Fast Start – Azure for Modern Web and Mobile Application Development

Module 01: Azure Overview

Student Lab Manual

Version 2017.03

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Contents

Lab 1: Create an Azure Subscription and a Visual Studio Team Services Tenant

Introduction

In this lab, you will enable your Microsoft Azure subscription benefits because we need an environment to run the lab. On the other side, we will create a Microsoft Visual Studio Team Services tenant.

Objectives

After completing this lab, you will be able to:

- Request a temporary Azure subscription for test purposes.
- Create an Azure subscription.
- Create a Visual Studio Team Services tenant.

Prerequisites

You need a Microsoft account with MSDN benefits or a subscription through your Enterprise agreement.

Estimated Time to Complete This Lab

15 minutes

Scenario

As a MSDN subscriber, you want to enable your Azure subscription to build a development virtual machine, host Visual Studio, and synchronize it with Visual Studio Team Services.

Exercise 1: Enable your Azure Subscription

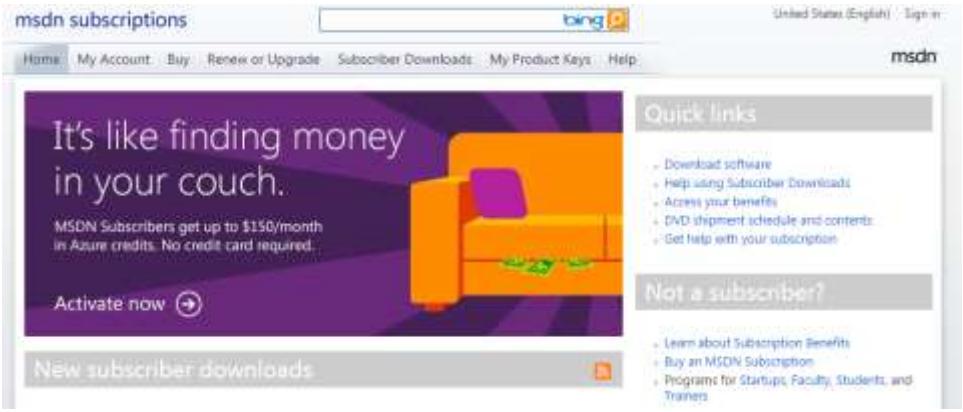
Objectives

In this exercise, you will:

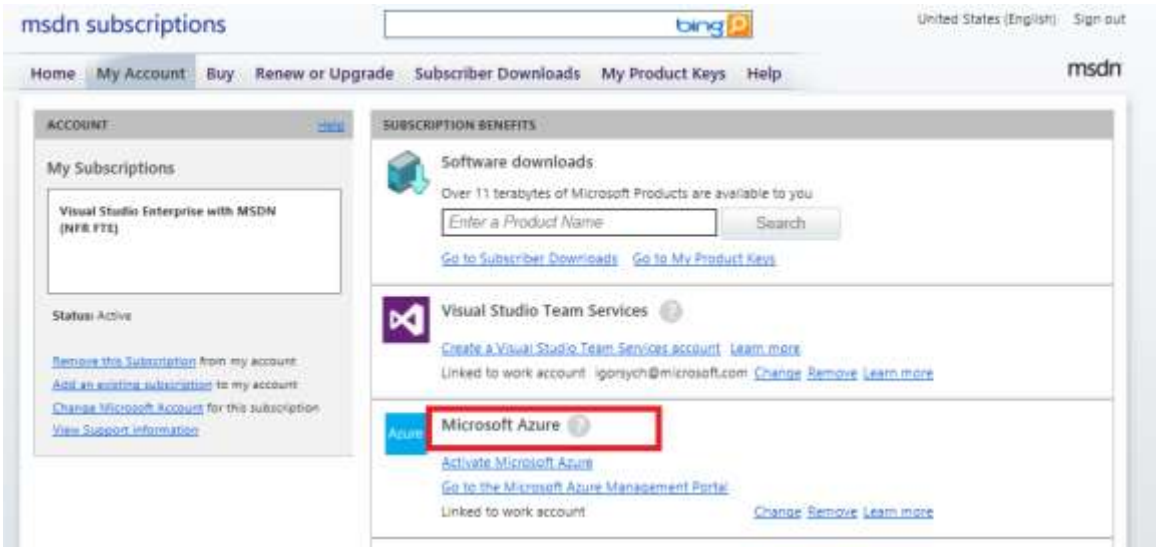
- Enable your MSDN Azure benefits.
- Connect to the Azure portal.

Task Description

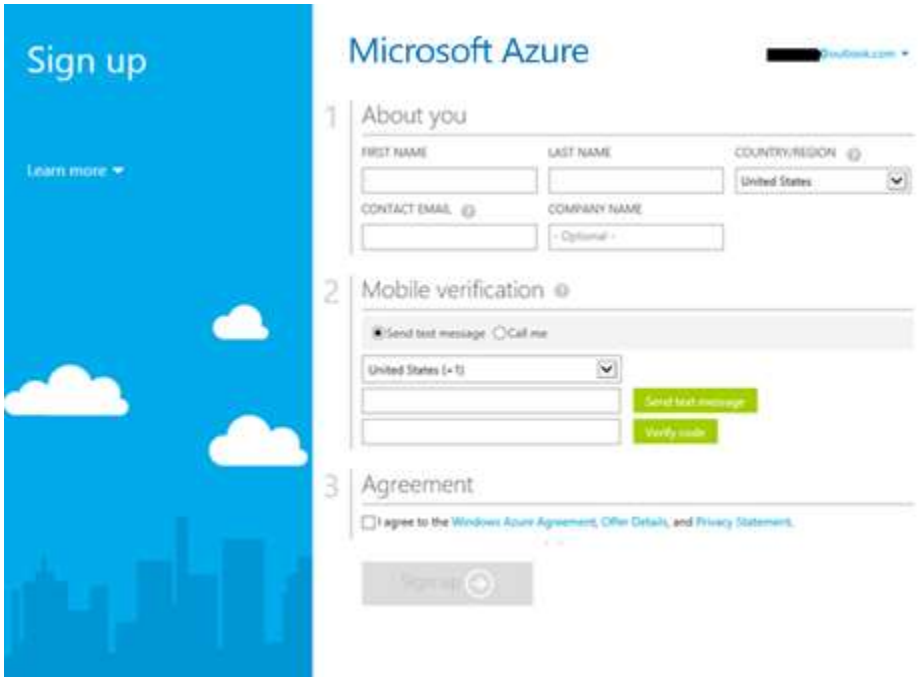
1. First, go to your MSDN subscription page: http://msdn.microsoft.com/subscriptions



2. From there, click **My Account**. You will be required to sign in for this step using your email.
3. On that page, My Account, you will be able to see a list of benefits titled **SUBSCRIPTION BENEFITS**.
4. In that list, there is **Microsoft Azure**. Click the Activate Microsoft Azure link as per the following screen shot:

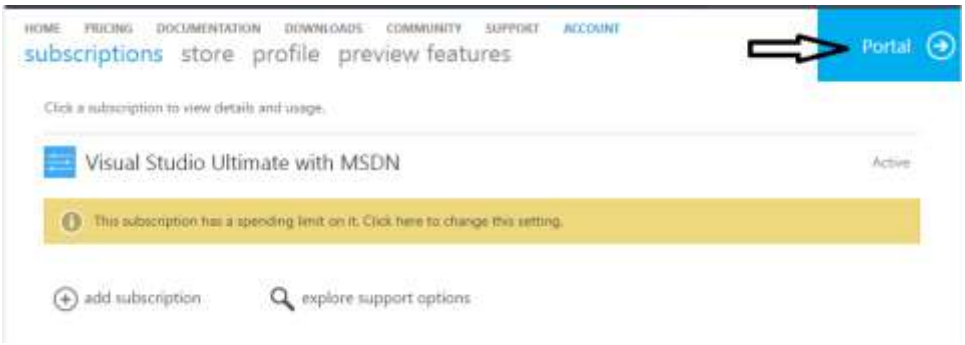


5. You will be prompted to enter the credentials for your Microsoft account (email).
6. Next, you will need to fill the **Mobile verification** section:
   a. Enter your mobile number, and click the **Send text Message** button.
   b. You should receive a verification code through text on your mobile phone.
   c. Enter the verification code that was sent in a text message to you into the form and click the **Verify code** button.

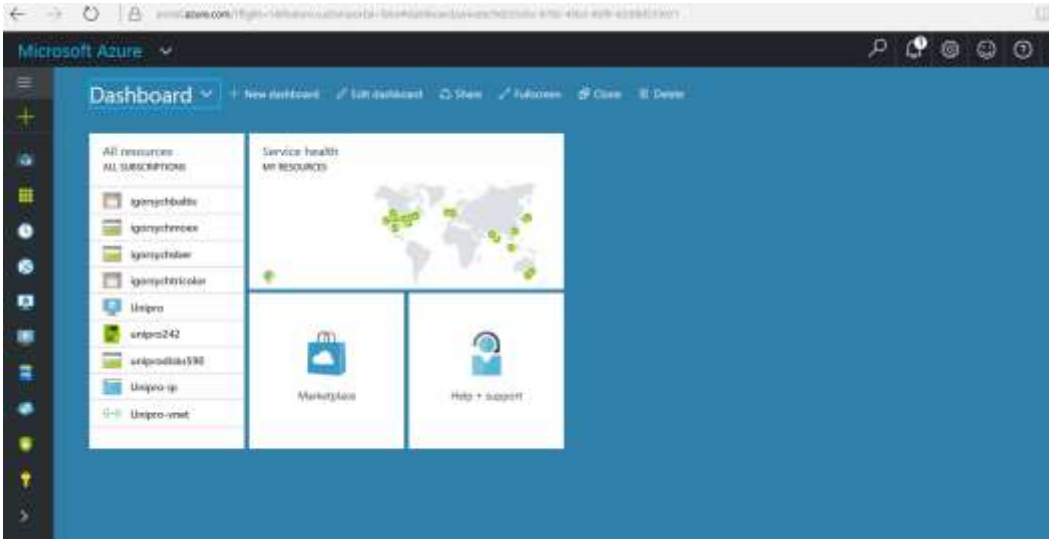


Screen shot may have changed 1

7. Finally, select the check boxes in the third section **Agreement**, and then click the **Sign up** button.
8. From there, you will be redirected to the Microsoft Azure Subscriptions page. You should see your **Visual Studio with MSDN subscription** listed there. If it was still showing as **Pending**, wait for a few minutes, it will become active.
9. On that page, after the account shows as Active, you can click the **Portal** link (or just go to portal.azure.com or manage.windowsazure.com) to get to the Microsoft Azure Management Portal and start deploying applications in the cloud and configure your various Azure services.



10. You should arrive to one the following pages. Congratulations, you have created a new Azure subscription.



Exercise 2: Create Visual Studio Team Services Tenant

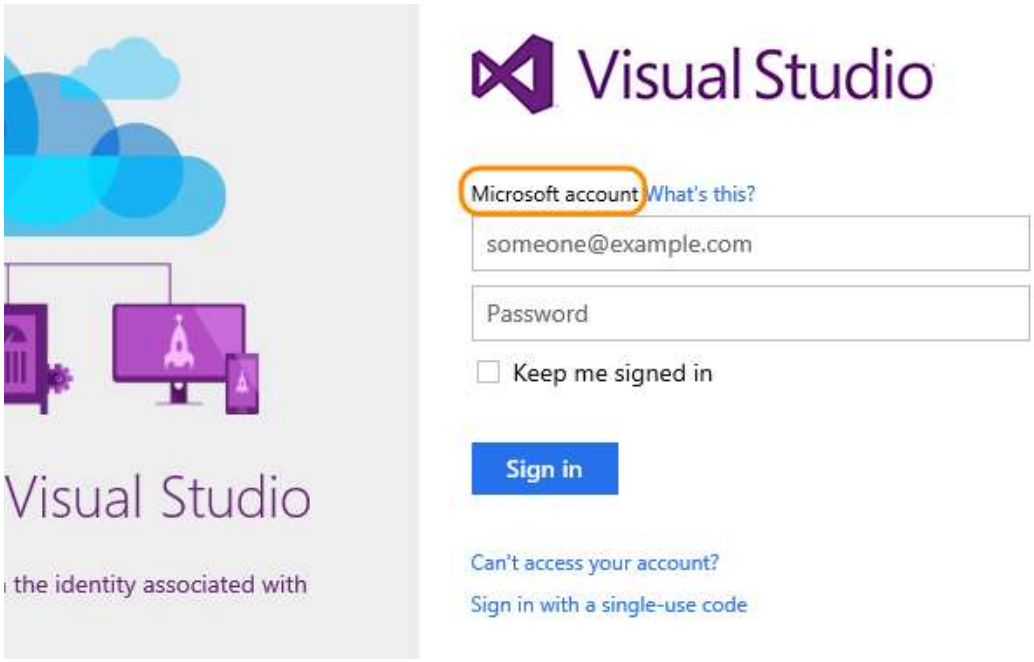
Objectives

In this exercise, you will:

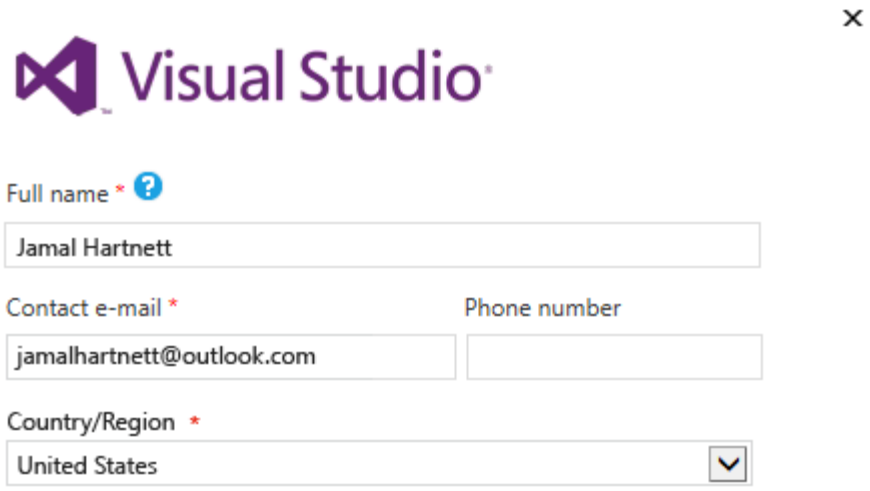
- Create a Visual Studio Team Services tenant through your Azure subscription

Task Description

1. Sign in to Visual Studio Team Services with your Microsoft account (for example, @outlook.com or @hotmail.com) or your corporate account.

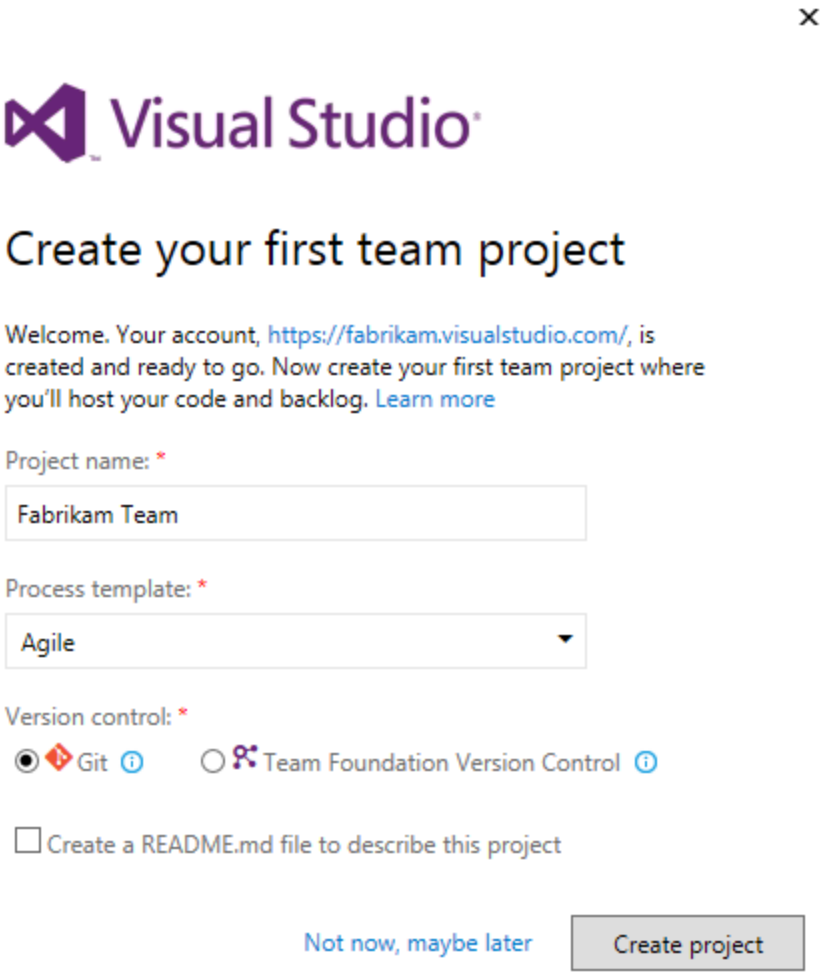


2. Confirm your profile details. You only have to do this step once.



You are now a Visual Studio Team Services account owner.

3. Create your first team project to store your code, backlog, etc.. Name your project, select a process template to manage your work, and then choose your version control provider.



Lab 2: Discover the Azure Portal

Introduction

This tutorial will familiarize you with the portal and show you how to use some of its key capabilities:

- A comprehensive marketplace.
- A unified and scalable browse experience.
- Consistent management pages (or blades).
- A personal experience.

Objectives

After completing this lab, you will be able to:

- Create a resource.
- Find your resources.
- Customize a resource blade.
- How to get help.

Prerequisites

You need a Microsoft account with MSDN benefits or a subscription through your Enterprise agreement.

Estimated Time to Complete This Lab

30 minutes

Scenario

As a MSDN subscriber, you want to enable your Azure subscription to build a development virtual machine, host Visual Studio, and synchronize it with Visual Studio Team Services.

Exercise 1: How to Create a Resource

Objectives

In this exercise, you will learn:

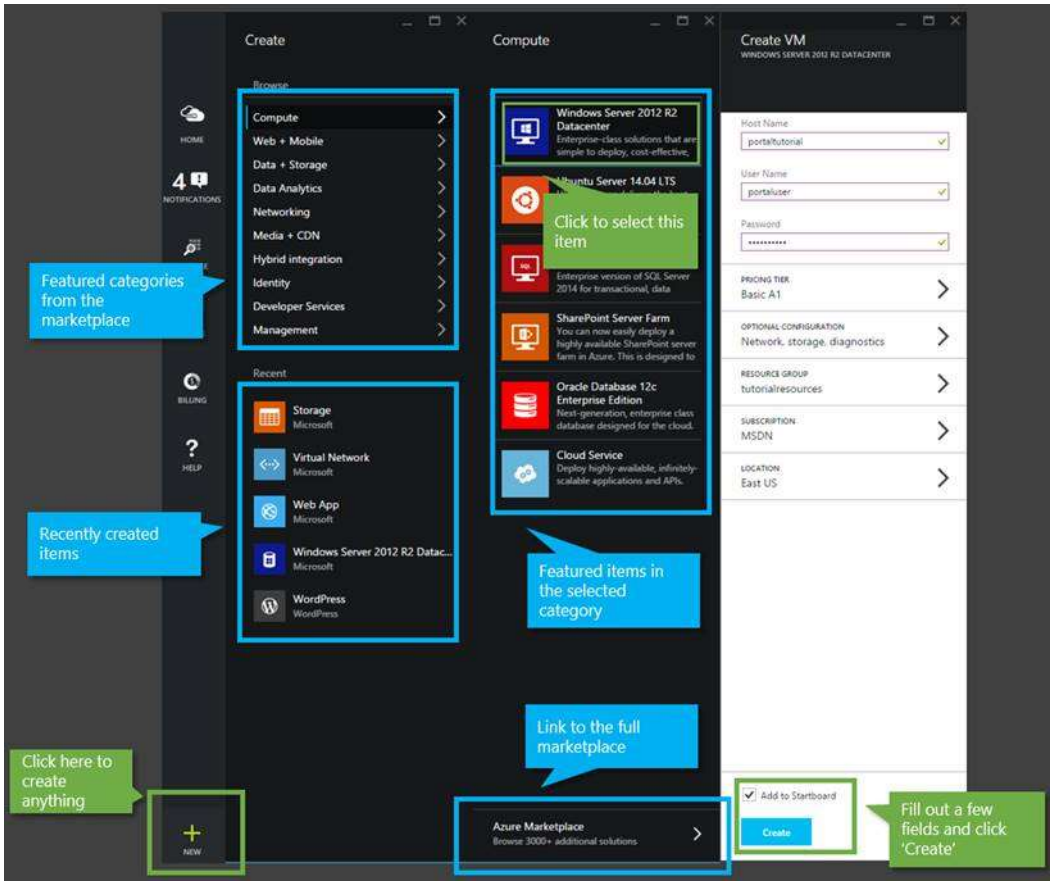
- How to manage resources.
- How to create a new resource.

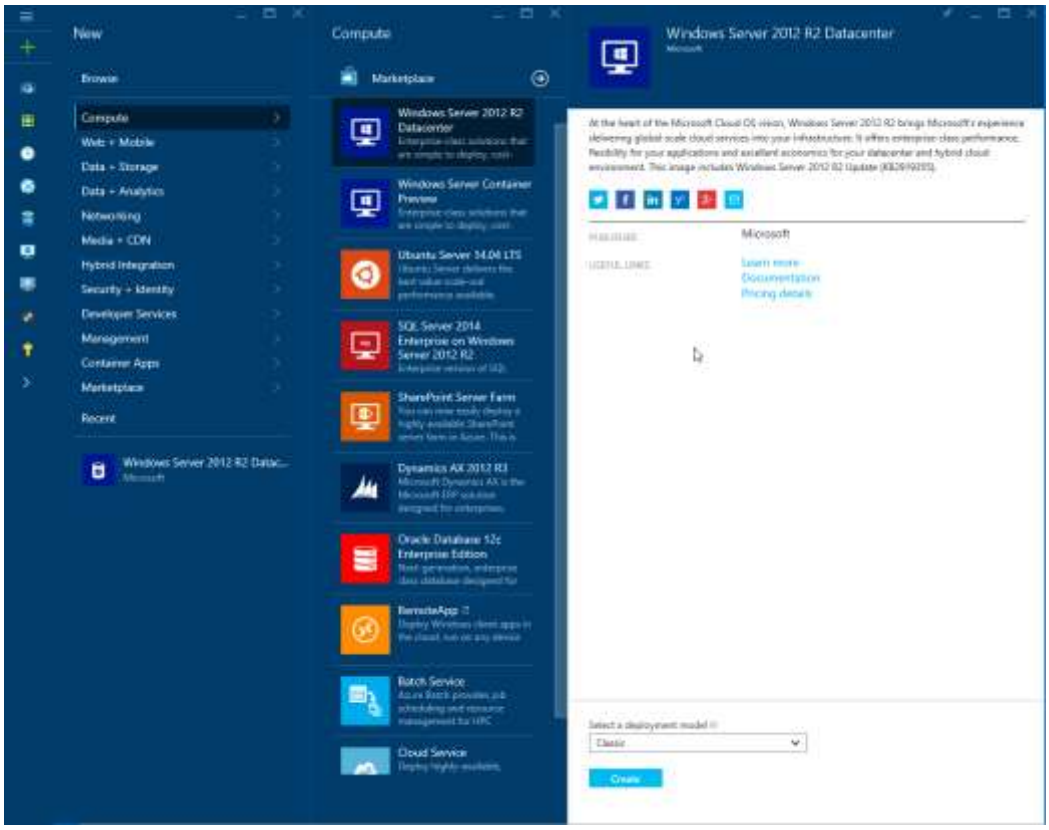
Task Description

Azure has a marketplace with many items that you can create from one place. Let us say you want to create a new Windows Server 2016 Virtual Machine (VM). The +NEW hub is your entry point into a curated set of featured categories from the marketplace. Each category has a small set of featured items along with a link to the full marketplace that shows all categories and search. To create that new Windows Server 2012 VM, perform the following actions:

1. On the **Hub** menu, click **New** > **Compute**.
2. Windows Server 2016 is featured, so you can select it from the Compute category.
3. Fill some basic inputs on a form.
4. Click **Create** and your VM will begin to provision immediately.

The notifications hub will alert you when your resource has been created and a management blade will open (you can always browse to resources later).





Exercise 2: How to Find Your Resources

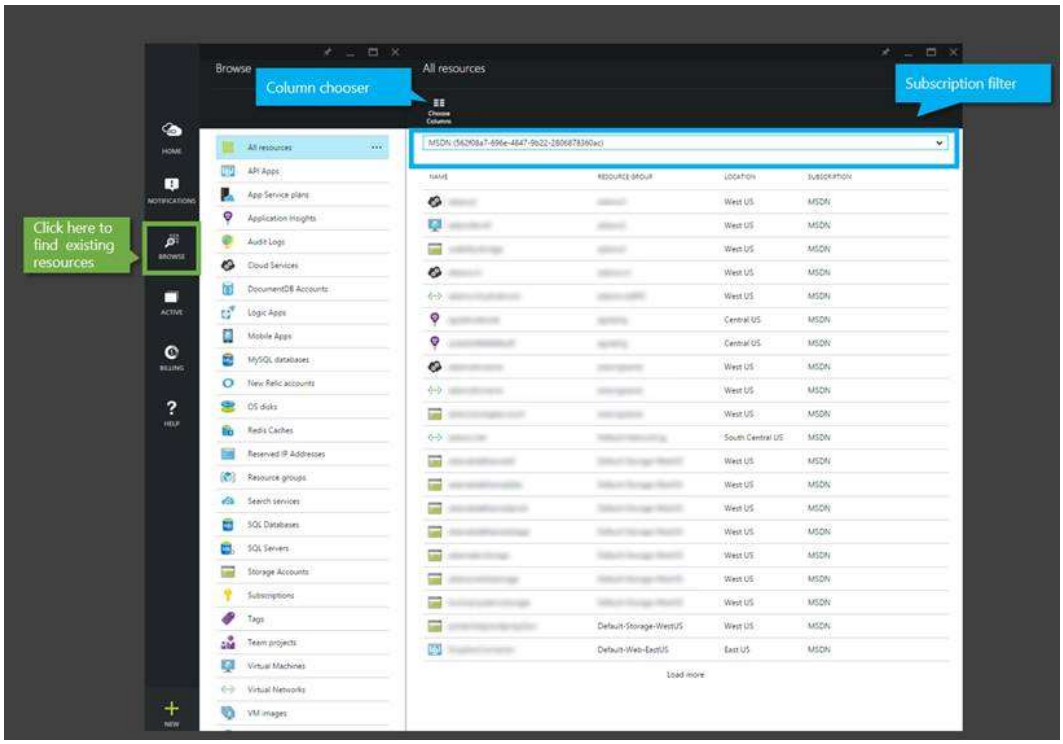
Objectives

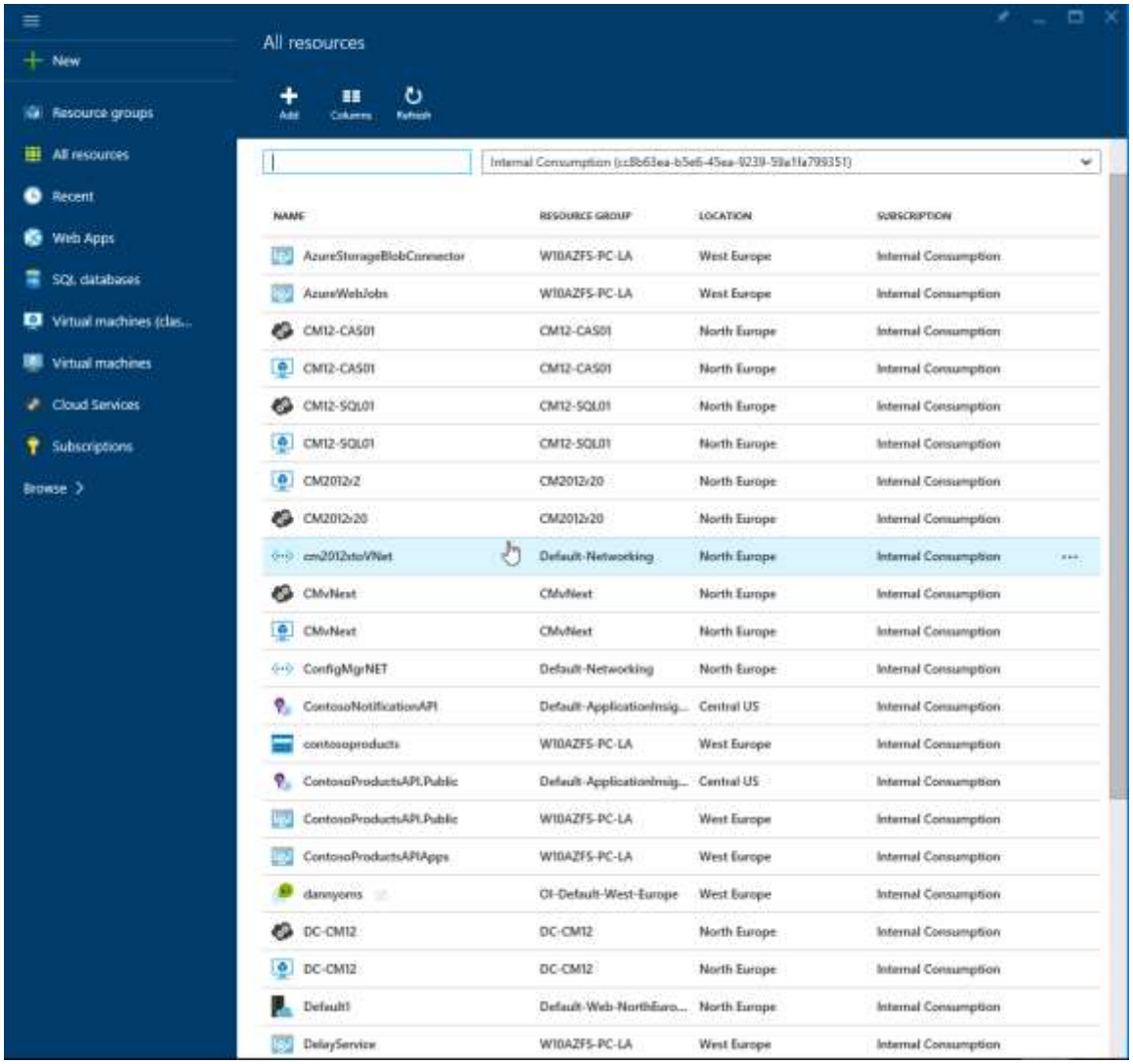
In this exercise, you will:

- Discover how to filter the resources you already have created.

Task Description

You can always pin frequently accessed resources to your start board but you might need to browse to something that you do not frequently access. The browse hub shown as follows helps you to get to all of your resources. You can filter by subscription, choose or resize columns, and navigate to the management blades by clicking individual items.





Exercise 3: How to Customize the Dashboard

Objectives

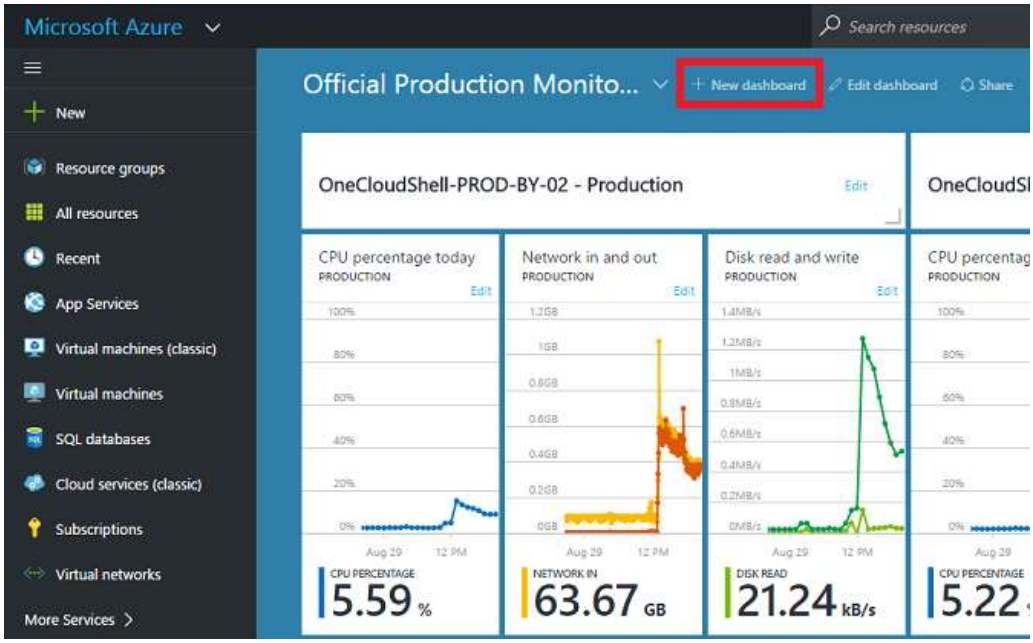
In this exercise, you will:

- Discover how to customize the Dashboard.

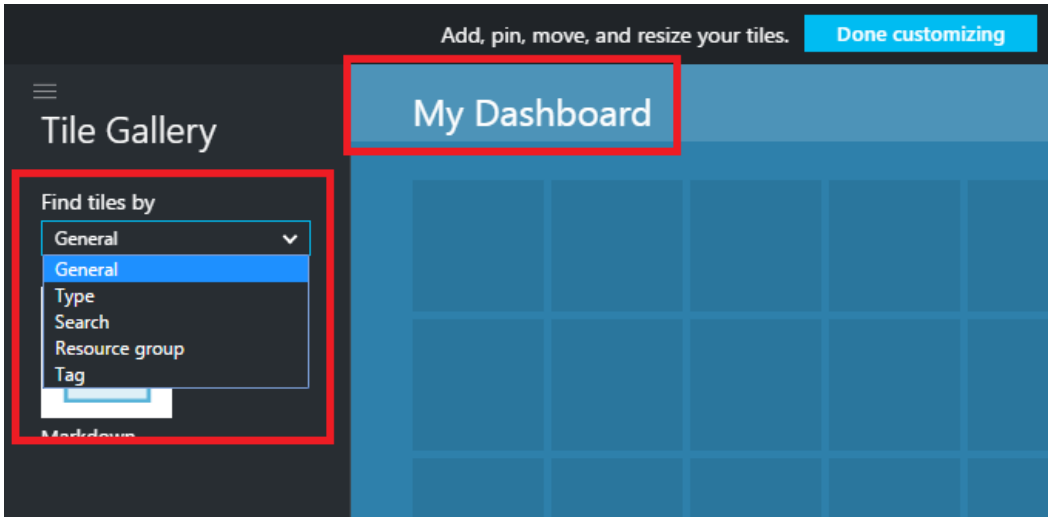
Task Description

Create a Dashboard

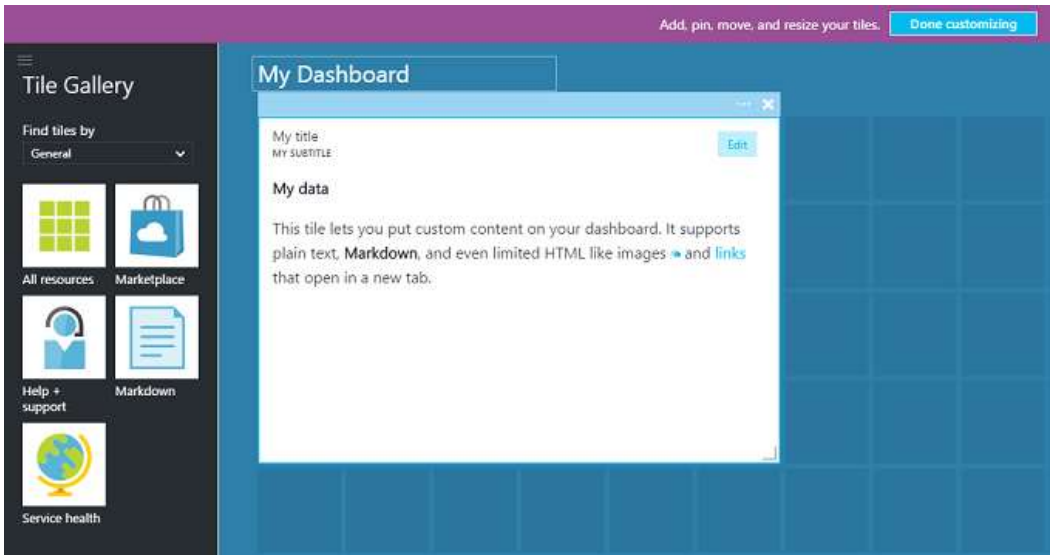
1. To create a dashboard, select the **New dashboard** button next to the current dashboard's name.



2. This action creates a new, empty, private dashboard and puts you into customization mode where you can name your dashboard and add or rearrange tiles. When in this mode, the collapsible tile gallery takes over the left navigation menu. The tile gallery lets you find tiles for your Azure resources in various ways: you can browse by resource group, by resource type, by tag, or by searching for your resource by name.

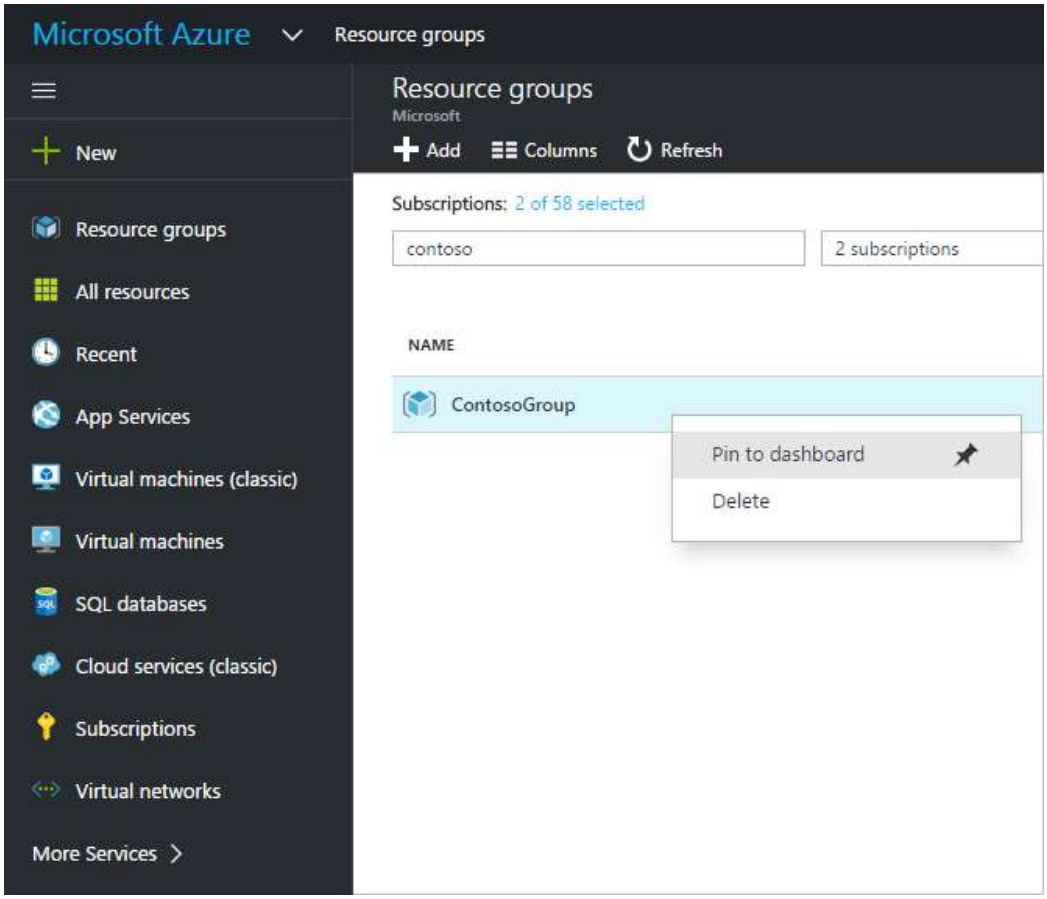


3. Add tiles by dragging and dropping them onto the dashboard surface wherever you want.
4. There's a new category called **General** for tiles that are not associated with a resource. In this example, we pin the Markdown tile. You use this tile to add custom content to your dashboard.

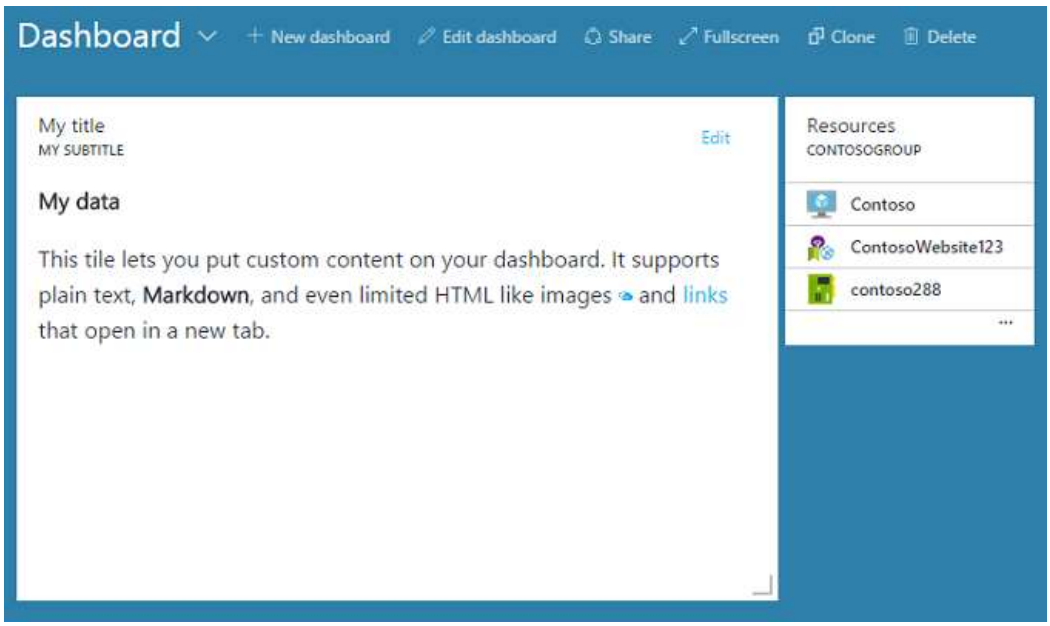


Edit a Dashboard

1. After creating your dashboard, you can pin tiles from the tile gallery or the tile representation of blades. Let's pin the representation of our resource group. You can either pin when browsing the item, or from the resource group blade. Both approaches result in pinning the tile representation of the resource group.

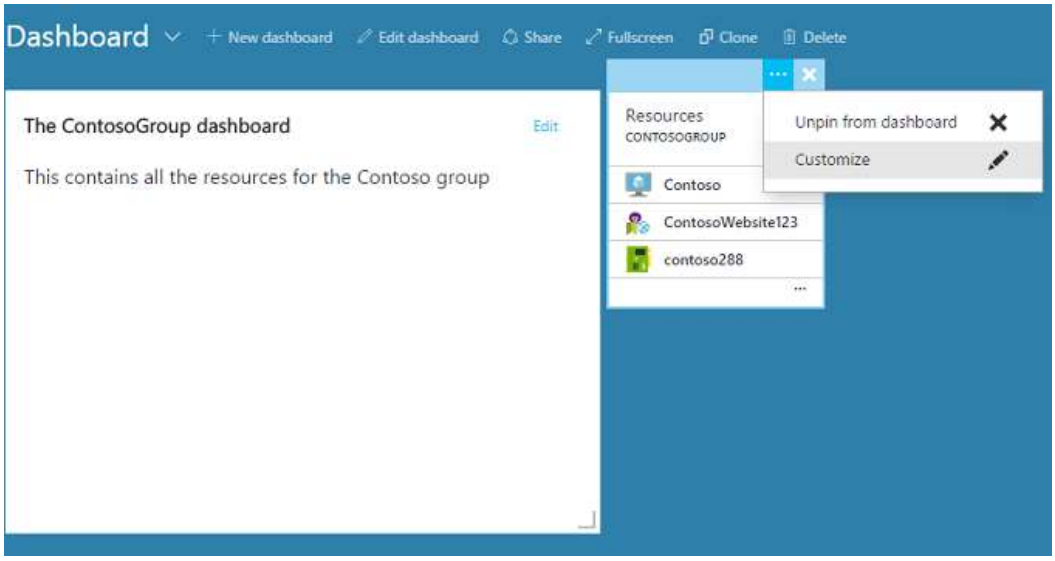


2. After pinning the item, it appears on your dashboard.

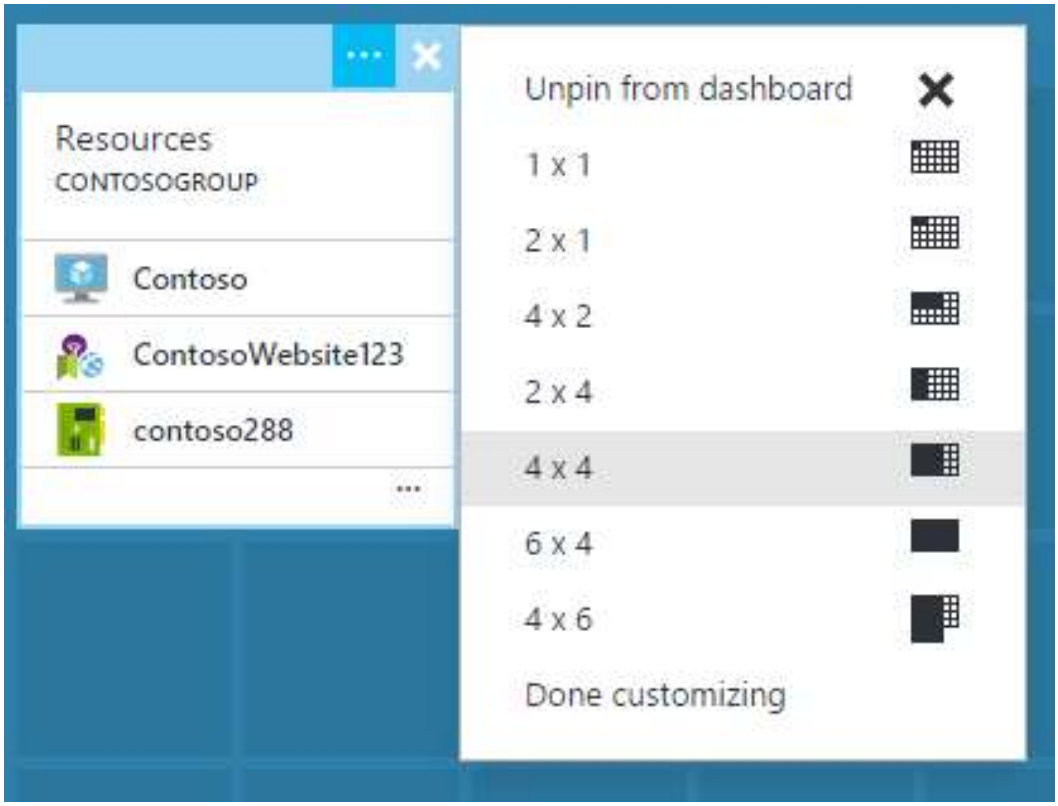


3. Now that we have a Markdown tile and a resource group pinned to the dashboard, we can resize and rearrange the tiles into a suitable layout.

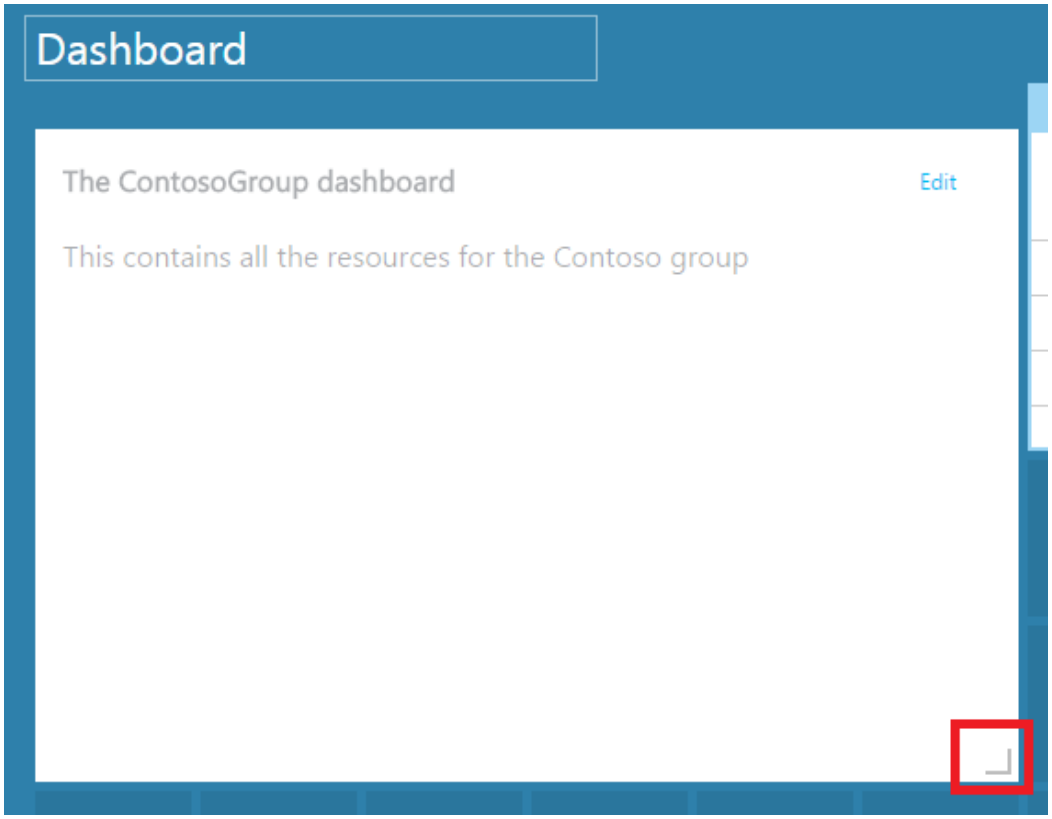
4. By hovering and selecting "..." or right-clicking on a tile you can see all the contextual commands for that tile. By default, there are two items:
    a. **Unpin from dashboard** – removes the tile from the dashboard
    b. **Customize** – enters customize mode



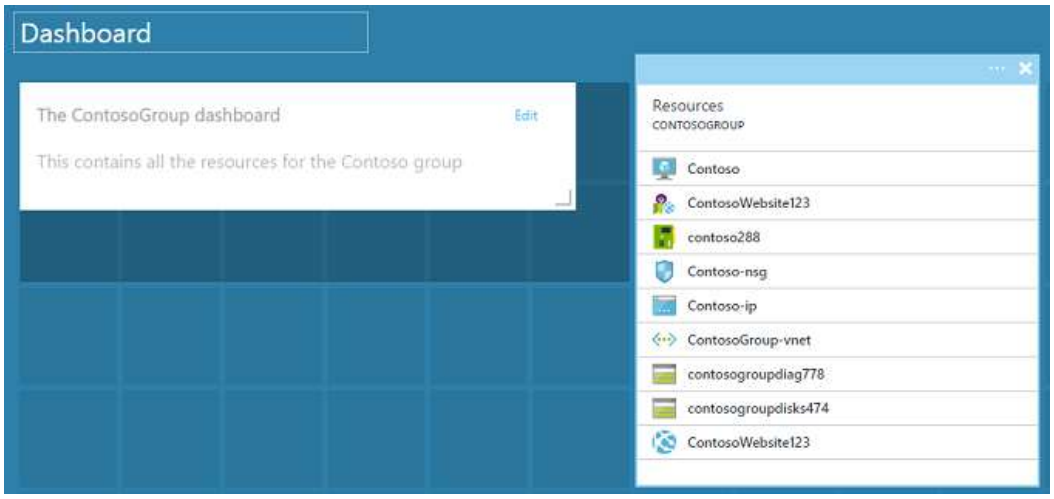
5. By selecting customize, you can resize and reorder tiles. To resize a tile, select the new size from the contextual menu, as shown in the following image.



6. Or, if the tile supports any size, you can drag the bottom right-hand corner to the desired size.



7. After resizing tiles, view the dashboard.



8. Once you are finished customizing a dashboard, simply select the **Done customizing** to exit customize mode or right-click and select **Done customizing** from the context menu.

Exercise 4: How to Get Help

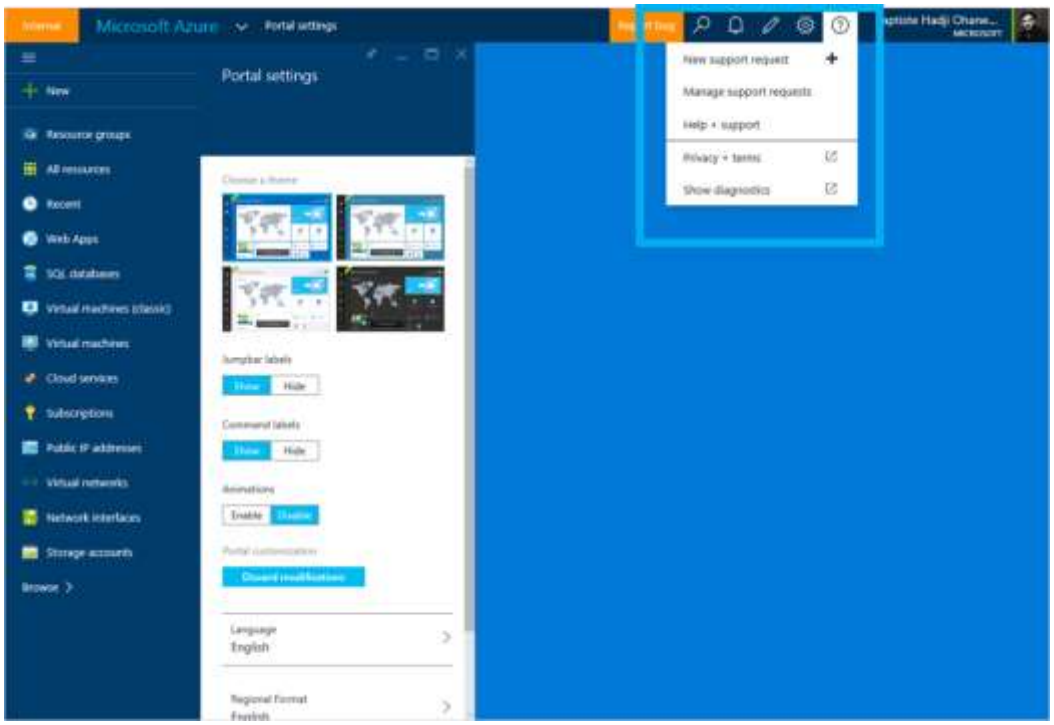
Objectives

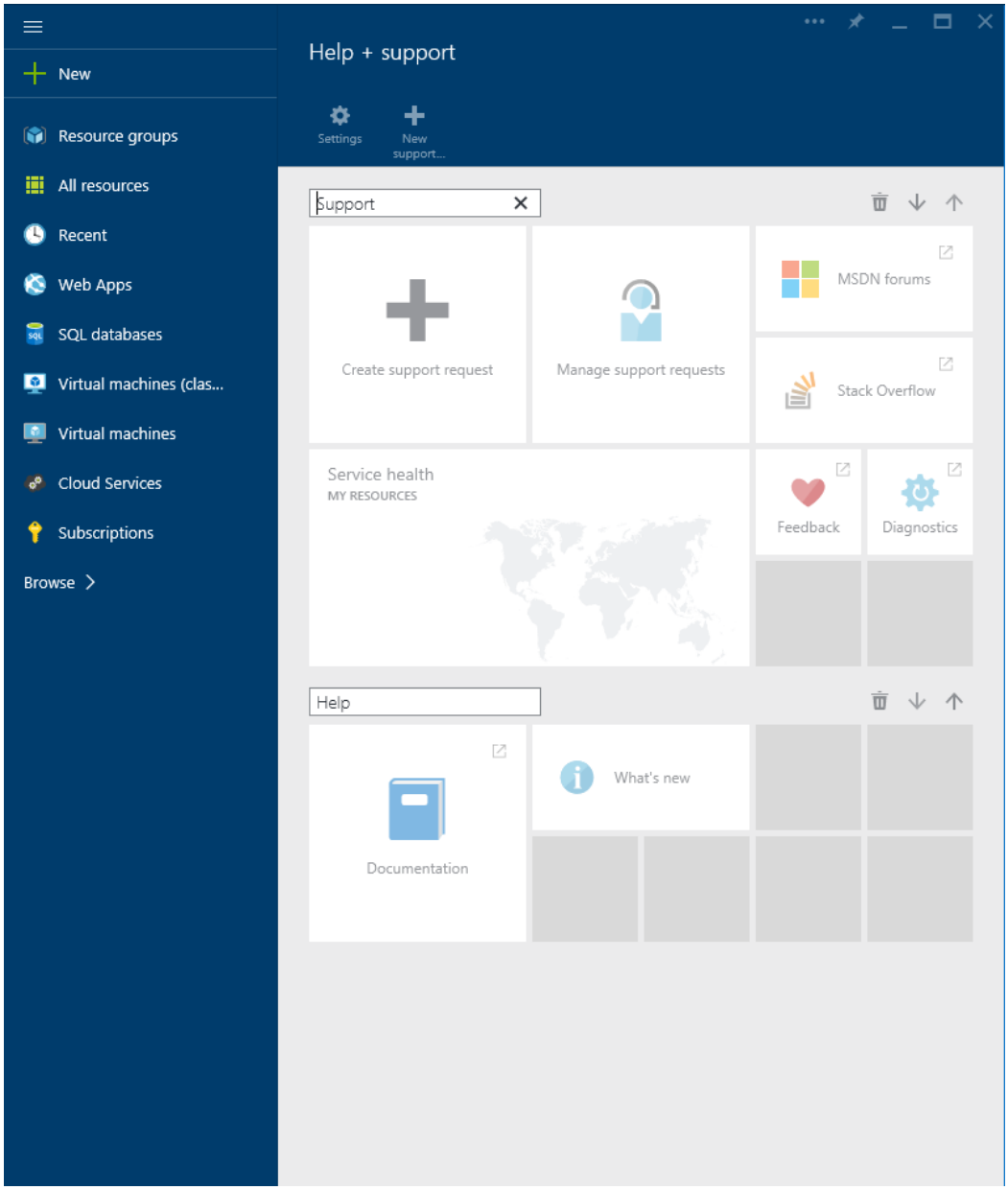
In this exercise, you will:

- Discover how to get help.

Task Description

If you ever have a problem, we are here for you. The portal has a help and support page that can point you in the correct direction. Depending on your support plan, you can also create support tickets directly in the portal. After creating a support ticket, you can manage the lifecycle of the ticket from within the portal. You can get to the help and support page by navigating to **Browse** > **Help + support**.





Lab 3: Create a Windows 10 Virtual Machine Hosting Visual Studio

Introduction

This tutorial helps you to easily create an Azure virtual machine quickly in the portal. We will use Windows 10 with Visual Studio image as an example to create the virtual machine but that is just one of the many images that Azure offers. Your image

choices depend on your subscription. For example, desktop images may be available to MSDN subscribers.

Objectives

After completing this lab, you will be able to:

- Create a virtual machine.
- Connect to the virtual machine.

Prerequisites

You need a Microsoft account with MSDN benefits or a subscription through your Enterprise agreement.

Estimated Time to Complete This Lab

30 minutes

Scenario

As a MSDN subscriber, you want to enable your Azure subscription to build a development virtual machine, hosting Visual Studio, and synchronizing it with Visual Studio Team Services. This tutorial uses the Resource Manager deployment model to create the virtual machine. This is recommended instead of the classic deployment model, which is based on Service Management APIs.

Exercise 1: Create the Virtual Machine

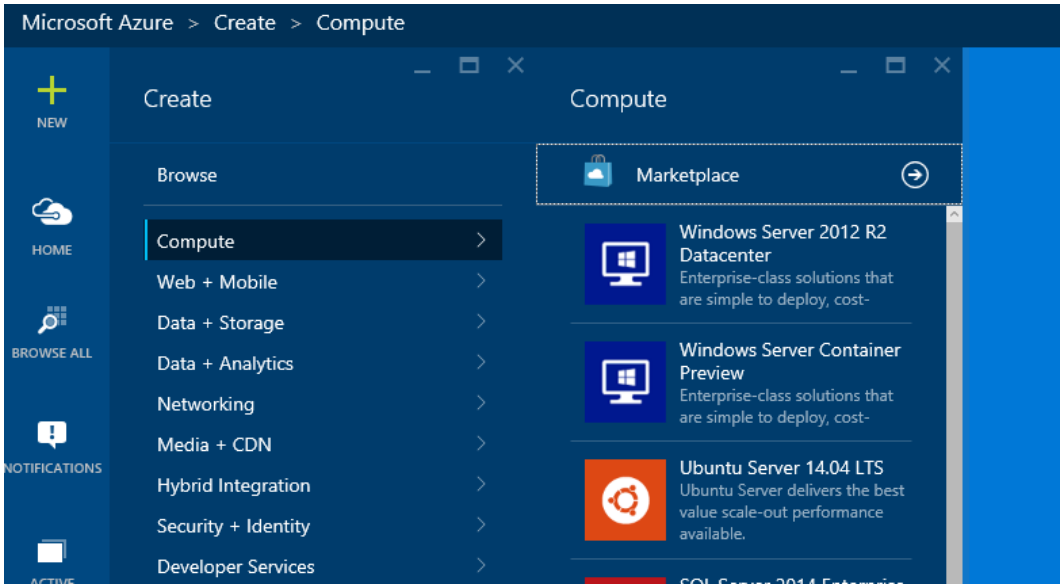
Objectives

In this exercise, you will:

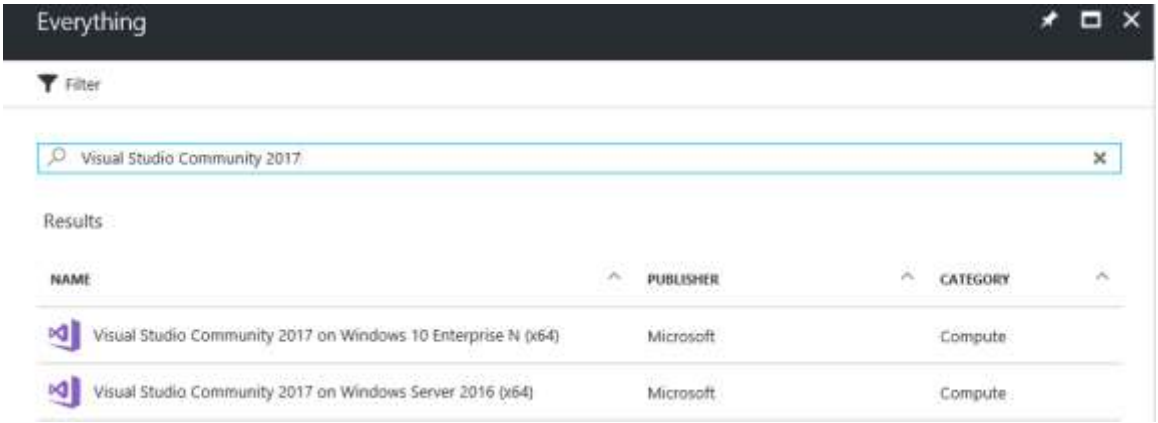
- Create a virtual machine.

Task Description

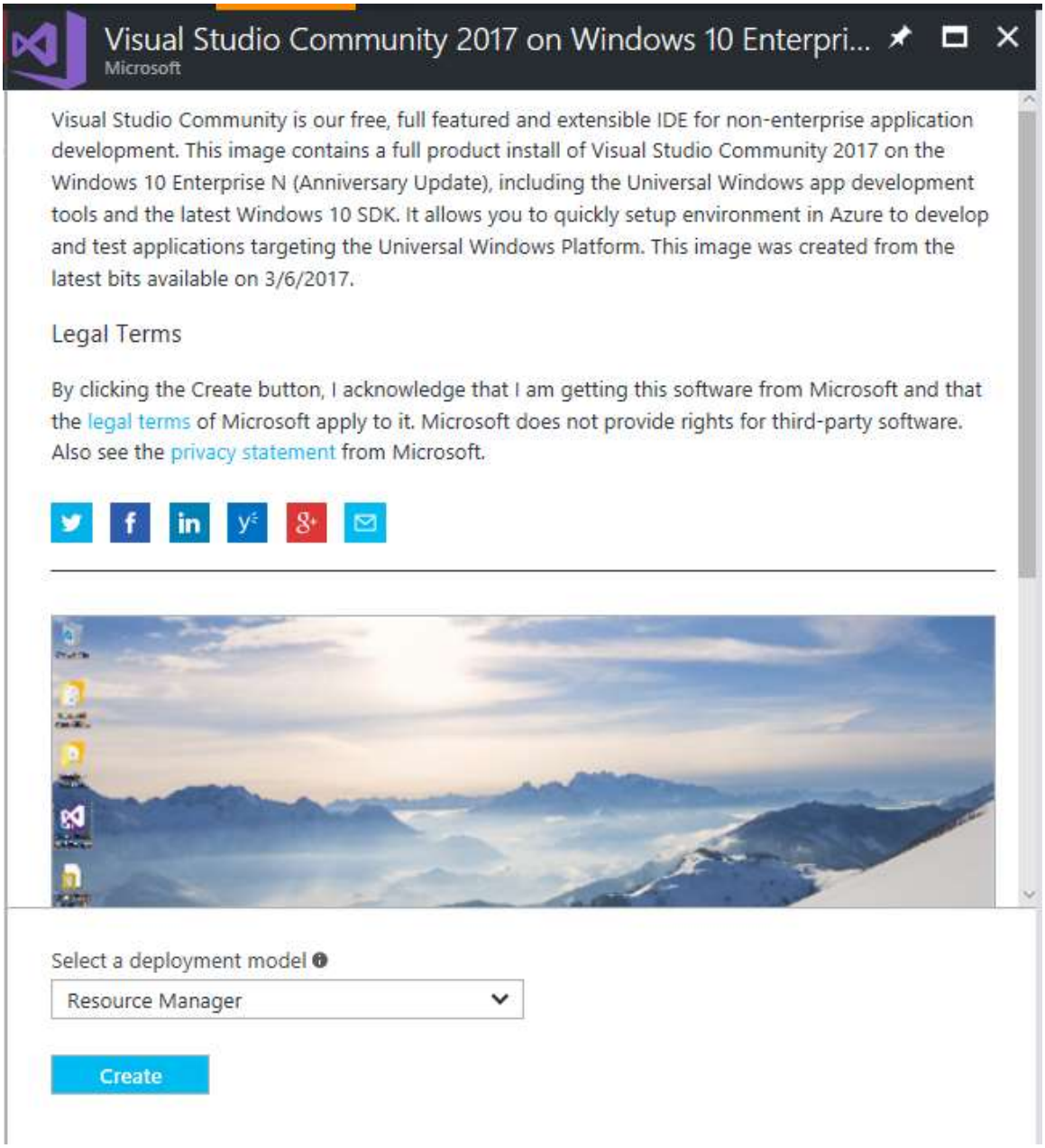
1. Sign in to the portal.
2. Start by deleting **all** the resources you previously created, except for your Visual Studio Team Services tenant.
3. On the **Hub** menu, click **New** > **Compute** > **Marketplace**.



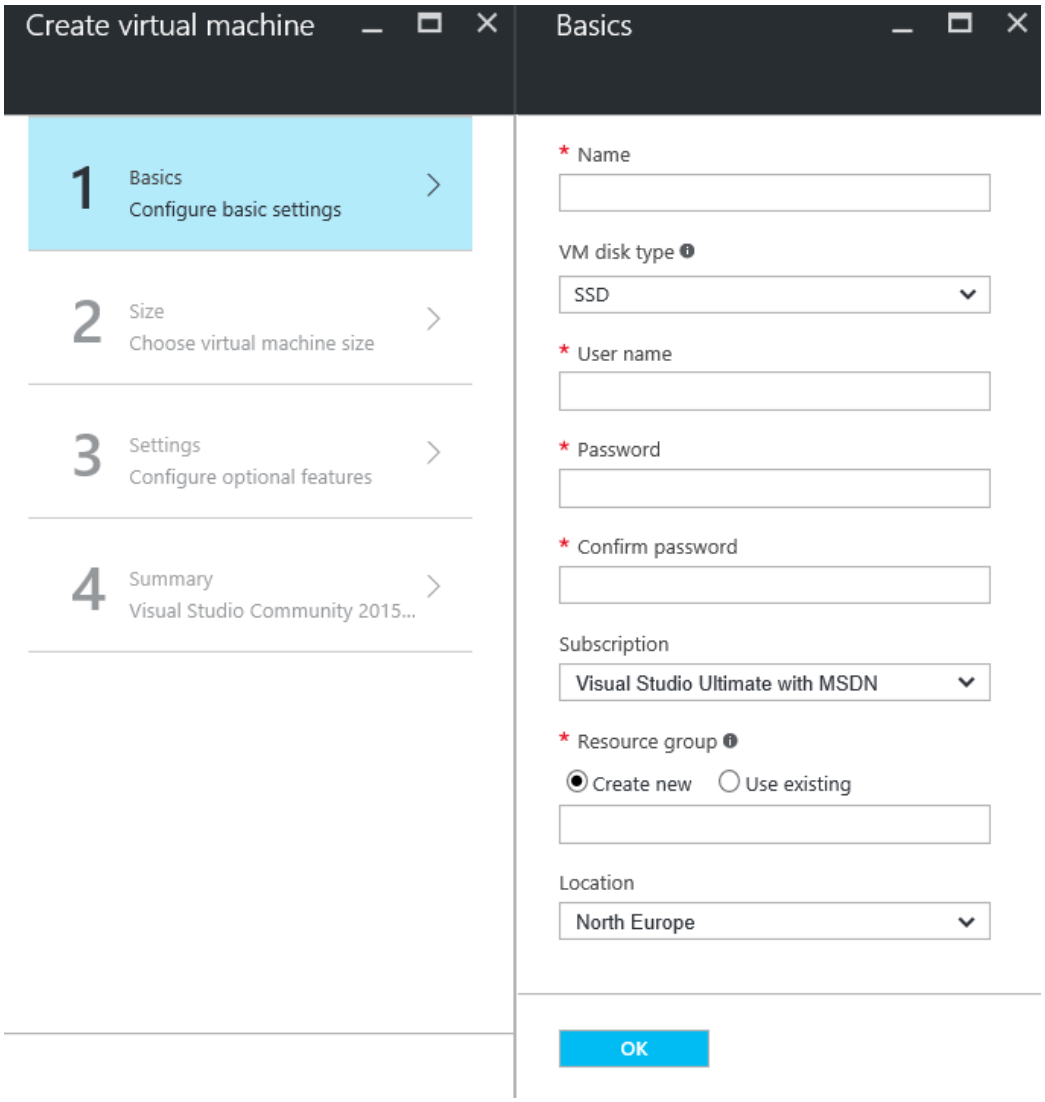
4. Type **Visual Studio Windows 10** and select **Visual Studio Community 2017 on Windows 10 Enterprise N (x64)**.



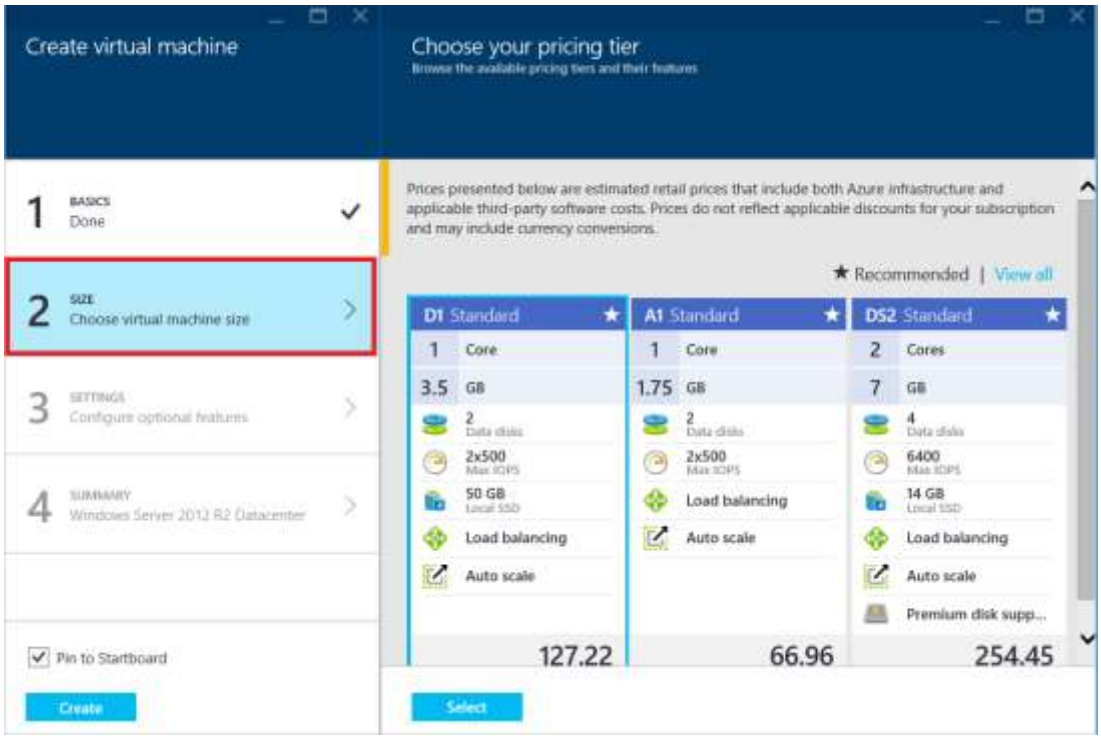
5. On the **Windows 10 with Visual Studio** page, **under Select a deployment model**, select **Resource Manager**. Click **Create**.



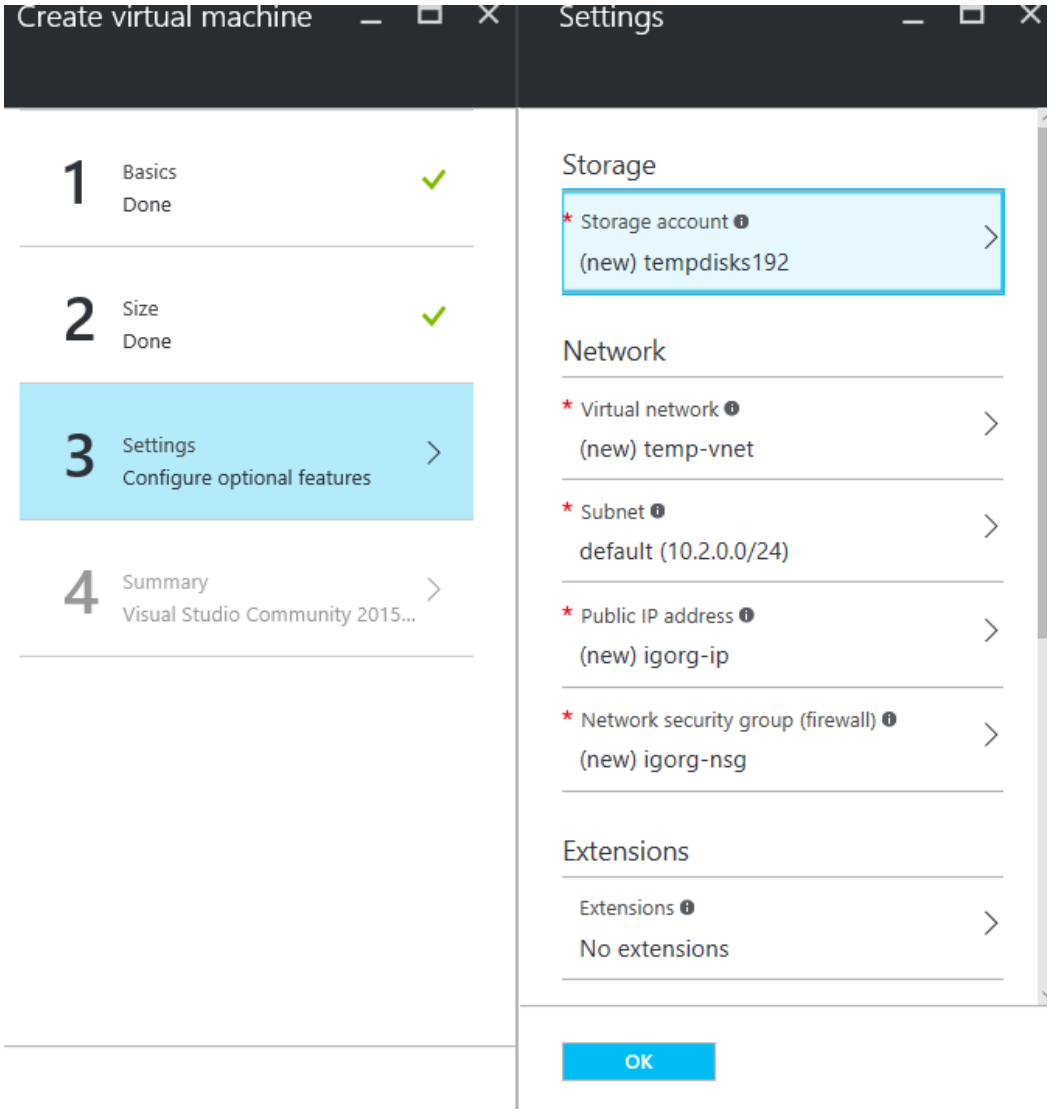
6. On the **Create virtual machine** blade, click **Basics**. Enter a name you want for the virtual machine, the administrative User name, and a strong Password. If you have more than one subscription, specify the one for the new virtual machine, in addition to a new or existing Resource group and an Azure datacenter Location.



7. Click **Size** and select an appropriate virtual machine size for your needs. Each size specifies the number of compute cores, memory, and other features, such as support for Premium Storage, which will affect the price. Azure proposes certain sizes automatically depending on the image you choose.



8. To see storage and networking settings for the new virtual machine, click **Settings**. For a first virtual machine you can generally accept the default settings. If you selected a virtual machine size that supports it, you can try Premium Storage by selecting **Premium (SSD)** under **Disk type**.



9. To review your configuration choices, click **Summary**. When you have finished reviewing or updating the settings, click **OK**.

10. While Azure creates the virtual machine, you can track the progress in **Notifications**, on the **Hub** menu. After Azure creates the virtual machine, you will see it on your Startboard unless you cleared the **Pin to Startboard** check box in the **Create virtual machine** blade.

Exercise 2: Connect to the Development Virtual Machine

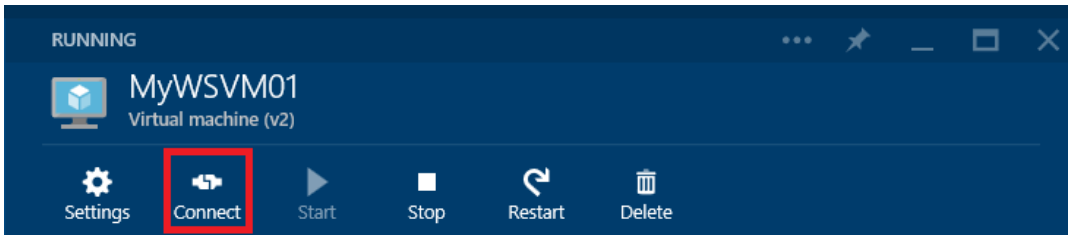
Objectives

In this exercise, you will:

- Connect to the development machine you created in the preceding exercise.

Task Description

1. If you have not already done so, sign in to the portal.
2. Click your virtual machine on the Start board. If you need to find it, click **Browse** > **Recent or Browse** > **Virtual machines**. Then, select your virtual machine from the list.



3. On the **Virtual machine** blade, click **Connect**.
4. To use the Remote Desktop Protocol file that is automatically created for the Windows Server virtual machine, click **Open**.
5. Click Connect.
6. Type the user name and password you set when you created the virtual machine, and then click **OK**.
7. To verify the identity of the virtual machine, click **Yes**.
8. You can now work with the virtual machine just as you would with any other server.
9. Upload the source folder given to you by the trainer. To achieve this, copy the folder on your local desktop and paste it on the development machine directly.