







Module 5 - Lab 4: Create a Front Door for a highly available global web application

 Get started with Azure Front Door by using the Azure portal to set up high availability for a web application.


In this lab, Azure Front Door pools two instances of a web application that run in different Azure regions. You create a Front Door configuration based on equal weighted and same priority backends. This configuration directs traffic to the nearest site that runs the application. Azure Front Door continuously monitors the web application. The service provides automatic failover to the next available site when the nearest site is unavailable.

Task 1: Create two instances of a web app


 This lab requires two instances of a web application that run in different Azure regions. Both the web application instances run in *Active/Active* mode, so either one can take traffic. This configuration differs from an *Active/Stand-By* configuration, where one acts as a failover.

- ☐ 1. Sign in to the Azure portal  <https://portal.azure.com> using the username  sheikhnasir8623V@gdcssub2.com and password  [t6ntEUvTeYPwemqw](#)
- ☐ 2. From the home page or the Azure menu, select **Create a resource**.
- ☐ 3. Select **Web** > **Web App**.
- ☐ 4. In **Web App**, select the **Subscription** to use.
- ☐ 5. For **Resource Group**, select **FrontDoorQS_rg1**
- ☐ 6. Under **Instance Details**, enter a unique **Name** for your web app. The lab steps use *WebAppContoso-1* but your name must be unique.
- ☐ 7. Select a **Runtime stack**, in this example, *.NET Core 3.1 (LTS)*.
- ☐ 8. Select a region, such as *Central US*.
- ☐ 9. For **Windows Plan**, select **Create new**. Enter  [myAppServicePlanCentralUS](#) for **Name** and select **OK**.
- ☐ 10. Be sure that the **Sku and size** is **Standard S1 100 total ACU, 1.75 GB memory**.
- ☐ 11. Select **Review + create**, review the **Summary**, and then select **Create**. It might take several minutes for the deployment to complete.

After your deployment is complete, create a second web app. Use the same procedure with the same values, except for the following values:

Setting	Value
Resource group	Select FrontDoorQS_rg2
Name	Enter a unique name for your Web App, in this example, <i>WebAppContoso-2</i>
Region	A different region, in this example, <i>South Central US</i>
App Service plan > Windows Plan	Select New and enter  myAppServicePlanSouthCentralUS , and then select OK

Task 2: Create a Front Door for your application

 Configure Azure Front Door to direct user traffic based on lowest latency between the two web apps servers. To begin, add a frontend host for Azure Front Door.

- ☐ 1. From the home page search **Front Door** in the search engine at the top. In Create a Front Door, select **+Create**.
- ☐ 2. For **Resource group**, select **FrontDoorQS_rg0**
- ☐ 3. If you created a resource group, select a **Resource group location**, and then select **Next: Configuration**.
- ☐ 4. In **Frontends/domains**, select + to open **Add a frontend host**.
- ☐ 5. For **Host name**, enter a globally unique hostname. This example uses *contoso-frontend*. Select **Add**.

Next, create a backend pool that contains your two web apps.


- ☐ 6. Still in **Create a Front Door**, in **Backend pools**, select + to open **Add a backend pool**.
- ☐ 7. For **Name**, enter *myBackendPool*.
- ☐ 8. Select **Add a backend**. For **Backend host type**, select *App Service*.
- ☐ 9. Select your subscription, and then choose the first web app you created from **Backend host name**. In this example, the web app was *WebAppContoso-1*. Select **Add**.


☐ 10. Select **Add a backend** again. For **Backend host type**, select *App Service*.

☐ 11. Select your subscription, again, and choose the second web app you created from **Backend host name**. Select **Add**.

Finally, add a routing rule. A routing rule maps your frontend host to the backend pool. The rule forwards a request for **contoso-frontend.azurefd.net** to **myBackendPool**.


☐ 12. Still in **Create a Front Door**, in **Routing rules**, select **+** to configure a routing rule.

☐ 13. In **Add a rule**, for **Name**, enter  **LocationRule**. Accept all the default values, then select **Add** to add the routing rule.

 **WARNING!** You **must** ensure that each of the frontend hosts in your Front Door has a routing rule with a default path (*****) associated with it. That is, across all of your routing rules there must be at least one routing rule for each of your frontend hosts defined at the default path (*****). Failing to do so may result in your end-user traffic not getting routed correctly.

☐ 14. Select **Review + Create**, and then **Create**.

Task 3: View Azure Front Door in action

 Once you create a Front Door, it takes a few minutes for the configuration to be deployed globally. Once complete, access the frontend host you created. In a browser, go to **contoso-frontend.azurefd.net**. Your request will automatically get routed to the nearest server to you from the specified servers in the backend pool.

If you created these apps in this quickstart, you'll see an information page.

To test instant global failover in action, try the following steps:

☐ 1. Open a browser, as described above, and go to the frontend address: **contoso-frontend.azurefd.net**. (Replacing the address with your unique web app name)

☐ 2. In the Azure portal, search for and select **App services**. Scroll down to find one of your web apps, **WebAppContoso-1** in this example.

☐ 3. Select your web app, and then select **Stop**, and **Yes** to verify.

☐ 4. Refresh your browser. You should see the same information page.

 **Tip!** There is a little bit of delay for these actions. You might need to refresh again.

☐ 5. Find the other web app, and stop it as well.

☐ 6. Refresh your browser. This time, you should see an error message.