

Westcon AWS

Web Hosting Starter Kit

Deployment Guide



AWS WebApp Windows Bundle – Implementation Guide v1.0

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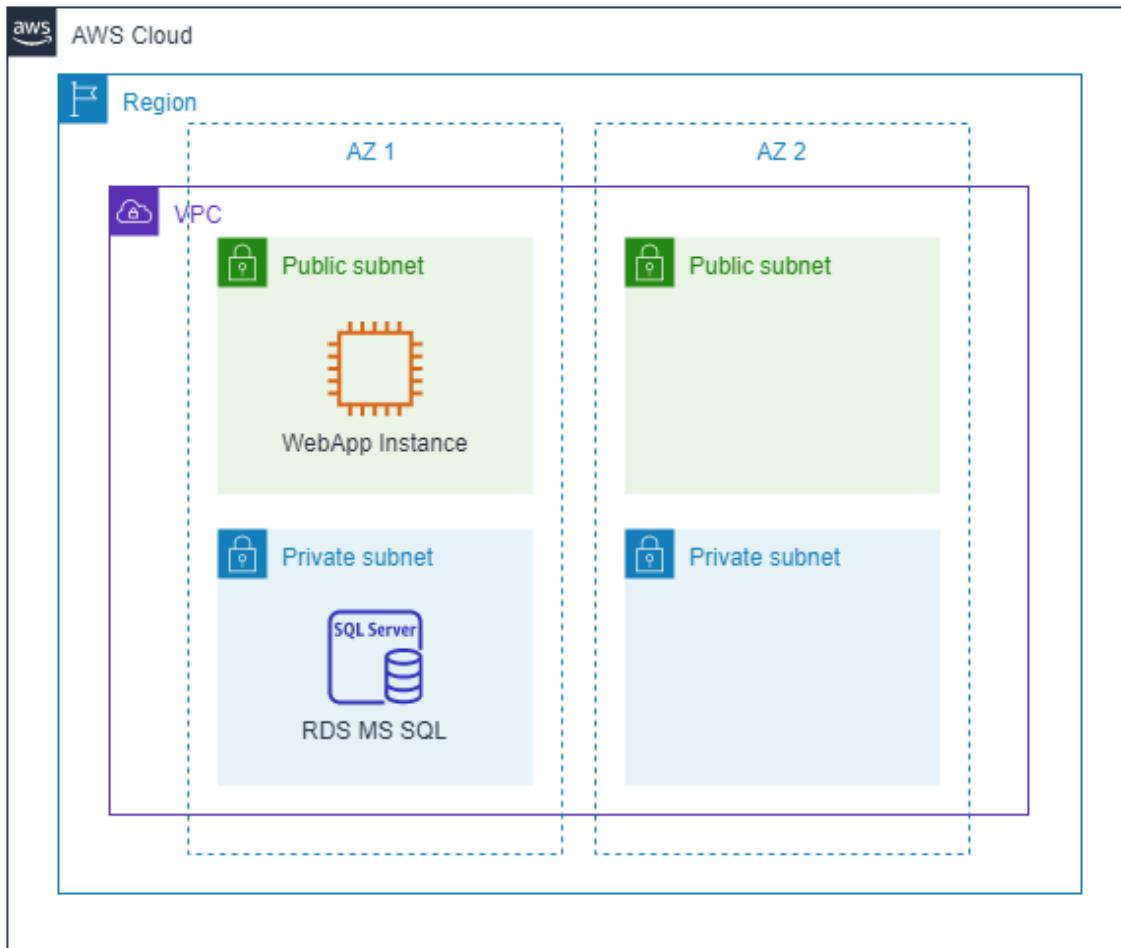
Overview

This document provides an implementation guide to launch the AWS WebApp Windows bundle for AWS Distributors.

Amazon Elastic Compute Cloud (Amazon EC2) is a web service that provides resizable compute capacity in the cloud. Amazon EC2's simple web service interface allows you to obtain and configure capacity with minimal friction. Amazon EC2 reduces the time required to obtain and boot new server instances to minutes, allowing you to quickly scale capacity, both up and down, as your computing requirements change. Amazon EC2 changes the economics of computing by allowing you to pay only for capacity that you actually use.

Amazon RDS is a web service that makes it easy to set up, operate, and scale a relational database in the cloud. It provides cost-efficient and resizable capacity while managing time-consuming database administration tasks, freeing you up to focus on your applications and business.

Architecture Overview



Cost

This bundle uses the following resources:

Resource Type	Price (USD)
EC2 Instance – t3.medium	\$0.06/hour (US East Ohio)
RDS MS SQL – db.m5.xlarge	\$2.448/hour (US East Ohio)

NOTE: The above pricing information may be subject to change. Always check the official documentation for the latest costs. EC2 pricing information is available [here](#). RDS pricing information is available [here](#).

Template

This solution uses AWS CloudFormation to bootstrap AWS infrastructure and automate the deployment of Windows WebApp Server and MS SQL Database Server on the AWS Cloud. The template is in the form of a “*WebApp-Windows.yaml*” file provided along with this implementation guide.

Deployment

This guide is for the deployment of the WebApp Windows Bundle using CloudFormation.

Pre-Requisite

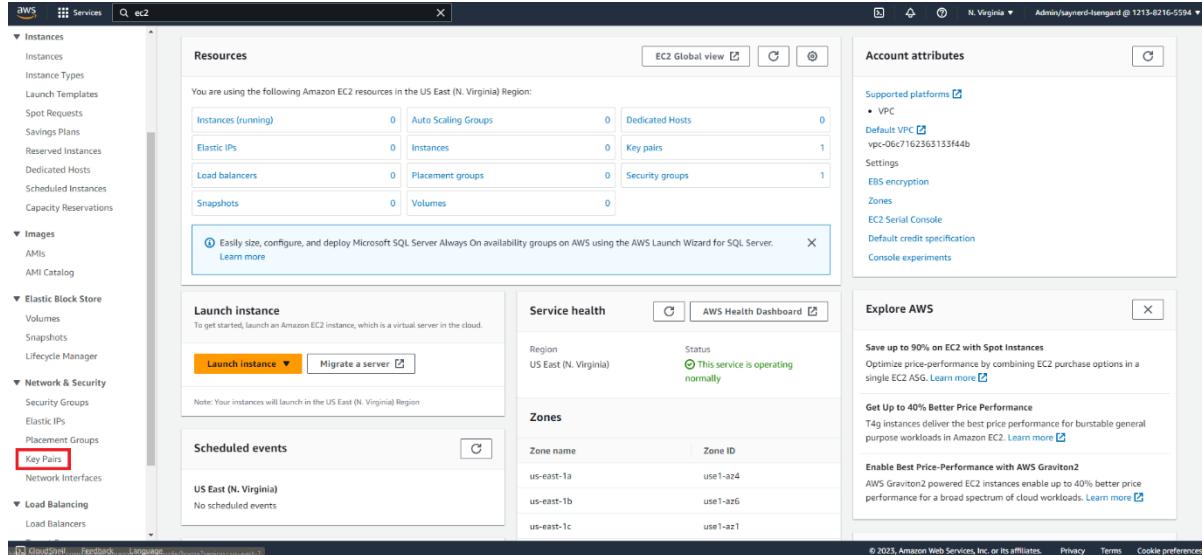
1. An existing EC2 Key Pair

An existing EC2 Key pair is needed. If you already have an existing EC2 Key Pair, skip the “Creating EC2 Key Pair” portion and proceed to the “Deploying Template Using CloudFormation” portion.

[Creating an EC2 Key Pair](#)

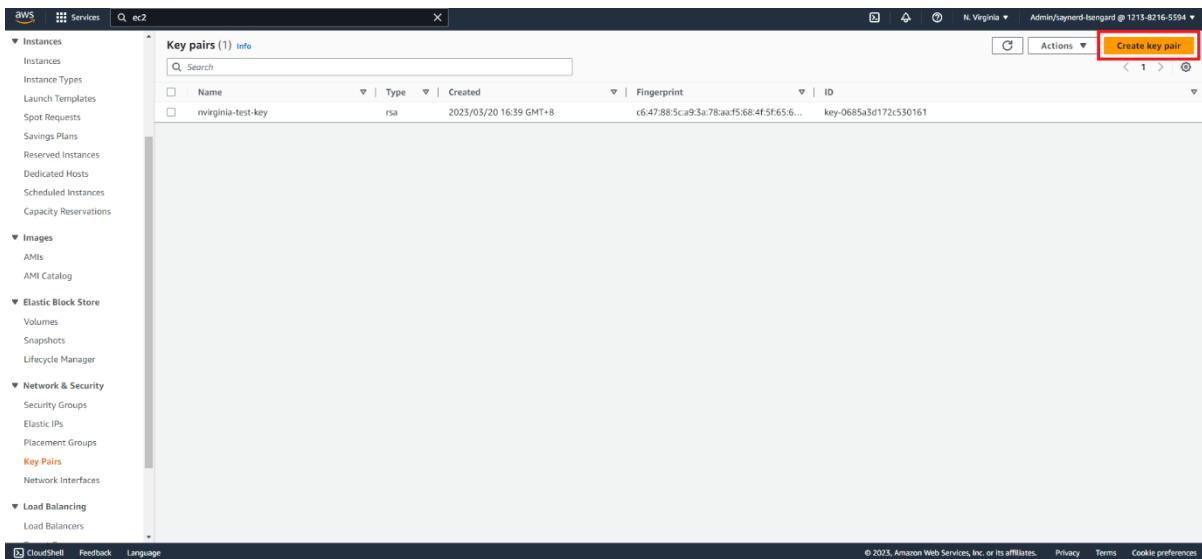
1. On the AWS console, navigate to the EC2 service.

2. Under Network and Security, click on “Key Pairs”.



The screenshot shows the AWS EC2 dashboard. On the left sidebar, under 'Network & Security', the 'Key Pairs' link is highlighted with a red box. The main content area displays various EC2 resources and service health information.

3. Click on “Create key pair” to continue.



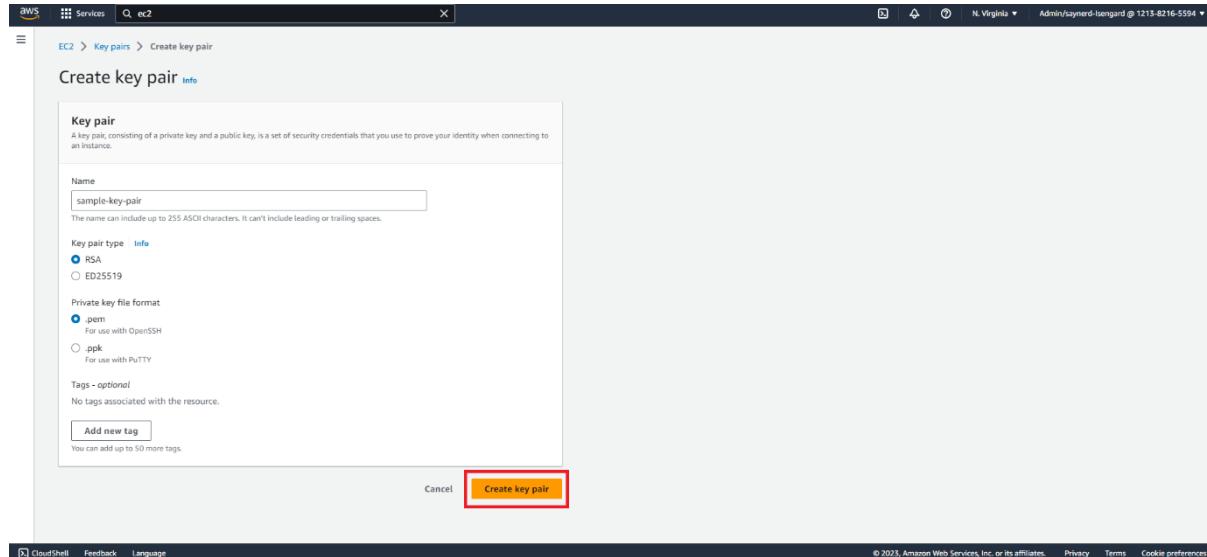
The screenshot shows the 'Key pairs' page with one key pair listed:

Name	Type	Created	Fingerprint	ID
nvirginia-test-key	rsa	2023/05/20 16:39 GMT+8	c6:47:88:5c:a9:3a:78:aa:f5:68:4f:5f:65:6...	key-0685a5d172c530161

The 'Actions' dropdown menu at the top right has a 'Create key pair' option, which is highlighted with a red box.

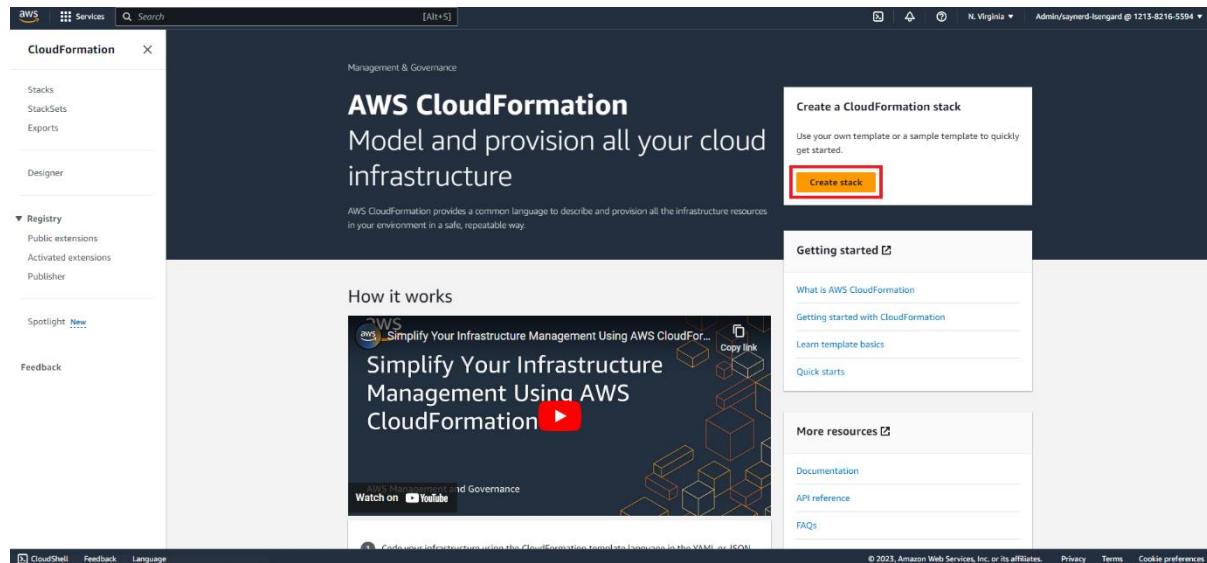
4. Enter a name for the Key Pair. Ensure that the “RSA” type and “.pem” format is selected.

5. Click on “Create key pair”.

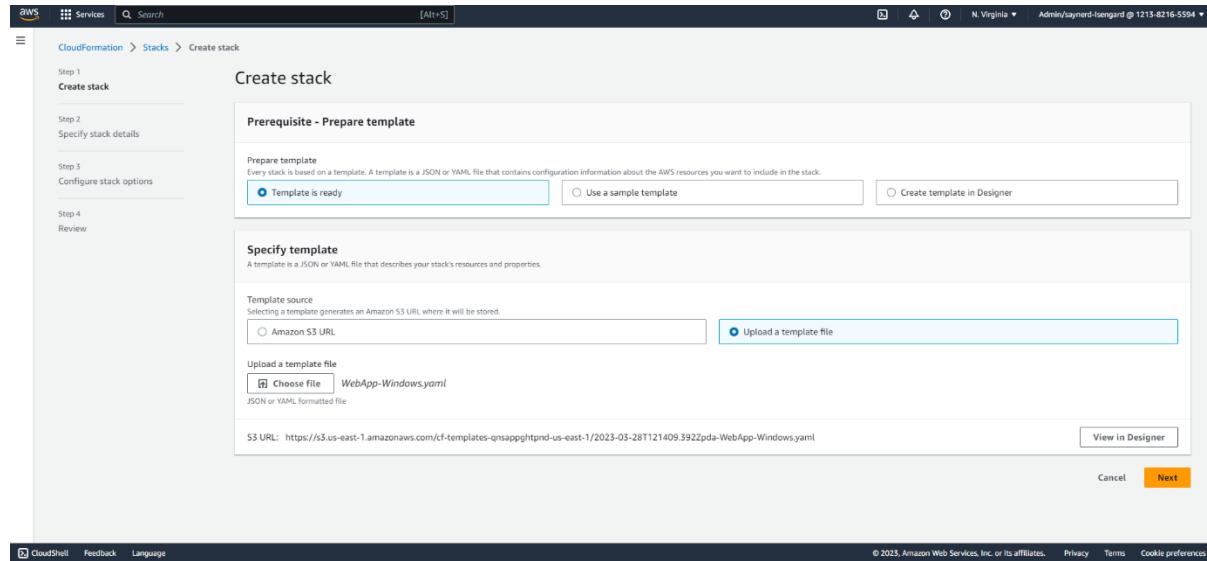


Deploying Template Using AWS CloudFormation

1. On the AWS console, navigate to the CloudFormation service. Click “Create stack”.



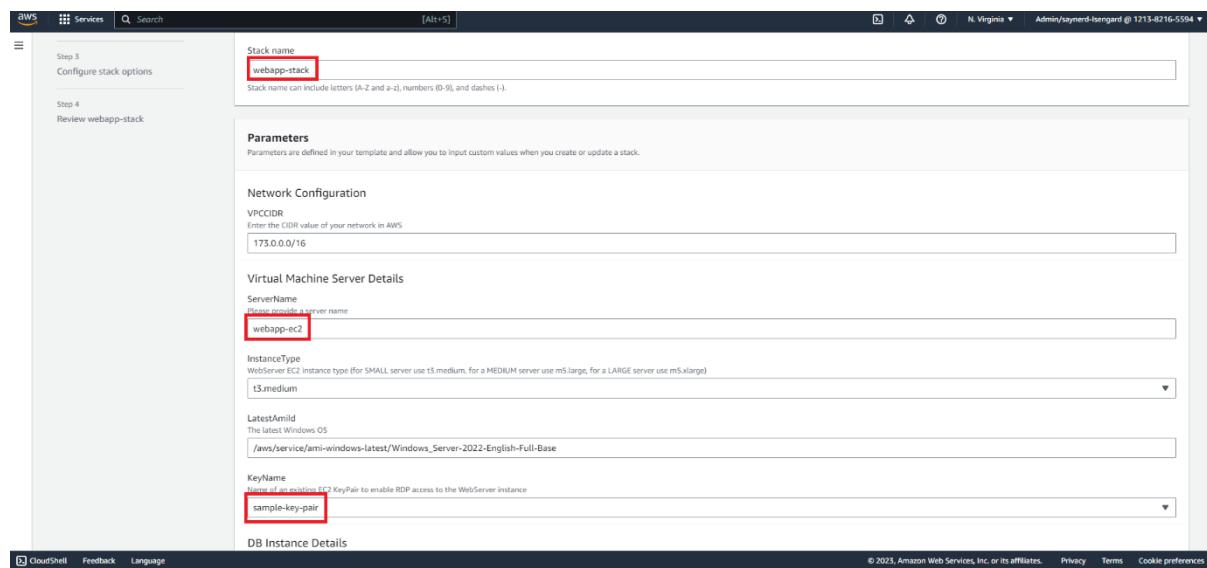
2. Select “Upload a template file”
3. Click on “Choose File”, then select the “WebApp-Windows.yaml” file. Click “Next”.



The screenshot shows the AWS CloudFormation 'Create stack' wizard. The left sidebar lists steps: Step 1 Create stack, Step 2 Specify stack details, Step 3 Configure stack options, and Step 4 Review. The main panel is titled 'Prerequisites - Prepare template'. It contains a section for 'Prepare template' where 'Template is ready' is selected. Below it is a 'Specify template' section with a note: 'A template is a JSON or YAML file that describes your stack's resources and properties.' It includes fields for 'Template source' (Amazon S3 URL) and 'Upload a template file' (selected), with a 'Choose file' button for 'WebApp-Windows.yaml'. A 'View in Designer' link is also present. At the bottom right are 'Cancel' and 'Next' buttons.

4. Enter a name for the stack.

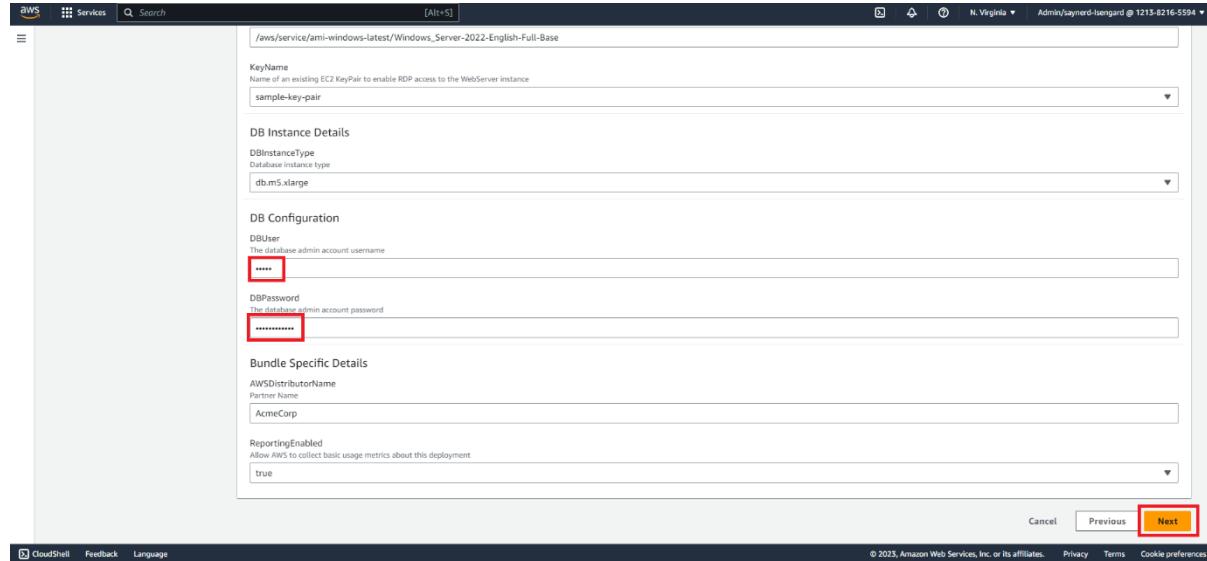
5. Enter the server's name, and select the Key Pair that you created previously.



The screenshot shows the AWS CloudFormation 'Create stack' wizard at Step 3: Configure stack options. The left sidebar shows Step 3: Configure stack options and Step 4: Review webapp-stack. The main panel has a 'Stack name' field set to 'webapp-stack'. Under 'Parameters', there are sections for 'Network Configuration' (VPCCIDR: 173.0.0.0/16), 'Virtual Machine Server Details' (ServerName: 'webapp-ec2'), and 'DB Instance Details' (KeyName: 'sample-key-pair'). At the bottom right are 'Cancel' and 'Next' buttons.

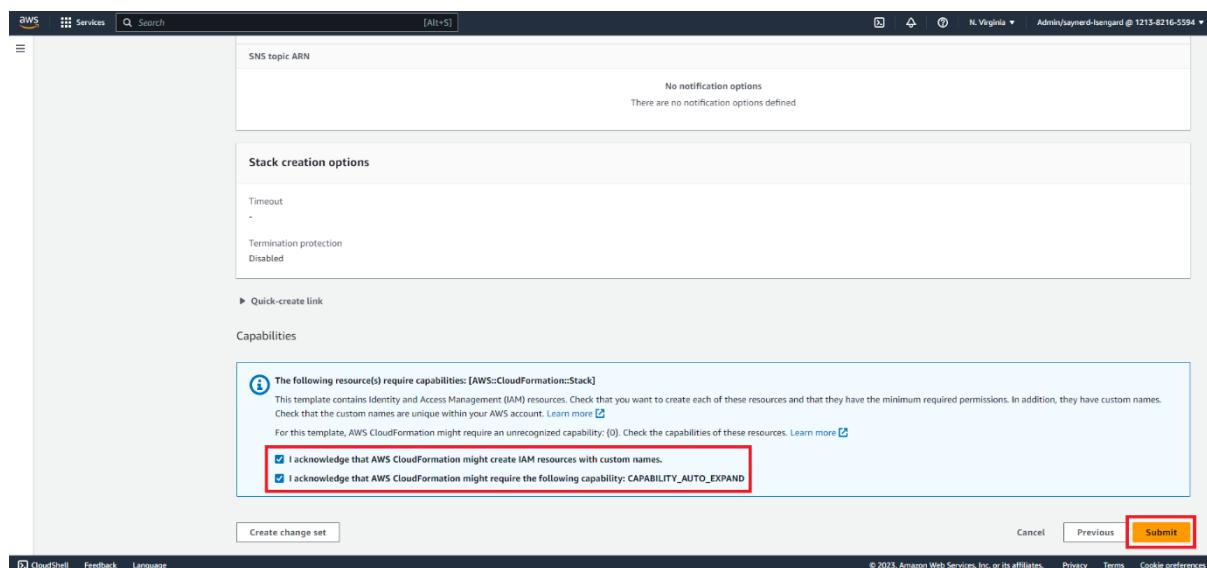
6. Under the DB Configuration parameters, enter the database user and password.

7. Click "Next".



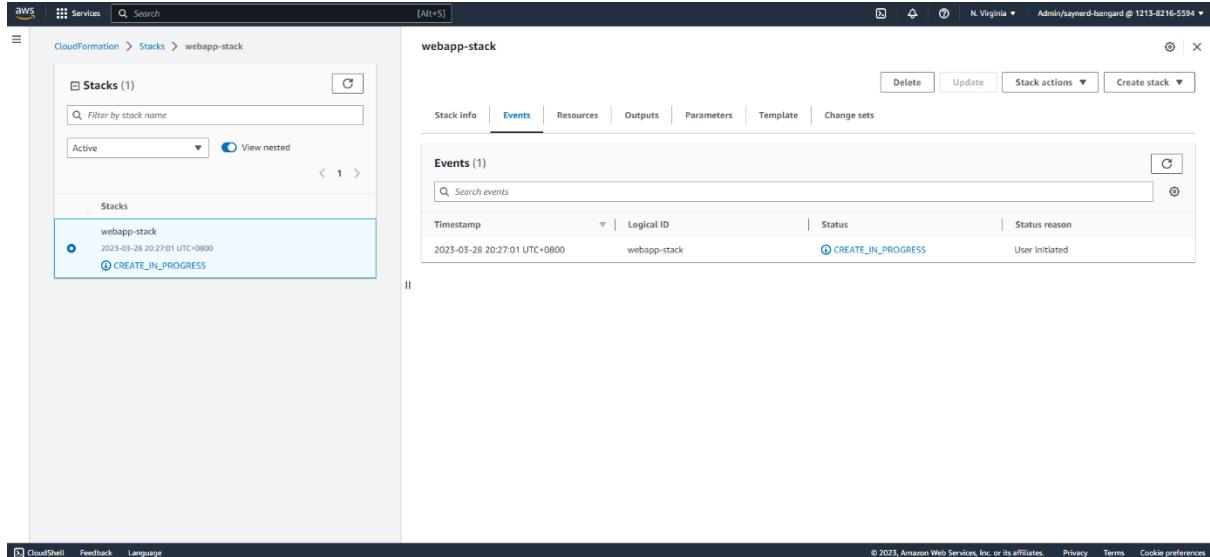
The screenshot shows the 'Configuration Stack Option' step of a CloudFormation template creation. It includes sections for KeyName, DB Instance Details (DBInstanceType set to db.m5.xlarge), DB Configuration (DBUser and DBPassword fields highlighted with red boxes), Bundle Specific Details (AWSDistributorName set to AcmeCorp), and ReportingEnabled. At the bottom, the 'Next' button is highlighted with a red box.

8. In the “Configuration Stack Option” click “Next”.
9. In the “Review Page” make sure that you allow the template to create custom IAM resources and then click “Submit”.



The screenshot shows the 'Review Page' of the CloudFormation template creation. It displays SNS topic ARN, Stack creation options (Timeout and Termination protection), and capabilities. Two checkboxes are highlighted with a red box: 'I acknowledge that AWS CloudFormation might create IAM resources with custom names.' and 'I acknowledge that AWS CloudFormation might require the following capability: CAPABILITY_AUTO_EXPAND'. At the bottom, the 'Submit' button is highlighted with a red box.

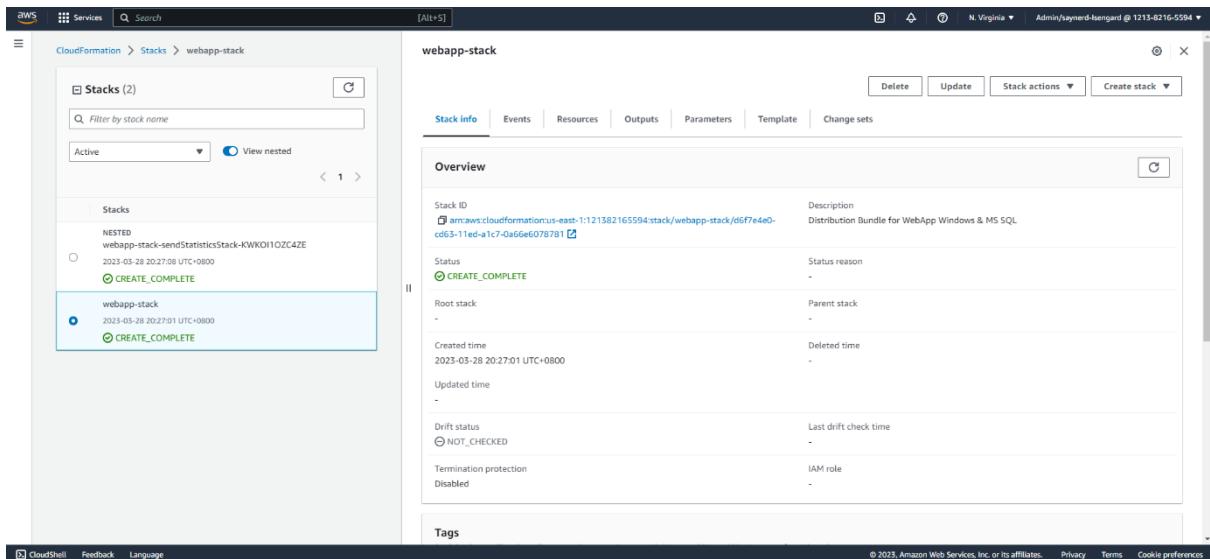
10. Once submitted you will see the template being deployed.



The screenshot shows the AWS CloudFormation console. On the left, the navigation bar includes 'CloudFormation > Stacks > webapp-stack'. The main area displays the 'Events' tab for the 'webapp-stack'. One event is listed:

Timestamp	Logical ID	Status	Status reason
2023-03-28 20:27:01 UTC+0800	webapp-stack	CREATE_IN_PROGRESS	User Initiated

11. Wait for all the resources to be created. Press the refresh button on the top right until the stack creation is complete.

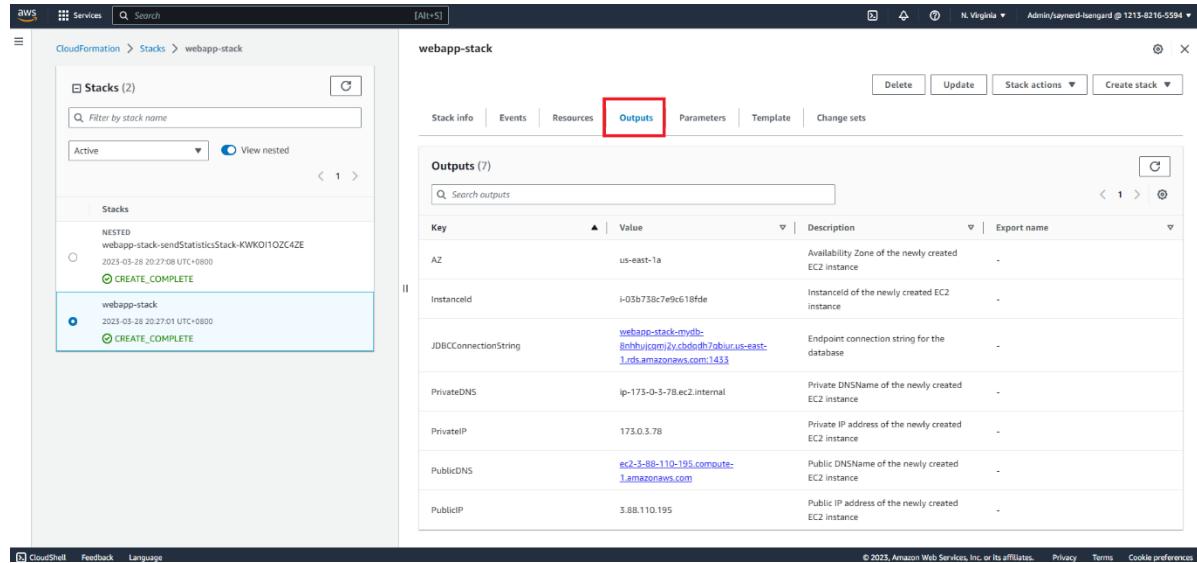


The screenshot shows the AWS CloudFormation console. On the left, the navigation bar includes 'CloudFormation > Stacks > webapp-stack'. The main area displays the 'Overview' tab for the 'webapp-stack'. The stack status is shown as 'CREATE_COMPLETE'. Other details include:

- Stack ID:** arn:aws:cloudformation:us-east-1:121382165594:stack/webapp-stack/d6f7e4e0-cd65-11ed-a1c7-0a66e6078781
- Status:** CREATE_COMPLETE
- Root stack:** -
- Created time:** 2023-03-28 20:27:01 UTC+0800
- Updated time:** -
- Drift status:** NOT_CHECKED
- Termination protection:** Disabled
- Description:** Distribution Bundle for WebApp Windows & MS SQL
- Parent stack:** -
- Deleted time:** -
- Last drift check time:** -
- IAM role:** -

12. The created stack should look like this. All the resources have now been created and deployed.

13. Click on the “Outputs” tab to retrieve the information of WebApp Server and MS SQL Database



The screenshot shows the AWS CloudFormation Outputs page for the 'webapp-stack'. The 'Outputs' tab is selected, highlighted with a red box. The table displays the following data:

Key	Value	Description	Export name
AZ	us-east-1a	Availability Zone of the newly created EC2 instance	-
InstanceId	i-03b738c7e9c618fde	InstanceId of the newly created EC2 instance	-
JDBCConnectionString	webapp-stack-mydb-8hbhu.com:iy.chdodh7obaur.us-east-1.rds.amazonaws.com:1433	Endpoint connection string for the database	-
PrivateDNS	ip-173-0-3-78.ec2.internal	Private DNSName of the newly created EC2 instance	-
PrivateIP	173.0.3.78	Private IP address of the newly created EC2 instance	-
PublicDNS	ec2-3-88-110-195.compute-1.amazonaws.com	Public DNSName of the newly created EC2 instance	-
PublicIP	3.88.110.195	Public IP address of the newly created EC2 instance	-

Summary

This implementation guide provides basic details on launching AWS WebApp Windows Bundle.

Have a question?

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