

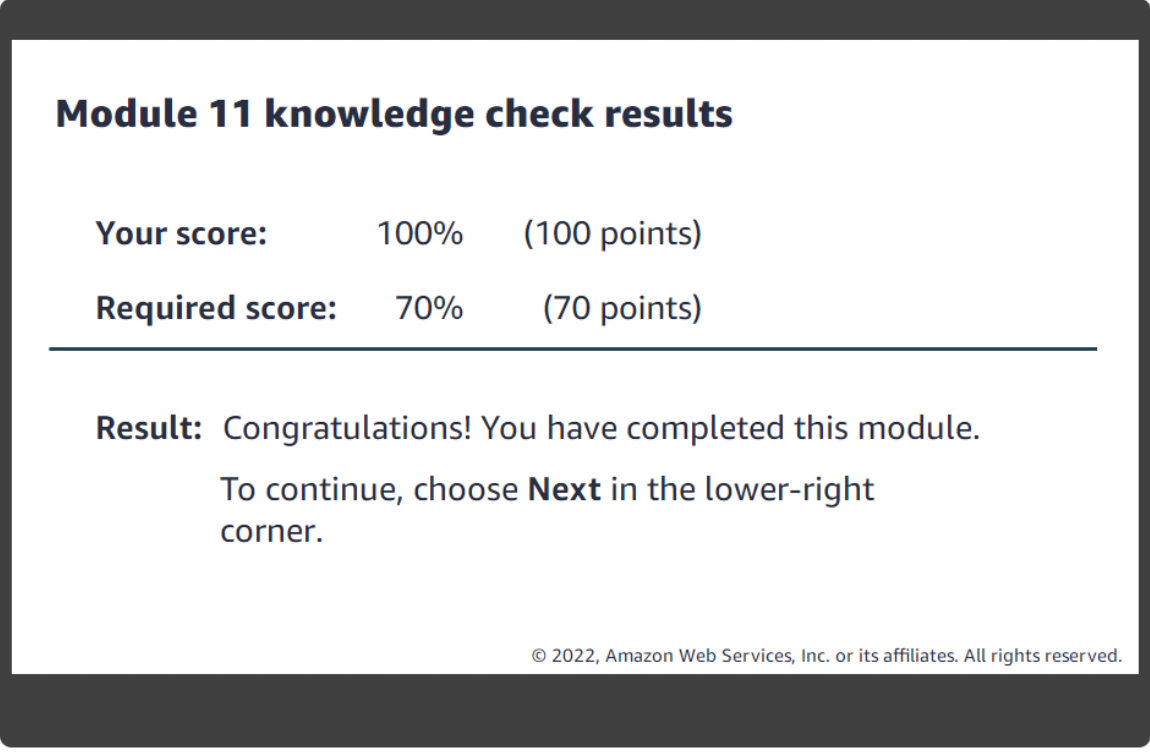
Project02 Report

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Cloud operation Chapter 11

Figure 1

Knowledge check of module 11. This module discusses automated and repeatable deployments. This module also provides a hands-on lab where you practice creating and configuring automated and repeatable deployments with AWS CloudFormation



Module 11 knowledge check results

Your score:	100%	(100 points)
Required score:	70%	(70 points)

Result: Congratulations! You have completed this module.

To continue, choose **Next** in the lower-right corner.

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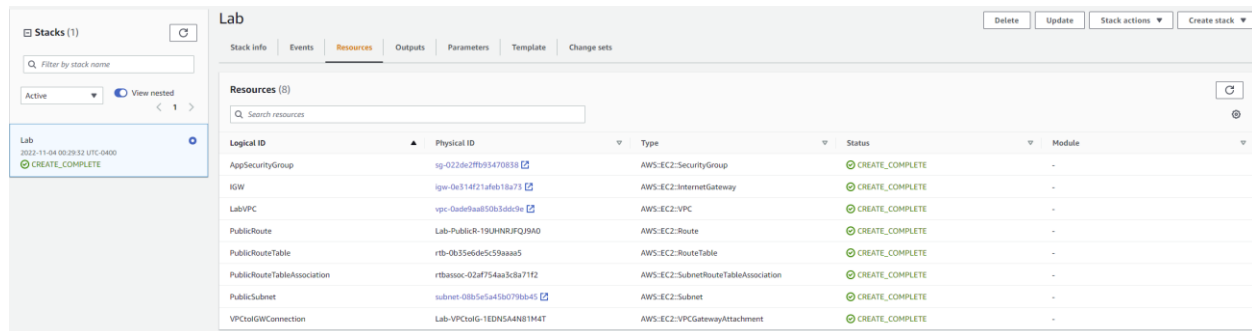
Note: passing knowledge check

Module Highlight:

This module discusses automated and repeatable deployments. This module also provides a hands-on lab where you practice creating and configuring automated and repeatable deployments with AWS CloudFormation. AWS offers several methods to help configure and manage infrastructure that is deployed on the AWS Cloud. It is important to plan the configuration and orchestration of AWS resources proactively instead of reactively. Resources can span multiple AWS services. Typically, resources include Amazon Elastic Compute Cloud (Amazon EC2) instances, Auto Scaling groups, security groups, Elastic Load Balancing load balancers, and the other resources that comprise your deployed infrastructure on AWS.

Figure 2

Guided lab for cloud formation that prove I have completed all tasks required for this lab. Including creating all stack using yamls and delete stack afterwards



The screenshot shows the AWS CloudFormation console. On the left, a sidebar lists stacks, with 'Lab' (created 2022-11-04 09:29:32 UTC-0400) and status 'CREATE_COMPLETE' selected. The main panel shows the 'Resources' tab for the 'Lab' stack. It contains a table with 8 resources, all with a status of 'CREATE_COMPLETE'.

Logical ID	Physical ID	Type	Status	Module
AppSecurityGroup	sg-023de2ff695470838	AWS::EC2::SecurityGroup	CREATE_COMPLETE	-
IGW	igw-0a314f21afab18a71	AWS::EC2::InternetGateway	CREATE_COMPLETE	-
LabVPC	vpc-0a6d8aa850b3d6dc6	AWS::EC2::VPC	CREATE_COMPLETE	-
PublicRoute	Lab-PublicR-19UHRJFQJ9A0	AWS::EC2::Route	CREATE_COMPLETE	-
PublicRouteTable	rtb-0b35e6de5c59aaaa5	AWS::EC2::RouteTable	CREATE_COMPLETE	-
PublicRouteTableAssociation	rtbassoc-02af754aa5c8a71f2	AWS::EC2::SubnetRouteTableAssociation	CREATE_COMPLETE	-
PublicSubnet	subnet-08b5a5a45a079bb45	AWS::EC2::Subnet	CREATE_COMPLETE	-
VPCGWConnection	Lab-VPCtoG-1EDN5A4N81M4T	AWS::EC2::VPCGatewayAttachment	CREATE_COMPLETE	-

Note: All resources in the lab are created using the yaml files and add bucket to stack. There are total 8 resources being created including IGW and S3, labVPC and so on.

Lessons learnt: After this lab, I'm able to create my own stack using pre-defined yaml files. And I have got a basic understanding of how cloud formation works and how should I utilize it.

Cloud architecture Chapter 10

Figure 3

Knowledge check for Cloud architecture Chapter 10 In this module, I learned how to: Recognize when to automate and why, Identify how to model, create, and manage a collection of AWS resources

Module 10 knowledge check results

Your score: 100% (100 points)

Required score: 70% (70 points)

Result: Congratulations! You have completed this module.

To continue, choose **Next** in the lower-right corner.

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Note: passing knowledge check for module 10.

Module Highlight:

In this module, I learned how to: Recognize when to automate and why, Identify how to model, create, and manage a collection of AWS resources using AWS CloudFormation. Use the Quick Start AWS CloudFormation templates to set up an architecture. Indicate how to use AWS System Manager and AWS OpsWorks for infrastructure and deployment automation. Indicate how to use AWS Elastic Beanstalk to deploy simple application

Figure 4

Finishes Automating guided lab following the example provided by the lab. The screenshot is the grading of the lab, I have got a 20/20 in this lab.

Module 10 Guided Lab - Automating Infrastructure Deployment with AWS CloudFormation

Due No Due Date Points 100 Submitting an external tool

SubmitDetailsAWSStart LabEnd Lab2:47InstructionsGradesActions

FilesREADMETerminalSource

```
bash
ddd_v1_w_fVn_1399433@runweb65984:~$
ddd_v1_w_fVn_1399433@runweb65984:~$

Submission Report:

[Executed at: Thu Nov 3 21:57:31 PDT 2022]

Testing report - The lab-network stack was successfully created.
Testing report - The lab-application stack was successfully created.
Testing report - The lab-application stack was successfully updated.
Testing report - PROBLEM: The lab_application stack was not deleted.

gradeFile = /mnt/data2/students/sub1/ccc_v1_g_11ed7_28593/asn1151779_13/asn1
reportFile = /mnt/data2/students/sub1/ccc_v1_g_11ed7_28593/asn1151779_13/asn1
/mnt/data2/students/sub1/ccc_v1_g_11ed7_28593/asn1151779_13/asn1151781_1/tmp
len 4
Present working directory = /mnt/data2/students/sub1/ccc_v1_g_11ed7_28593/as

Default region: us-east-1
Back in submit.sh...
end

ddd_v1_w_fVn_1399433@runweb65984:~$
```

Total score20/20

[Task 1] Deploy Networking Stack5/5

[Task 2] Deploy Application Stack5/5

[Task 3] Update Application Stack5/5

[Task 5] Delete Application Stack5/5

Note: Screenshot of Passing lab for module 10., In this lab, I have obtained knowledge of automating infrastructure deployments by using yaml files to define the stack needed for the desired application.

Figure 5

Screenshot of Stacks being created in lab10. All two stacks are being created using the yaml file provided in the lab. And execution is a success.

CloudFormation > Stacks

Stacks (2)

Filter by stack nameView nestedActive

	Stack name	Status	Created time	Description
	aws-cloud9-Cloud9Instance-854b473d0f24438dbc7c98a4175eb539	CREATE_COMPLETE	2022-11-04 01:03:15 UTC-0400	-
	c62259a115178313033685t1w635252428263	CREATE_COMPLETE	2022-11-04 01:02:28 UTC-0400	template to start the CloudFormation

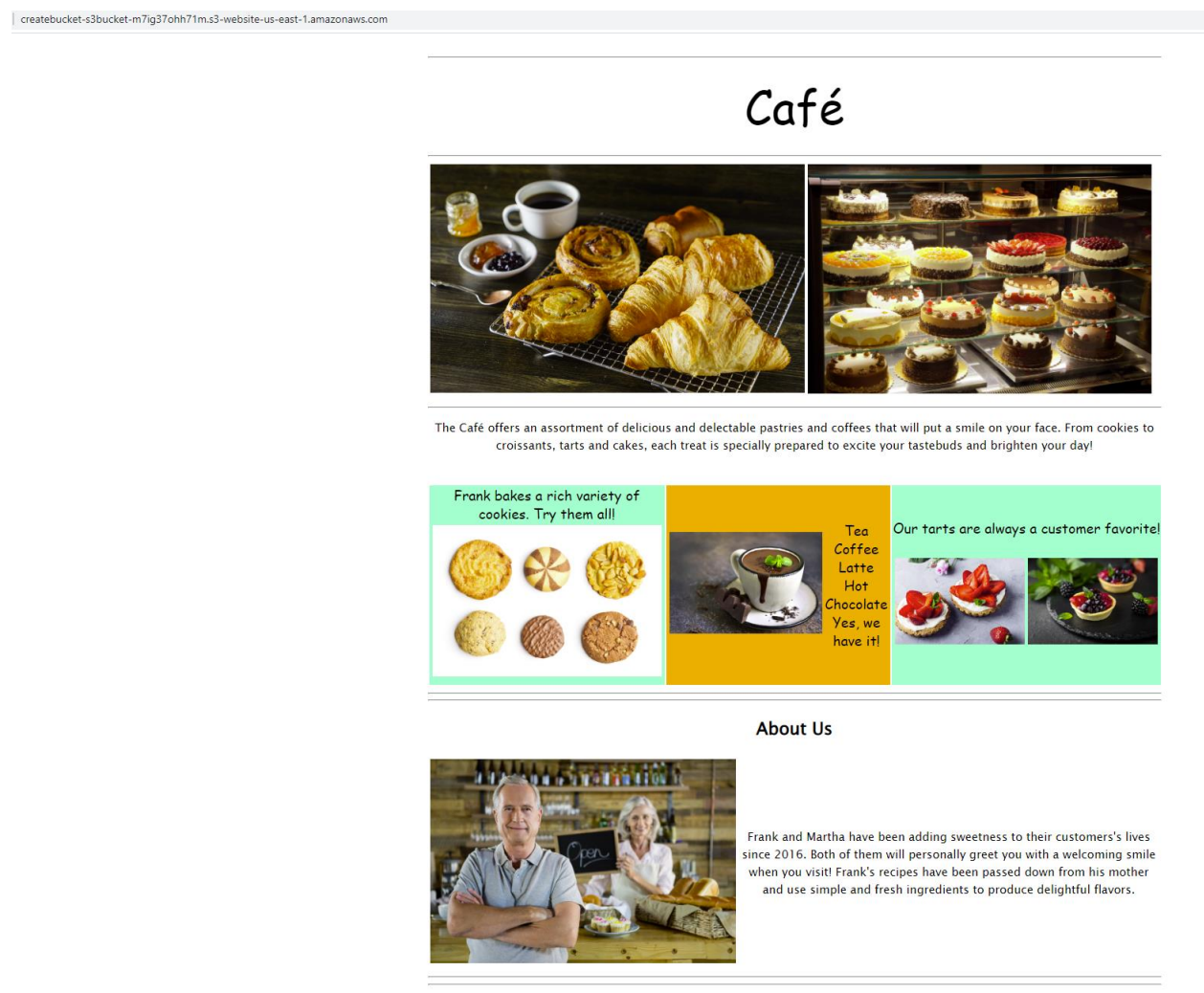
Note: Stack being created in lab 10. I had Deploy a stack from a template that creates an Amazon VPC virtual private cloud with a subnet. Add an Amazon S3 bucket to the template and update the stack. Add an Amazon EC2 instance to the template and update the stack. Delete the stack

Lesson learnt

This lab shows how to deploy multiple layers of infrastructure with CloudFormation, update a stack and delete a stack (while retaining some resources). Now I know how to conduct all different operations on a stack.

Figure 6

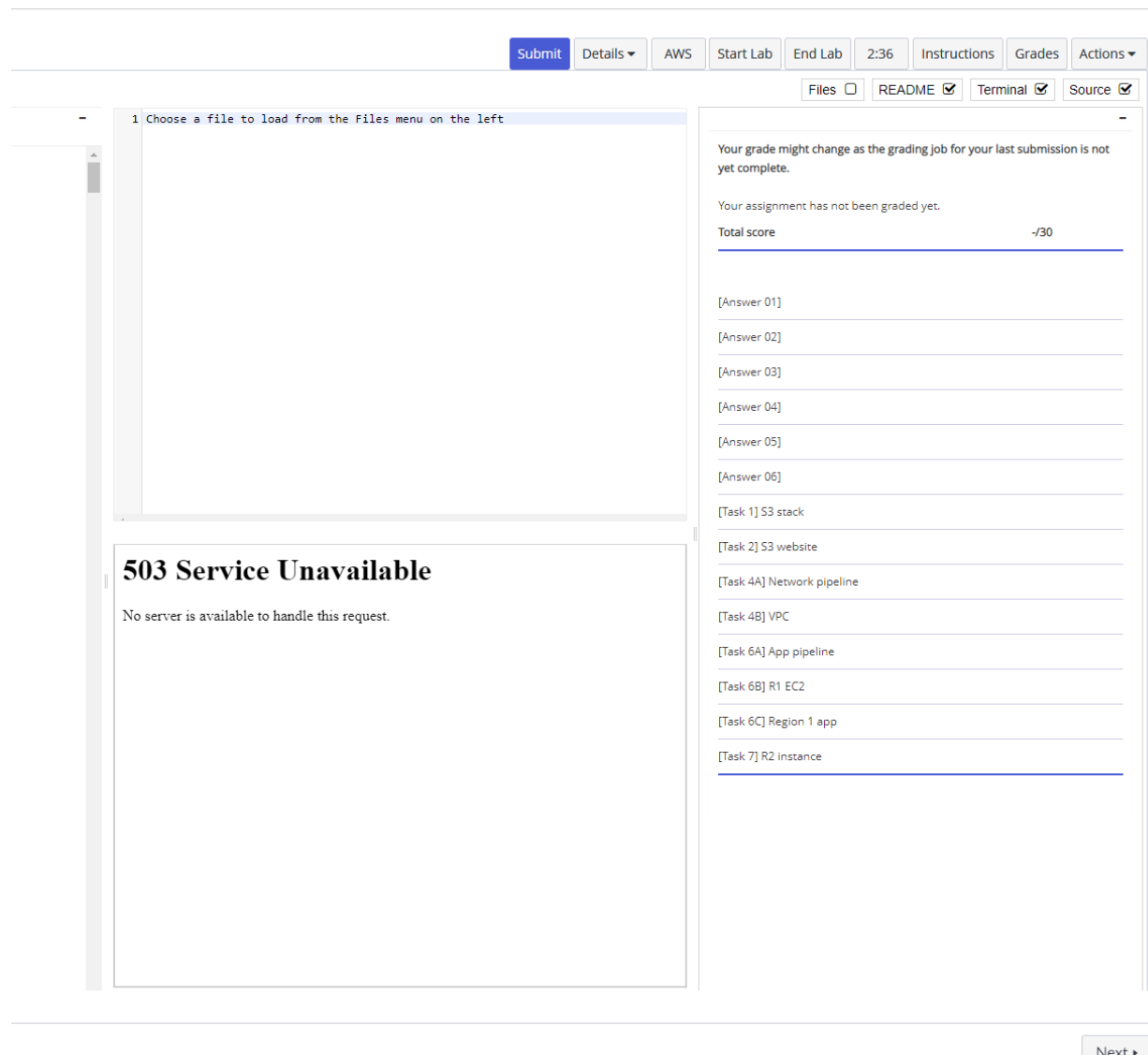
Challenge lab10. This is a screenshot of the static website being created with in the lab. This lab includes hosting a static website and grant public access to it.



Note: Finished static web hosting in lab10. I now have the knowledge of how to host my own static website on a s3 server and how to give access to it so it can be accessed publicly.

Figure 7

Finish Challenge Lab 10. This is a screenshot of the grading of the lab. But there are some issue with the system that I can't get a score. And it show 503 service unavailable.



Note: Something wrong with the grading service, can't get a grade after several attempt to submit. I've learned several cases of automated deployment in this lab and this will help me a lot in the future career.

Lesson learnt

In this lab, I have gained experience with creating AWS CloudFormation templates. I used the templates to create and update AWS CloudFormation stacks. The stacks create and manage updates to resources in multiple AWS service areas in your AWS account. I have used AWS CodeCommit to control the version of your templates.