

Microsoft Azure Set up & GitHub Basics

Lab 1 Slides

Andrea Hatch

Resources to help in this class

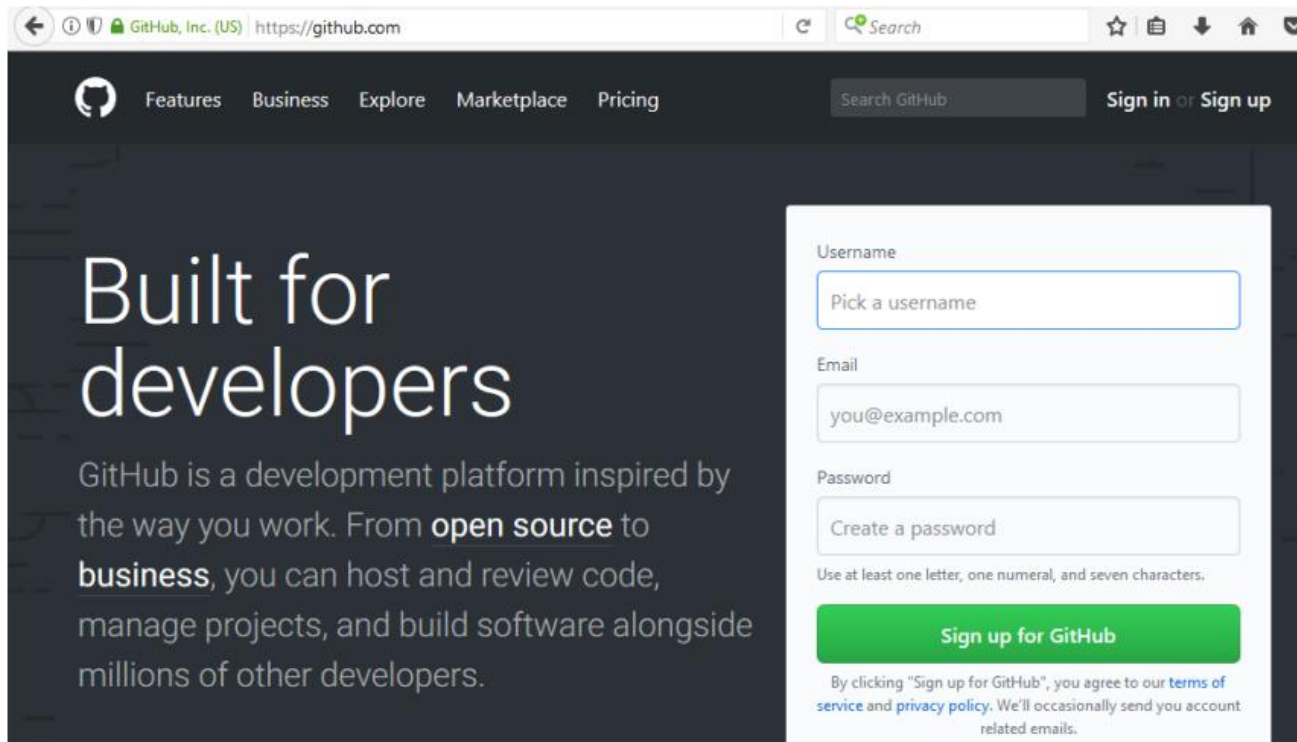
1. Microsoft Azure: <https://azure.microsoft.com/en-us/>
 2. GitHub: <https://github.com/>
- Both websites are free resources that you can use
 - You can also pay for options within these resources but for now the free resources will do

GitHub Account

- A GitHub account is recommended to help with your learning
- GitHub is a version control repository with many already built Azure repositories that you can use for your learning

GitHub Account set-up

- Website: <https://github.com/>
- Create a username, email and password and then select 'sign-up'



The screenshot shows the GitHub website's sign-up interface. The browser's address bar displays 'https://github.com'. The page features a dark header with navigation links: Features, Business, Explore, Marketplace, and Pricing. A search bar and 'Sign in or Sign up' links are also present. The main content area has a large heading 'Built for developers' and a descriptive paragraph about GitHub as a development platform. On the right, a white sign-up form is overlaid, containing input fields for Username (with placeholder 'Pick a username'), Email (with placeholder 'you@example.com'), and Password (with placeholder 'Create a password'). Below the password field, a note states: 'Use at least one letter, one numeral, and seven characters.' A prominent green button labeled 'Sign up for GitHub' is at the bottom of the form. A small disclaimer at the very bottom reads: 'By clicking "Sign up for GitHub", you agree to our [terms of service](#) and [privacy policy](#). We'll occasionally send you account related emails.'

GitHub - Verify your account

- You will receive an email to verify your account
- Verifying your account is not necessary but will allow you to access ALL features of GitHub

GitHub <noreply@github.com>

to me 

Hi

Help us secure your GitHub account by verifying your email address features.

[Verify email address](#)

This lets you access all of GitHub's

GitHub set-up cont...

- Select 'unlimited public repositories for free' then Select Continue to move to Step 3

Welcome to GitHub

You've taken your first step into a larger world,



Completed

Set up a personal account



Step 2:

Choose your plan



Step 3:

Tailor your experience

Choose your personal plan



Unlimited public repositories for free.



Unlimited private repositories for \$7/month.

Don't worry, you can cancel or upgrade at any time.



Help me set up an organization next

Organizations are separate from personal accounts and are best suited for businesses who need to manage permissions for many employees.

[Learn more about organizations](#)



Send me updates on GitHub news, offers, and events

Unsubscribe anytime in your email preferences. [Learn more](#)

Continue

Both plans include:




- ✓ Collaborative code review
- ✓ Issue tracking
- ✓ Open source community
- ✓ Unlimited public repositories
- ✓ Join any organization

GitHub set-up cont...

Fill out the questionnaire or select skip this step at the bottom

Welcome to GitHub

You'll find endless opportunities to learn, code, and create,

 Completed Set up a personal account	 Step 2: Choose your plan	 Step 3: Tailor your experience
---	--	--

How would you describe your level of programming experience?

☐ Very experienced ☒ Somewhat experienced ☐ Totally new to programming

What do you plan to use GitHub for? (check all that apply)

☐ Development ☐ Project Management ☒ Research
☐ Design ☒ School projects ☐ Other (please specify)

Which is closest to how you would describe yourself?

☐ I'm a hobbyist ☐ I'm a professional ☒ I'm a student
☐ Other (please specify)

What are you interested in?

e.g. tutorials, android, ruby, web-development, machine-learning, open-source

[Submit](#) [skip this step](#)

GitHub set-up cont...

- You have now created an account and can start exploring!
- Select 'Read the guide' for useful information or start a project if you want to play around yourself

Learn Git and GitHub without any code!

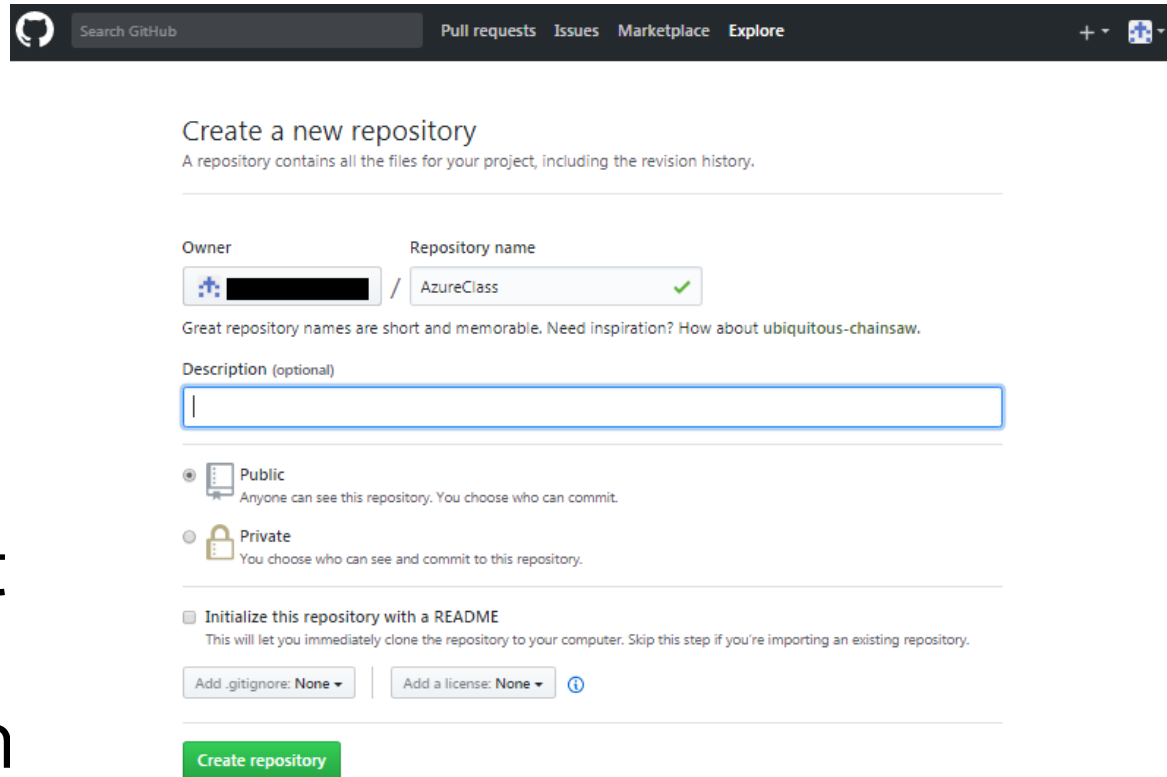
Using the Hello World guide, you'll create a repository, start a branch, write comments, and open a pull request.

[Read the guide](#)

[Start a project](#)

GitHub Repository

- You can create your own repository by giving it a name and selecting if you would like it to be public or private and then selecting 'Create Repository'



The screenshot shows the GitHub interface for creating a new repository. At the top, there's a dark header with the GitHub logo, a search bar, and links for 'Pull requests', 'Issues', 'Marketplace', and 'Explore'. Below this, the main heading is 'Create a new repository' with a subtitle 'A repository contains all the files for your project, including the revision history.' The form includes fields for 'Owner' (a dropdown menu) and 'Repository name' (a text input with 'AzureClass' entered and a green checkmark). Below these is a note: 'Great repository names are short and memorable. Need inspiration? How about ubiquitous-chainsaw.' There's a 'Description (optional)' text area. The visibility is set to 'Public' (selected) with a subtext 'Anyone can see this repository. You choose who can commit.' The 'Private' option is also visible with a subtext 'You choose who can see and commit to this repository.' There's a checkbox for 'Initialize this repository with a README' and a subtext 'This will let you immediately clone the repository to your computer. Skip this step if you're importing an existing repository.' At the bottom, there are dropdowns for 'Add .gitignore: None' and 'Add a license: None', followed by a green 'Create repository' button.

Create a new repository

A repository contains all the files for your project, including the revision history.

Owner Repository name

Public / AzureClass ✓

Great repository names are short and memorable. Need inspiration? How about ubiquitous-chainsaw.

Description (optional)

Public
Anyone can see this repository. You choose who can commit.

Private
You choose who can see and commit to this repository.

☐ Initialize this repository with a README
This will let you immediately clone the repository to your computer. Skip this step if you're importing an existing repository.

Add .gitignore: None Add a license: None ⓘ

Create repository

GitHub Azure Repositories

You can also use some already built Azure repositories

- Azure Resource Manager templates:
<https://github.com/Azure/azure-quickstarttemplates>
- Azure CLI 2.0:
<https://github.com/Azure/azure-cli>
- Azure DevOps Utilities:
<https://github.com/Azure/azuredevops-utils>

Microsoft Azure set-up

- Set up a free account at this link:
<https://azure.microsoft.com/en-us/free/?v=17.39a>
- Select the green 'Start free' button in the bottom left


The screenshot shows the Microsoft Azure website's landing page for creating a free account. The page has a dark blue header with the Microsoft Azure logo on the left and navigation links (SALES 1-800-867-1389, MY ACCOUNT, PORTAL, Search) on the right. Below the header is a dark blue navigation bar with links: Why Azure, Solutions, Products, Documentation, Pricing, Training, Marketplace, Partners, Blog, Resources, Support. The main content area is a bright blue gradient with the heading 'Create your Azure free account today'. On the left, there are three icons representing different benefits: a gift box for a \$200 credit, a circular arrow for free products, and a credit card for no payment until choice. On the right, there is a screenshot of the Windows Server 2016 Datacenter product page, showing its features, legal terms, publisher (Microsoft), and a 'Create' button. At the bottom left, there is a green button labeled 'Start free' with a right-pointing arrow.

Microsoft Azure


SALES 1-800-867-1389 ▼ MY ACCOUNT PORTAL Search

Why Azure Solutions Products Documentation Pricing Training Marketplace Partners Blog Resources Support


Create your Azure free account today



Get started with a \$200 credit
Start free with \$200 in credit to use on any Azure products for 30 days.

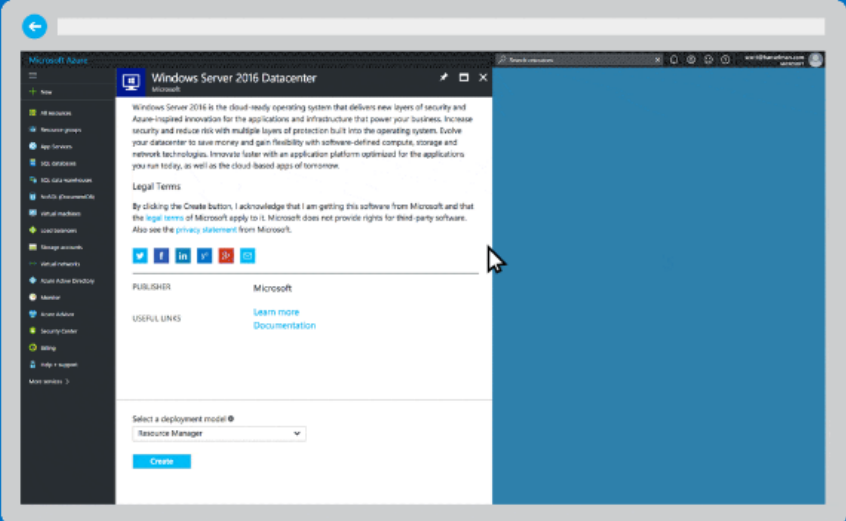


Keep going with free products
Build your next great idea with free access to our most popular products for 12 months and to more than 25 always free products.



Pay nothing until you choose
We use your credit card information for identity verification, but you will not be charged until you choose to upgrade.

[Start free >](#)



The screenshot shows the Windows Server 2016 Datacenter product page. It includes a sidebar with navigation links, a main content area with product description and legal terms, and a 'Create' button at the bottom.

Microsoft Azure cont...

- You must create a Microsoft account first before creating an Azure account
- If you already have a Microsoft account you will need to create a new one to gain the free access for Azure
- Select the 'Create a new Microsoft account' link at the bottom

We have a new sign-in experience!
[Try it now](#)



Microsoft Azure Signup Portal

Work or school, or personal Microsoft account

☐ Keep me signed in

Sign in

Back

[Can't access your account?](#)

[Create a new Microsoft account](#)

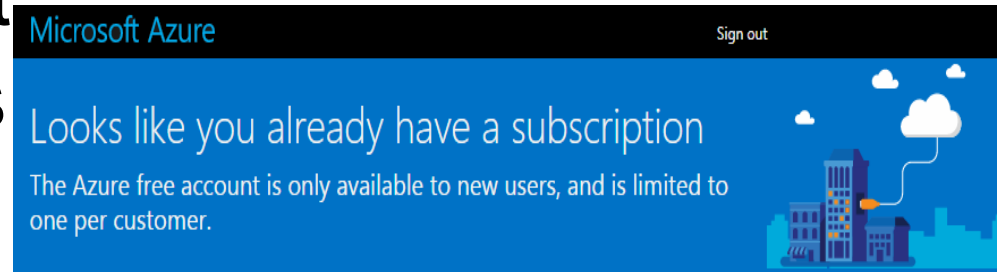
© 2017 Microsoft

[Terms of use](#) [Privacy & cookies](#)



Microsoft Azure cont..

- If you already have a Microsoft account you will receive this message if you try to use it and will need to pay.



What can I do?

[Sign up for a Pay-As-You-Go subscription instead](#)

[Sign up >](#)

[Use an existing subscription](#)

[Azure Portal >](#)

Microsoft Azure cont...

- Information needed for your account:
 - You will need to provide a credit card number for your Azure account in case you would like to use any of the pay for options
 - You will need to provide a phone number to verify your account as well
 - Note: Microsoft may try to call you to solicit why you are interested in using their service

Creating a new account

- Provide your details in order to create a new account
- Microsoft will send you a code to your email or phone number provided that you will use to verify your account



Create account

Microsoft account opens a world of benefits.

☒ Send me promotional emails from Microsoft

Back

Next

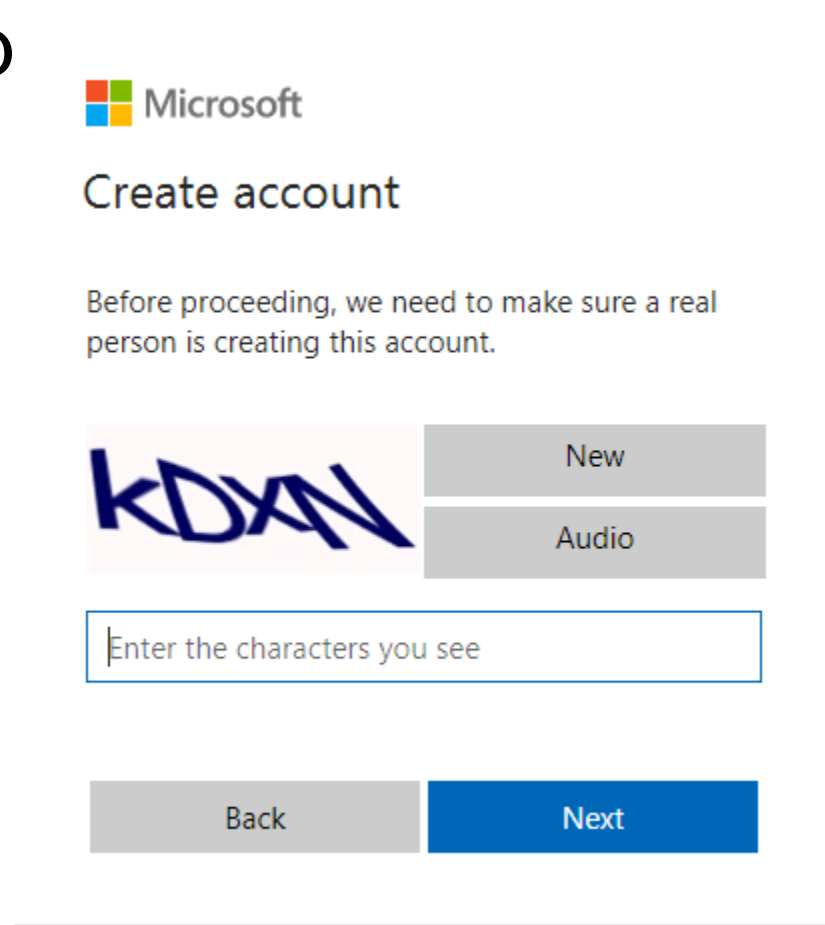
[Use a phone number instead](#)

[Get a new email address](#)

Choosing **Next** means that you agree to the [Privacy Statement](#) and [Microsoft Services Agreement](#).

Creating a new account cont...

- You may be asked to verify that you are not a comp



The image shows a Microsoft account creation verification screen. At the top is the Microsoft logo. Below it is the text 'Create account'. A message states: 'Before proceeding, we need to make sure a real person is creating this account.' There is a CAPTCHA image showing the letters 'KDXN' in a stylized blue font on a light pink background. To the right of the image are two buttons: 'New' and 'Audio'. Below the CAPTCHA image is a text input field with the placeholder text 'Enter the characters you see'. At the bottom are two buttons: 'Back' and 'Next'.

Microsoft

Create account

Before proceeding, we need to make sure a real person is creating this account.

KDXN

New

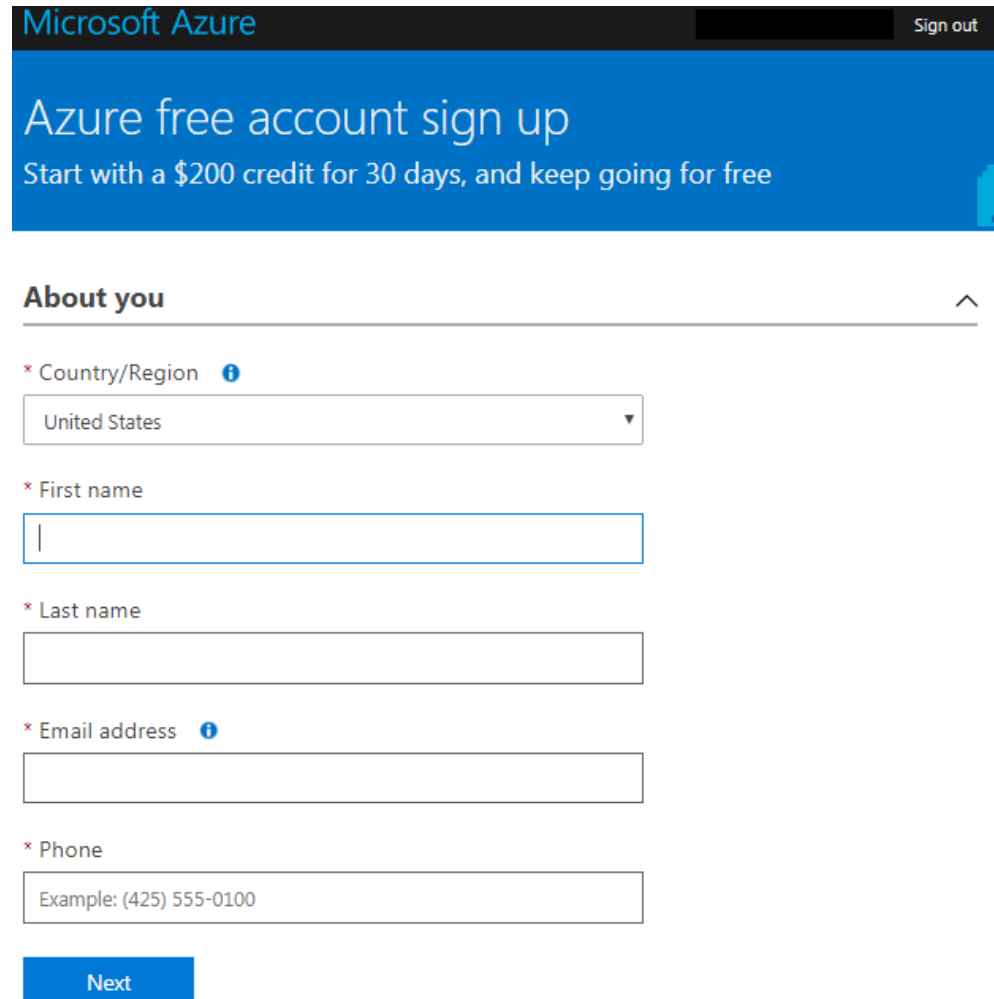
Audio

Enter the characters you see

Back Next

Creating a new account cont...

- Fill out the information about yourself in Step 1 and then select Next



The screenshot shows the 'Microsoft Azure' header with a 'Sign out' link. Below is a blue banner for 'Azure free account sign up' with the text 'Start with a \$200 credit for 30 days, and keep going for free'. The main section is titled 'About you' and contains several form fields: 'Country/Region' (a dropdown menu showing 'United States'), 'First name' (a text input field), 'Last name' (a text input field), 'Email address' (a text input field), and 'Phone' (a text input field with the example '(425) 555-0100'). A blue 'Next' button is at the bottom.

Microsoft Azure Sign out

Azure free account sign up

Start with a \$200 credit for 30 days, and keep going for free

About you ^

* Country/Region ⓘ
United States ▼

* First name

* Last name

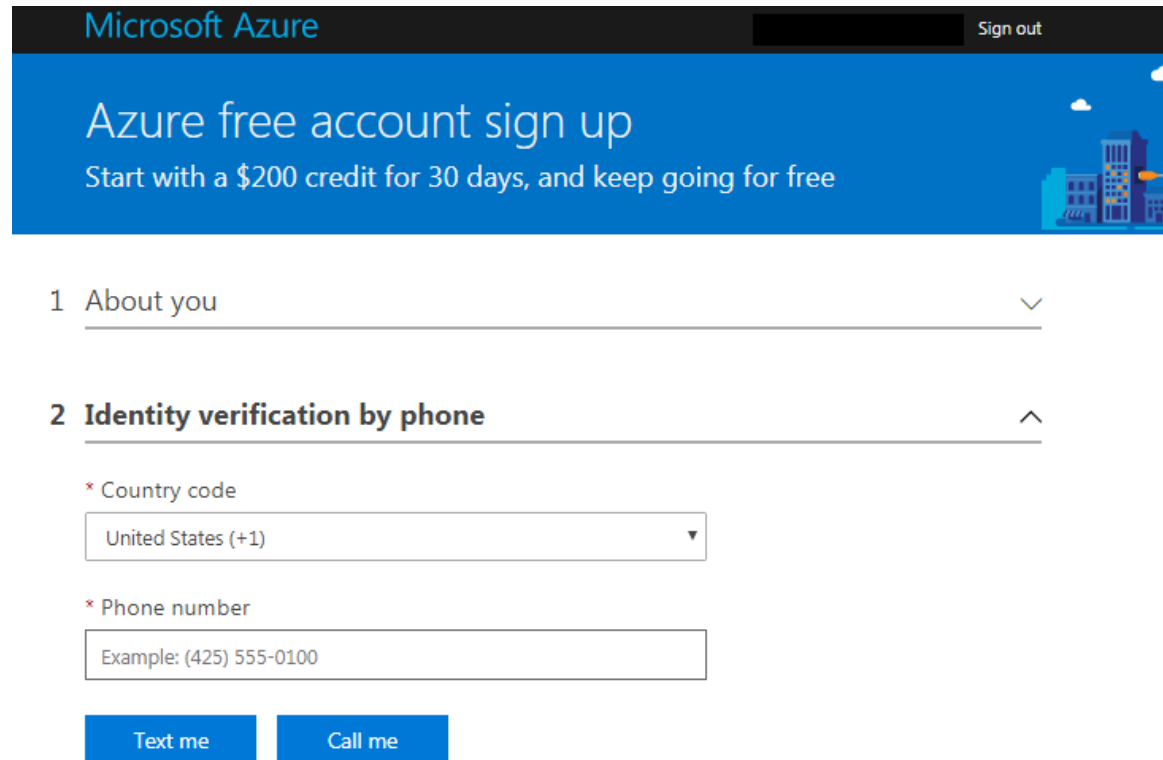
* Email address ⓘ

* Phone
Example: (425) 555-0100

Next

Creating a new account cont...

- Provide a verification phone number and then select one or the other options to be contacted



The screenshot shows the Microsoft Azure sign-up interface. At the top, a dark blue header contains the 'Microsoft Azure' logo on the left and a 'Sign out' link on the right. Below this is a large blue banner with the text 'Azure free account sign up' and 'Start with a \$200 credit for 30 days, and keep going for free'. To the right of the text is a small illustration of a city skyline. Below the banner, the page is divided into two sections. Section 1, 'About you', is collapsed. Section 2, 'Identity verification by phone', is expanded. It contains two required fields: 'Country code' with a dropdown menu showing 'United States (+1)', and 'Phone number' with a text input field showing the example '(425) 555-0100'. At the bottom of the form are two blue buttons: 'Text me' and 'Call me'.

Microsoft Azure

Sign out

Azure free account sign up

Start with a \$200 credit for 30 days, and keep going for free

- 1 About you
- 2 Identity verification by phone

* Country code

United States (+1)

* Phone number

Example: (425) 555-0100

Text me Call me

Creating a new account cont...

- Enter your code that you received on your phone and select 'Verify code'

The screenshot shows the Microsoft Azure sign-up interface. At the top, there's a dark blue header with 'Microsoft Azure' on the left and a 'Sign out' button on the right. Below this is a blue banner with the text 'Azure free account sign up' and 'Start with a \$200 credit for 30 days, and keep going for free'. The main content area is white and contains two steps: '1 About you' and '2 Identity verification by phone'. Step 2 is currently active. It includes a dropdown for 'Country code' set to 'United States (+1)', a text input for 'Phone number' (partially obscured by a black box), and a 'Verification code' input (also partially obscured). Below the phone number input are two buttons: 'Text me' and 'Call me'. To the right of these buttons is the text 'We delivered a code to your phone.' At the bottom of the form are two buttons: 'Verify code' and 'I did not receive a code'.

Microsoft Azure Sign out

Azure free account sign up
Start with a \$200 credit for 30 days, and keep going for free

1 About you

2 Identity verification by phone

* Country code
United States (+1)

* Phone number
[Redacted]

Text me Call me We delivered a code to your phone.

* Verification code
[Redacted]

Verify code I did not receive a code

Creating a new account cont...

- You will have to add a credit card number here to continue and then select 'Next'
- As they note you will not be charged without converting to a paid offer

2 Identity verification by card ^

We keep prices low by verifying that account holders are real people, not bots or anonymous trouble makers. Don't worry, your card will not be charged unless you explicitly convert to a paid offer, though you might see a temporary authorization hold.



* Card number

* Expiration date

Month Year

* CVV [i](#)

* Name on card

* Address line 1

Address line 2

- Optional -

* City

* State

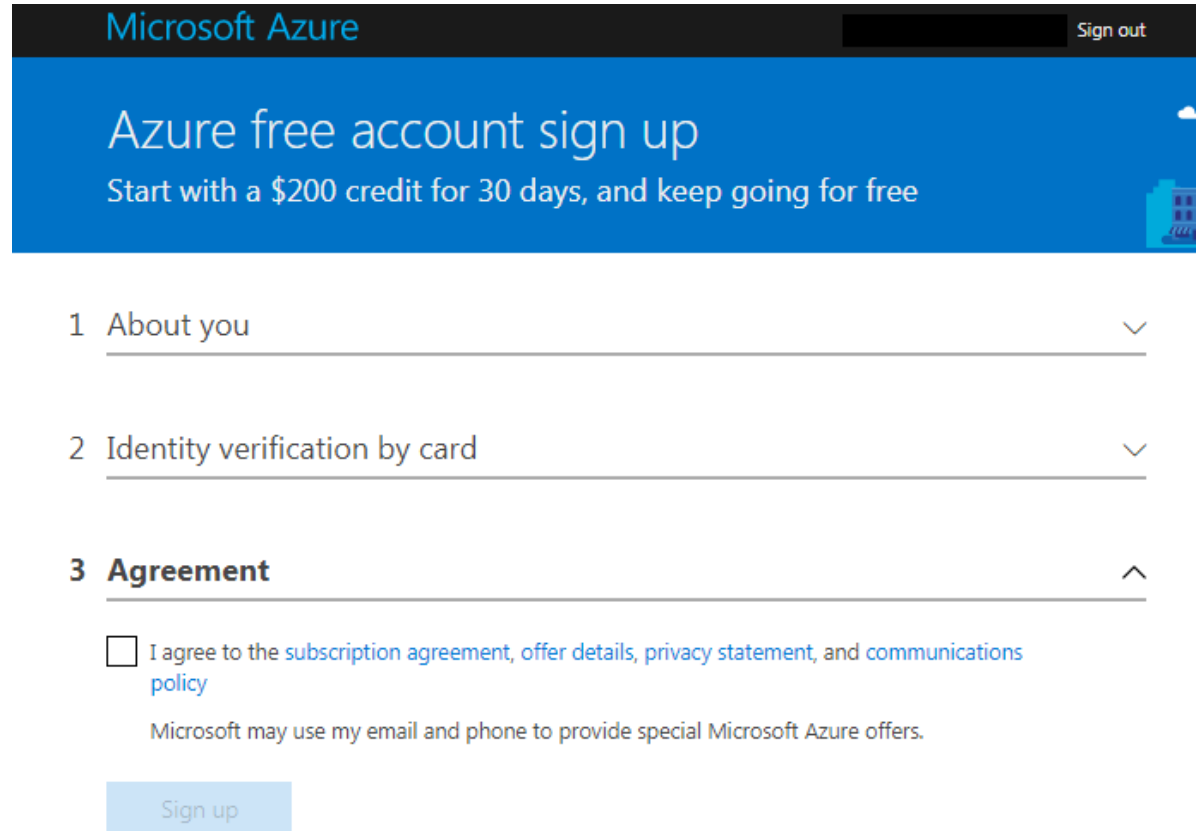
* ZIP code

- 97531 -

Next

Creating a new account cont...

- Finally you will need to agree to the terms by selecting the check box and then you will select 'Sign up' and you will be brought to your new homepage



The screenshot shows the Microsoft Azure website's sign-up page. At the top, there's a dark blue header with the 'Microsoft Azure' logo on the left and a 'Sign out' button on the right. Below the header is a large blue banner with the text 'Azure free account sign up' and 'Start with a \$200 credit for 30 days, and keep going for free'. The main content area is white and contains a three-step progress indicator: '1 About you', '2 Identity verification by card', and '3 Agreement'. The '3 Agreement' step is currently active and expanded, showing a checkbox for 'I agree to the subscription agreement, offer details, privacy statement, and communications policy'. Below the checkbox is a line of text: 'Microsoft may use my email and phone to provide special Microsoft Azure offers.' At the bottom of the form is a light blue 'Sign up' button.

Microsoft Azure Sign out

Azure free account sign up

Start with a \$200 credit for 30 days, and keep going for free

- 1 About you
- 2 Identity verification by card
- 3 **Agreement**

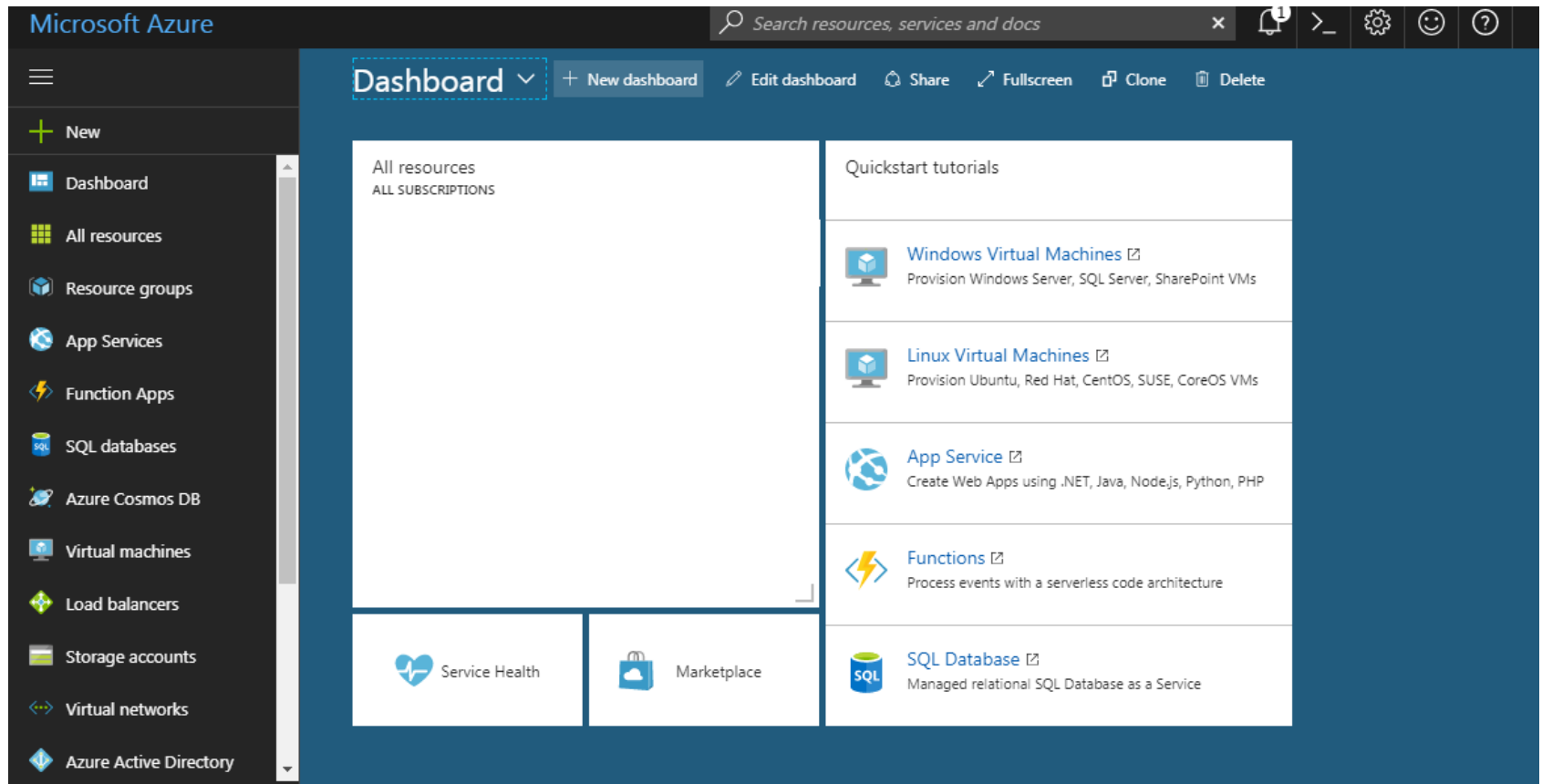
☐ I agree to the [subscription agreement](#), [offer details](#), [privacy statement](#), and [communications policy](#)

Microsoft may use my email and phone to provide special Microsoft Azure offers.

[Sign up](#)

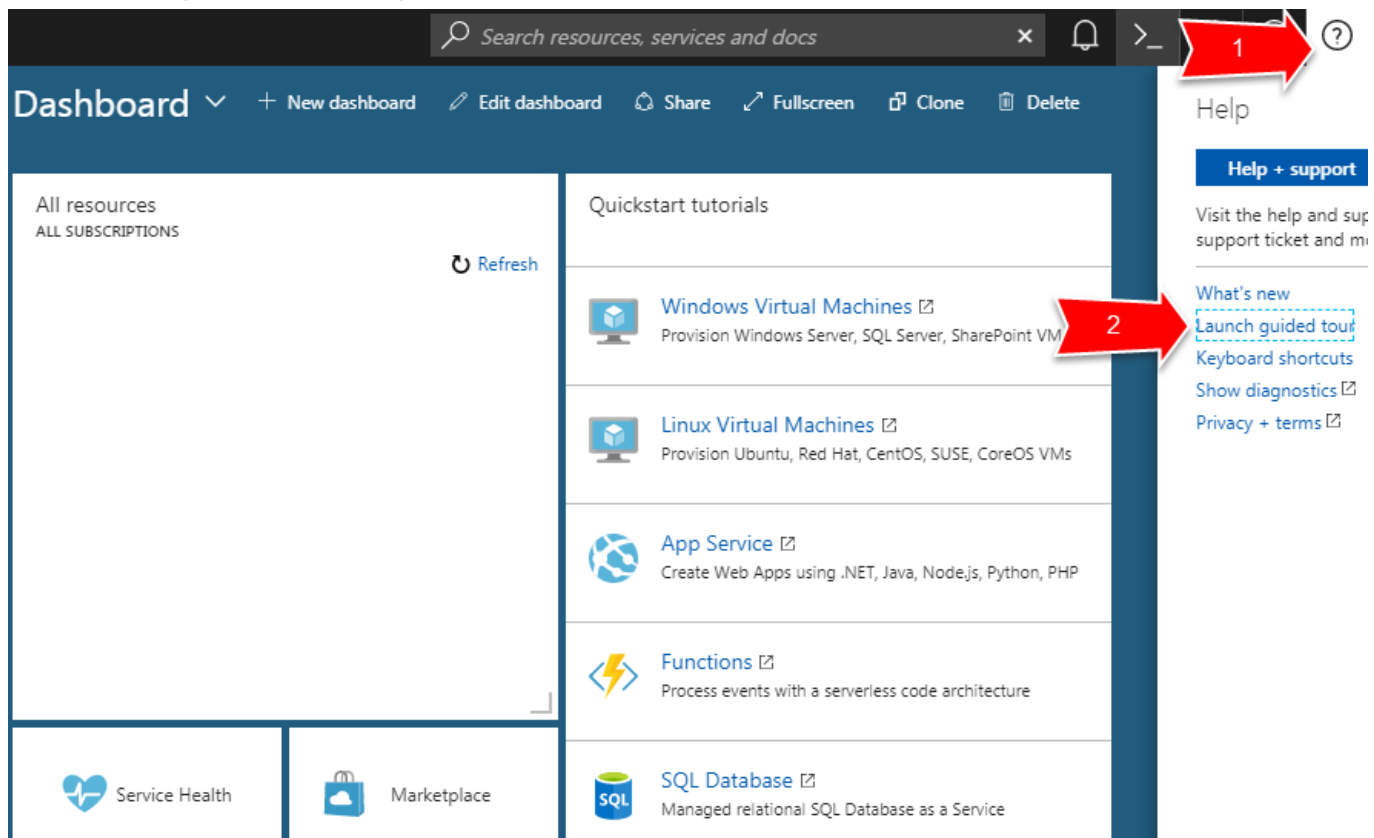
Microsoft Azure Portal

- The Azure Portal is your 'homepage' and will look like this when you first sign in :



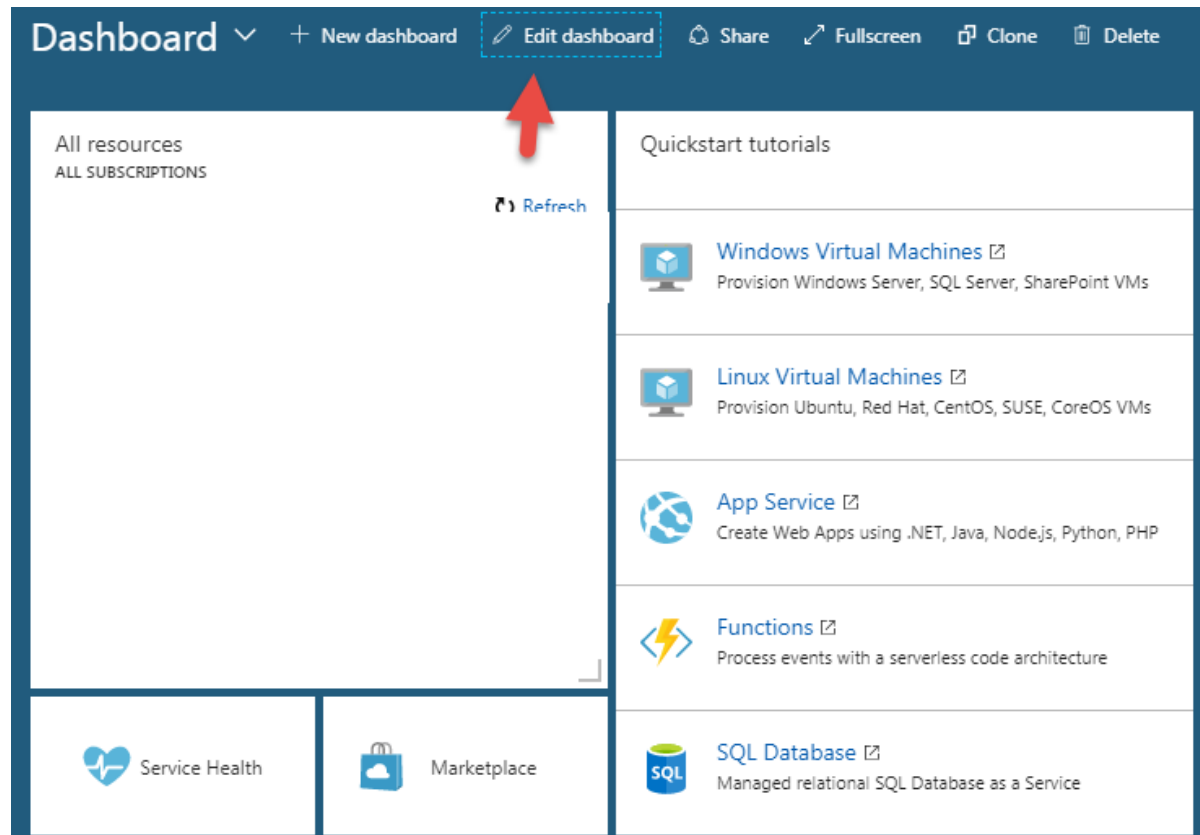
Microsoft Azure Portal

- Once you first log in, the quick guide will explain what each of the buttons can be used for on your dashboard
- If you did not use the quick guide on your first log in, you can select it by clicking the question mark in the circle (help button) on the top right then selecting launch guided tour



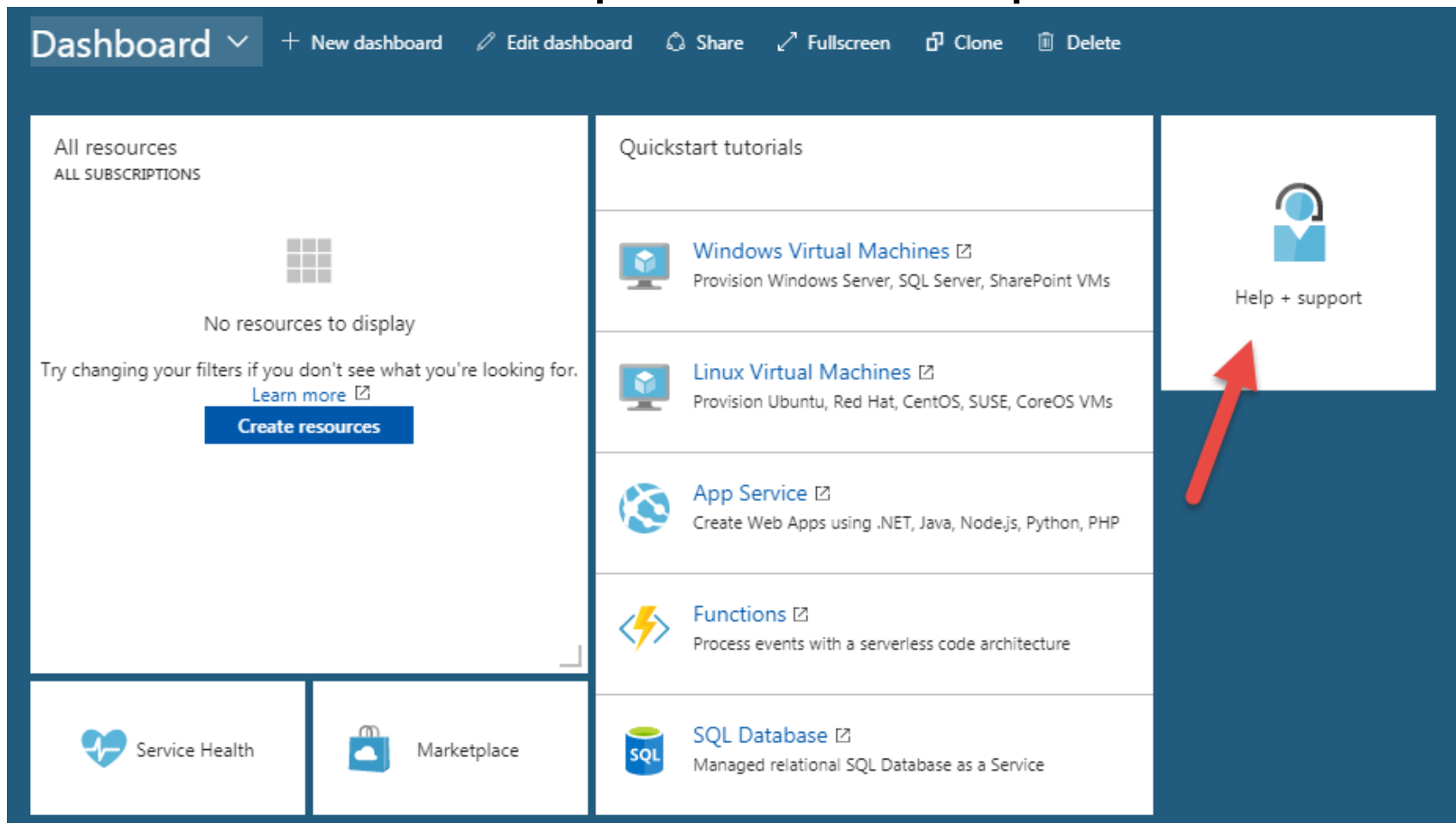
Microsoft Azure Portal

- You will be able to customize your portal to your liking using the 'edit dashboard' button



Adding to your dashboard

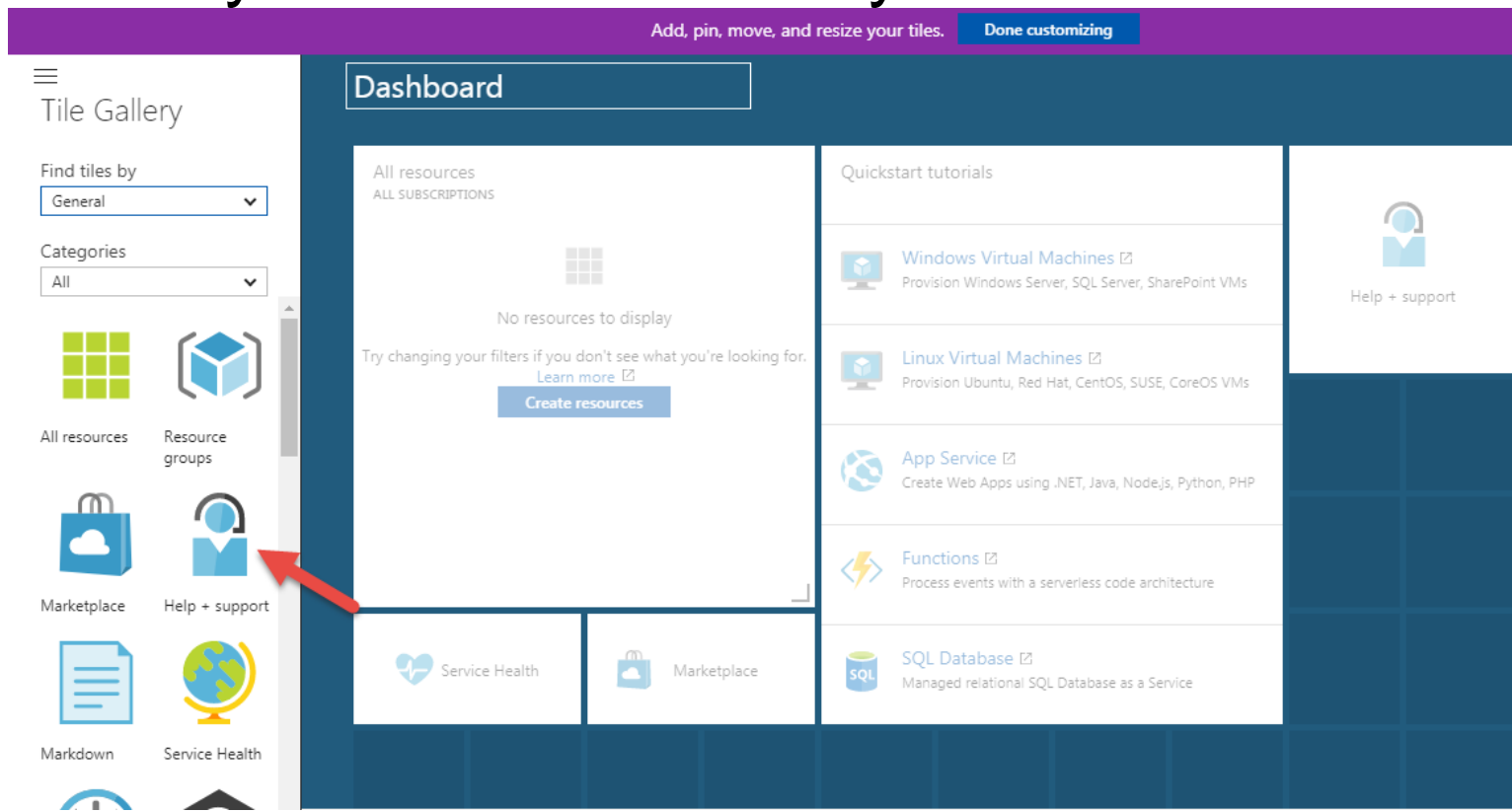
- I have added the help + support widget to my dashboard as a quick link to help for the future



The screenshot shows the Azure portal dashboard interface. At the top, there is a navigation bar with the 'Dashboard' dropdown menu and several action buttons: '+ New dashboard', 'Edit dashboard', 'Share', 'Fullscreen', 'Clone', and 'Delete'. The main content area is divided into three columns. The left column, titled 'All resources' and 'ALL SUBSCRIPTIONS', displays a message 'No resources to display' with a 'Learn more' link and a 'Create resources' button. The middle column, titled 'Quickstart tutorials', lists several options: 'Windows Virtual Machines' (Provision Windows Server, SQL Server, SharePoint VMs), 'Linux Virtual Machines' (Provision Ubuntu, Red Hat, CentOS, SUSE, CoreOS VMs), 'App Service' (Create Web Apps using .NET, Java, Node.js, Python, PHP), 'Functions' (Process events with a serverless code architecture), and 'SQL Database' (Managed relational SQL Database as a Service). The right column contains a 'Help + support' widget, which is highlighted by a red arrow. This widget features a headset icon and the text 'Help + support'. At the bottom of the dashboard, there are two additional widgets: 'Service Health' and 'Marketplace'.

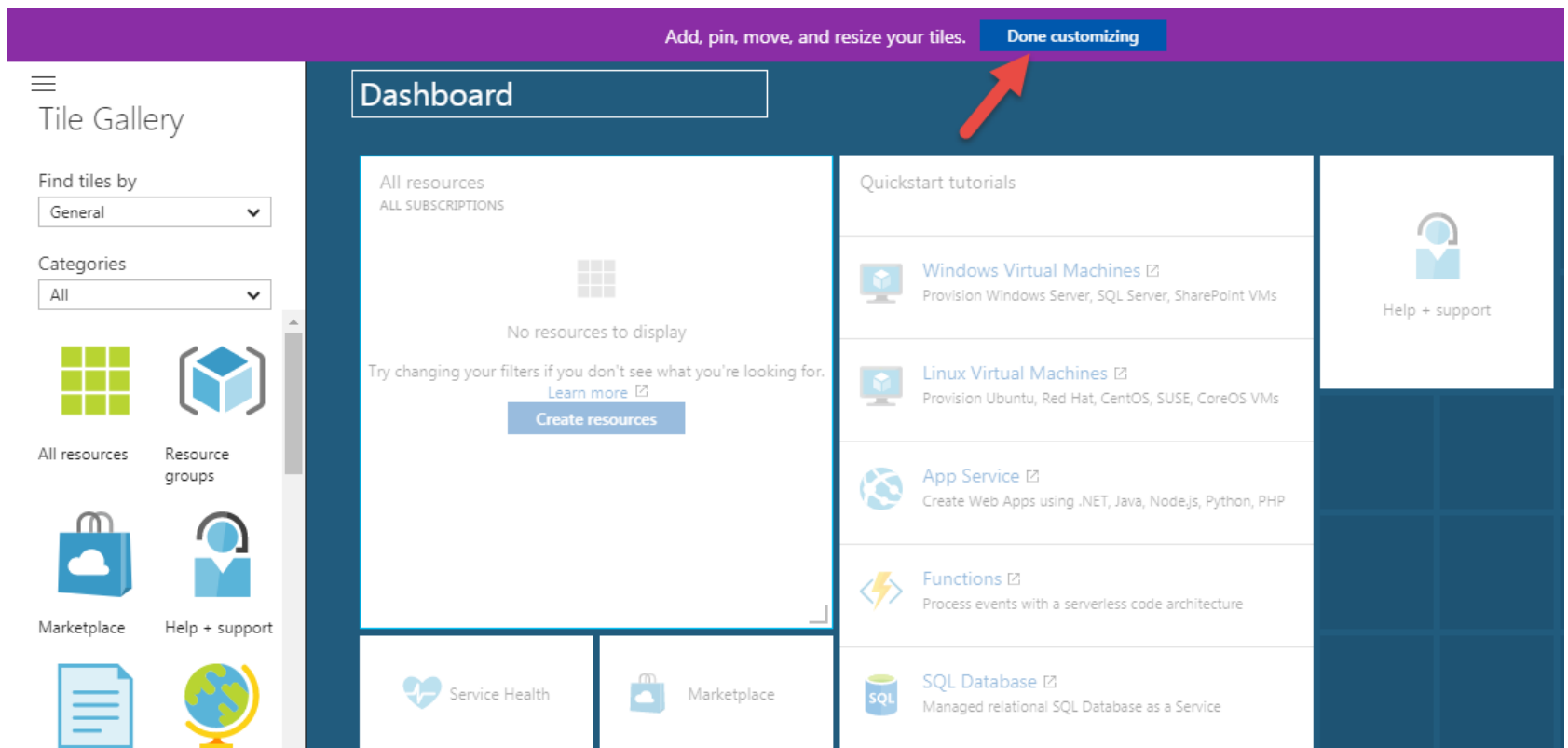
Adding help + support

- Once you select 'edit dashboard' a tile gallery will appear on the left hand side
- Click and drag the 'help + support' widget to where you would like it on your dashboard



Customizing your dashboard

- Once you are done customizing your dashboard select the 'done customizing' button on the top of your screen



Azure Help

- Microsoft Azure has many places where you can get help
- The best locations for help are:
 - Tutorials directly on the site:
<https://docs.microsoft.com/en-us/azure/>
 - YouTube:
<https://www.youtube.com/user/windowsazure>

Microsoft Tutorials

- Each of the tutorials give step by step instructions, pictures, and videos of the 'how to' on the specific subject

Windows Virtual Machines Documentation

Azure Windows Virtual Machines provides on-demand, high-scale, secure, virtualized infrastructure using Windows Server. Learn how to create, configure, manage, and scale Windows VMs with our quickstarts, tutorials, and samples.

5-Minute Quickstarts

Learn how to deploy an IIS web-server within a Virtual Machine running Windows Server 2016:



Azure Portal



Azure PowerShell



Azure CLI



Create a Windows Server Virtual Machine. (3:58)

Microsoft's suggested Tutorials

- Microsoft recommends the following quick start tutorials to begin with Azure:

New to the Azure portal? Learn more about the following services. See more guides at azure.com/documentation



Windows Virtual Machines [↗](#)

Provision Windows Server, SQL Server, SharePoint VMs



Linux Virtual Machines [↗](#)

Provision Ubuntu, Red Hat, CentOS, SUSE, CoreOS VMs



App Service [↗](#)

Create Web Apps using .NET, Java, Node.js, Python, PHP



Functions [↗](#)

Process events with a serverless code architecture



SQL Database [↗](#)

Managed relational SQL Database as-a-Service

- More tutorials can be found at:
azure.com/documentation

Azure YouTube Channel

- Microsoft also has a YouTube channel where you can learn more about Azure and watch how to guides on some of its features

<https://www.youtube.com/user/windowsazure>

- A quick and informative 1.5 minute YouTube video of what Azure is can be found here:

https://www.youtube.com/watch?v=piVHidJq65o&list=PL8nfc9haGeb40GxCNHQ3Uv-qyl_-iLiOU