

ONLINE LAB: Implementing Autoscaling for Web Apps

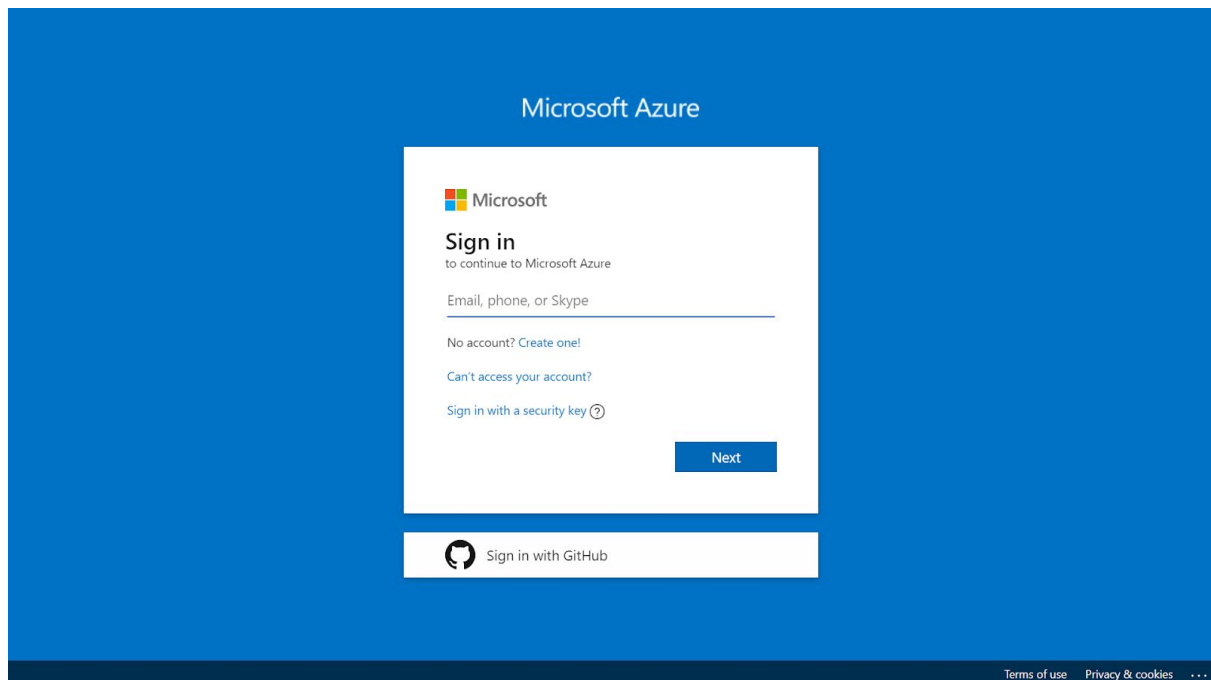
Your Challenge

- Create a resource group named **webappgrp**
- Create a web app at least Standard S1 type
- Create an autoscaling rule so that a second instance gets added when CPU exceeds 70 percent for 10 minutes
- Go back down to 1 instance when CPU is below 10 percent for 10 minutes
- Clean up all of your resources created after you're done

Solution

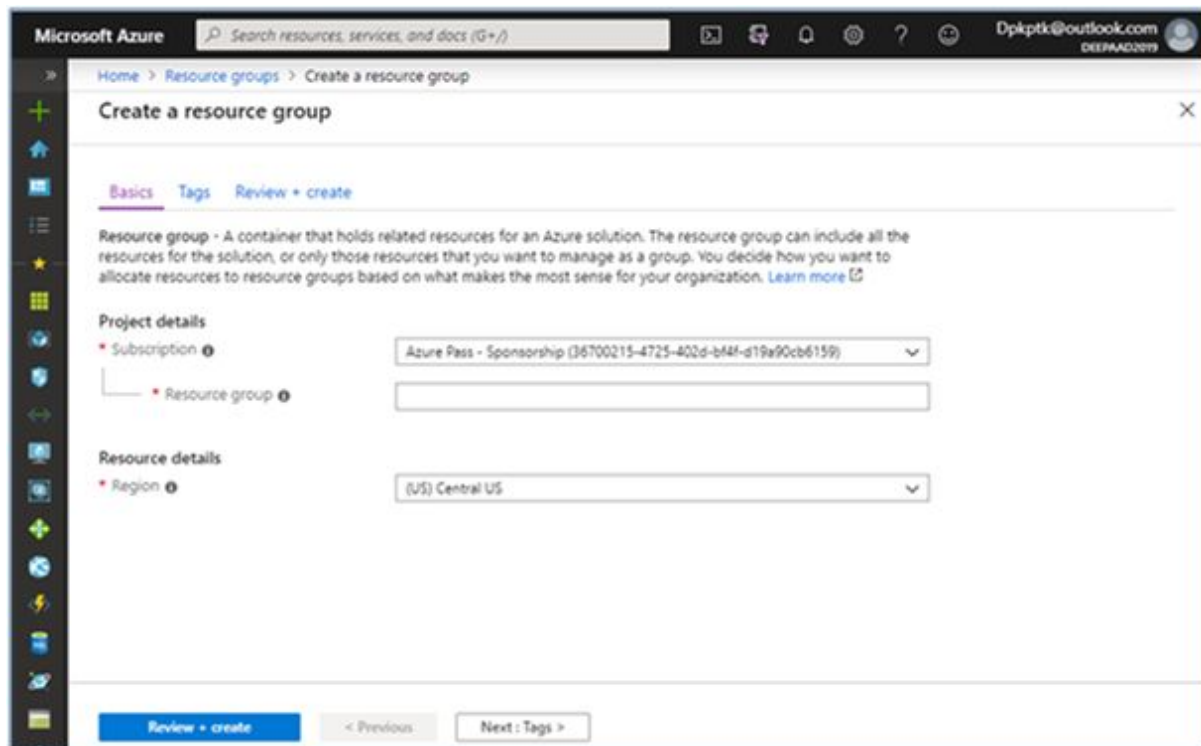
Step 1 Sign Into Azure

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



Step 2 Create a resource group

1. In the navigation list, click **Resource groups**.
2. Click **Add** to open the **Resource group** blade.



The screenshot shows the 'Create a resource group' blade in the Microsoft Azure portal. The breadcrumb navigation at the top reads 'Home > Resource groups > Create a resource group'. The blade title is 'Create a resource group'. Below the title are tabs for 'Basics', 'Tags', and 'Review + create', with 'Basics' being the active tab. A descriptive text explains that a resource group is a container for related resources. The 'Project details' section contains a 'Subscription' dropdown menu set to 'Azure Pass - Sponsorship (36700215-4725-402d-b48f-d19a90cb6159)' 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 >'.

3. For **Resource group** name, enter **webappgrp**.
4. Select a subscription and a 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 Web App

1. In the navigation list, click **App Services**.
2. Click **Add** to open the **Web App** blade.

Microsoft Azure Search resources, services, and docs (G+)

Home > App Services > Web App

Web App

Create a subscription to manage deployed resources and costs. Use resource groups like folders to organize and manage all your resources.

- Subscription: Azure Pass - Sponsorship (36700215-4725-402d-b4f4-d19a90cb6159)
- Resource Group: Select existing... [Create new](#)

Instance Details

- Name: Web App name. .azurewebsites.net
- Publish: **Code** Docker Image
- Runtime stack: Select a runtime stack
- Operating System: **Linux** Windows
- Region: Central US Can't find your App Service Plan, try a different region.

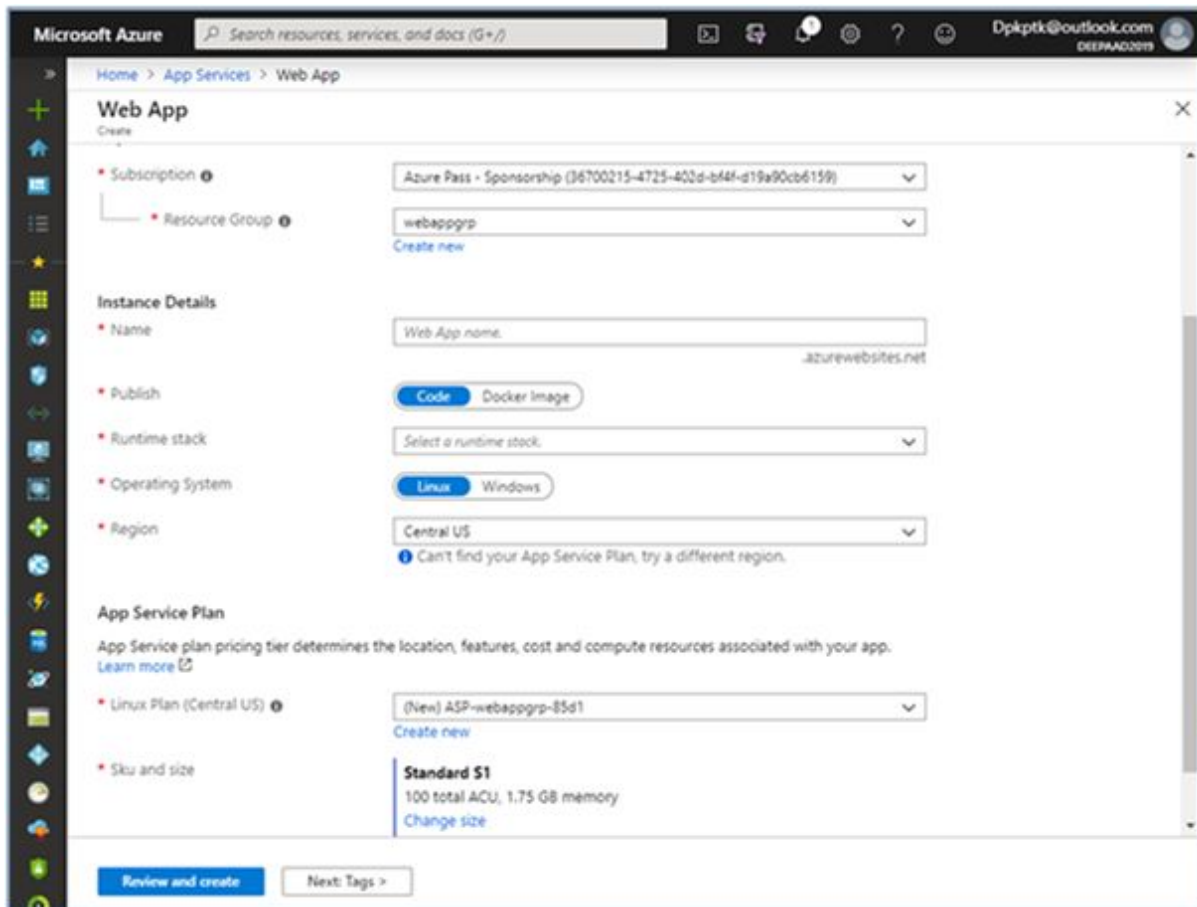
App Service Plan

App Service plan pricing tier determines the location, features, cost and compute resources associated with your app. [Learn more](#)

- Linux Plan (Central US): Select App Service Plan Select a resource group before selecting a plan.

[Review and create](#) [Next: Tags >](#)

3. Select a subscription and the resource group **webappgrp**.
4. Enter a unique Web App **Name** in the group (i.e. **mytestwebappdemo**).
5. Select a **Runtime stack** and a **location**.
6. Select Standard S1 as **Sku and size**.

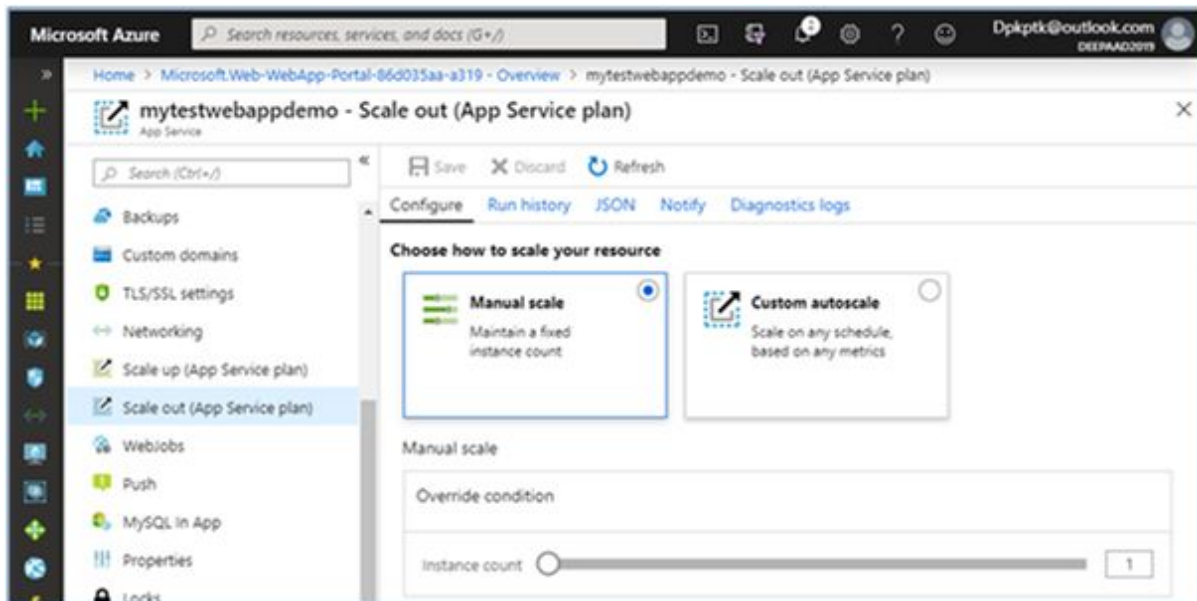


7. Click **Review + Create** to proceed to the last step.
8. Click **Create** to create the Web App.

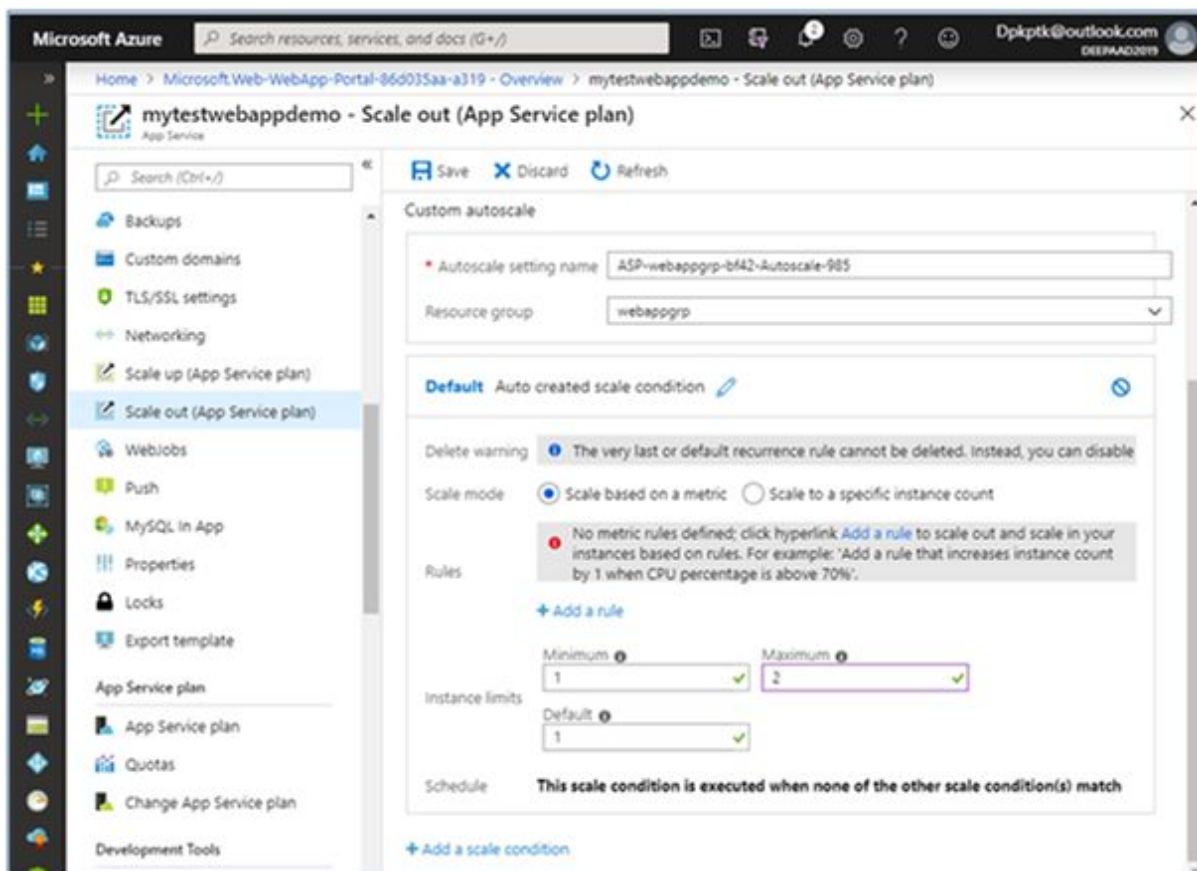
The new Web App appears in your **App Services** list.

Step 4 Autoscale the Web App

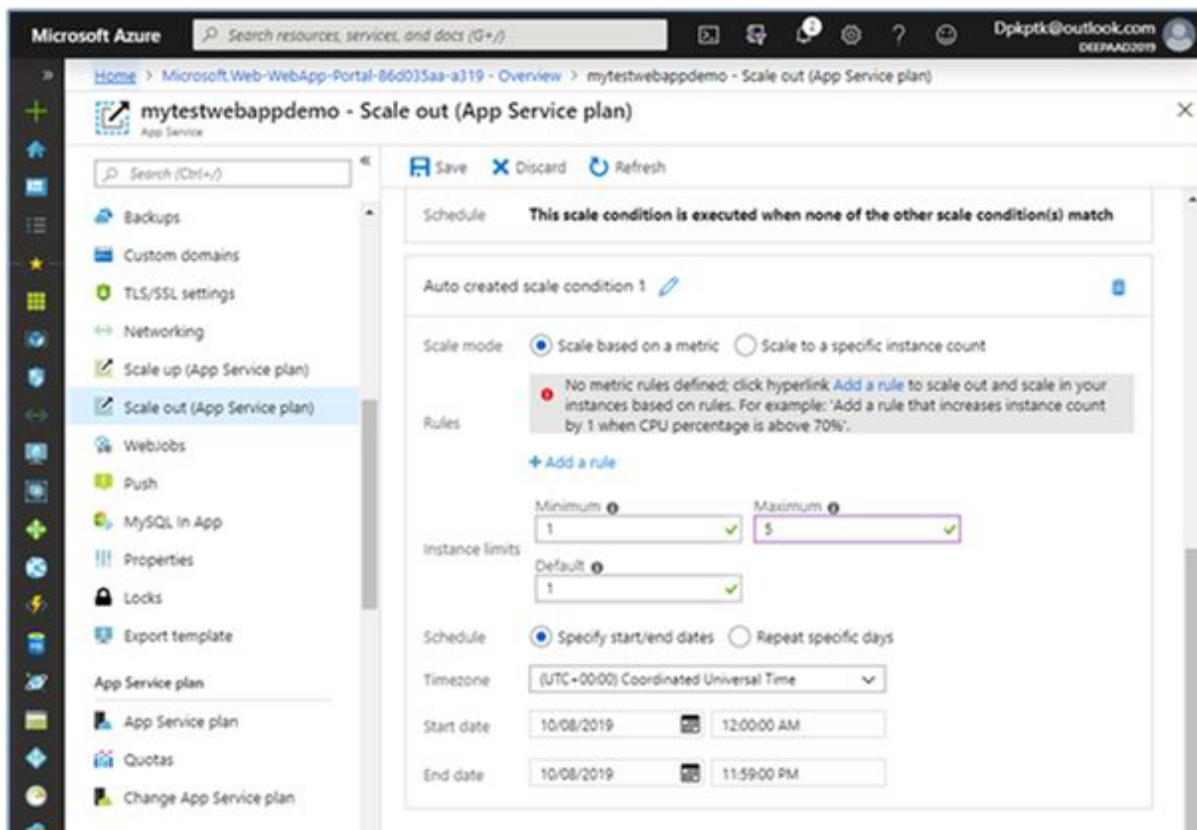
1. In the navigation list, click **App Services**. The Web App (i.e. **mytestwebappdemo**) we created appears in the list.
2. Click on the Web App (i.e. **mytestwebappdemo**).
3. Select **Scale out (App Service plan)** from the menu.



4. Click on the **Custom autoscale**.



5. Click **Add a scale condition**. Set the maximum **Instance limits** to maximum 5 (Default 2).



6. Click **Add a rule**. **Scale rule** blade appears.

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Home > Microsoft.Web-WebApp-Portal-86d035aa-a319 - C

mytestwebappdemo - Scale out (App Service)

Search (Ctrl+/)

Backups

Custom domains

TLS/SSL settings

Networking

Scale up (App Service plan)

Scale out (App Service plan)

Webjobs

Push

MySQL in App

Properties

Locks

Export template

App Service plan

App Service plan

Quotas

Change App Service plan

Development Tools

Clone App

Save

Schedule

Auto create

Scale mode

Rules

Instance limit

Schedule

Timezone

Start date

End date

+ Add a scale rule

Scale rule

Metric source: Current resource (ASP-webappgrp-bf42)

Resource type: App Service plans

Resource: ASP-webappgrp-bf42

Criteria

Time aggregation: Average

Metric namespace: App Service plans standard metrics

Metric name: CPU Percentage

1 minute time grain

DIMENSION NAME	OPERATOR	DIMENSION VALUES
Instance	=	All values

If you select multiple values for a dimension, autoscale will aggregate the metric across the selected values, not evaluate the metric for each values individually.

15%

10%

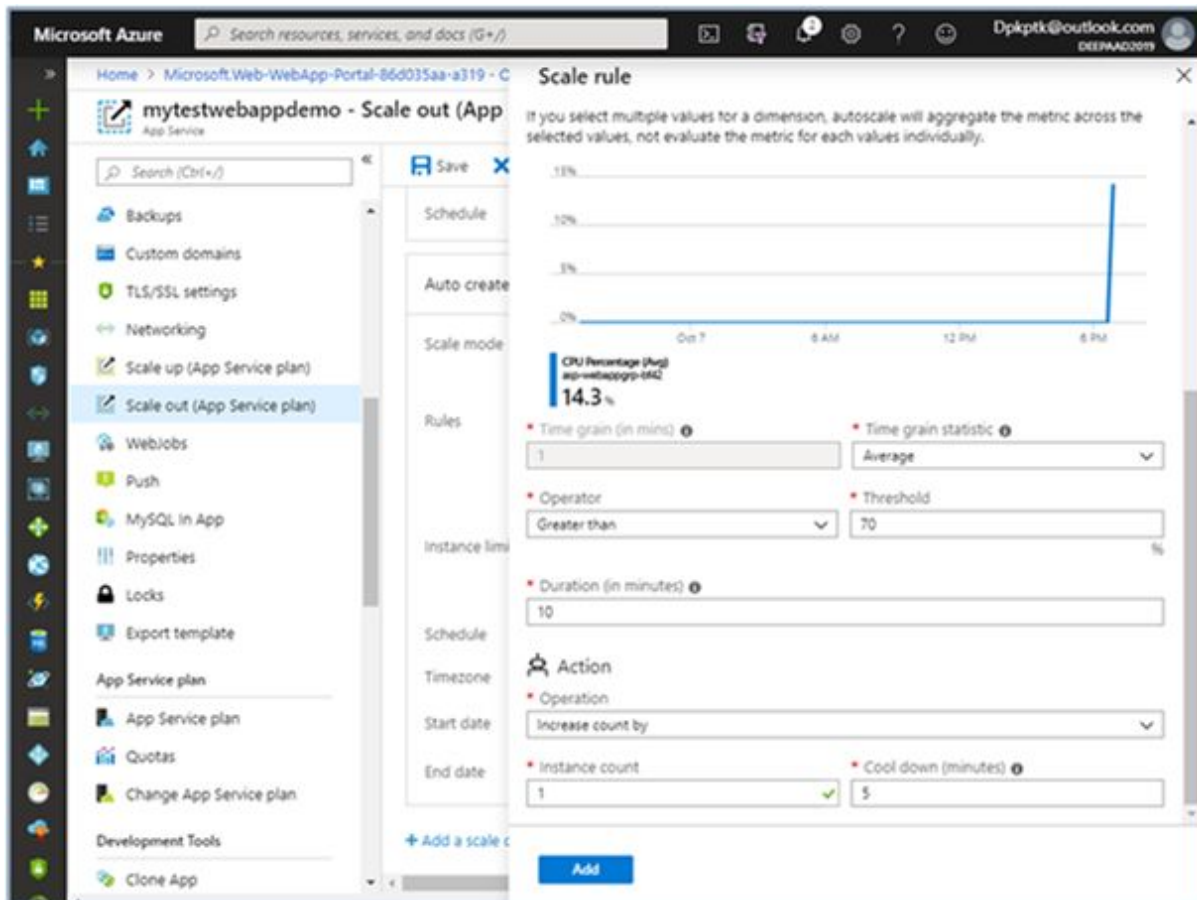
5%

0%

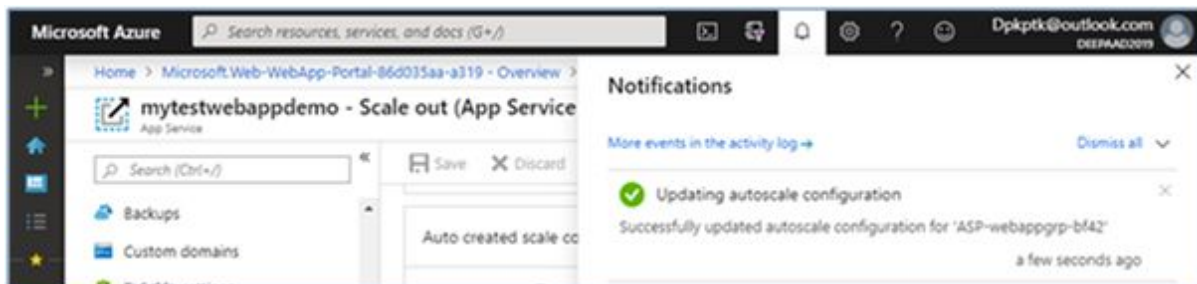
Oct 7 6 AM 12 PM 6 PM

CPU Percentage (Avg) asp-webappgrp-bf42

Add



7. Click **Add**. Click **Save**.

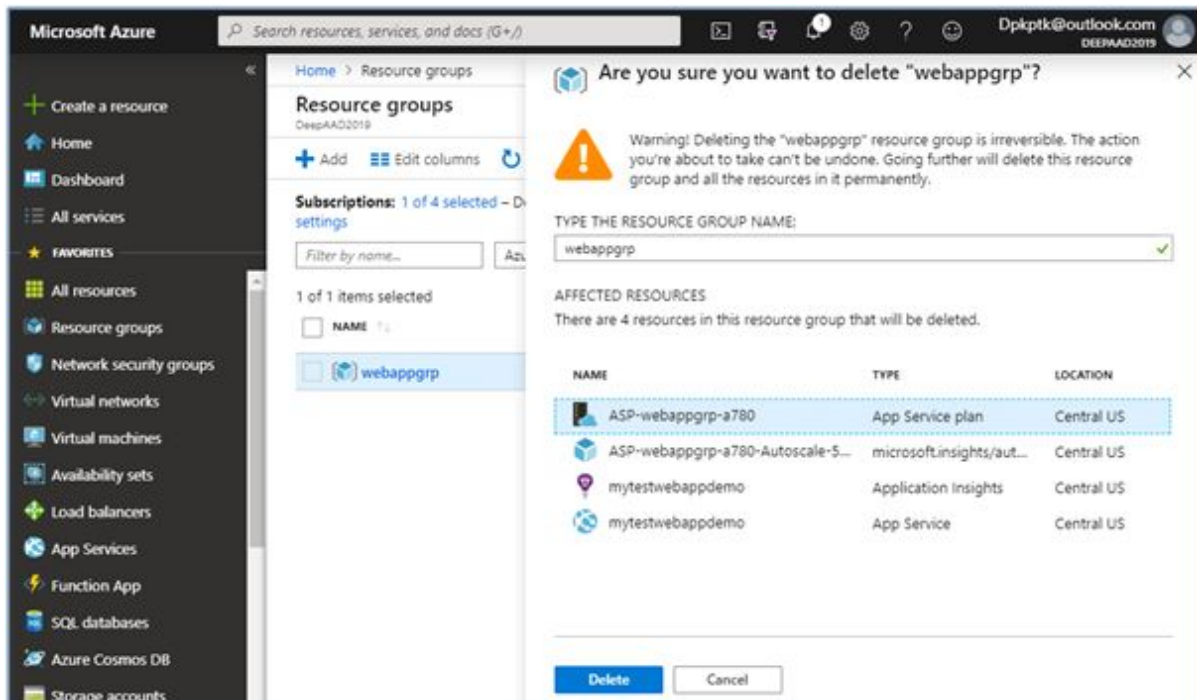


We have now successfully created our first scale setting to autoscale a web app based on CPU usage.

Step 5 Clean up

1. In the navigation list, click **Resource groups**.
2. Click **webappgrp** to open the resource group.
3. Click **Delete resource group** to delete the resource group.

- On the **Are you sure you want to delete** blade, type the resource group name: **webappgrp**.



- Click **Delete** to delete the resource group.