1. **Aim: To Study Cloud Security management**
2. **Objectives:** From this experiment, the student will be able,

* To understand the security features of Cloud.
* To learn the technique of application security management and its complexity
* To understand the importance of cloud security management from application point of view

1. **Outcomes:** The learner will be able to
   * Student can study and implement single-sign-on.
   * To use current techniques, skills, and tools necessary for computing practice.
   * To match the industry requirements in the domains of Database management, Programming and Networking with the required management skills.

//Study Cloud Security management

Security using MFA(Multi Factor Authentication) device code:

1) goto aws.amazon.com

2) click on "My Account"

3) select "AWS management console" and click on it

4) Give Email id in the required field

if you are registering first time then select "I am a new user" radio button

5) click on "sign in using our secure server" button

6) follow the instruction and complete the formalities

(Note: do not provide any credit card details or bank details)

sign out from

7) Again go to "My Account"

select "AWS management console" and click on it

Sign in again by entering the user name and valid password ( check "I am returning user and my password is" radio button)

Now you are logged in as a Root User

All AWS project can be viewed by you, but you cant make any changes in it or you cant create new thing as you are not paying any charges to amazon (for reason refer step:6)

**To create the user in a root user follow the steps mentioned below:**

**Expand All Services**

## Select **Identity and Access Management (IAM)** from Security, Identity, & Compliance

## click in "Users" from dashboard

It will take you to "Create New Users"

click on create new user button

enter the "User Name"

check both checkboxes (**Programmatic access and AWS Management Console access)**

**From** Console password select Custom password.

Follow wizard to create user.

Select user and go to security credentials tab

Click on Assigned MFA device (Manage) link

Select Virtual MFA device option and continue

it will give you one QR code displayed on the screen

you need to scan that QR code on your mobile phone using barcode scanner (install it in mobile phone)you also need to install "**Google Authenticator**" in your mobile phone to generate the MFA code

**So concept is we will use third party app to generate OTP which will help us to authenticate ourselves during logging in. It will add a security layer to our account.**

Enter MFA code 1

Enter MFA code 2

(from Google Authenticator app) and click on Assign MFA

Google authenticator will keep on generating a new MFA code after every 60 seconds

that code you will have to enter while logging as a user.

Hence, the security is maintained by MFA device code...

After that logout from root user and login from user account and enter password and MFA