

ONLINE LAB: Using ASR to Duplicate an Azure Solution

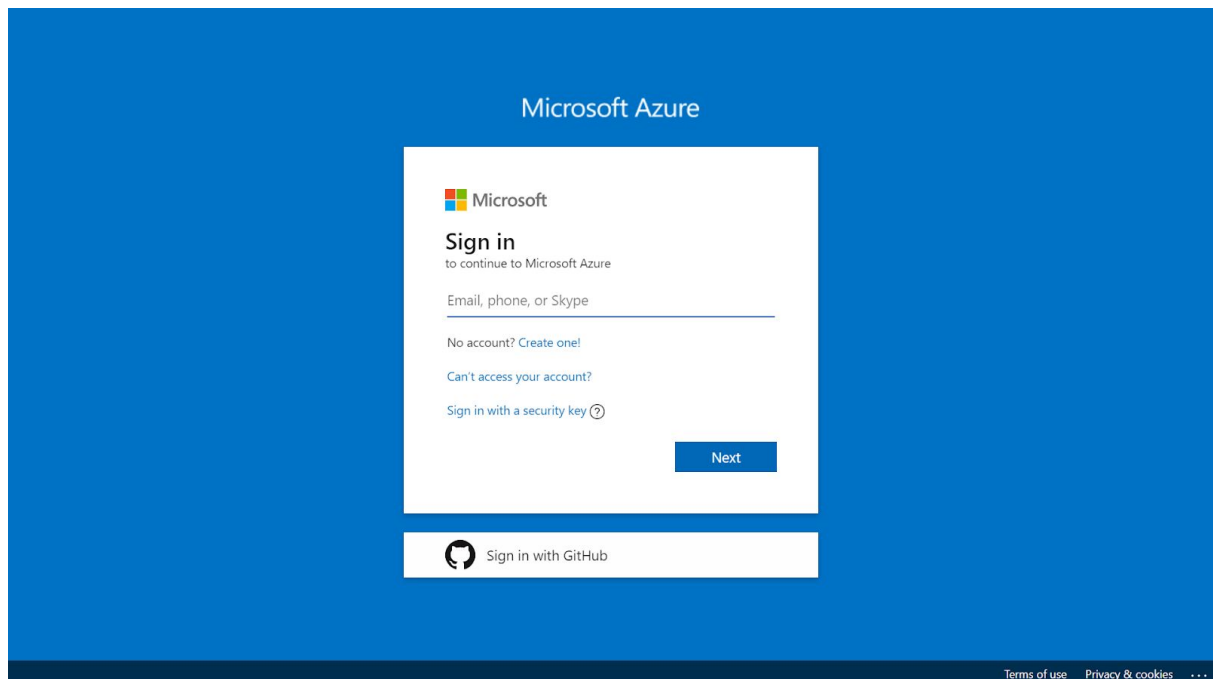
Your Challenge

- Create a resource group named **asrrg**
- Create a virtual machine in that resource group named **sourcevm**.
- Set up ASR to make a duplicate copy of that VM in another region
- Test failover
- Clean up all of your resources created after you're done

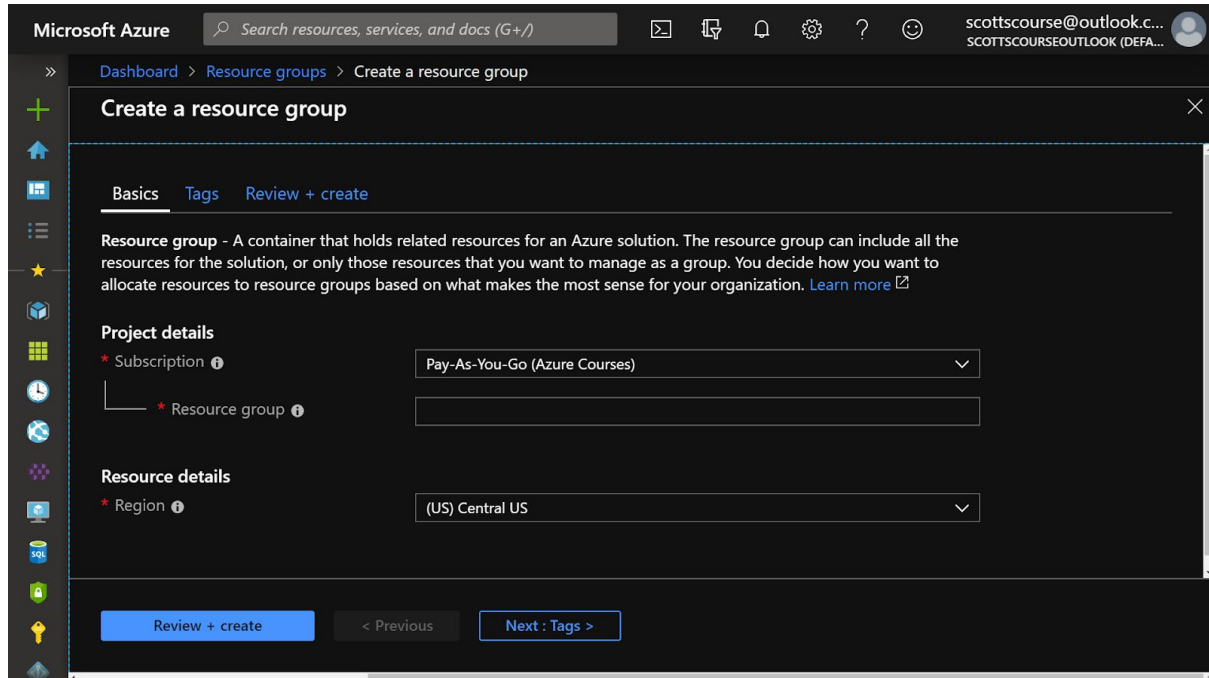
Solution

Step 1 Sign Into Azure

Sign into Azure at <https://portal.azure.com/>



Step 2 Create a resource group



The screenshot shows the 'Create a resource group' blade in the Microsoft Azure portal. The breadcrumb navigation at the top reads 'Dashboard > Resource groups > Create a resource group'. The blade title is 'Create a resource group'. Below the title, there are three tabs: 'Basics' (selected), 'Tags', and 'Review + create'. A descriptive text states: 'Resource group - A container that holds related resources for an Azure solution. The resource group can include all the resources for the solution, or only those resources that you want to manage as a group. You decide how you want to allocate resources to resource groups based on what makes the most sense for your organization. [Learn more](#)'. The 'Project details' section contains a 'Subscription' dropdown menu set to 'Pay-As-You-Go (Azure Courses)' and an empty 'Resource group' text input field. The 'Resource details' section contains a 'Region' dropdown menu set to '(US) Central US'. At the bottom, there are three buttons: 'Review + create' (highlighted in blue), '< Previous', and 'Next : Tags >'.

1. In the navigation list, click **Resource groups**.
2. Click **Add** to open the **Resource group** blade.
3. For **Resource group** name, enter **asrrg**.
4. Select a subscription and a location, choose Central US location.
5. Click **Review + Create** to proceed to the last step.
6. Click **Create** to create the resource group.
7. Click **Refresh** to refresh the list of resource groups.

The new resource group appears in your resource groups list.

Step 3 Create a Virtual Machine

1. In the list of Resource groups, click the new **asrrg** resource group.
2. Click **Add** to open the Azure Marketplace.
3. Enter "**windows server**" in the search box and choose **Windows Server** as a result.
4. Choose "**Windows Server 2019 Datacenter**" from the drop down box.
5. Click **Create**.

6. Choose your subscription.
7. Ensure it's created in the **asrrg** resource group.
8. Use **sourcevm** as the name.
9. Ensure it is created in the **Central US** region, same as the resource group.
10. No redundancy.
11. **Standard DS1 v2** for the size.
12. Enter **azureadmin** for the admin account name.
13. Enter **NeWPass@129*** for the admin password.
14. Allow the web ports, **HTTP 80**.
15. Click **Review + Create** to review the selections.
16. Allow it to create. Could take about 10 minutes.

Step 4 Replac the VM to Another Region

1. In the list of Resource groups, click the new **asrrg** resource group.
2. Choose the VM that you just created from the list of resources **sourcevm**.
3. In the left menu, navigate to the section called **Operations**.
4. Select **Disaster Recovery** from the list of options.
5. If the VM is not ready, it will give you an error. Wait until it's ready and repeat step 4 again.
6. Select the **Target Region** to copy the solution to, **East US**.
7. Click "**Review + Start Replication**".
8. Click **Start Replication** to begin.
9. Wait for the operation to complete. Replication can take a long time. Potentially one hour or more.

Step 5 Check on Duplication Status

1. In the list of Resource groups, find the **Site-recovery-vault-RG** resource group. Click into it.
2. Choose the Azure **Recovery Services Vault**, named **Site-recovery-vault-eastus** or similar.
3. Scroll down the menu, to the section called **Protected Items**.
4. Open the **Replicated Items** menu tab.

5. Wait for the VM to replicate fully, to 100%. Status will say **Protected**.

Step 6 Check the Destination Resource Group

1. In the list of Resource groups, find the **asrrg-asg** resource group. Click into it.
2. Notice that a virtual network has been created for you called asrrg-vnet-asr.
3. Notice that a new managed disk has been created too.
4. Notice that there is NO VM that has been created. That does not start up until Failover is initiated.

Step 7 Create a virtual network for testing

1. In the list of Resource groups, click the new **asrrg-asg** resource group.
2. Click **Add** to open the Azure Marketplace.
3. Enter "**virtual**" in the search box and choose **Virtual Network** as a result.
4. Set the name to "**vnet1**"
5. Choose the address space "**10.3.0.0/16**" as the address space. If this range is not available for you, choose another range.
6. Select a subscription, and set the location to **East US**.
7. Choose the **asrrg-asg** from the resource group drop down
8. Leave the subnet as **default**.
9. Leave the subnet range as "**10.3.0.0/24**". If this range is not available for you, choose another range.
10. Leave DDoS protection, Service Endpoints, and Firewall as **default**.
11. Click **Create**.
12. Wait for the deployment to complete. Should be less than one minute.

Step 8 Test Failover

1. In the list of Resource groups, find the **Site-recovery-vault-RG** resource group. Click into it.

2. Choose the Azure **Recovery Services Vault**, named **Site-recovery-vault-eastus** or similar.
3. Scroll down the menu, to the section called **Protected Items**.
4. Open the **Replicated Items** menu tab.
5. Next to sourcevm, there are **three dots (...)** to the far right. Click it to open a menu.
6. Choose **Test Failover**.
7. Leave the default settings.
8. Choose the virtual network named **vnet1**.
9. Hit **OK**.
10. Wait for the test failover to complete.

Lab Assignment

Students: Take a screenshot of the **test failover results**, as shown in the last step. Follow the submission instructions outlined in the course.

Step 8 Clean up

1. In the navigation list, click **Resource groups**.
2. Click **Site-recovery-vault-RG** to open the resource group.
3. Choose the Azure **Recovery Services Vault**, named **Site-recovery-vault-eastus** or similar.
4. Scroll down the menu, to the section called **Protected Items**.
5. Open the **Replicated Items** menu tab.
6. Next to sourcevm, there are **three dots (...)** to the far right. Click it to open a menu.
7. Choose **Disable Replication**.
8. Select Overview from the left menu, and then click the resource group named **Site-recovery-vault-eastus** or similar.
9. Click **Delete resource group** to delete the resource group.
10. On the **Are you sure you want to delete** blade, type the resource group name: **Site-recovery-vault-RG**.
11. Click **Delete** to delete the resource group.

12. In the navigation list, click **Resource groups**.
13. Click **asrrg** to open the resource group.
14. Click **Delete resource group** to delete the resource group.
15. On the **Are you sure you want to delete** blade, type the resource group name:
asrrg.
16. Click **Delete** to delete the resource group.
17. In the navigation list, click **Resource groups**.
18. Click **asrrg-asg** to open the resource group.
19. Click **Delete resource group** to delete the resource group.
20. On the **Are you sure you want to delete** blade, type the resource group name:
asrrg-asg.
21. Click **Delete** to delete the resource group.