Migrate a Website from a Virtual Machine to Azure Web Apps

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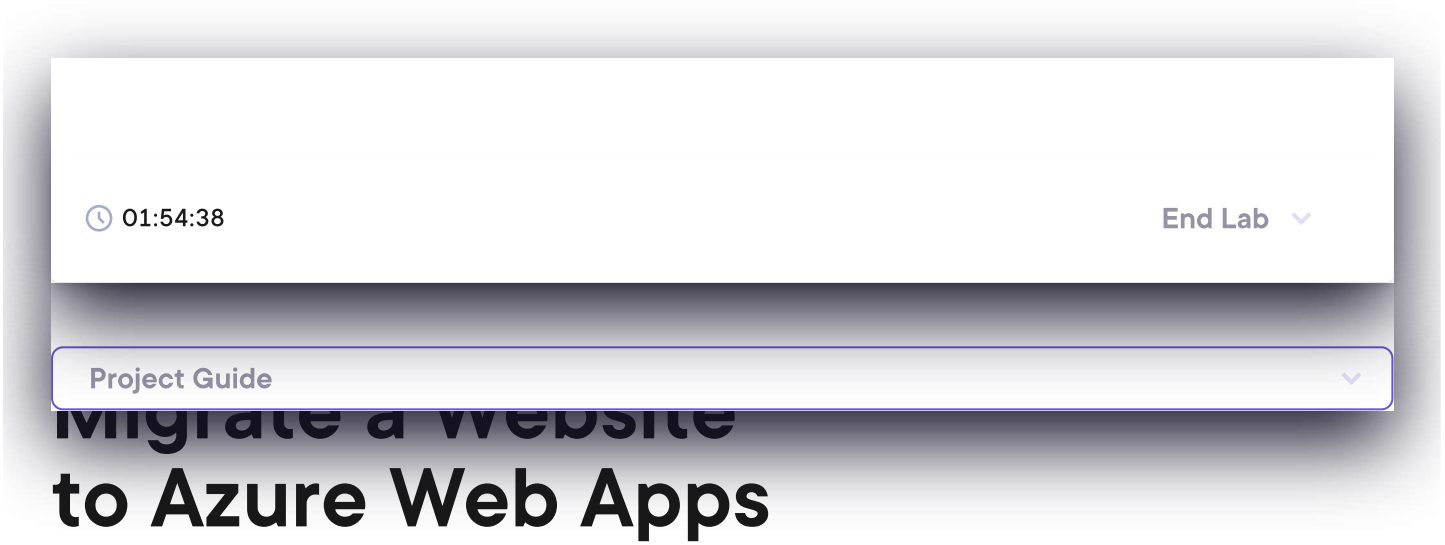

Introduction

You are working on a team that is in the middle of upgrading an application environment, and as part of that effort, you are migrating an IIS website to Azure Web Apps. To do this, in this hands-on lab, you will be utilizing the App Service Migration Assistant to migrate your website to an Azure Web App.

Solution

Log in to the Azure portal using the credentials provided on the lab page. Be sure to use an incognito or private browser window to ensure you're using the lab account, rather than your own.

Connect to the `vm` virtual machine via remote desktop (either through the Remote Desktop client available on Windows machines or through the Microsoft Remote Desktop application available for Mac machines) using the public IP address and credentials provided on the lab page.

The lab files needed for configuring the web server can be accessed via the GitHub repository for this lab.

Configure the Web Server

Install IIS on the Virtual Machine and Create a Simple Website

1. In the Azure portal, from the list of resources, click the **vm** virtual machine to open it.
2. From the menu at the top, click the **Connect** down-arrow and select **RDP**.
3. Connect to the `vm` virtual machine via remote desktop, using the public IP address and credentials provided on the lab page.
4. On the `vm` virtual machine, in the **Search** bar, type *powershell*, and then select **Windows PowerShell ISE**.
5. Navigate to the GitHub repository for the lab and click the `webserver.ps1` file to open it.
6. Click the **Copy raw contents** button.
7. Navigate back to PowerShell and paste the copied script in the top pane.

> **Note:** If the script pane does not display by default, select **View** from the menu at the top of the PowerShell window and toggle on the **Show Script Pane** option.

8. Review the actions provided in the `webserver` script: installing the IIS web server feature, including the sub-features and management tools; and then creating a simple HTML website that displays the text **"Hello Cloud Gurus!"** and is saved in the default website folder.
9. From the menu at the top, click the **Run Script** button (or press **F5**).
10. Once the script has completed, in the **Search** bar in the taskbar, type *inet*, and then select **Internet Information Services (IIS) Manager**.
11. In the **Internet Information Services (IIS) Manager** window, in the left navigation menu, expand **vm (vm\cloud_user)**, and then expand **Sites**.
12. Then, select **Default Web Site**.
13. In the **Actions** pane on the right, under **Browse Website**, click **Browse *:80 (http)**.
14. Once the website launches, verify that it is running on `localhost` and the **Hello Cloud Gurus!** text displays as configured during setup.

Install the App Service Migration Assistant

Download and Install the App Service Migration Assistant

1. Back in the Azure portal, in the **Search** bar at the top of the window, type *Azure Migrate* and then select **Azure Migrate**.
2. On the Azure Migrate page, in the navigation menu on the left, under **Migration goals**, click **Web apps**.
3. On the **Web apps** page, click the **Create project** button.

4. From the **Resource group** drop-down, select the resource group that has been provisioned for this lab.

   > **Note:** The resource group will contain the lab's title in the name.

5. In the **Project** field, enter *awesomeproject*.
6. From the **Geography** drop-down, select **United States**.
7. Click **Create**.
8. Once the project has been created, under **Azure Migrate: Web App Migration**, click the hyperlinked "Download the App Service Migration Assistant tool from here".
9. Open the link and copy the URL for the migration tool from browser's address bar.
10. Back in your VM, open up the browser and paste in the link you just copied from Azure.
11. In the page that opens, scroll down to **App Service migration tools and resources** section of the page, and in the table under **Migration Tools**, click App Service Migration Assistant to download the tool to your VM.
12. Once the file has downloaded, navigate to the `AppServiceMigrationAssistant.msi` file and open it to install the tool on your desktop.
13. Once installed, double-click the **AppServiceMigrationAssitant** shortcut that has been placed on the desktop to open the tool.

Migrate the Website

Configure the App Service Migration Assistant to Migrate the Website

1. In the **Azure App Service Migration Assistant** window, on the **Choose a Site** page, select **Default Web Site** and click **Next**.
2. On the **Assessment Report** page, once the assessment of the website's contents and settings has completed, view any of the reports returned under the **Success**, **Warning**, and **Error** headings and then click **Next**.
3. On the **Login to Azure** page, click the **Copy Code & Open Browser** button.
4. In the Microsoft Online sign-in page that opens in a new browser tab or window, in the **Enter code** pop-up, paste the copied code in the **Code** field and click **Next**.
5. In the **Pick an account** pop-up, since you are already signed in to the Azure portal with it, select the **Cloud Student** account. If no account is populated then login using the username and password you used to open the Azure Portal. (From the lab credentials section).

6. In the **Are you trying to sign in to Azure App Service Migration Assistant?** pop-up, click **Continue**.
7. Once the sign in is complete and the App Service Migration Assistant has been connected to your Azure subscription, close the tab or window.
8. In the taskbar, click the **Azure App Service Migration Assistant** to access the tool again.
9. On the **Azure Migrate Hub** page, from the **Azure Migrate Project** drop-down, select **awesomeproject** and click **Next**.
10. On the **Azure Options** page, set the following:
    - **Subscription**: leave at the subscription for the lab that is selected by default
    - **Resource Group**: select **Use existing**
    - **Destination Site Name**: enter *awesomewebsitexxx*, where *xxx* is a unique string of characters
    - **App service plan**: select **Use existing**
    - **Dedicated app service plan**: verify that the **awesomeappserviceplan** is selected
    - **Databases**: leave **Skip database setup** selected
11. Click **Migrate**.

Confirm the Website Has Been Successfully Migrated

1. Once the migration has completed, on the **Migration Results** page, click the **Go to your website** button.
2. When the website opens in a new browser tab or window, verify that the URL matches the `awesomewebsitexxx.azurewebsites.net` site name that you set up in the migration tool and the **Hello Cloud Gurus!** text displays, confirming that the website has been migrated successfully.

Conclusion

Congratulations — you've completed this hands-on lab!

Lab Tools

Lab Diagram | Instant Terminal

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Lab Credentials

Help ↗

It is recommended that all Hands-on Labs are opened in an **incognito window**.

Azure portal Account

URL

https://portal.azure.com/#@realhandsonlabs.com/resource/subscriptions/9

Username

cloud_user_p_f1d07839@realhandsonlabs.com

Password

yeCCx7un

vm

Learning Objectives

Successfully complete this lab by achieving the following learning objectives.

1 Configure the Web Server

- Install Internet Information Services (IIS) on the virtual machine
- Create a simple HTML website

NOTE: These steps can be automated using the `webserver` PowerShell script from the GitHub repository

Mark Complete

2 Install the App Service Migration Assistant

- Create an Azure Migrate project.
- Download and install the **App Service Migration Assistant**

Mark Complete

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3 Migrate the Website

- Configure the App Service Migration Assistant to migrate the default website
- Connect the App Service Migration Assistant to your Azure subscription
    - **Important:**
        - Use the existing App Service plan
            - By default, the Migration Assistant will deploy an App Service plan that is not permitted in the lab environment
        - Use the existing resource group
            - Creation of a new resource groups is not permitted in the lab environment
- Confirm the website has been successfully migrated

Mark Complete

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