



# Intro to the AWS Toolkit for Visual Studio

Self-Paced Lab

Version 1.0

Duration: 45 minutes

## Purpose & Background

The purpose of this lab is to install and configure the AWS Toolkit for Visual Studio, and to introduce the capabilities of the AWS Toolkit for Visual Studio.

## Lab Exercises

The following exercises should be completed in order for this lab:

1. Install the AWS Toolkit for Visual Studio
2. Credential Setup with the AWS Toolkit for Visual Studio
3. Work with AWS Services through the AWS Toolkit for Visual Studio

## Prerequisites

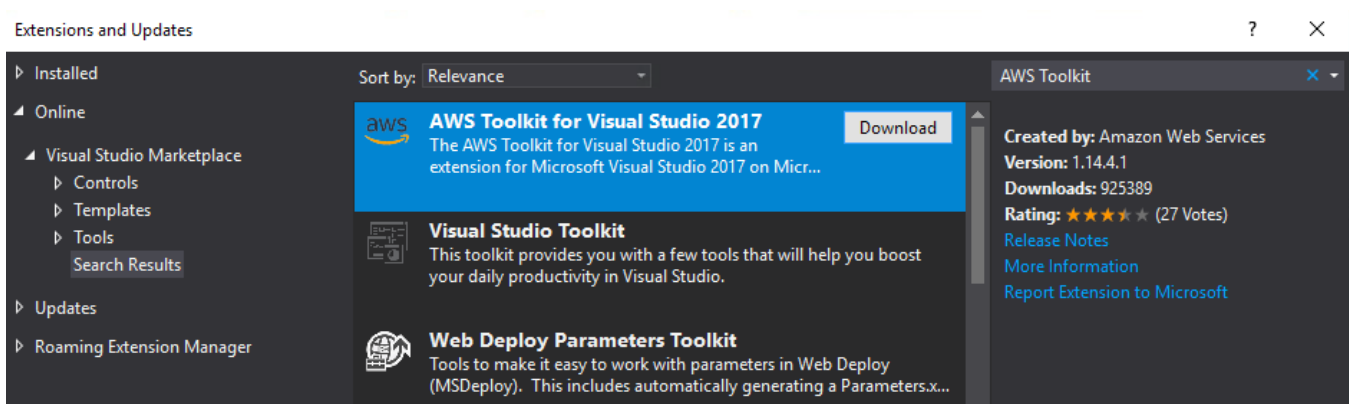
The following are the prerequisites required in order to complete the lab:

- Microsoft Visual Studio 2017 or above installed on your computer
- Internet connection
- AWS Account

## Part 1 – Install the AWS Toolkit for Visual Studio

Follow the steps below to install the AWS Toolkit for Visual Studio

1. In Visual Studio, go to Tools -> Extensions and Updates. The Extensions and Updates dialog should open.
2. Select the Online node in the left-panel and then in the search box enter: "AWS Toolkit" (without quotations). Then press ENTER to search.
3. Click the Download button for the AWS Toolkit for Visual Studio 2017.

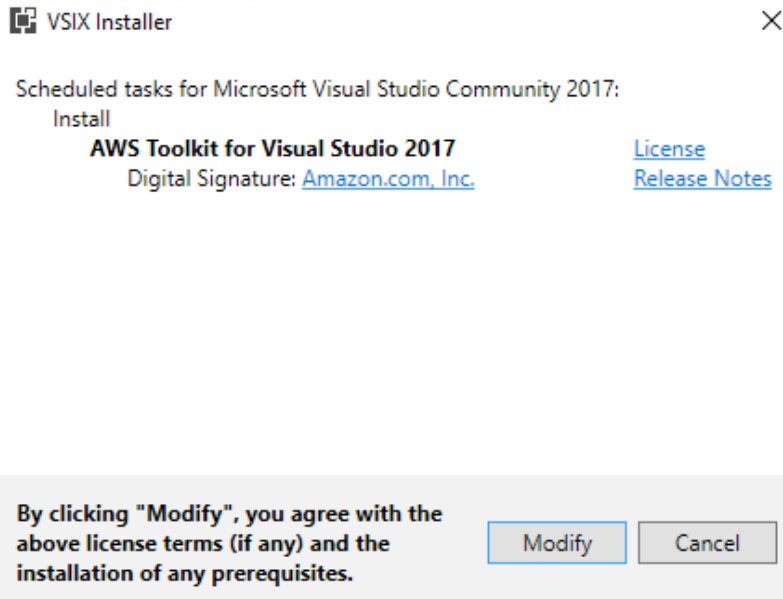


- Once the AWS Toolkit for Visual Studio has downloaded, a message will appear at the bottom of the Extensions and Updates dialog window letting you know that your changes will be scheduled. Proceed to close the Extensions and Updates dialog window and exit Visual Studio.

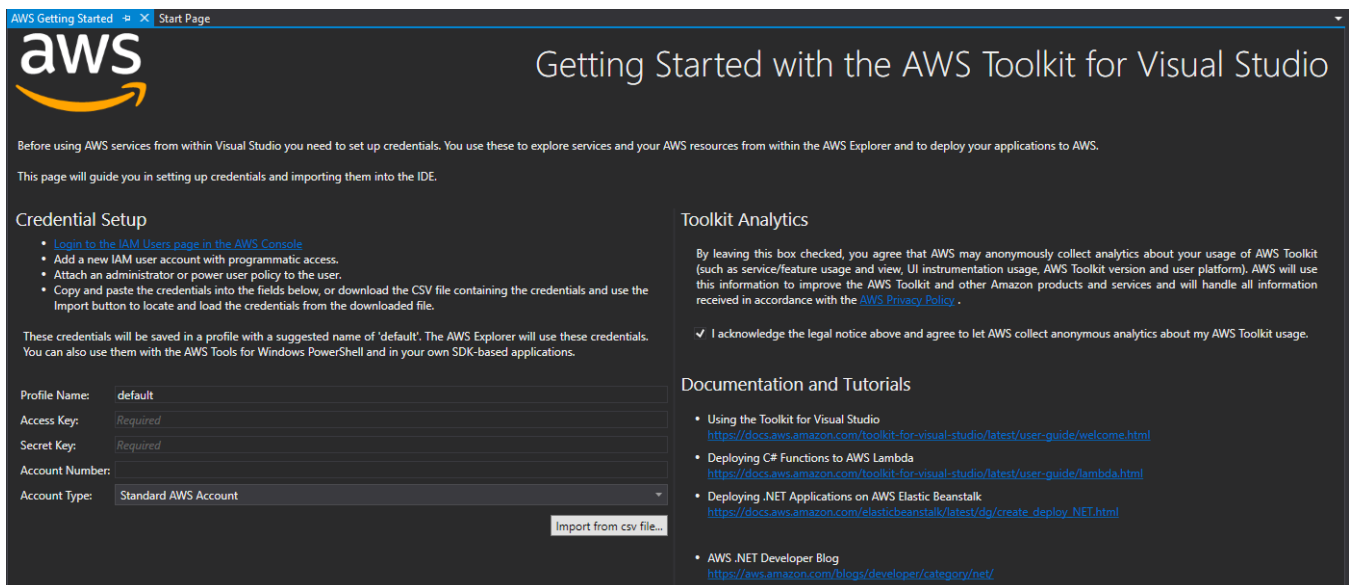




5. Upon exiting Visual Studio, a VSIX Installer screen will appear to install the AWS Toolkit. To proceed with the installation, click Modify.



6. Once the installation has successfully completed, close the VSIX Installer and re-launch Visual Studio. You will be greeted by a Getting Started with the AWS Toolkit for Visual Studio screen – this means that you successfully installed it, and are ready to move onto the next part.





## Part 2 – Create AWS Credentials for use with the AWS Toolkit for Visual Studio

Follow the steps below to create AWS Credentials for use with the AWS Toolkit for Visual Studio.

1. Login to the IAM Users page in the AWS Console. You can access this page by visiting <https://console.aws.amazon.com/iam/home#/users> in your internet browser.
2. Click the Add User button at the top of the page.
3. On the initial Add User screen, set the User Name to your initials dot toolkitforvisualstudio (i.e. bn.toolkitforvisualstudio). For AWS Access Type, check the box for Programmatic Access, and then click the Next: Permissions button.

### Add user



#### Set user details

You can add multiple users at once with the same access type and permissions. [Learn more](#)

User name\*

[+ Add another user](#)

#### Select AWS access type

Select how these users will access AWS. Access keys and autogenerated passwords are provided in the last step. [Learn more](#)

- Access type\*
- ☒ **Programmatic access**  
Enables an **access key ID** and **secret access key** for the AWS API, CLI, SDK, and other development tools.
  - ☐ **AWS Management Console access**  
Enables a **password** that allows users to sign-in to the AWS Management Console.

\* Required

[Cancel](#)

[Next: Permissions](#)

4. On the Set Permissions screen, select Attach Existing Policies Directly, and search for: "PowerUserAccess" (no quotations). Put a checkmark in the Policy Name PowerUserAccess and click the Next: Review button.



5. Review the details on the Review screen to ensure that everything is correct before clicking the Create User button.
  - a. Note: If you notice an errors or mistakes, use the Previous button to correct them before creating the user.

## Add user

1 2 3 4

### Review

Review your choices. After you create the user, you can view and download the autogenerated password and access key.

#### User details

User name	bn.toolkitforvisualstudio
AWS access type	Programmatic access - with an access key
Permissions boundary	Permissions boundary is not set

#### Permissions summary

The following policies will be attached to the user shown above.

Type	Name
Managed policy	<a href="#">PowerUserAccess</a>

[Cancel](#)

[Previous](#)

[Create user](#)

6. On the Success screen, click the Download .csv button to download a CSV file containing your newly created Access Key ID and Secret Access Key.

## Add user

1 2 3 4



### Success

You successfully created the users shown below. You can view and download user security credentials. You can also email users instructions for signing in to the AWS Management Console. This is the last time these credentials will be available to download. However, you can create new credentials at any time.

Users with AWS Management Console access can sign-in at: [https://\[redacted\].signin.aws.amazon.com/console](https://[redacted].signin.aws.amazon.com/console)

[Download .csv](#)

User	Access key ID	Secret access key
bn.toolkitforvisualstudio	AKIA[redacted]	***** <a href="#">Show</a>



7. Back in Visual Studio, click the Import from csv File button under the Credential Setup section and select the credentials.csv file you just downloaded from IAM Management Console.
8. You will see that the Access Key and Secret Key auto-fill. Click the Save and Close button at the bottom of the Credential Setup section.

## Credential Setup

- [Login to the IAM Users page in the AWS Console](#)
- Add a new IAM user account with programmatic access.
- Attach an administrator or power user policy to the user.
- Copy and paste the credentials into the fields below, or download the CSV file containing the credentials and use the Import button to locate and load the credentials from the downloaded file.

These credentials will be saved in a profile with a suggested name of 'default'. The AWS Explorer will use these credentials. You can also use them with the AWS Tools for Windows PowerShell and in your own SDK-based applications.

Profile Name:

Access Key:

Secret Key:

Account Number:

Account Type:

☒ Open the AWS Explorer window on close

9. Congratulations! You have successfully configured the default Profile for authenticating and accessing AWS through the AWS Toolkit for Visual Studio.



## Part 3 – Work with AWS Services through the AWS Toolkit for Visual Studio

For this lab, we'll access and work with AWS Services through the AWS Toolkit for Visual Studio.

1. Now that the AWS Toolkit for Visual Studio has been configured and has valid credentials for your AWS Account, you will be able to interact with AWS resources and services directly within Visual Studio. The AWS Explorer pane in Visual Studio consists of the following elements:
  - a. Profile: A list of configured and available AWS Credential Profiles (i.e. default)
  - b. Region: A list of available regional AWS service endpoints (i.e. US West (Oregon))
  - c. Services: A list of AWS services that you can interact with through the toolkit
2. In the AWS Explorer pane, right-click on Amazon EC2 and select Launch Instance.
3. In the Quick Launch window,
  - a. OS: Microsoft Windows Server 2016 Base
  - b. Type: t2.medium
  - c. Name: Set the name to your initials dot ec2-toolkitforvisualstudio (i.e. bn.ec2-toolkitforvisualstudio)
  - d. Key Pair: If you have an available Key Pair in your AWS Account, select it – otherwise, select <No key pair>.
  - e. VPC Subnet: Under the VPC you created in Part 1, select one of the Public Subnets created in Part 1.
  - f. Security Group: ingress-sg
  - g. IAM Role: None
  - h. Volume Type: General Purpose (SSD)
  - i. Size (GB): 30
4. Once the above has been set, click Launch.
5. In the Amazon EC2 Instances window, you will be able to see that your EC2 instance has launched and is now Running. You can see information about the EC2



instance in the top portion, and beneath you will be able to see details about the EBS Volume attached to it.

The screenshot shows the AWS Explorer console. On the left, the navigation pane lists services: Amazon CloudFront, Amazon DynamoDB, Amazon EC2 (selected), Amazon Elastic Container Service, Amazon RDS, and Amazon S3. The main pane displays the 'US West (Oregon) EC2 Instances' page. At the top, there are buttons for 'Launch Instance', 'Terminate Instance', 'Refresh', and 'Show/Hide'. Below this is a table of EC2 instances:

	Name	Instance ID	Status	AMI ID
1	bn.ec2-toolkitforvisualstudio	i-0b739407bd544b313	running	ami-6d336015

Below the instances table, there is a '100 %' progress indicator and buttons for 'Create Volume', 'Refresh', and 'Show/Hide'. Below this is a table of EBS volumes:

	Volume ID	Name	Capacity	Snapshot ID
1	vol-03aa1ae2fb8581ec2		30 GiB	snap-01f23a7ed0de879

6. When you right-click on the newly launched EC2 instance, you are able to perform items such as Get Windows Passwords, Open Remote Desktop, and other instance related tasks. Let's go ahead and Terminate this EC2 instance by selecting





Terminate in the context menu. When prompted to confirm the terminate action, click Yes.

7. In the AWS Explorer pane, right-click on Amazon RDS and select Launch Instance.

8. In the Launch DB Instance window,

a. Engine Selection

- Database Engine: Microsoft SQL Server Express Edition

b. DB Engine Instance Options

- DB Engine Version: SQL Server 2017 (any version)
- DB Instance Class: db.t2.medium
- Perform a multi AZ deployment: Unchecked
- Upgrade minor versions automatically: Checked
- Allocated Storage: 20 GB
- DB Instance Identifier: Set the identifier to your initials dash rds-vs (i.e. bn-rds-vs)
- Master User Name: master
- Master User Password: password
- Confirm Password: password

c. Advanced Settings

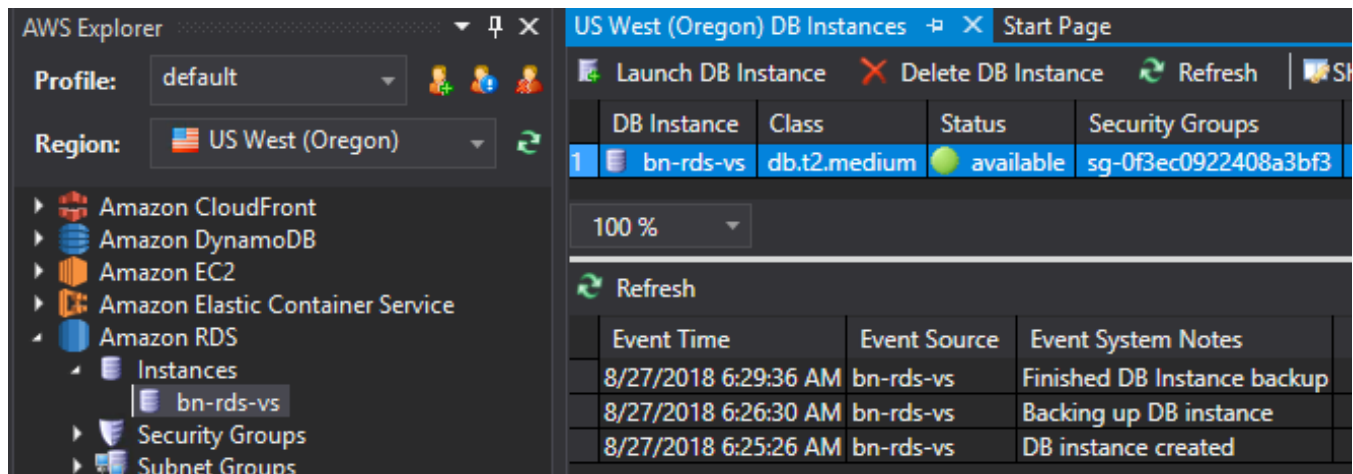
- VPC: *Select the VPC you created in Part 1*
- Subnet Group: *Select the Public DB Subnet Group created in Part 1*
- Publicly Accessible: Checked
- Availability Zone: No Preference
- Security Group: *Select the Security Group with Ingress Rule created in Part 1*
- Database Name: *Leave Blank*
- Database Port: 1433
- DB Parameter Group: *Leave Blank*
- Option Group: *Leave Blank*

#### d. Backup and Maintenance

- Leave the default values, and just click Next

9. On the Review portion of the Launch DB Instance window, review the details you have inputted and click Launch.

10. In the Amazon RDS Instances window, you will be able to see that your RDS instance has launched and is now Available. You can see information about the RDS instance in the top portion, and beneath you will be able to see Recent Events concerning this RDS instance.



DB Instance	Class	Status	Security Groups
bn-rds-vs	db.t2.medium	available	sg-0f3ec0922408a3bf3

Event Time	Event Source	Event System Notes
8/27/2018 6:29:36 AM	bn-rds-vs	Finished DB Instance backup
8/27/2018 6:26:30 AM	bn-rds-vs	Backing up DB instance
8/27/2018 6:25:26 AM	bn-rds-vs	DB instance created

11. When you right-click on the newly launched RDS instance, you are able to perform items such as Add to Server Explorer, Create SQL Server Database, and other instance related tasks. Let's go ahead and Delete this RDS instance by selecting Delete DB Instance in the context menu. When prompted to confirm the delete action, ensure that Create Final Snapshot is unchecked, and click OK.