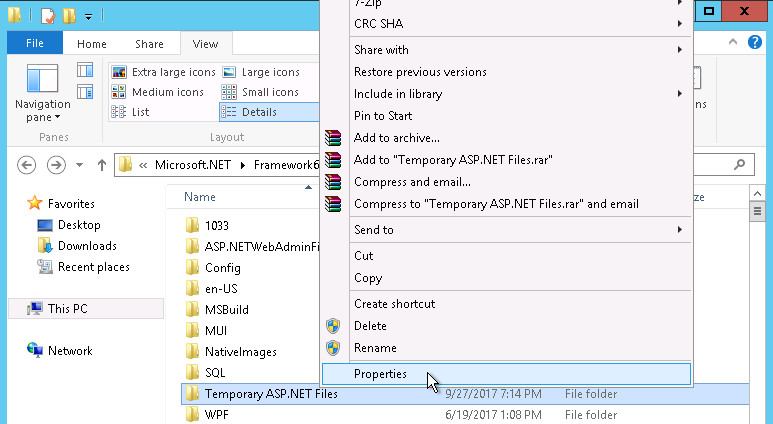


1. Provide / **Select Full Control** in the **Allow** section for the user.
2. After you complete, click **Apply** and click **OK**.
3. Create New Account Named “**sarasrepouser**” and set the credentials for the same. Refer the screen shot for the same.

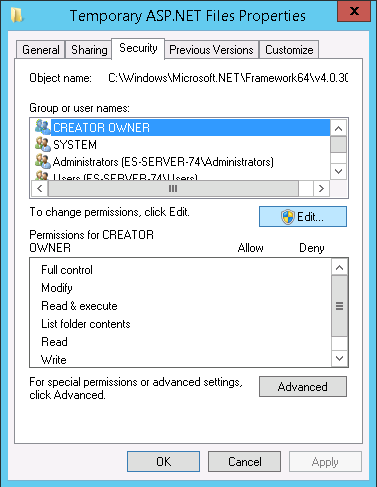
**Folder Permission for “Temporary ASP.NET Files” in C Drive.**



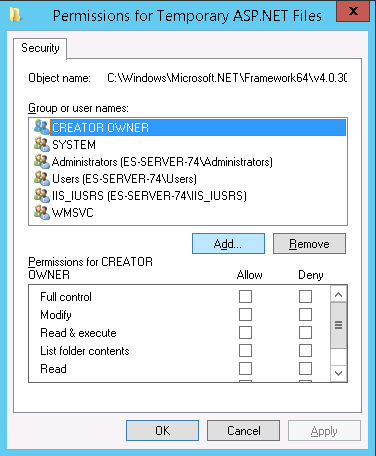
1. Navigate to the path (C:\Windows\Microsoft.NET\Framework64\v4.0.30319) in C: Drive.



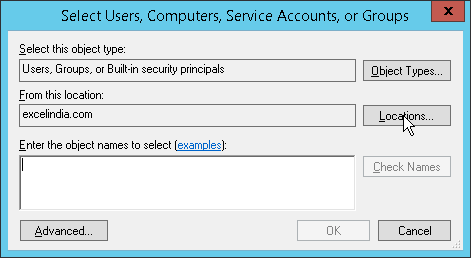
1. Goto the Properties of “**Temporary ASP.NET Files**” Folder.



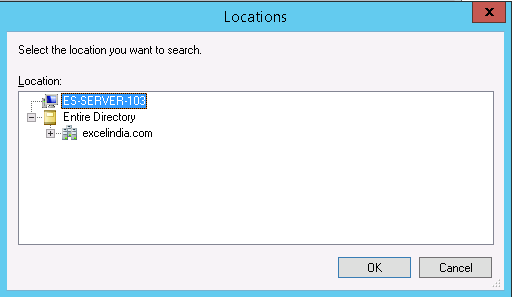
1. Click **Security** tab and click **Edit** Button.



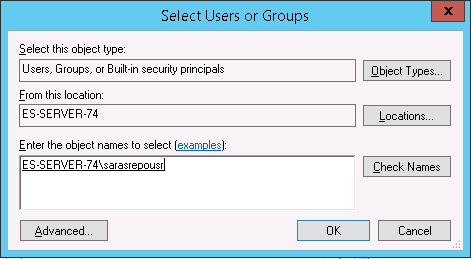
1. Click **Add**.



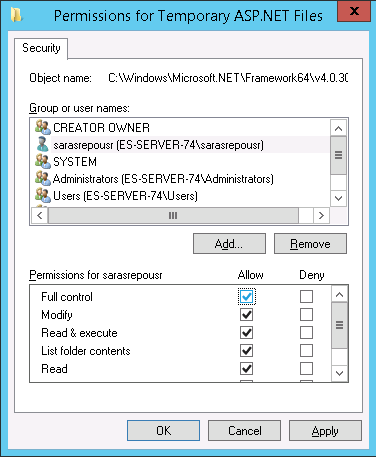
1. Click **Locations**.



1. Select the local Server and click **OK**.

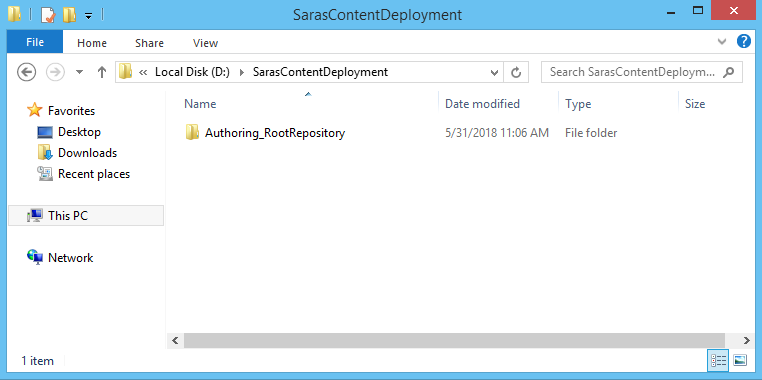


1. Type the Impersonation Account Name ‘**Sarasrepousr**’ and click **Check Names** Button.

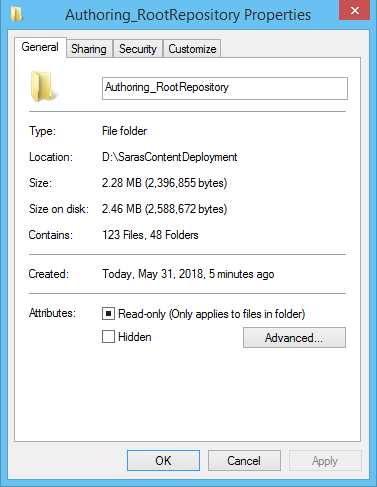


1. Click Sarasrepousr from list and check(select) button, Click **OK**.

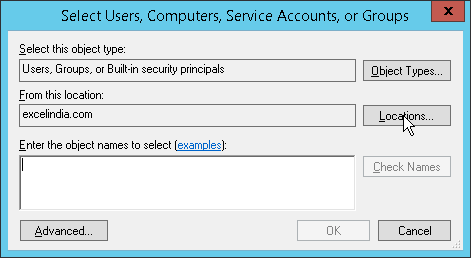
# Content Copy and VD Creation



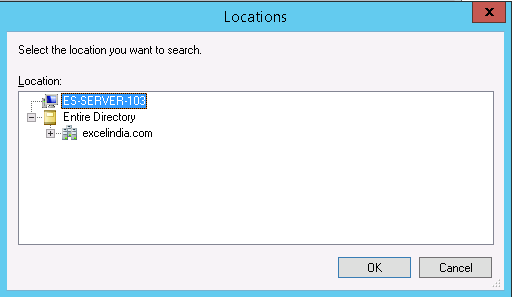
1. Copy the Repository Folder to Database server or Repository Server.



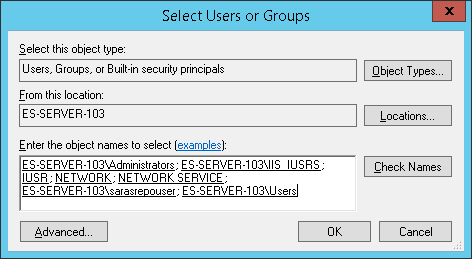
1. For RootRepository Folder-> Goto **Properties** Dialog box select **Security** Tab and Click **Edit.**



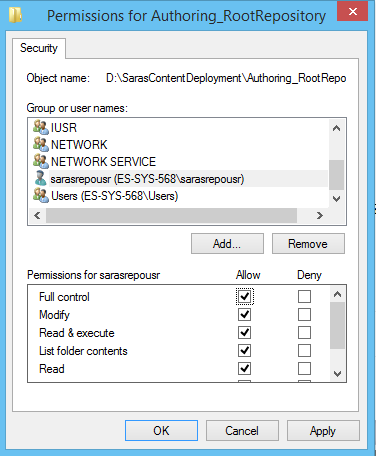
1. Click **locations.**



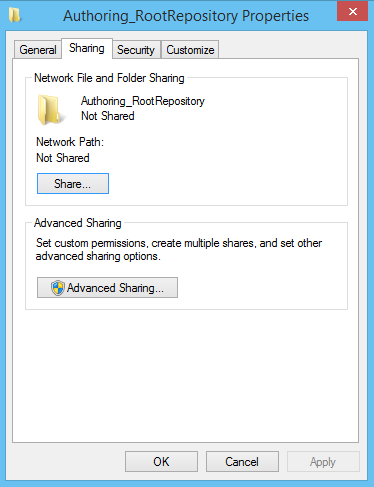
1. Select the **local Server** and click **OK**.



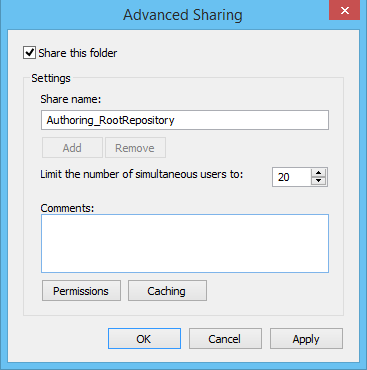
1. Click on Advanced and click **Find Now,** Hold **Ctrl** and **select** the **Users** (**ADMINISTRATOR,** **IIS\_IUSRS, IUSR, NETWORK & NETWORK SERVICE,SARASREPOUSER,USERS**).



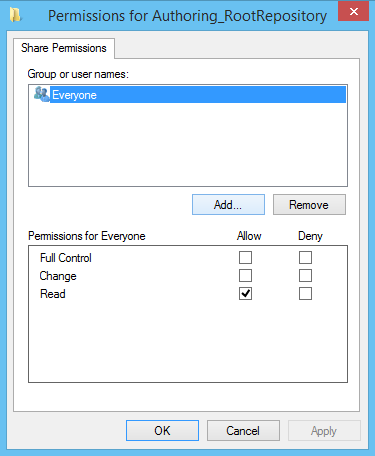
1. Provide or **Select Full Control** including(sarasRepouser) in the **allow** section for the user as shown above.
2. After you complete, click **Apply** and click **OK**.



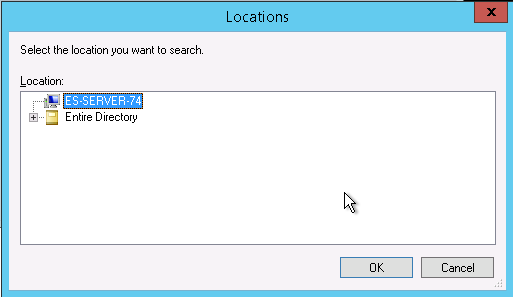
1. Once again, for NYCS\_RootRepository Folder-> Goto **Properties** Dialog box select **Sharing** Tab and Click **Advanced Sharing.**



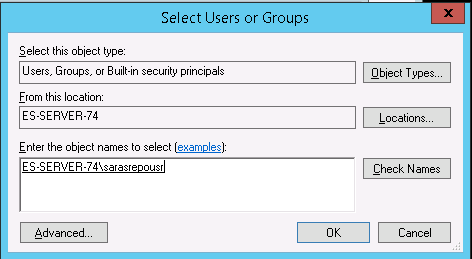
1. Select the ‘Share this Folder’ option and Click on **Permissions button**.



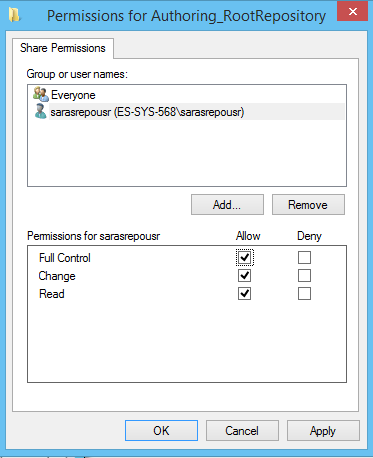
1. Click on ‘**Add’** Button.



1. Select Server Name on clicking **Locations** Tab. Refer the above screen shot.



1. Type **sarasrepouser** and click **Check Names** button and click **OK**.



1. Provide the Full Control for selected User, Click **Apply** and **OK**.

Application Deployment

# Test & Assessment Application VD Creation

**Note: The Application Names mentioned in the document are general, Refer the note column in below table with the necessary config key changes of the web.config files.**

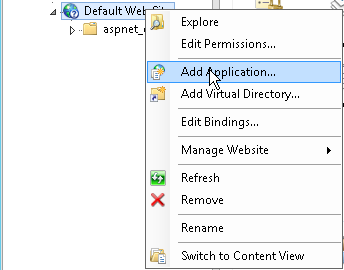
***We have mentioned the “VD Names” which will be referred in the web.config files of the application.***

**The Standard Virtual directory for the** NYCS Application **is displayed in the** Table **below.**

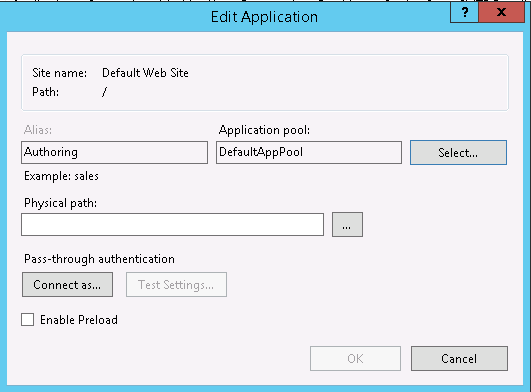
|  |  |  |  |
| --- | --- | --- | --- |
| Application VD Names | Pools Name | Types | Note |
| **Authoring**  **-> Assetlibrary**  **-> Assetworkflow**  **-> EMS**  **-> ItemAuthoring**  **-> Tryout**  **-> ReportInterface** | **Authoring4.0** | **Integrated** |  |
| **TeacherManagement** | **TeacherManagement4.0** | **Integrated** |  |
| **TestPlayer** | **TestPlayer4.0** | **Integrated** | **32-bit pool** |
| **Authoring\_RootRepository** | **RootRep** | **Integrated** |  |
| **AuthoringService** | **AuthoringService4.0** | **Integrated** |  |

**Follow the steps below to deploy application:**

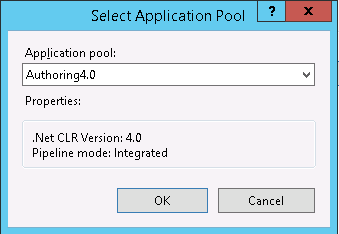
1. Click on Start -> Run or “**Windows Button + R**” Type “**inetmgr”** (Internet Information Services Manager).
2. Expand **Root** -> Expand **Sites** -> Expand **Default Web Site**.



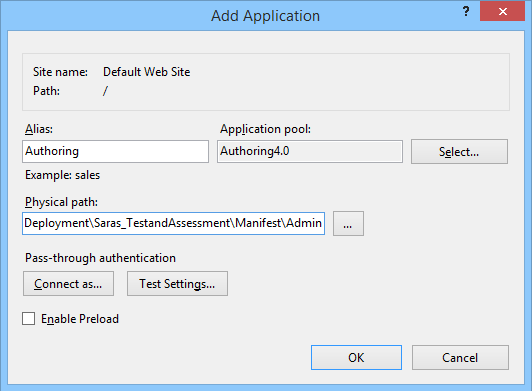
1. Select **Default Web Site** ->**Right Click** on **Default Web Site** -> Click **Add Application**.



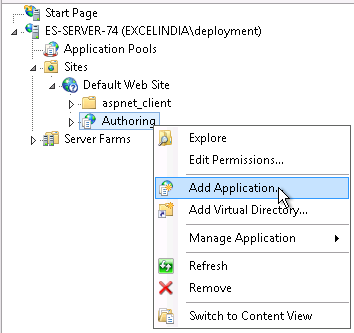
1. Provide Alias Name “**Authoring**” in Add Application Window.



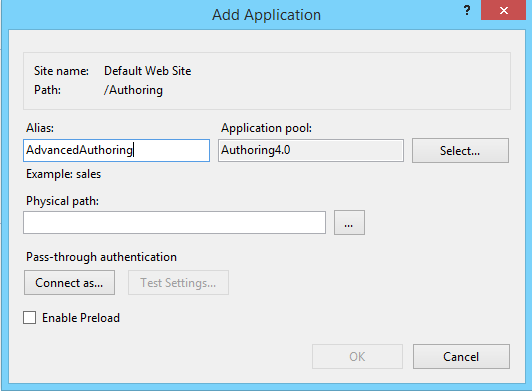
1. Select Application Pool **Authoring4.0** in the application Pool Selection Menu.



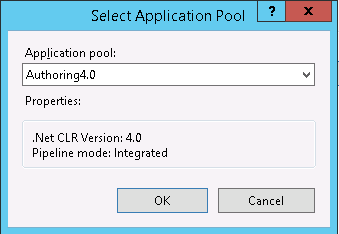
1. Select the Physical Path / Copy Paste the Physical Path of **Admin** Folder and Click **OK**.



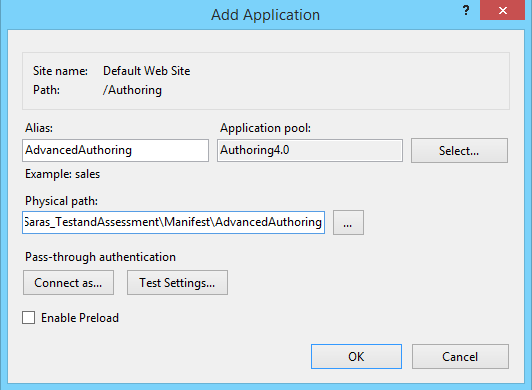
1. Select **Authoring** -> **Right Click** on **Authoring** VD -> Click **Add Application**.



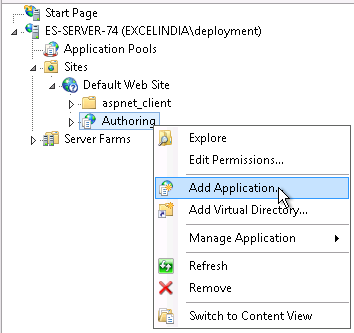
1. Under the **Authoring** VD we have to create “**AssetLibrary**” VD.



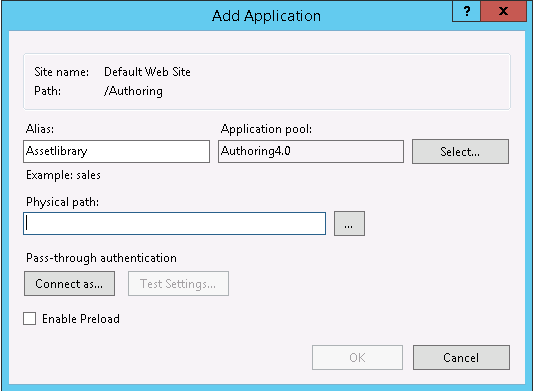
1. Select Application Pool **Authoring4.0** in the application Pool Selection Menu.
2. Click **OK**.



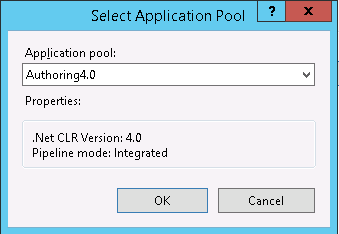
1. Provide Alias Name “**AdvancedAuthoring**” in Add Application Window.
2. Select the Physical Path or Copy Paste the Physical Path of **AdvancedAuthoring** Folder and Click on **OK**.



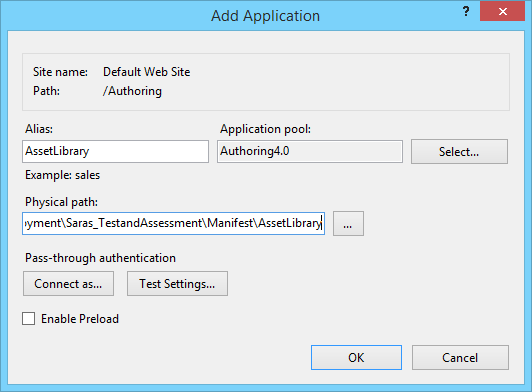
1. Select **Authoring** -> **Right Click** on **Authoring** VD -> Click **Add Application**.



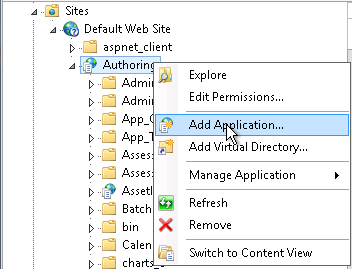
1. Under the **Authoring** VD we have to create “**AssetLibrary**” VD.



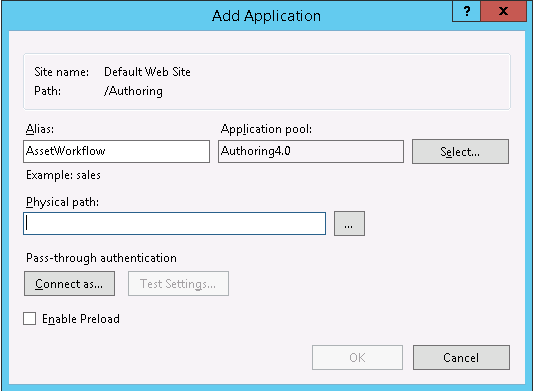
1. Select Application Pool **Authoring4.0** in the application Pool Selection Menu.
2. Click **OK**.



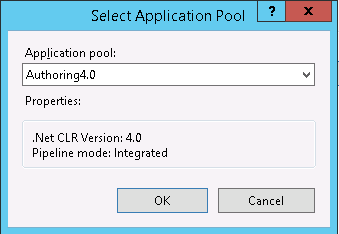
1. Provide Alias Name “**Assetlibrary**” in Add Application Window.
2. Select the Physical Path or Copy Paste the Physical Path of **Assetlibrary** Folder and Click on **OK**.
3. Under the **Authoring VD** we have to create “**Assetworkflow**” VD.



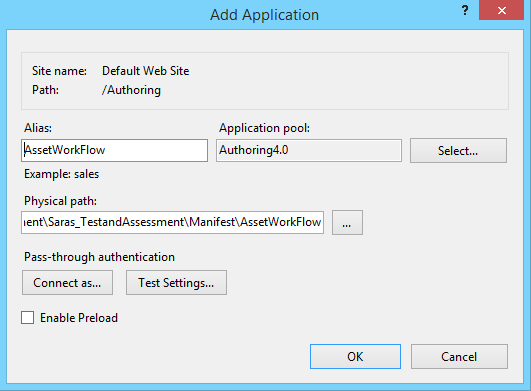
1. Select **Authoring VD** -> **Right Click** on **Authoring VD** -> Click **Add Application**.



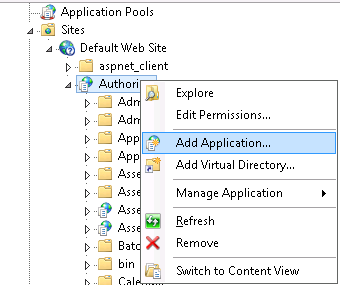
1. Under the **Authoring** VD we have to create “**Assetworkflow**” VD.



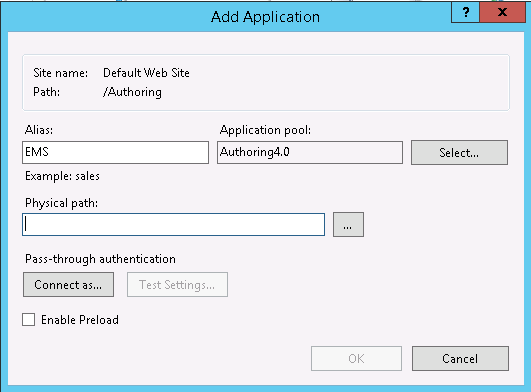
1. Select Application Pool **Authroing4.0** in the application Pool Selection Menu.
2. Click **OK**.



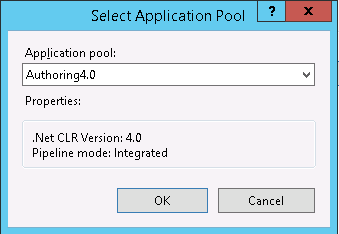
1. Provide Alias Name “**Assetworkflow**” in Add Application Window.
2. Select the Physical Path or Copy Paste the Physical Path of **Assetworkflow** Folder and Click on **OK**.



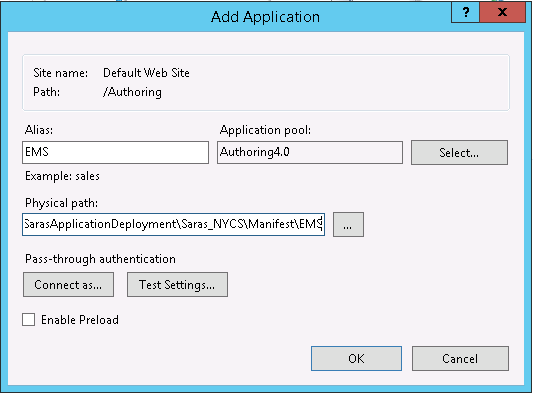
1. Select **Authoring VD** -> **Right Click** on **Authoring VD** -> Click **Add Application**.



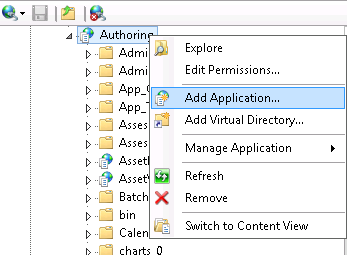
1. Under the **Authoring** VD we have to create “**EMS**” VD.



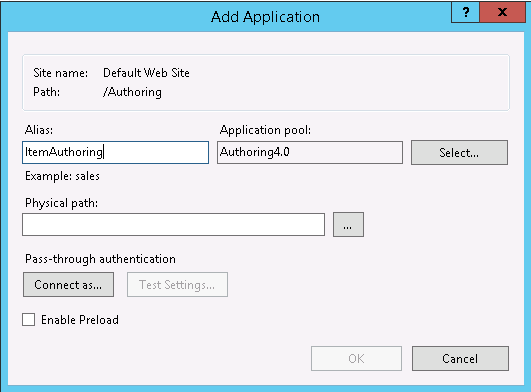
1. Select Application Pool **Authroing4.0** in the application Pool Selection Menu.
2. Click **OK**.



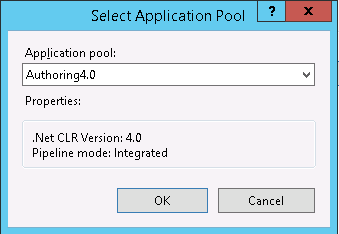
1. Provide Alias Name “**EMS**” in Add Application Window.
2. Select the Physical Path or Copy Paste the Physical Path of **EMS** Folder and Click **OK**.



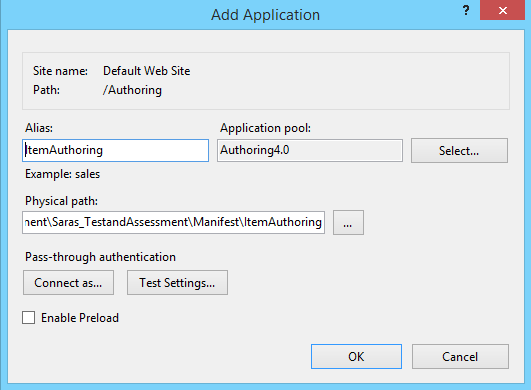
1. Select **Authoring VD** -> **Right Click** on **Authoring VD** -> Click **Add Application**.



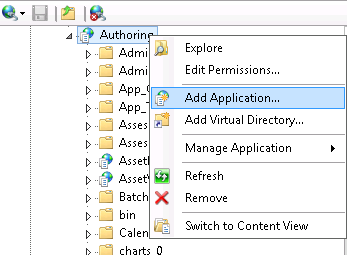
1. Under the **Authoring** VD we have to create “**ItemAuthoring**” VD.



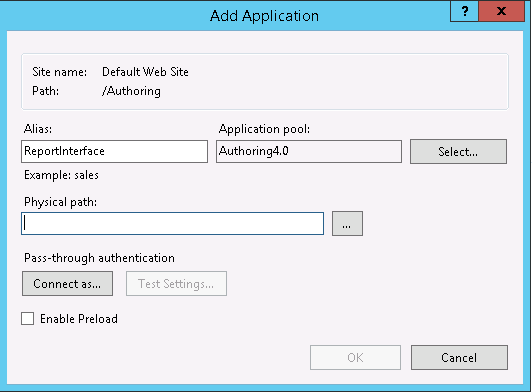
1. Select Application Pool **Authroing4.0** in the application Pool Selection Menu.
2. Click **OK**.



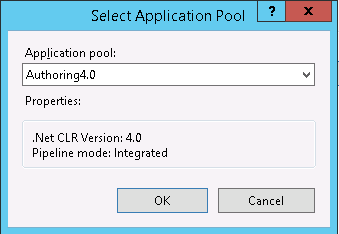
1. Provide Alias Name “**ItemAuthoring**” in Add Application Window.
2. Select the Physical Path or Copy Paste the Physical Path of **ItemAuthoring** Folder and Click on **OK**.



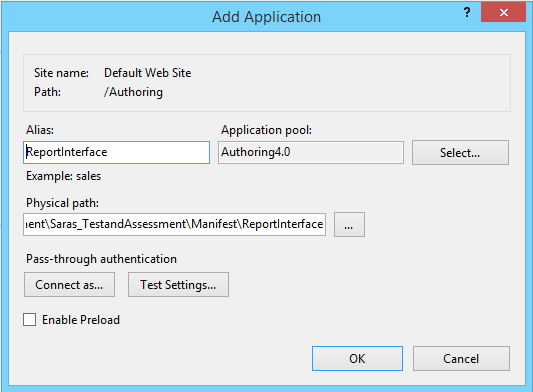
1. Select **Authoring VD** -> **Right Click** on **Authoring VD** -> Click **Add Application**.



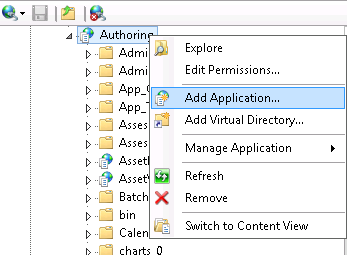
1. Under the **Authoring** VD we have to create “**ReportInterface**” VD.



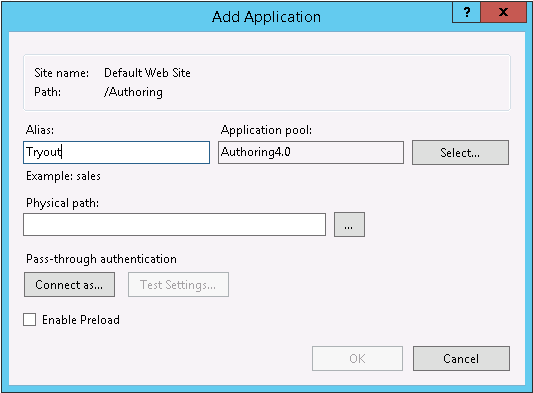
1. Select Application Pool **Authroing4.0** in the application Pool Selection Menu.
2. Click **OK**.



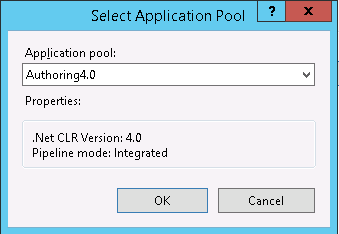
1. Provide Alias Name “**ReportInterface**” in Add Application Window.
2. Select the Physical Path or Copy Paste the Physical Path of **ReportInterface** Folder and Click on **OK**.



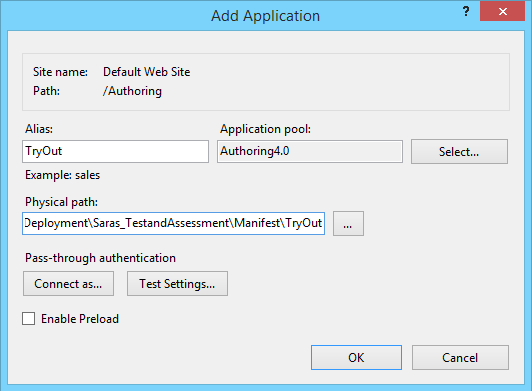
1. Select **Authoring VD** -> **Right Click** on **Authoring VD** -> Click **Add Application**.



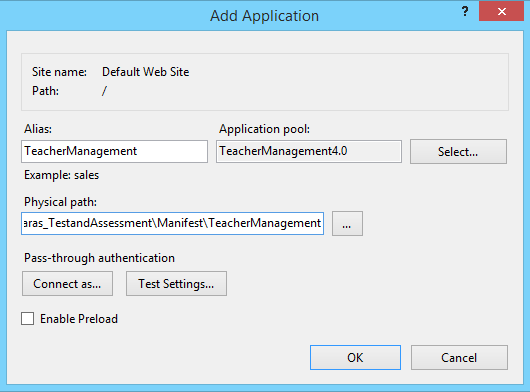
1. Under the **Authoring** VD we have to create “**Tryout**” VD.



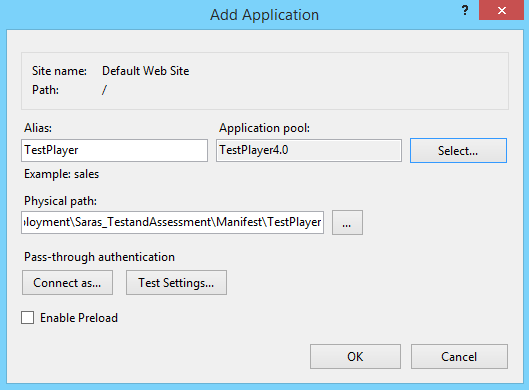
1. Select Application Pool **Authroing4.0** in the application Pool Selection Menu.
2. Click **OK**.



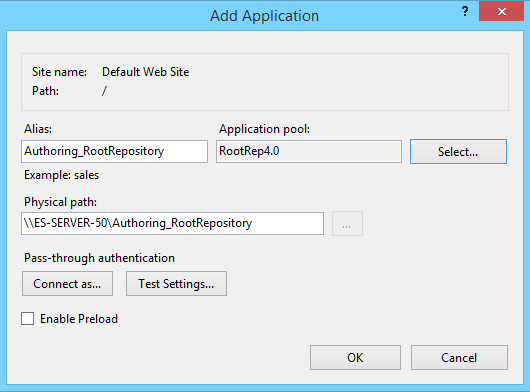
1. Provide Alias Name “**Tryout**” in Add Application Window.
2. Select the Physical Path or Copy Paste the Physical Path of **Tryout** Folder and Click **OK**.
3. Select **Default Web Site** ->**Right Click** on **Default Web Site** -> Click **Add Application**



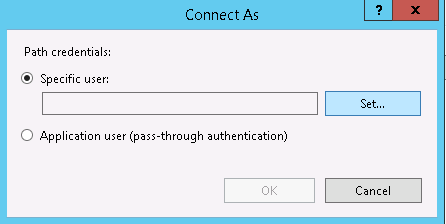
1. Select Application Pool **TeacherManagement4.0** in the application Pool Selection Menu.
2. Provide Alias Name “**TeacherManagement**” in Add Application Window.
3. Select the Physical Path or Copy Paste the Physical Path of **TeacherManagement** Folder and Click **OK**.
4. Select **Default Web Site** ->**Right Click** on **Default Web Site** -> Click **Add Application**.



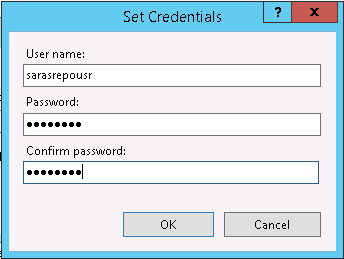
1. Select Application Pool **TestPlayer4.0** in the application Pool Selection Menu.
2. Provide Alias Name “**TestPlayer**” in Add Application Window.
3. Select the Physical Path or Copy Paste the Physical Path of **TestPlayer**  Folder and Click on **OK**.
4. Select **Default Web Site** ->**Right Click** on **Default Web Site** -> Click **Add Application**.



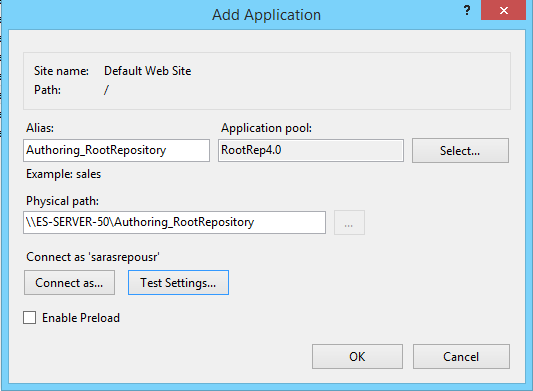
1. Select Application Pool **RootRep** in the application Pool Selection Menu.
2. Provide Alias Name “**Authoring\_RootRepository**” in Add Application Window.
3. Paste the Shared Path of **Repository** Folder.



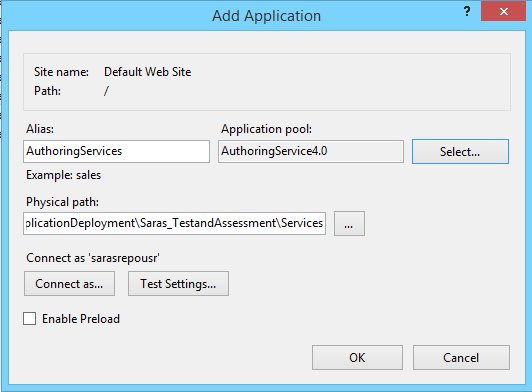
1. Click on **Connect as** button and click on **Set**.



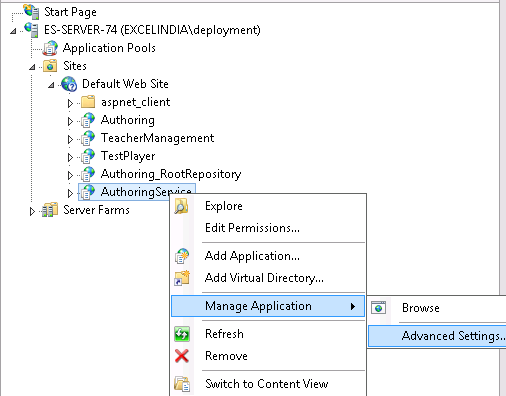
1. Provide the **Username and Password** of Impersonation Account.
2. Click **OK**.



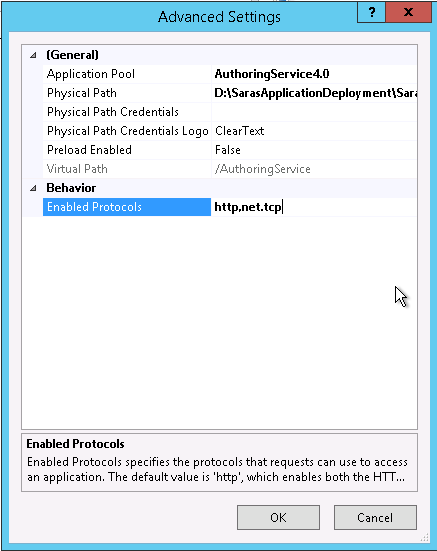
1. Click **Test Settings** to check the impersonation connectivity.
2. **Authorization** and **Authentication** should be in Green indication which shows working status.
3. Select **Default Web Site** ->**Right Click** on **Default Web Site** -> Click **Add Application**.



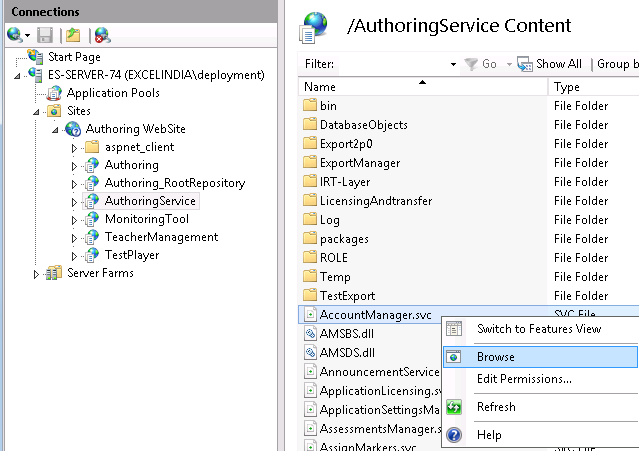
1. Select Application Pool **AuthoringService4.0** in the application Pool Selection Menu.
2. Provide Alias Name “**AuthoringService**” in Add Application Window.
3. Select the Physical Path or Copy Paste the Physical Path of TAServices Folder and Click **OK**.



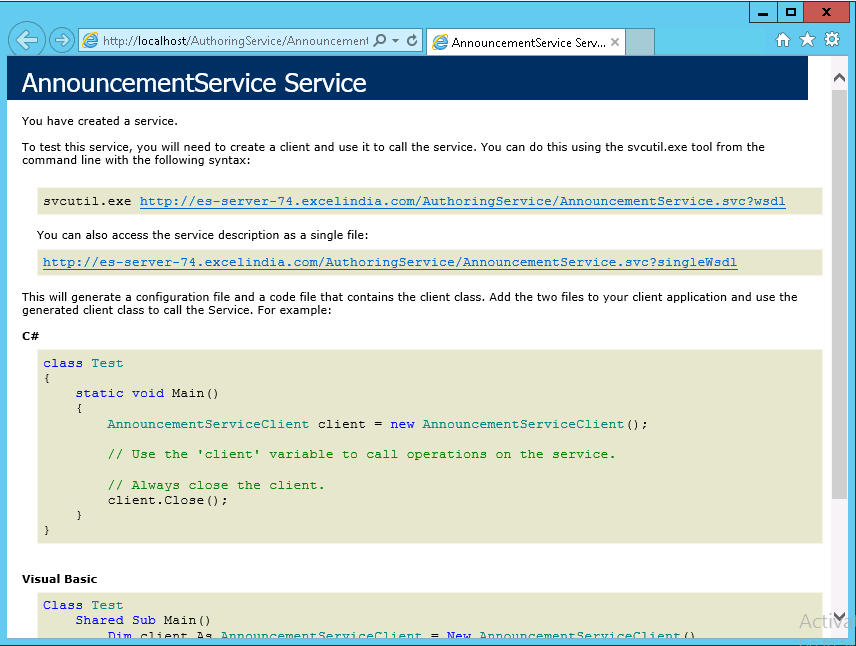
1. Right click **AuthoringService** VD -> select **Manage Application** -> click on **Advance settings**.



1. In **Advance Settings** window, in **Enable Protocols** section enter **http, net.tcp** and **Click OK.**



1. Browse the account manager service.Select **Default Web Site** ->**Expand Default Web Site** -> Right Click **AuthoringServices** and select **Content View** and in Content View Select **AccountManager.svc** Services and **Right Click** on that and select **Browse.**



1. Once you are able to browse the **Account manager service**, this means that you have deployed the account manager service successfully.

TROUBLESHOOTING

If you are unable to browse the account manager service, check the following:

* Application pool setting (Framework 4.0)
* Framework 4.0 registration

1. Now Browse the **Test & Assessment** Application using the following URL.

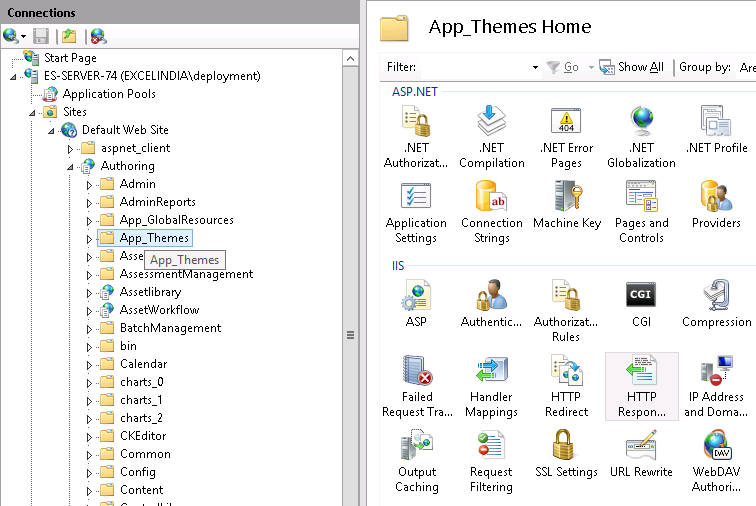
***URL: http://localhost / DNSName / IP Address/Authoring/***

Post Deployment Best Practices

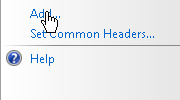
# IIS Caching

Follow the steps below to implement IIS Caching:

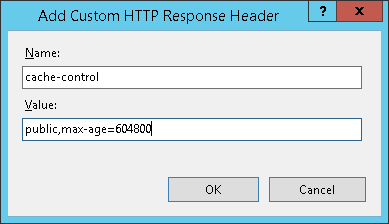
1. Click **Start** -> Run or “**Windows Button + R**” Type “**inetmgr”** (Internet Information Services Manager).



1. After launching the IIS Manger **Select “App\_Themes”** Folder on the Feature View,**Select** or double click on **HTTP Response Header** Option.



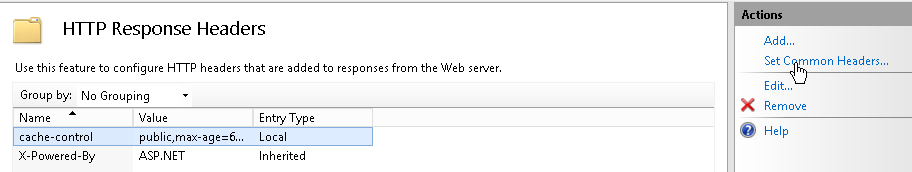
1. On the **Right Pane** Click on **Add**.



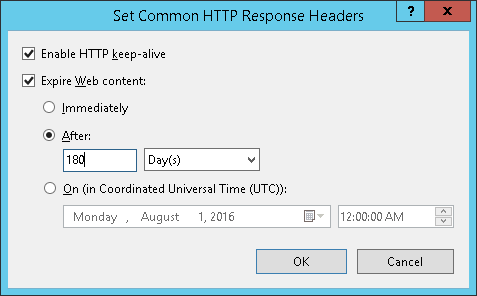
1. In the **Add** window type:

* **Name** : cache-control
* **Value** : public,max-age=604800

1. Click **OK**.



1. On the Right Pane Click on **Set Common Headers**.



1. **Select**  Check box **Expire Web content**.
2. **Select** Option After and Provide value of **180 Days**.
3. Click **OK**.

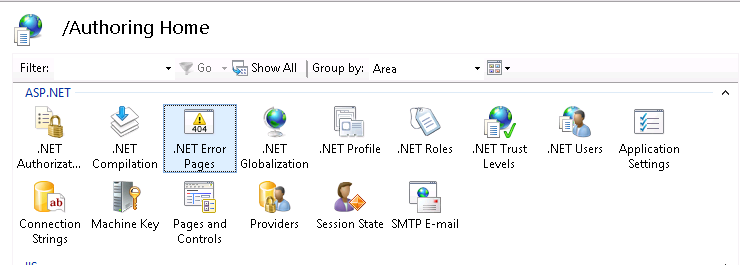
Follow the above mentioned steps for the below listed folders in all virtual directories:

* App\_themes
* Editor\_Data
* Scripts
* Script
* Image files
* Stylesheet
* Styles
* .JS files
* Jquery files
* Image files
* CSS files
* JavaScript
* Helpfiles
* CSS

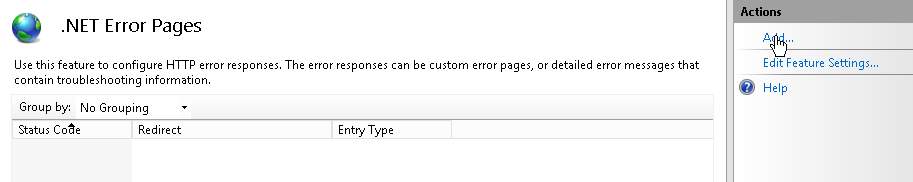
# Error Page Setting

Follow the steps below to set error page:

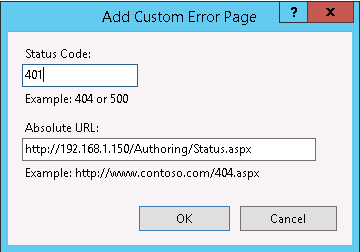
1. Click **Start** -> Run or “**Windows Button + R**” Type “**inetmgr”** (Internet Information Services Manager).



1. After launching the IIS Manger on the **Feature View** Select **.NET Error Pages** Option.



1. On the Right Pane Click **Add**.

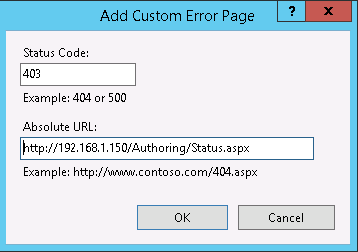


1. Provide the below details:

* Status Code: 401

Absolute URL: <http://192.168.1.150/Authoring/Status.aspx>

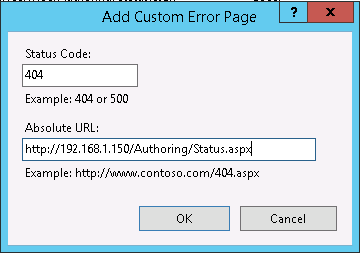
***Note :*** *URL Provided to be replaced with DNS name / IP Address instead of Hostname (es-server-111)*



1. Provide the below details:

* Status Code: 403
* Absolute URL: http://192.168.1.150/Authoring/Status.aspx

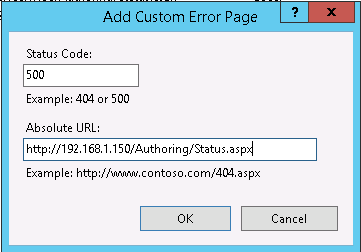
*Note: URL Provided to be replaced with DNS name or IP Address instead of Hostname (es-server-111)*



1. Provide the below details:

* Status Code: 404
* Absolute URL: http://192.168.1.150/Authoring/Status.aspx

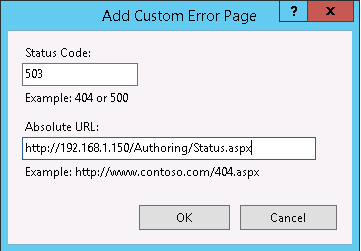
***Not :*** *URL Provided to be replaced with DNS name or IP Address instead of Hostname (es-server-111)*



1. Provide the below details:

* Status Code: 500
* Absolute URL: http://192.168.1.150/Authoring/Status.aspx

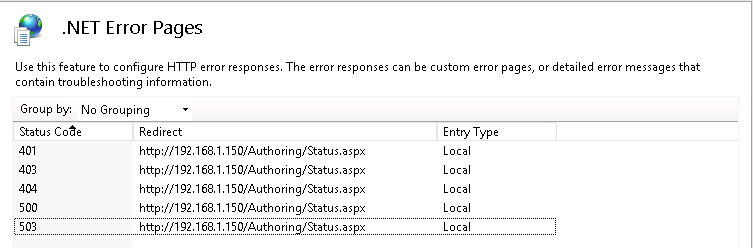
***Note:*** *URL Provided to be replaced with DNS name or IP Address instead of Hostname (es-server-111)*



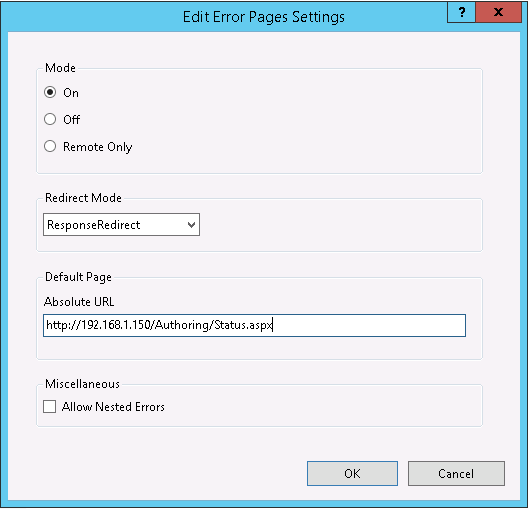
1. Provide the below details:

* Status Code : 503
* Absolute URL : http://192.168.1.150/Authoring/Status.aspx

***Note:*** *URL Provided to be replaced with DNS name or IP Address instead of Hostname (es-server-111).*



1. On the Actions Pane of **.NET Error Pages** Click on **Edit Feature Settings**.



1. In the Error Pages Setting Window **Select Mode** as “**On”**.
2. And Provide the Absolute URL: http://192.168.1.150/Authoring/Status.aspx

***Note :*** *URL Provided to be replaced with DNS name or IP Address instead of Hostname (es-server-111).*

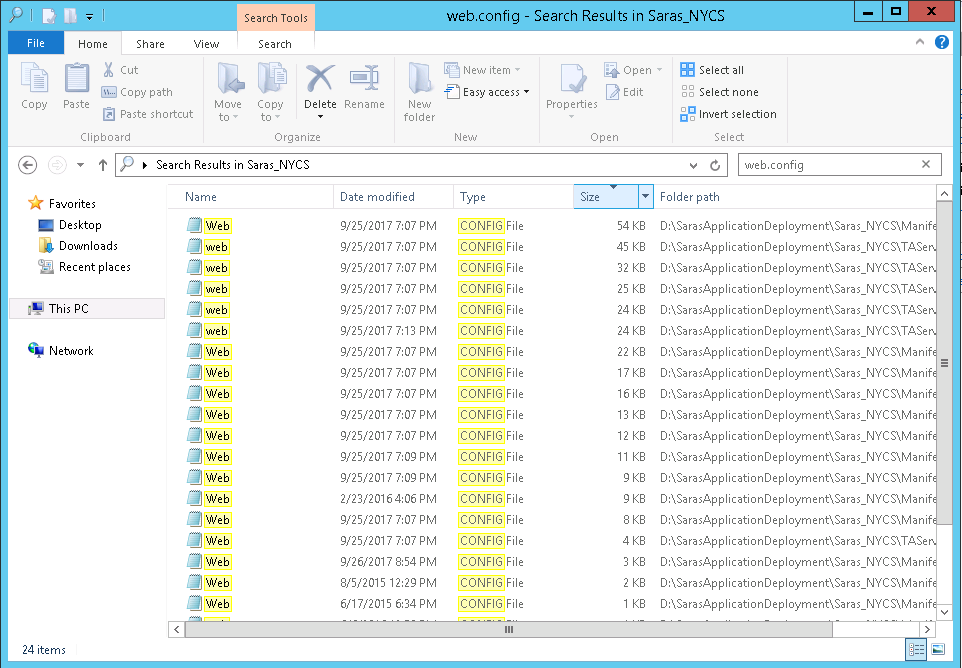
1. Click **OK**.

Web.Config File Changes

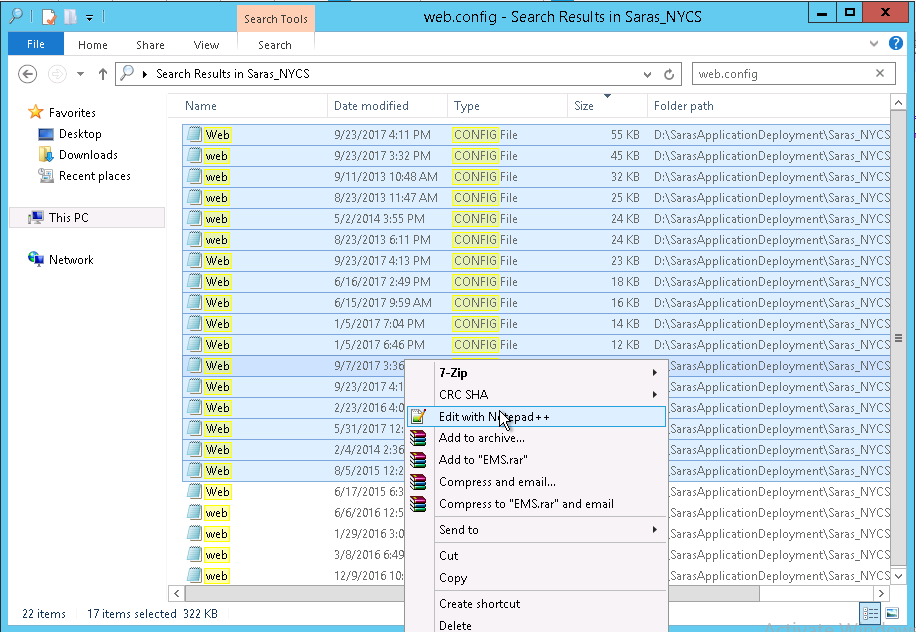
# Test & Assessment Configuration Changes

Follow the steps below to perform **Authoring** configuration changes:

1. Search the web.config files in **Authoring** (Manifest & Service) and Select all Except(1KB Files) and Edit with Notepad++

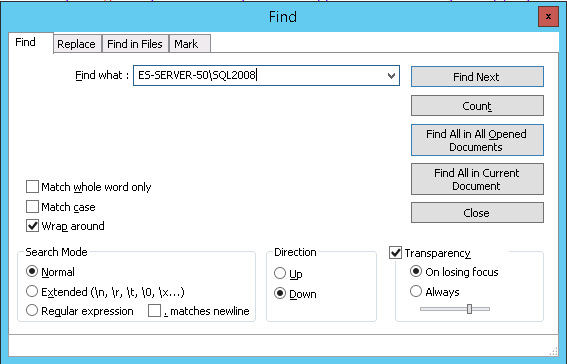


1. Sort the Web.config **File size** in Assending order.



1. **Open** all the Web.Config Files listed under **Manifest** and **Service** Folder**.**
2. Find for the source **DB Server Instance Name**.

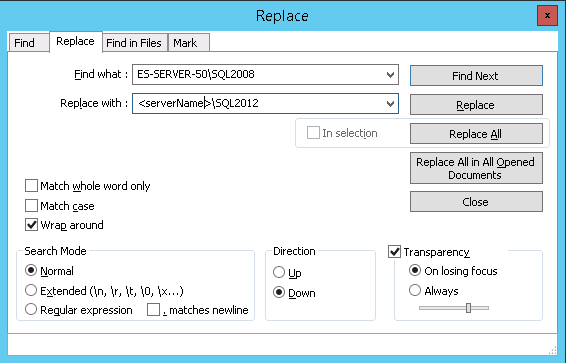
***Note:*** *In the screen shot we have shown a sample server SQL Instance Name*



1. Replace with the **Database Server Instance name**.

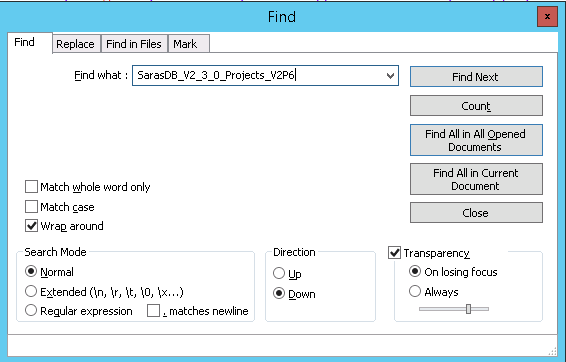
***Note****: In the screen shot we have shown as <ServerName>\SQL2012 server SQL Instance Name*

*Please change the SQL Instance Name in* ***Replace with*** *Text Box and click on Replace All in All Opened Documents*



***Note****: In the screen shot we have shown a sample database Name*

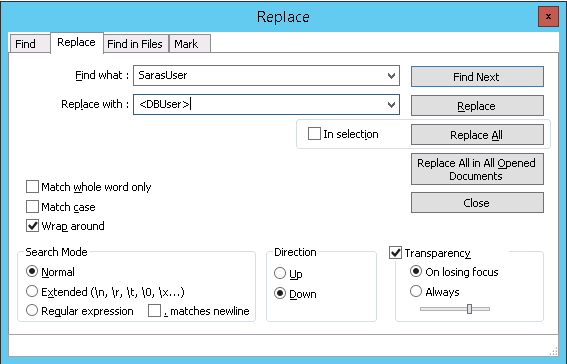
*Please change the DB Name in* ***Replace with*** *Text Box and click on Replace All in All Opened Documents*



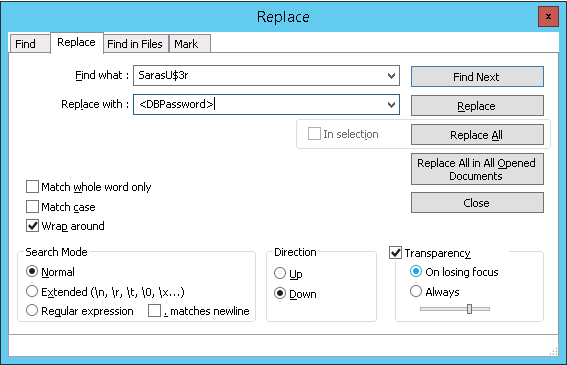
1. Find for the source **Database Name**.
2. Replace with the **Restored Database Name**.

***Note****: In the screen shot we have shown a sample Username*

*Kindly change the Actual Username in* ***Replace with*** *Text Box and click on Replace All in All Opened Documents*



1. Find for the source **Username**.
2. Replace with the **Created DB Username**.

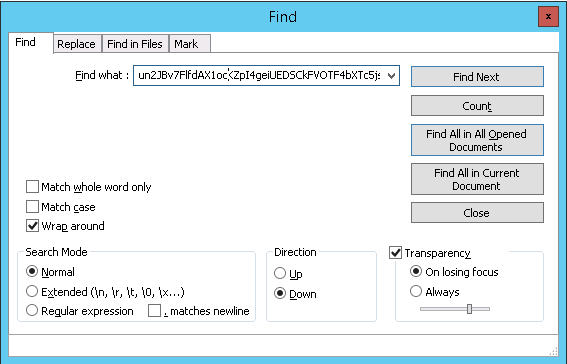


1. Find for the source **Password** in **web.config**.
2. Replace with the **Created Password for the User created**.

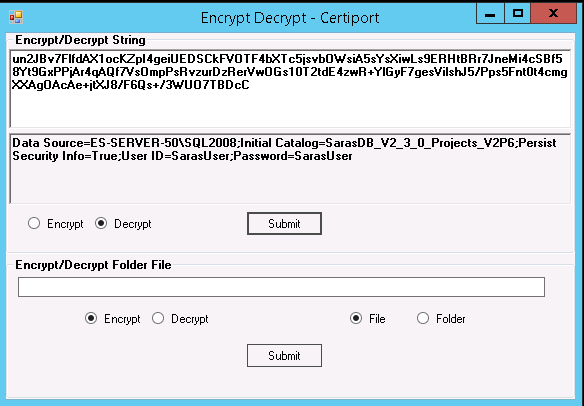
***Note****: In the screen shot we have shown a sample Password*

*Kindly change the Actual Password in* ***Replace with*** *Text Box and click on Replace All in All Opened Documents*

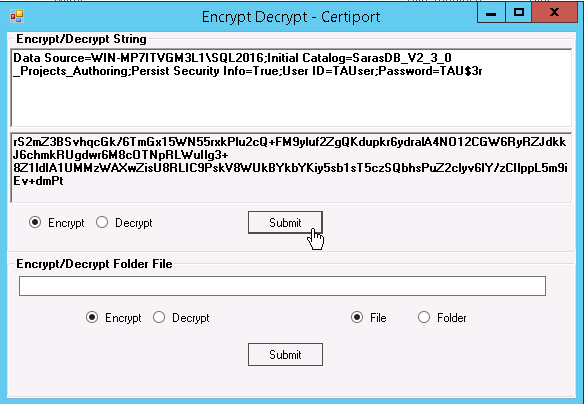
1. Changing Encrypted Connection String in webConfig using Encrypt - Decrypt Tool.



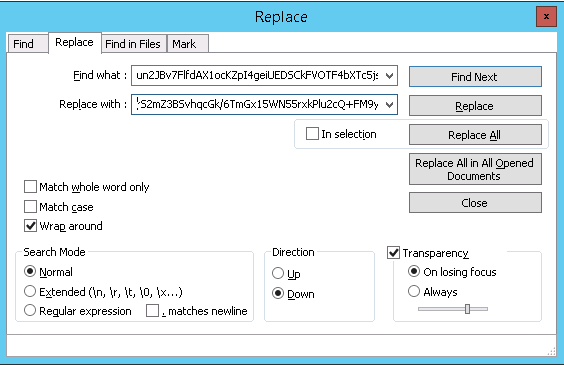
1. Find the Encrypted **connectionString** key in Webconfig.



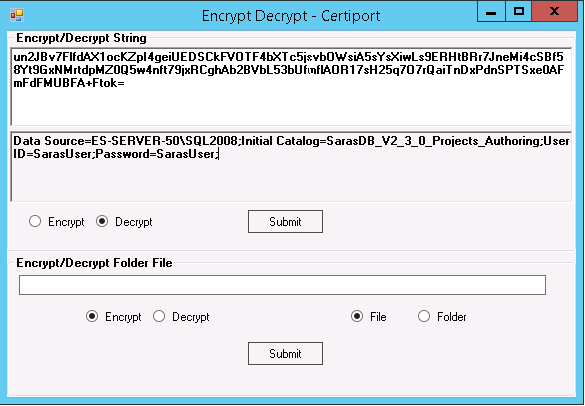
1. Copy the Encrypted Connection string and paste the same in **Encrypt-Decrypt tool**, select **Decrypt** option and click **Submit** to generate the actual connection string values.



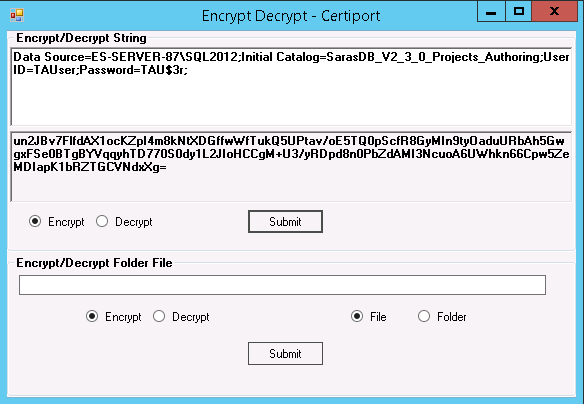
1. Change the connection strings accordingly in provided text box, select Encryption option and click Submit button to Encrypt connection string Values.



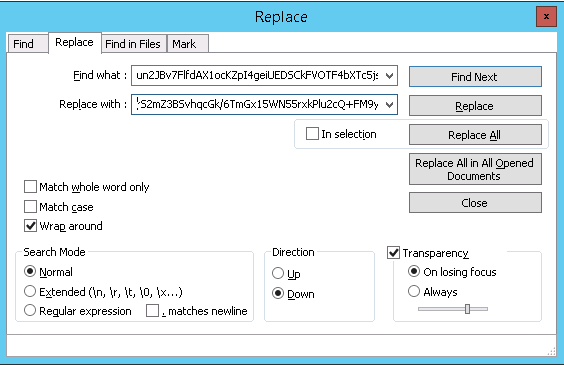
1. Replace the new Encrypted connection String with old one.



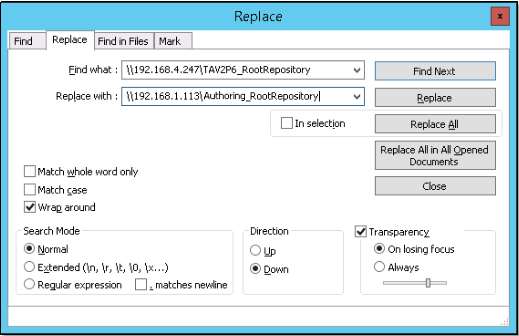
1. Under Manifest Folder -> **EMS** & **TeacherManagement** Web.Config Files, we have another type of Connection String. Same has to be **Decrypted**(**Select Decrypt and Submit**).



1. Change the **Instance Name**, **Database Name**, **UserName** and **Password** accordingly and select **Encrypt** option and Click **Submit** Button.



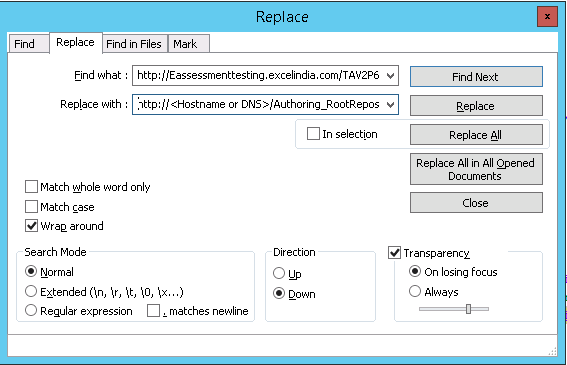
1. Replace the new Encrypted Connection String of **EMS** and **TeacherManagement** with old one.



1. Find for the source **Repository Path** (Either Shared Path or Physical Path) in web.config.
2. Replace with the **Repository Path** (Physical Path or Shared Path).

***Note****: In the screen shot we have shown a sample Repository Path,* ***If the Database and Application is Deployed in Single server, Repository Files should be placed in Same server and Physical path to be updated in all Webconfig files instead of Shared path***

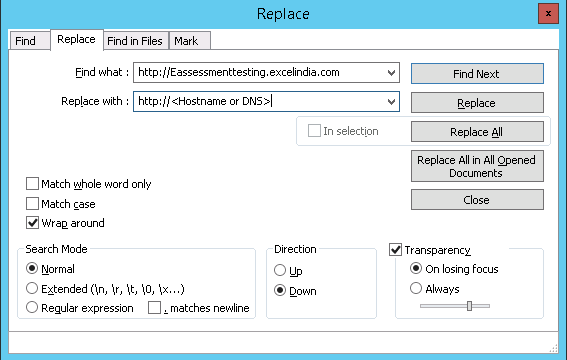
*Kindly change the Actual Repository Path in* ***Replace with*** *Text Box and click on Replace All in All Opened Documents*



1. Find for the source **HTTP Repository Pat**h (Either DNS Name or Hostname) in web.config.
2. Replace with the Destination **HTTP Repository Path** (Either DNS Name or Hostname).

***Note****: In the screen shot we have shown a sample HTTP Repository Path*

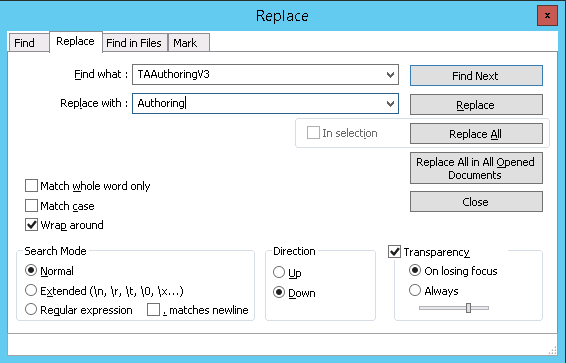
*Kindly change the Actual HTTP Repository Path in* ***Replace with*** *Text Box and click on Replace All in All Opened Documents*



1. Find for the source **IP Address** (Either DNS Name or Hostname) in web.config.
2. Replace with the Destination **IP Address** (Either DNS Name or Hostname).

***Note****: In the screen shot we have shown a sample IP Address*

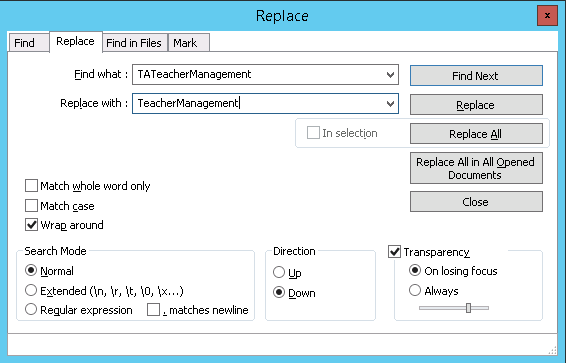
*Kindly change the Actual IP Address in* ***Replace with*** *Text Box and click on Replace All in All Opened Documents*



1. Find for the source **VDName** (TAAuthoringV3) in web.config.
2. Replace with the Destination **VDName** **Authoring**.

***Note****: In the screen shot we have shown a sample IP Address*

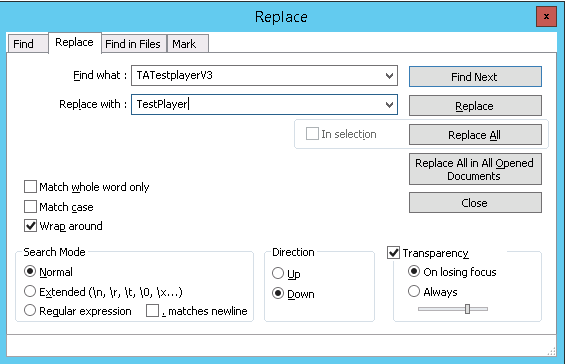
*Kindly change the Actual IP Address in* ***Replace with*** *Text Box and click on Replace All in All Opened Documents*



1. Find for the source **VDName** (**TATeacherManagement**) in web.config.
2. Replace with the Destination **VDName TeacherManagement**.

***Note****: In the screen shot we have shown a sample VDName*

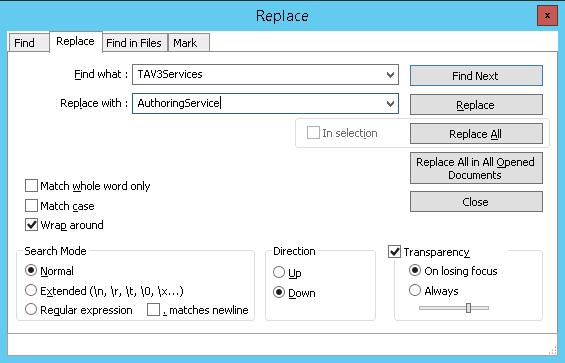
*Kindly change the Actual* ***VD Name*** *in* ***Replace with*** *Text Box and click on Replace All in All Opened Documents*



1. Find for the source **VDName** (TATestPlayerV3) in web.config.
2. Replace with the Destination **VDName** TestPlayer.

***Note****: In the screen shot we have shown a sample VDName*

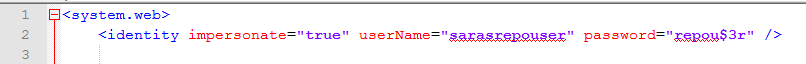
*Kindly change the Actual* ***VD Name*** *in* ***Replace with*** *Text Box and click on Replace All in All Opened Documents*



1. Find for the source **VDName** (TAV3Services) in web.config.
2. Replace with the Destination **VDName AuthoringService**.

***Note****: In the screen shot we have shown a sample VDName*

*Kindly change the Actual* ***VD Name*** *in* ***Replace with*** *Text Box and click on Replace All in All Opened Documents*

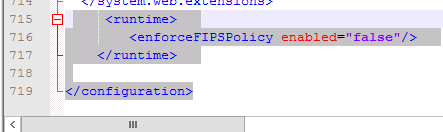


1. Add or Update the below impersonation key under **<System.web>** tag, in (**EMS**, **TAServices**, **ItemAuthoring,** **Assetlibrary** Folder Web.config Files).

**Key to be Added or Updated:**

**<identity impersonate="true" userName="sarasrepouser" password="repou$3r" />**

Note**: Please schedule the backup plans for the** Test & Assessment application**, which includes** RootRepository, Manifest, Services, & DB**. As per the company policy, we recommend the backup to be synchronized on an Hourly basis on different Machines/Servers for** DB **and Backup Application on** weekly **basis.**



1. Add the **FIPS Policy Disabling key** in all the web.config files at the end before closing key (**</configuration>**)

**FIPS key:**

<runtime>

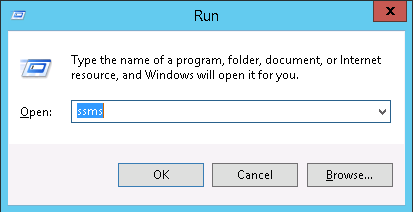
<enforceFIPSPolicy enabled="false"/>

</runtime>

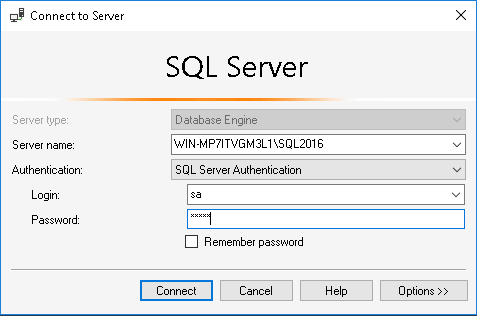
</configuration>

DATABASE RESTORE

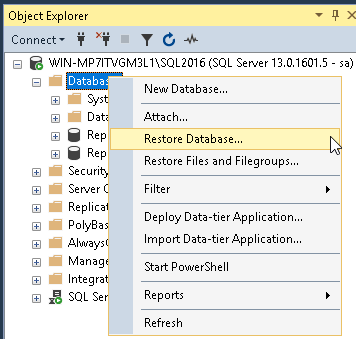
Follow the steps below to Restore the Database:



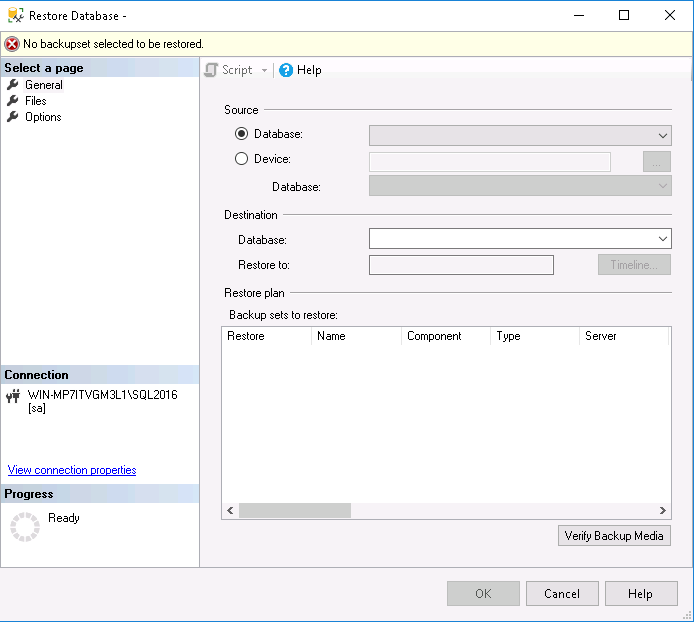
1. Click **Start** –>**All Programs** –> **Microsoft SQL Server** –> **SQL Server Management Studio** / **OR**
2. Press **Windows** button + R and type SSMS, then click **OK**.



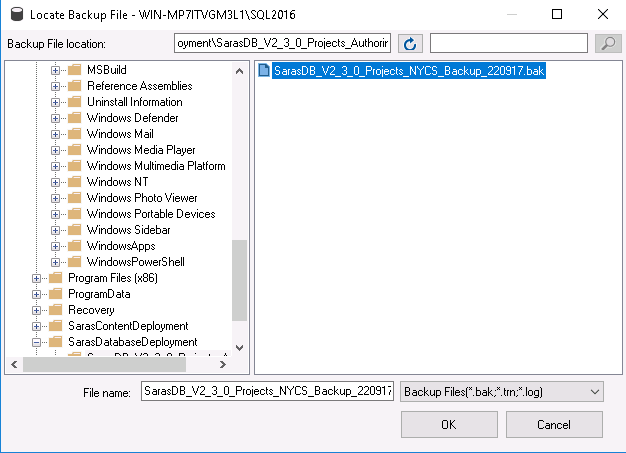
1. Login to SQL Using Sa Credentials.



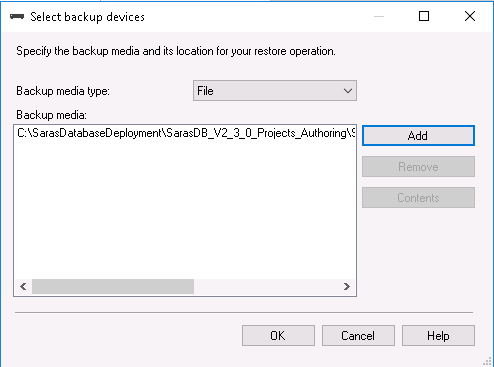
1. Right Click on **Database**. Navigate to **Restore Database**.



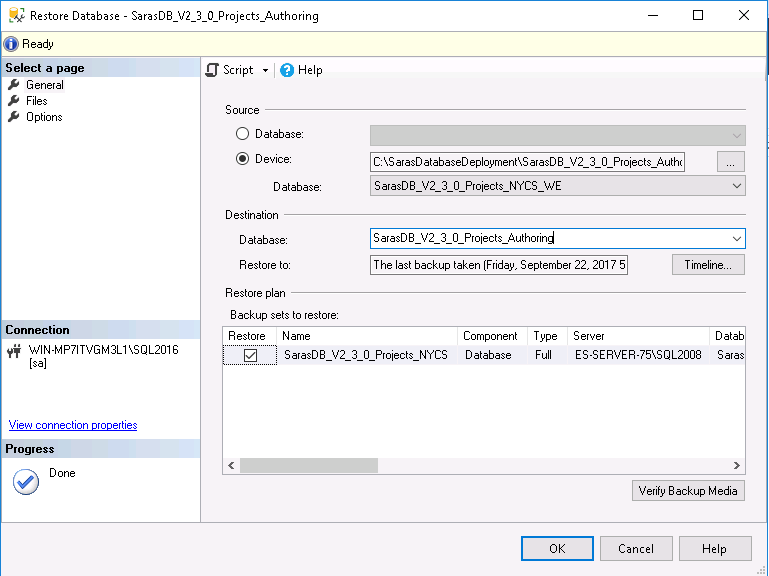
1. Select the Device option and click on customize button (…).



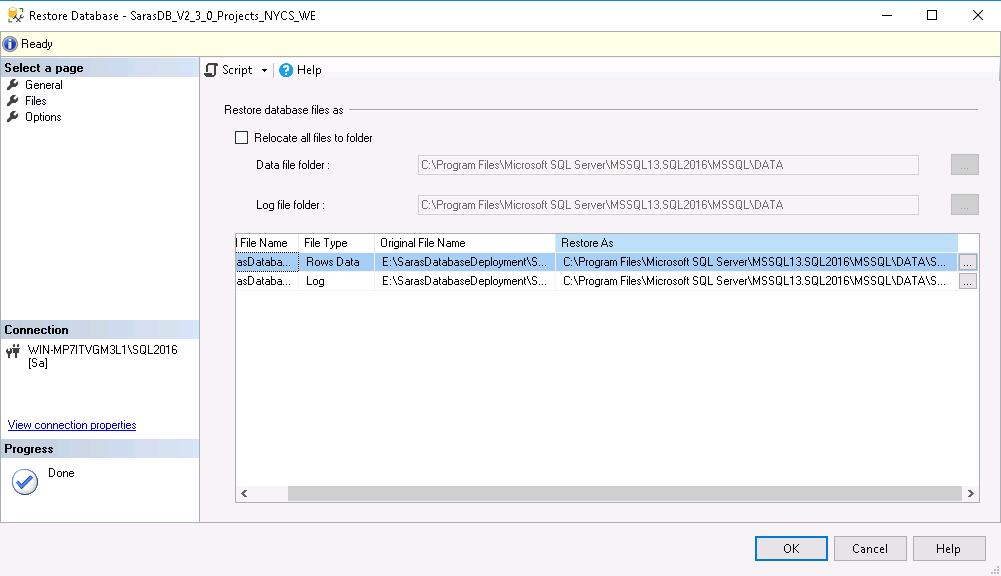
1. Select the DB (**SarasDB\_V2\_3\_0\_Projects\_NYCS**) which has to be restored from the physical path and Click **OK**.



1. Ensure that the correct File Name is selected and Click **OK**.

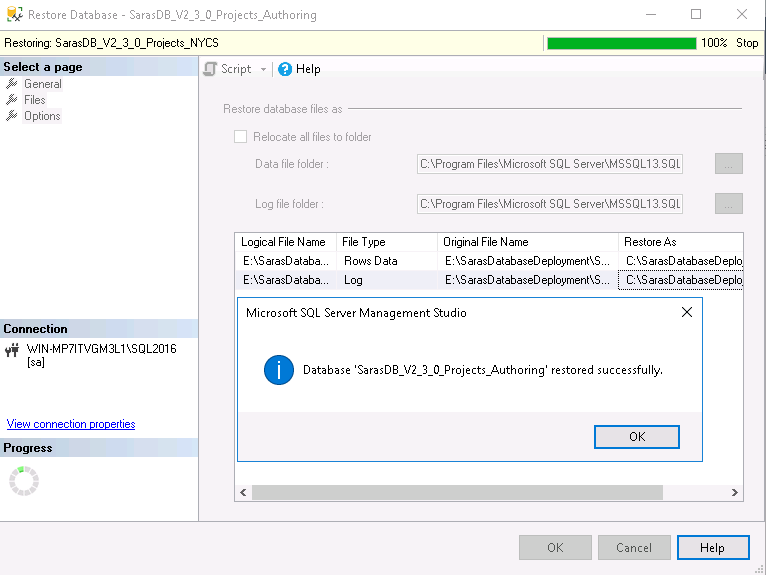


1. Check the Box  under **Restore Column** to select the Backup sets to restore and Click **OK**.

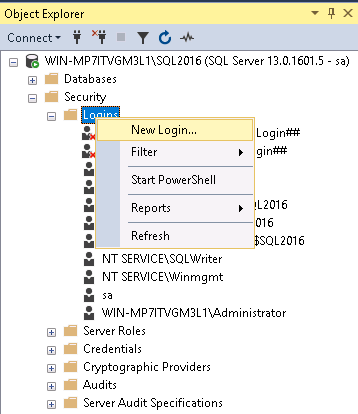


1. On the left panel, click on the Files and Set the file path to store **MDF** and **LDF** Files at **Restore As** Column in both the rows.
2. After you complete, click **OK**.

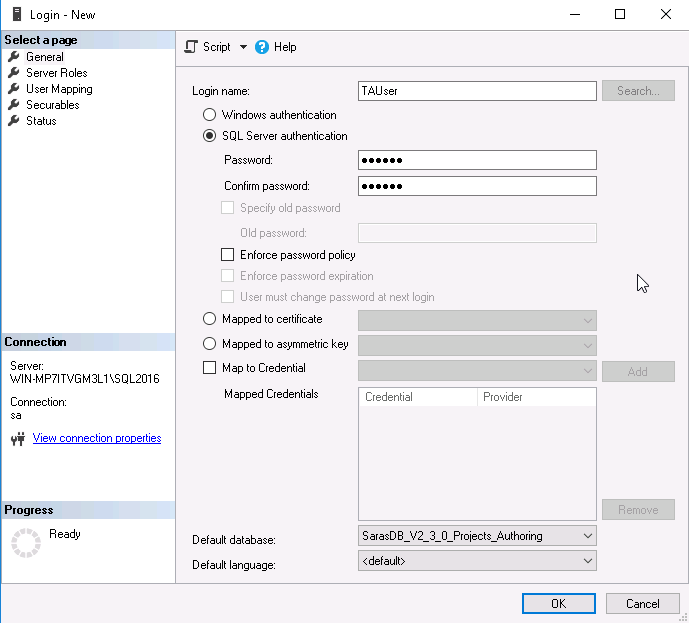
Note: If the Disk partitions are available, Set/Move the MDF and LDF on different partitions (Drives).



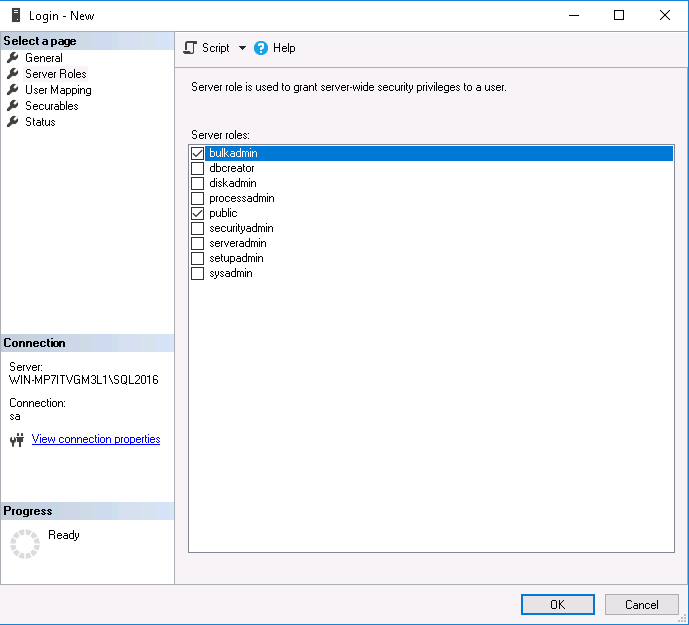
1. Success Message is displayed. Click **OK** and Check if the **DB** is restored.



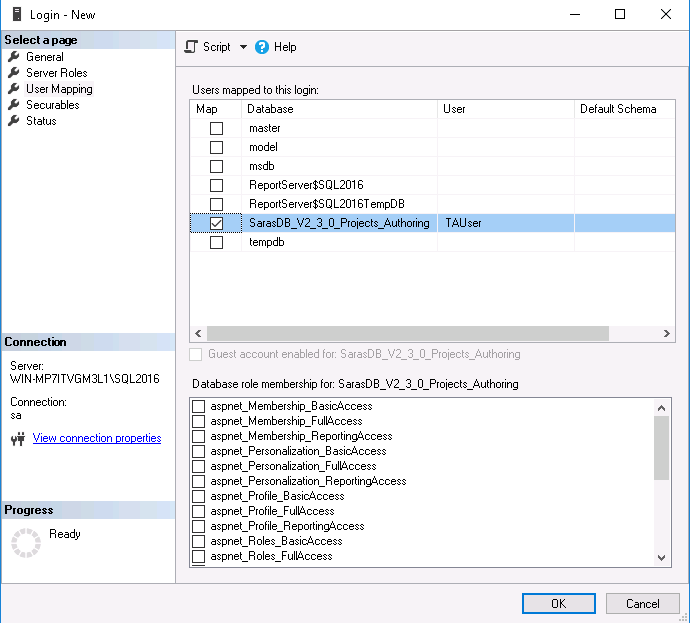
1. Select the Logins under Security.
2. Right-Click on Logins and select New Login.



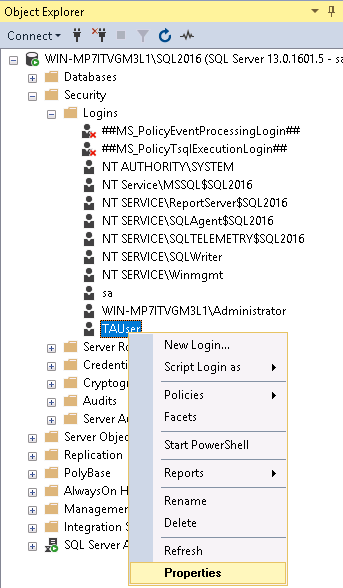
1. Enter the Login Name as TAUser and Password as TAU$3r and Uncheck Enforce password policy.



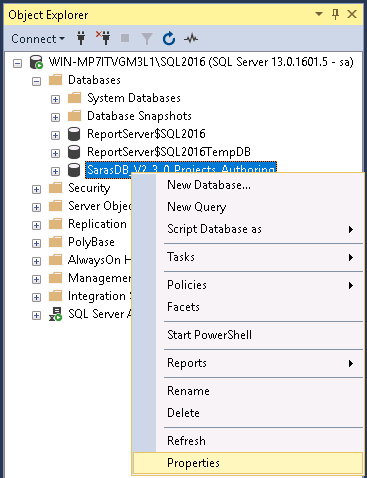
1. Under Server roles Option Check the **Bulkadmin** and **Public**. Click **OK**.



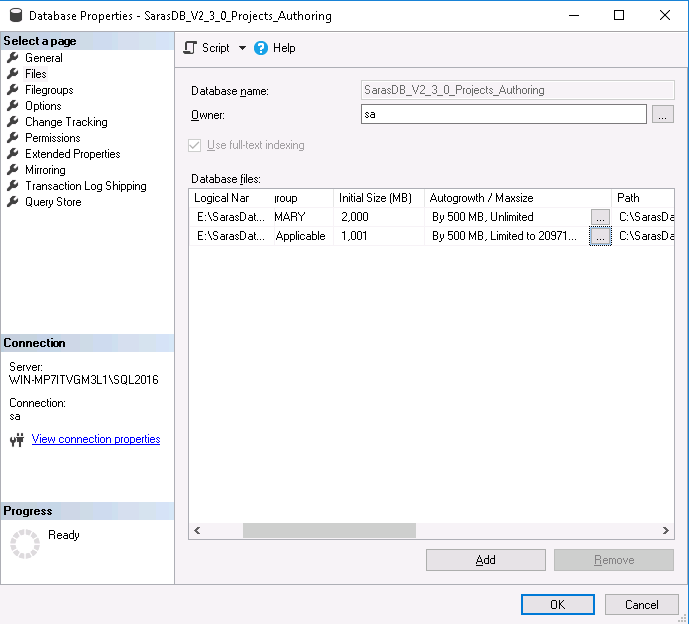
1. Under User Mapping Check the restored **SarasDB\_V2\_3\_0\_Projects\_Authoring and** Click **OK**.



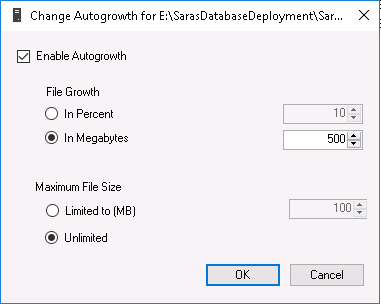
1. To Check and confirm the **TAUser** is created, navigate to Logins under Security.
2. Right Click on **TAUser** and Select Properties.



1. To set MDF and LDF on the restored Database, Right Click and Select **Properties**.

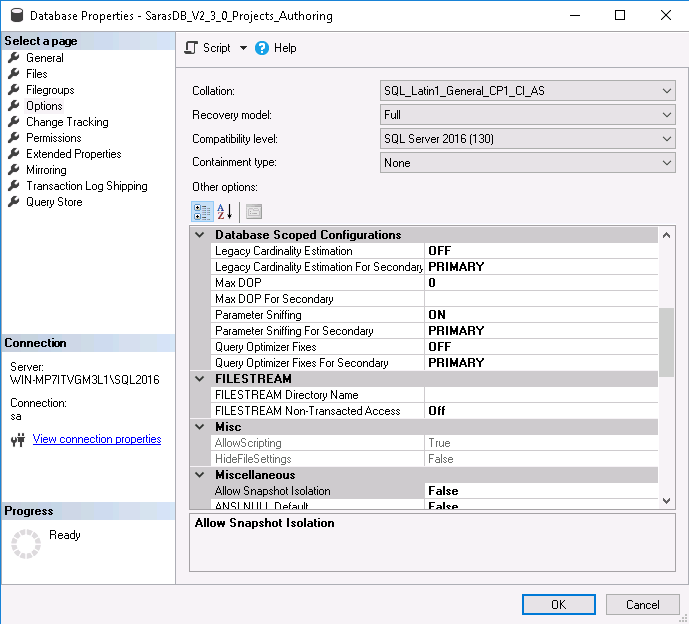


1. Click on browse button (…) to view the pop-up window.



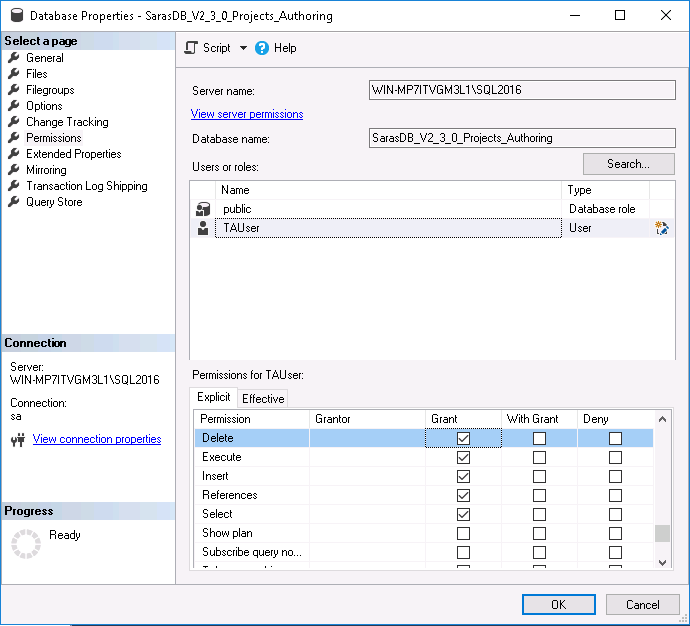
1. Set the initial Size (MB) for the SarasDB (**.mdf**) to 2,000MB and SarasDB\_log (**.ldf**) to 1,000MB and Set the Autogrowth rate to 500MB for same. Click **OK**.

Note: - Do not change the MDF and LDF, if the size is more than above defined values and Repeat the same to Rest of all the Databases.

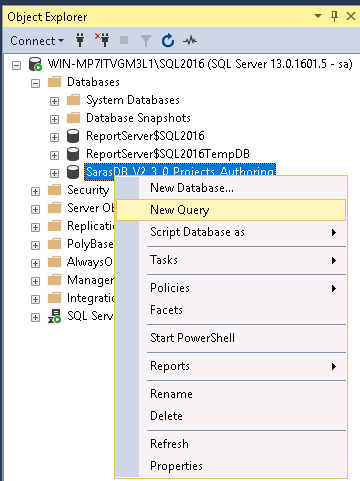


1. In Options Set the Recover mode based on the server Environment, if Production or UAT select **‘Full’** else set to **‘Simple’**.
2. In Options Set the Field **Trustworthy** to True. By Default it will be False. To Set Field Trustworthy to True, Follow the steps below.
3. The Query is given along with copy of DB with the Name EncrptPassword.dll and Encryptstring.Sql.

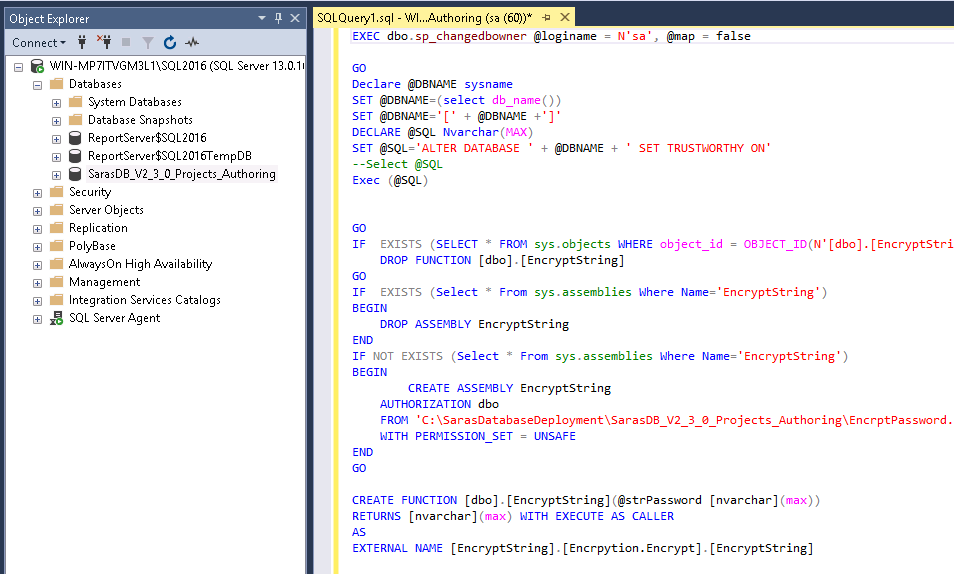
Note: - Keep both the Files in same Folder and Edit the Encryptstring.sql and Assign the Physical path of EncrptPassword.dll. Repeat the same to Rest of all the Databases.



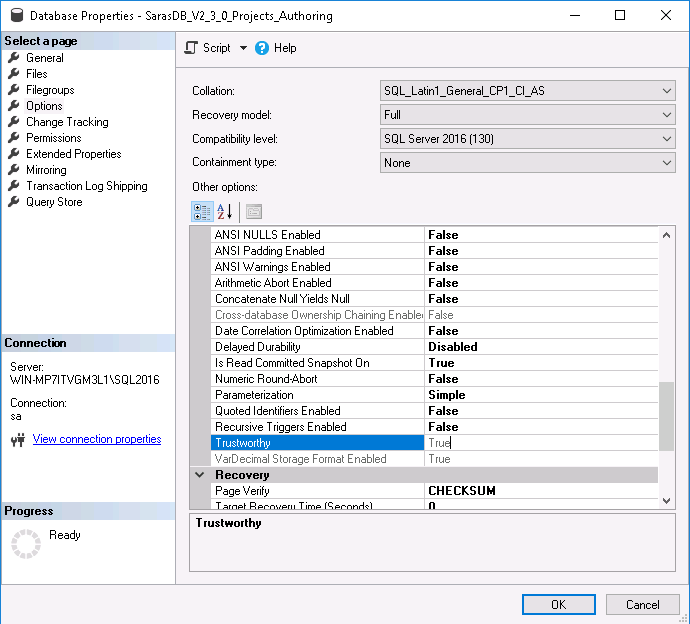
1. In Permissions option, click on User (TAUser) and select(tick) the permissions View Definition, Update, select, References, Insert, Execute and Delete.



1. Right Click on **SarasDB\_V2\_3\_0\_Authoring** and Select New Query.



1. Edit the Encryptstring.sql and Assign the Physical path of EncrptPassword.dll.
2. Example: - FROM 'C: \WINDOWS\EncrptPassword.dll'(OLD).
3. FROM C:\SarasDatabaseDeployment\SarasDB\_V2\_3\_0\_Projects\_Authoring\EncrptPassword.dll' (NEW).
4. Run the Query to view the message “The Dependent aliases were dropped”.
5. Right-Click on the Database-- > Select Properties-- > Options-- > Select Trustworthy.



1. Ensure the Trustworthy is Set to ‘**True’**.
2. To Grant the Permission for TAUser, below Command to execute for Master DB:

**USE [master]**

**Grant Alter trace to TAUser**

1. Below the Command to execute for restored SarasDB\_K12Saras.

**USE [SarasDB\_V2\_3\_0\_Projects\_Authoring]**

### Grant alter on tbltempquestionlist to TAUser

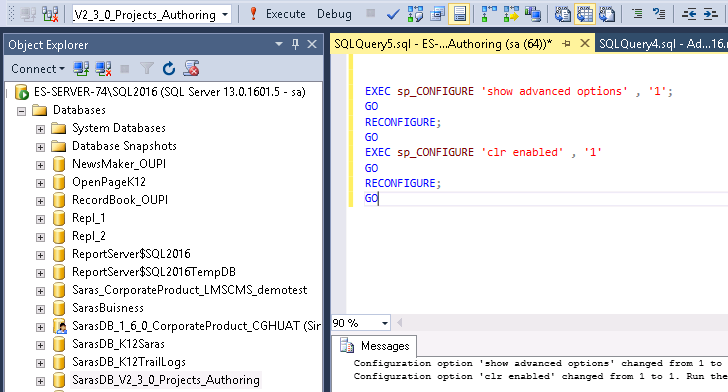
1. To Change the URL value in the Database. Find the below Example.
2. **Example:** To change Virtual Directory Name of SarasOld to SarasNew under the **Privileges** Table.
3. To select the old VD Name:

**Select \* from privilages**

1. Execute the commands below:

**Update privilages set url=replace(url,'/TAAdmin/','/Authoring/')**

1. Once the command is executed, the URL value is set to SarasNew.



1. You can enable **CLR integration** by setting the CLR enabled option to **1**.

**EXEC sp\_CONFIGURE 'show advanced options' , '1';**

**GO**

**RECONFIGURE;**

**GO**

**EXEC sp\_CONFIGURE 'clr enabled' , '1'**

**GO**

**RECONFIGURE;**

**GO**

**Note: When you enable CLR integration, SQL Server starts executing all CLR routines and Loads all application domains.**

After you complete the entire deployment process, you will be able to browse the application URL successfully and navigate to application modules.

This completes the Deployment of Test & Assessment Application.