

IAM User and Group with CloudFormation

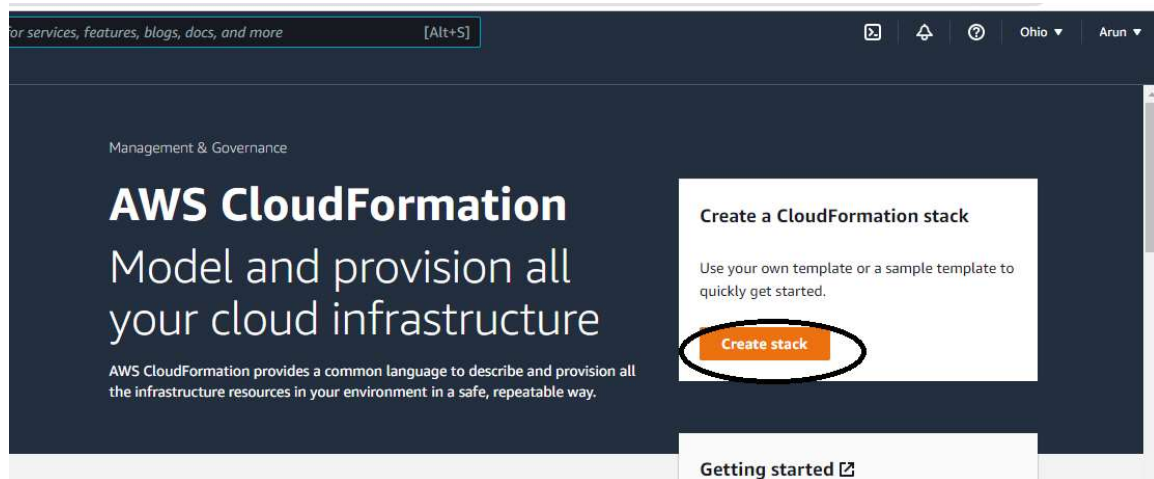
An AWS Identity and Access Management (IAM) user is an entity that you create in AWS to represent the person or application that uses it to interact with AWS. A user in AWS consists of a name and credentials.

An IAM user with administrator permissions is not the same thing as the AWS account root user.

An IAM Group is a collection of users. Group specifies the permission for a collection of users, and it also makes it possible to manage the permissions easily for those users. You created a group known as Admin and assigned the permissions to the group that administrators typically need.

Uploading Template file :

1. Create stack :



2. prepare template upload it to to stack

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Prerequisite - Prepare template

Prepare template
Every stack is based on a template. A template is a JSON or YAML file that contains configuration information about the AWS resources you want to include in the stack.

☒ Template is ready
 ☐ Use a sample template
 ☐ Create template in Designer

Specify template

A template is a JSON or YAML file that describes your stack's resources and properties.

Template source
Selecting a template generates an Amazon S3 URL where it will be stored.

☐ Amazon S3 URL
 ☒ Upload a template file

Upload a template file
Choose file No file chosen
JSON or YAML formatted file

S3 URL: Will be generated when template file is uploaded

View in Designer

Cancel **Next**

3. Enter Stack name and Next

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Specify stack details

Stack name

Stack name
Enter a stack name
Stack name can include letters (A-Z and a-z), numbers (0-9), and dashes (-).

Parameters
Parameters are defined in your template and allow you to input custom values when you create or update a stack.

No parameters
There are no parameters defined in your template

Cancel Previous **Next**

4. Tags

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ck

Configure stack options

Tags

You can specify tags (key-value pairs) to apply to resources in your stack. You can add up to 50 unique tags for each stack. [Learn more](#)

Key	Value	Remove

Add tag

Permissions

Choose an IAM role to explicitly define how CloudFormation can create, modify, or delete resources in the stack. If you don't choose a role, CloudFormation uses permissions based on your user credentials. [Learn more](#)

IAM role - optional
Choose the IAM role for CloudFormation to use for all operations performed on the stack.

iamRoleName	Remove

5.click Next

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Preserves the state of successfully provisioned resources, while rolling back failed resources to the last known stable state. Resources without a last known stable state will be deleted upon the next stack operation.

Advanced options

You can set additional options for your stack, like notification options and a stack policy. [Learn more](#)

► **Stack policy**
Defines the resources that you want to protect from unintentional updates during a stack update.

► **Rollback configuration**
Specify alarms for CloudFormation to monitor when creating and updating the stack. If the operation breaches an alarm threshold, CloudFormation rolls it back. [Learn more](#)

► **Notification options**

► **Stack creation options**

Cancel Previous **Next**

5. Review and Acknowledge

more
[Alt+S]

Stack creation options

Timeout
-

Termination protection
Disabled

Quick-create link

Capabilities

i The following resource(s) require capabilities: [AWS::IAM::Role]
This template contains Identity and Access Management (IAM) resources that might provide entities access to make changes to your AWS account. Check that you want to create each of these resources and that they have the minimum required permissions. [Learn more](#)

☒ I acknowledge that AWS CloudFormation might create IAM resources.

Cancel Previous Create change set **Create stack**

Yaml Code :

```

AWSTemplateFormatVersion: '2010-09-09'
Description: Creating IAM user , group , policy and roles.
Resources:
  ARUNUser:
    Type: AWS::IAM::User
    Properties:
      LoginProfile:
        Password: Awscoe#9
  RAMUser:
    Type: AWS::IAM::User
    Properties:
      LoginProfile:
        Password: Awscoe#8
  AWSUserGroup:
    Type: AWS::IAM::Group
  AWSAdminGroup:
    Type: AWS::IAM::Group
Users:

```

```

Type: AWS::IAM::UserToGroupAddition
Properties:
  GroupName: !Ref 'AWSUserGroup'
  Users: [!Ref 'ARUNUser']
Admins:
Type: AWS::IAM::UserToGroupAddition
Properties:
  GroupName: !Ref 'AWSAdminGroup'
  Users: [!Ref 'RAMUser']
AWSUserPolicies:
Type: AWS::IAM::Policy
Properties:
  PolicyName: AWSUsers
  PolicyDocument:
    Statement:
      - Effect: Allow
        Action: ['cloudformation:Describe*', 'cloudformation:List*', 'cloudformation:Get*']
        Resource: '*'
  Groups: [!Ref 'AWSUserGroup']
AWSAdminPolicies:
Type: AWS::IAM::Policy
Properties:
  PolicyName: AWSAdmins
  PolicyDocument:
    Statement:
      - Effect: Allow
        Action: cloudformation:*
        Resource: '*'
  Groups: [!Ref 'AWSAdminGroup']
AWSKeys:
Type: AWS::IAM::AccessKey
Properties:
  UserName: !Ref 'RAMUser'
Outputs:
AccessKey:
  Value: !Ref 'AWSKeys'
  Description: AWSAccessKeyId of new user
SecretKey:
  Value: !GetAtt [AWSKeys, SecretAccessKey]
  Description: AWSSecretAccessKey of new user

```

aws

Services

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EC2

CloudFormation > Stacks > IAM-User-Group

Stacks (1)

Filter by stack name

Active

View nested

1

IAM-User-Group
2022-05-27 15:18:31 UTC+0530
CREATE_COMPLETE

Resources (9)

Search resources

Logical ID	Physical ID	Type	Status	Status reason
ARUNUser	IAM-User-Group-ARUNUser-1LT8OM64I3YUN	AWS::IAM::User	CREATE_COMPLETE	-
AWSAdminGroup	IAM-User-Group-AWSAdminGroup-M4ZXSVDQZXQ	AWS::IAM::Group	CREATE_COMPLETE	-
AWSAdminPolicies	IAM-U-AWSA-EBBGJOCVUZD7	AWS::IAM::Policy	CREATE_COMPLETE	-
AWSKeys	AKIAWR5OLC2BJ4EQYJ6T	AWS::IAM::AccessKey	CREATE_COMPLETE	-

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Services

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CREATE_COMPLETE

Resources (9)

Search resources

Logical ID	Physical ID	Type	Status	Status reason
AWSUserGroup	IAM-User-Group-AWSUserGroup-TKOOFMFLB6NJ	AWS::IAM::Group	CREATE_COMPLETE	-
AWSUserPolicies	IAM-U-AWSU-16JK1I5120MDN	AWS::IAM::Policy	CREATE_COMPLETE	-
Admins	IAM-U-Admin-LWAQ1G9UQJ99	AWS::IAM::UserToGroupAddition	CREATE_COMPLETE	-
RAMUser	IAM-User-Group-RAMUser-EPR6GVC3M4C	AWS::IAM::User	CREATE_COMPLETE	-

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Services

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Resources (9)

Search resources


Logical ID	Physical ID	Type	Status	Status reason
Admins	IAM-U-Admin-LWAQ1G9UQJ99	AWS::IAM::UserToGroupAddition	CREATE_COMPLETE	-
RAMUser	IAM-User-Group-RAMUser-EPR6GVC3M4C	AWS::IAM::User	CREATE_COMPLETE	-
Users	IAM-U-User-JCXPYLP31BMZ	AWS::IAM::UserToGroupAddition	CREATE_COMPLETE	-

aws

Services

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EC2

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Stacks (1)

Filter by stack name

Active View nested

IAM-User-Group

2022-05-27 15:18:31 UTC+0530

CREATE_COMPLETE

IAM-User-Group

DeleteUpdateStack actionsCreate stack

Stack infoEventsResourcesOutputsParametersTemplateChange sets

Outputs (2)

Search outputs

Key	Value	Description	Export name
AccessKey	AKIAWR5OLC2BJ4EQYJ6T	AWSAccessKeyId of new user	-
SecretKey	OwtA8bF5fWvZlFIQhf1jdKe1Wmi+geN1sZl+2GC	AWSSecretAccessKey of new user	-