

# CloudFormation

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In this hands-on exercise, you will create an S3 bucket with AWS CloudFormation.

## Prerequisites:

- AWS account

## Topics Covered:

By the end of this lab, you will be able to:

- Create a CloudFormation stack using the CloudFormation Designer
- Launch S3 bucket using Infrastructure as Code
- Save and deploy a CloudFormation stack
- View resources created through CloudFormation

## Steps:

### 1. Create CloudFormation Stack

- On the AWS Management Console page, type `cloud formation` in the Find Services box and then select `Cloud Formation`. **Important:** The redesigned AWS CloudFormation console is available now. This tutorial covers the new designer. To

access the new designer, click on the Try it out now and provide us feedback. message that displays in a message similar to what's shown below.

- On the AWS Management Console page, type cloud formation in the Find Services box and then select Cloud Formation.
- If the left-hand menu options do not appear, expand the options by clicking on in the top left-hand corner.
- Select Designer from the left-hand menu.
- Locate S3 in the Resource Type section and expand it.
- Select Bucket and drag it to the designer window on the right-hand side.
- Copy the JSON below and replace entirely the JSON found in the Properties tab.

```
{
  "AWSTemplateFormatVersion": "2010-09-09",
  "Description": "Basic S3 Bucket CloudFormation template",
  "Resources": {
    "S3BucketCreatedByCloudFormation": {
      "Type": "AWS::S3::Bucket",
      "Properties": {
        "AccessControl": "PublicRead"
      }
    }
  },
  "Outputs": {
    "BucketName": {
      "Value": {
        "Ref": "S3BucketCreatedByCloudFormation"
      },
      "Description": "Name of the newly created Amazon S3 Bucket"
    }
  }
}
```

...

Hit the Refresh button in the upper right-hand corner so that the Designer is not out of date.

## 2. Save CloudFormation Stack

- In the CloudFormation Designer Toolbar, click the Document icon , and click Save.
- Click `Local File` and click `Save`. The JSON file will download.
- In the AWS CloudFormation Designer toolbar, click to validate your template. You will see a message that states, `Template is valid`.

## 3. Deploy CloudFormation Stack

- In the CloudFormation Designer Toolbar, click to deploy the stack. The `Create stack` screen appears.
- Accept the defaults and click `Next`.
- Enter a `Stack name`. Leave `Parameters` empty. Click `Next`.
- Leave the defaults and click `Next`.
- Review the stack details and click `Create Stack`. The stack status will be `CREATE_IN_PROGRESS`. To the current status of the stack, select the Refresh button in the upper right-hand corner. Once the stack reaches the `CREATE_COMPLETE` status, the stack has been deployed.

## 4. View S3 Bucket created by CloudFormation Stack

- From the `Services` menu option at the top, type in `s3` and select `s3`.
- To quickly find the bucket created by the CloudFormation Stack, click on `Date Created` in the column heading to sort by the most recent buckets created.
- The newly created bucket appears at the top,  
`cfs3stack-s3bucketcreatedbycloudformation-1at0fv1v9ndc1`.

## 5. Delete CloudFormation Stack

- To avoid on-going charges, delete the stack by navigating to the stack, and clicking the `Delete` button in the upper right-hand corner. **Note:** When the stack is deleted, all resources created by the stack template will be deleted also.