**Activity 11-Troubleshoot CloudFormation(Module-11)**

Sure, here are the Linux-based steps for completing the challenge lab:

### Task 4: Attempt to delete the stack

1. \*\*Delete Stack Attempt:\*\*

- Open your terminal window.

- Run the following command to attempt to delete the stack:

```bash

aws cloudformation delete-stack --stack-name myStack

```

2. \*\*Observe Resource Deletion:\*\*

- Use the following command to monitor the status of resource deletion:

```bash

watch -n 5 -d \

aws cloudformation describe-stack-resources \

--stack-name myStack \

--query 'StackResources[\*].[ResourceType,ResourceStatus]' \

--output table

```

- Watch the status of each resource and observe the deletion process.

- Wait until all resources have a status of either DELETE\_COMPLETE or DELETE\_FAILED.

3. \*\*Check Stack Status:\*\*

- Run the following command to check the stack status:

```bash

aws cloudformation describe-stacks \

--stack-name myStack \

--output table

```

- Note the "StackStatus" and "StackStatusReason" fields.

- Verify if the stack status is "DELETE\_FAILED".

### Challenge: Keep the file in the S3 bucket, but Still Delete the Stack

1. \*\*Identify Logical ID of Bucket:\*\*

- Determine the logical ID by which CloudFormation knows the S3 bucket it created. You can use the following command to retrieve the logical IDs of resources:

```bash

aws cloudformation describe-stack-resources \

--stack-name myStack \

--query 'StackResources[\*].[LogicalResourceId, ResourceType]' \

--output table

```

- Look for the logical ID associated with the S3 bucket.

2. \*\*Resolve Challenge:\*\*

- Use the `--retain-resources` option with the `delete-stack` command to specify the logical ID of the S3 bucket to retain it while deleting the stack. Replace `<LogicalResourceId>` with the actual logical ID of the bucket:

```bash

aws cloudformation delete-stack --stack-name myStack --retain-resources <LogicalResourceId>

```

- This command will delete the CloudFormation stack while retaining the specified S3 bucket.

- Verify if the stack status changes to "DELETE\_COMPLETE" after executing the command.

By following these steps in your Linux terminal, you should be able to successfully delete the CloudFormation stack while keeping the file in the S3 bucket intact.