Module Two Walkthrough

To start, this walkthrough assumes that you are signed in with your participant account in the Azure portal at portal.azure.com.

The first step is to navigate to **All resources** either from the landing page, or by opening the left-hand menu and selecting it from the list.

The only resource visible is an App Service beginning with **m2**. Clicking on that and navigating to the **Configuration** blade will reveal that “application\_id” and “application\_key” have been left in **Application settings**. Clicking on **Advanced edit** will open a pane that allows you to copy and paste those values.

From here, you will need to use PowerShell to finish the module. The first step should be using StormSpotter, another open source ART tool, to scan the network. Filtering the items by **AADApplication** will show two applications, one of which has the same App Id as the one found in **Application settings**.

Store the application id and key you have in PowerShell variables. Convert the application key to a Secure String and use the Id and Secure Key to create PowerShell credentials and sign into Azure using those credentials.

Once in the first Service Principal, listing out the available resources shows that you have a Key Vault that you have access to. Listing out the secrets shows that it contains another App Key, which we can guess are for the second Service Principal we saw in StormSpotter. StormSpotter gave us the App Id, so we can repeat the method we already used to authenticate previously.

Once in the second Service Principal, listing out the available resources shows that we now have a Storage Account that is visible. Using PowerShell, we can list out the Storage Account name and the Resource Group that it is in’s name to get the keys for that Storage Account.

The **Microsoft Azure Storage Explorer** allows you to authenticate into a Storage Account with only a name and key, meaning that you could access the containers in a similar fashion to Module One. Alternatively, you could use PowerShell to list out the Storage Account, Container, and Blob contents. Either way will allow you to download the Module Two flag from the Storage Account blob.

# Key Documentation

[Listing out available resources.](https://docs.microsoft.com/en-us/powershell/module/az.resources/get-azresource?view=azps-4.4.0)

[Signing in as a service principal.](https://docs.microsoft.com/en-us/powershell/azure/authenticate-azureps?view=azps-4.4.0#sign-in-with-a-service-principal-)

[Accessing secret values in a Key Vault.](https://docs.microsoft.com/en-us/azure/key-vault/secrets/quick-create-powershell#adding-a-secret-to-key-vault)

[Getting Storage Account Keys.](https://docs.microsoft.com/en-us/powershell/module/az.storage/get-azstorageaccountkey?view=azps-4.4.0)