

# IAM Assignment

**Assignment date: 30<sup>th</sup> OCT 2022**

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## Assignment 1

Create an IAM user with username of your own wish and grant administrator policy.

<input type="checkbox"/>	User name ▾	Groups ▾	Last activity	MFA ▾
<input type="checkbox"/>	naman	None	 23 hours ago	Virtual

Permissions Groups Tags Security credentials Access Advisor

▼ Permissions policies (1 policy applied)

Add permissions Add inline policy

Policy name ▾	Policy type ▾
Attached directly	
 AdministratorAccess	AWS managed policy

## Assignment 2

Hello students, in this assignment you need to prepare a developers team of avengers. - Create 3 IAM users of avengers and assign them in developer's groups with IAM policy.

**User groups (1)** [Info](#)

A user group is a collection of IAM users. Use groups to specify permissions for a collection of users.

☐ **Group name** ☐ **Users** ☐ **Permissions** ☐ **Creation time**

<input type="checkbox"/>	Developers	3	Defined	Now
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**Users in this group (3)**

An IAM user is an entity that you create in AWS to represent the person or application that uses it to interact with AWS.

<input type="checkbox"/>	User name <a href="#">?</a>	Groups	Last activity	Creation time
<input type="checkbox"/>	Avenger1	1	None	3 minutes ago
<input type="checkbox"/>	Avenger3	1	None	1 minute ago
<input type="checkbox"/>	Avenger2	1	None	2 minutes ago

**Users** **Permissions** **Access Advisor**

**Permissions policies (1)** [Info](#)

You can attach up to 10 managed policies.

<input type="checkbox"/>	Policy name <a href="#">?</a>	Type	Description
<input type="checkbox"/>	IAMFullAccess	AWS managed	Provides full access to IAM via the AWS Management Console.

### Assignment 3

Define a condition in policy for expiration like "DateGreaterThan": {"aws:CurrentTime": "2020-04-01T00:00:00Z"}, "DateLessThan": {"aws:CurrentTime": "2020-06-30T23:59:59Z"} Define the span of 4 months as per your wish.



## Assignment 4

**Prepare 15 authentic MCQ questions related to IAM.**

- 1) Is IAM is a region based service?
  - No, IAM is a global service
  
- 2) Which service allows access control across all AWS resources?
  - IAM
  
- 3) By default, IAM users are created with what permissions?
  - No permissions
  
- 4) Suppose, EC2 wants access of S3 bucket to store logs, how will you allow to do so?
  - We can create IAM role for EC2 for S3 access and assign it to EC2
  
- 5) What is the best practice to assign same permissions to multiple users?
  - Create IAM group, assign permissions to that group and add necessary users into that group.
  
- 6) How do I grant access to services and resources by using IAM?
  - Using IAM policies
  
- 7) If the policy I am looking for is not available under AWS managed policies, is there any way I can create and then assign?
  - Yes we can create our own custom policy also and then can assign it.
  
- 8) To grant programmatic access of AWS services what is required to have?
  - We need access key id and secret access key to make programmatic use of AWS services.
  
- 9) To login as a root which credentials are used?
  - Email id used to create account and password
  
- 10) ARN full form?
  - Amazon Resource Name

11) Which principle should be used when assigning permissions to users / groups / roles?

- Least privilege

12) How can you add additional level of security to your root / IAM account?

- By enabling Multi Factor Authentication(MFA)

13) What are two different options available to make use of MFA?

- Virtual authenticator apps or hardware MFA device from the respective manufacture

14) ABAC stands for?

- Attribute based access control

15) IAM policies are stored under which format?

- JSON documents

## Assignment 5

### Launch your Linux instance in IAM and update your machine.

- I have launched Ubuntu machine in AWS and using EC2 Instance Connect method I have connected.
- I have also updated machine using `sudo apt update` command.

```
ubuntu@ip-172-31-36-185:~$ sudo apt update
Hit:1 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy InRelease
Get:2 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-updates InRelease [114 kB]
Get:3 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-backports InRelease [59.8 kB]
Get:4 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy/universe amd64 Packages [14.1 MB]
Get:5 http://security.ubuntu.com/ubuntu jammy-security InRelease [110 kB]
Get:6 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/restricted amd64 c-n-f Metadata [350 B]
Get:17 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/universe amd64 Packages [743 kB]
Get:18 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/universe Translation-en [122 kB]
Get:19 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/universe amd64 c-n-f Metadata [4404 B]
Get:20 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/multiverse amd64 Packages [13.7 kB]
Get:21 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/multiverse Translation-en [4228 B]
Get:22 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/multiverse amd64 c-n-f Metadata [420 B]
Get:23 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/main amd64 Packages [3008 B]
Get:24 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/main Translation-en [1432 B]
Get:25 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/main amd64 c-n-f Metadata [272 B]
Get:26 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/restricted amd64 c-n-f Metadata [116 B]
Get:27 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/universe amd64 Packages [6732 B]
Get:28 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/universe Translation-en [9360 B]
Get:29 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/universe amd64 c-n-f Metadata [356 B]
Get:30 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/multiverse amd64 c-n-f Metadata [116 B]
Get:31 http://security.ubuntu.com/ubuntu jammy-security/main amd64 Packages [461 kB]
Get:32 http://security.ubuntu.com/ubuntu jammy-security/main Translation-en [101 kB]
Get:33 http://security.ubuntu.com/ubuntu jammy-security/restricted amd64 Packages [372 kB]
Get:34 http://security.ubuntu.com/ubuntu jammy-security/restricted Translation-en [57.4 kB]
Get:35 http://security.ubuntu.com/ubuntu jammy-security/universe amd64 Packages [602 kB]
Get:36 http://security.ubuntu.com/ubuntu jammy-security/universe Translation-en [76.6 kB]
Get:37 http://security.ubuntu.com/ubuntu jammy-security/universe amd64 c-n-f Metadata [2400 B]
Get:38 http://security.ubuntu.com/ubuntu jammy-security/multiverse amd64 Packages [4192 B]
Get:39 http://security.ubuntu.com/ubuntu jammy-security/multiverse Translation-en [900 B]
Get:40 http://security.ubuntu.com/ubuntu jammy-security/multiverse amd64 c-n-f Metadata [228 B]
Fetched 24.6 MB in 5s (5276 kB/s)
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
78 packages can be upgraded. Run 'apt list --upgradable' to see them.
ubuntu@ip-172-31-36-185:~$
```