Demo: Run Azure Container Instances by using the Cloud Shell

In this demo you'll learn how to perform the following actions:

- Create a resource group for the container
- Create a container
- Verify the container is running

Prerequisites

- An Azure subscription, if you don't have an Azure subscription, create a free account before you begin.
  - **https://azure.microsoft.com/free/**

Create the resource group

1. Sign into the **Azure portal** with your Azure subscription.
2. Open the Azure Cloud Shell from the Azure portal using the Cloud Shell icon, and select **Bash** as the shell option.

3. Create a new resource group with the name **az204-aci-rg** so that it will be easier to clean up these resources when you are finished with the module. Replace `<myLocation>` with a region near you.

```
az group create --name az204-aci-rg --location <myLocation>
```

Create a container

You create a container by providing a name, a Docker image, and an Azure resource group to the `az container create` command. You will expose the container to the Internet by specifying a DNS name label.

1. Create a DNS name to expose your container to the Internet. Your DNS name must be unique, run this command from Cloud Shell to create a Bash variable that holds a unique name.

```
DNS_NAME_LABEL=aci-demo-$RANDOM
```

2. Run the following `az container create` command to start a container instance. Be sure to replace the `<myLocation>` with the region you specified earlier. It will take a few minutes for the operation to complete.

```
az container create \
--resource-group az204-aci-rg \
--name mycontainer \
--image microsoft/aci-helloworld \
--ports 80 \
--dns-name-label $DNS_NAME_LABEL \
--location <myLocation>
```

In the command above, `$DNS_NAME_LABEL` specifies your DNS name. The image name, **microsoft/aci-helloworld**, refers to a Docker image hosted on Docker Hub that runs a basic Node.js web application.

Verify the container is running

1. When the `az container create` command completes, run `az container show` to check its status.

```
az container show \
--resource-group az204-aci-rg \
--name mycontainer \
--query "{FQDN:ipAddress.fqdn,ProvisioningState:provisioningState}" \
--out table
```

You see your container's fully qualified domain name (FQDN) and its provisioning state. Here's an example.

```
FQDN                                 ProvisioningState
-----------------------------------  -------------------
aci-demo.eastus.azurecontainer.io    Succeeded
```

✔ **Note:** If your container is in the **Creating** state, wait a few moments and run the command again until you see the **Succeeded** state.

2. From a browser, navigate to your container's FQDN to see it running. You may get a warning that the site isn't safe.

Clean up resources

When no longer needed, you can use the `az group delete` command to remove the resource group, the container registry, and the container images stored there.

```
az group delete --name az204-aci-rg --no-wait --yes
```