***Assignment No*: 10**

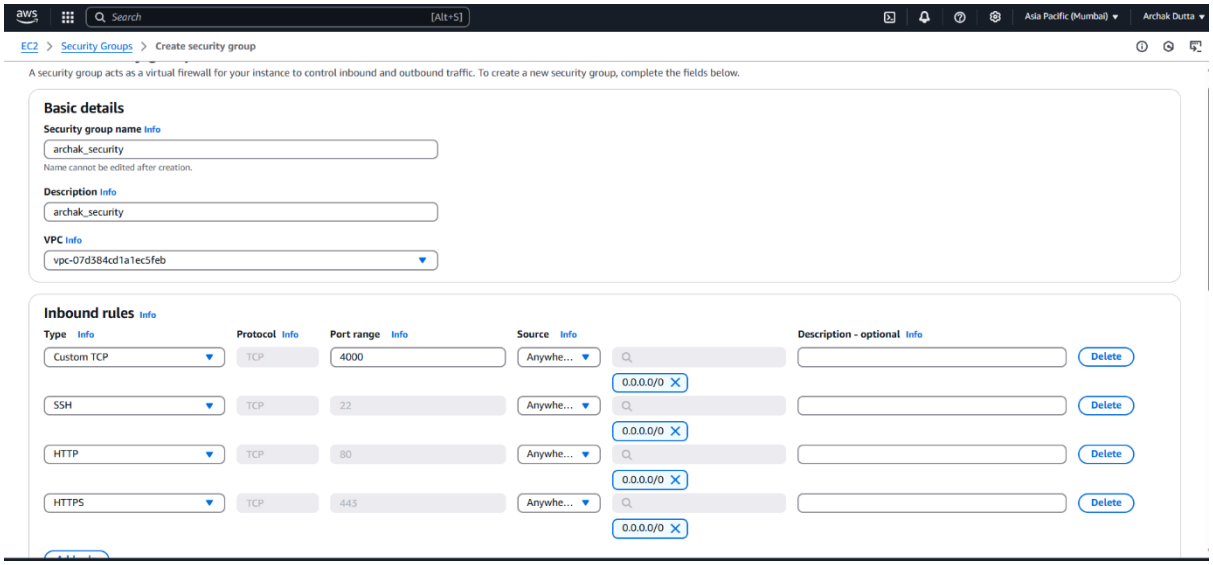
***Problem Statement*: Deploy a project from GitHub to EC2 by creating a new security group and user data.**

***Solution*:**

To deploy a project from GitHub to EC2 by creating a new security group and user data, the steps are-

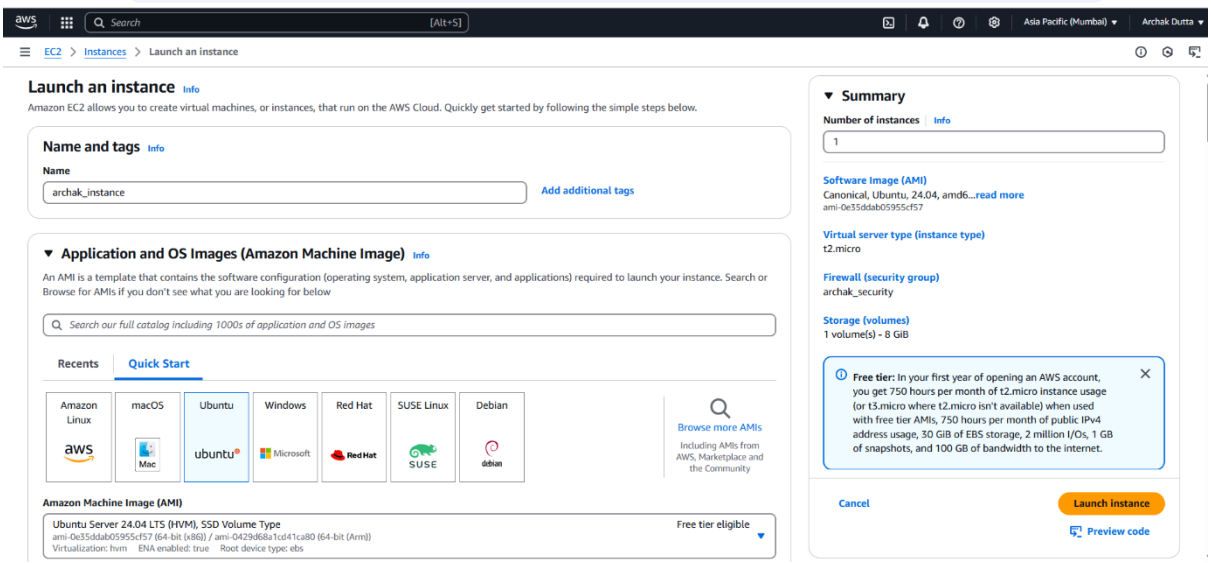
1.Login to AWS console and select EC2.From there select **Security Groups** under **Networks & Security** section and then click on **create security groups**.

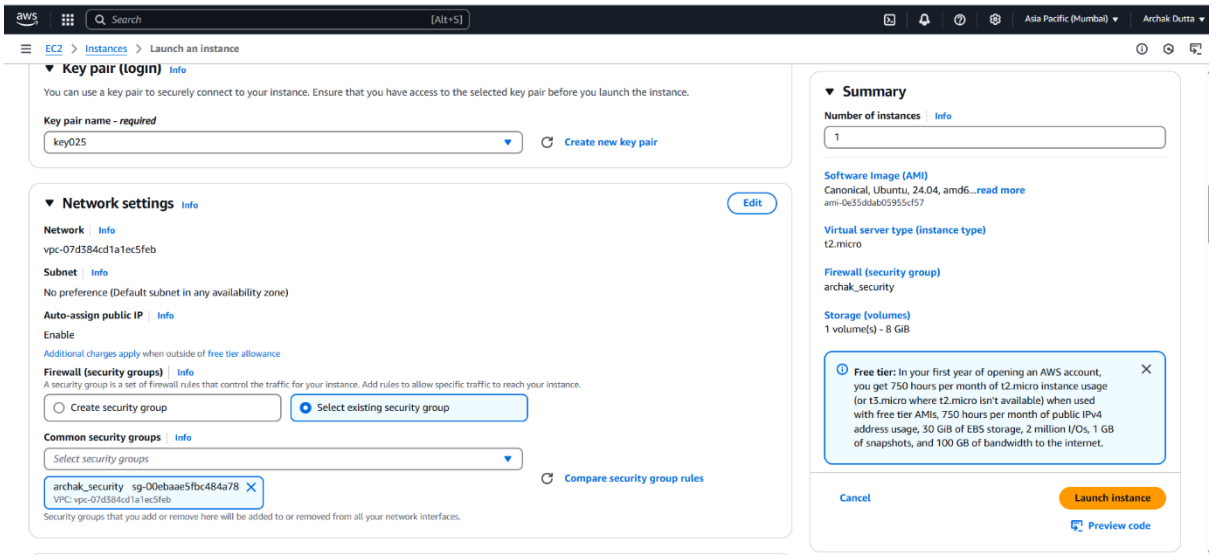
2.Enter **Security group name**, **Description** and add **Inbound rules** as **Custom TCP**,**SSH**,**HTTP** and **HTTPS** with the required port range and source.



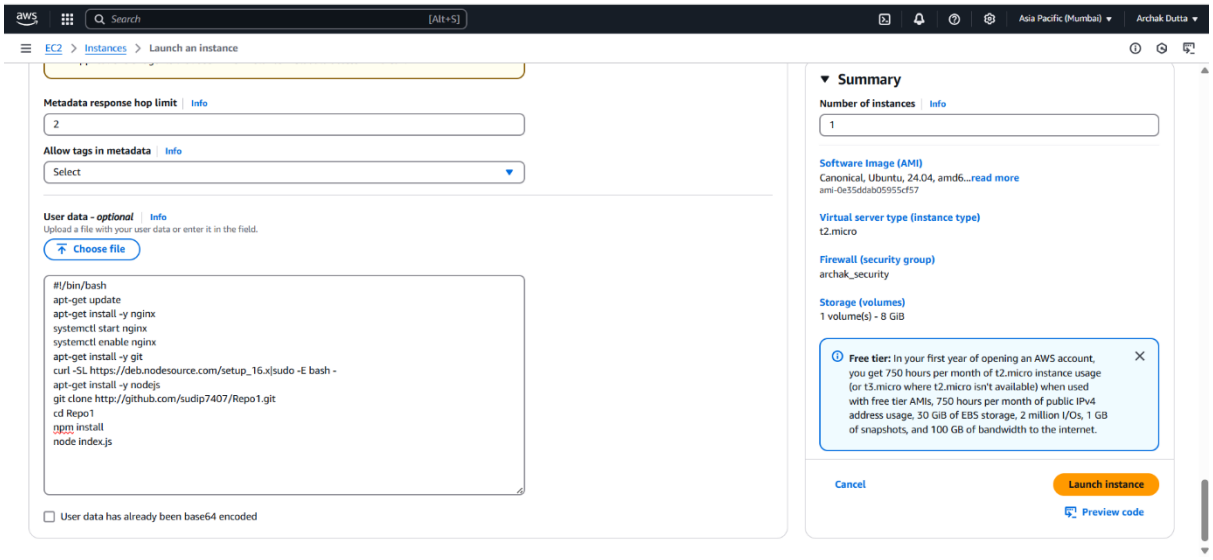
3.Now launch an instance on EC2 using the same security groups.

4.Provide instance name ,ubuntu as OS, key pair and in **Network settings Firewall** part select the **existing security group.** From the dropdown select newly created security group.

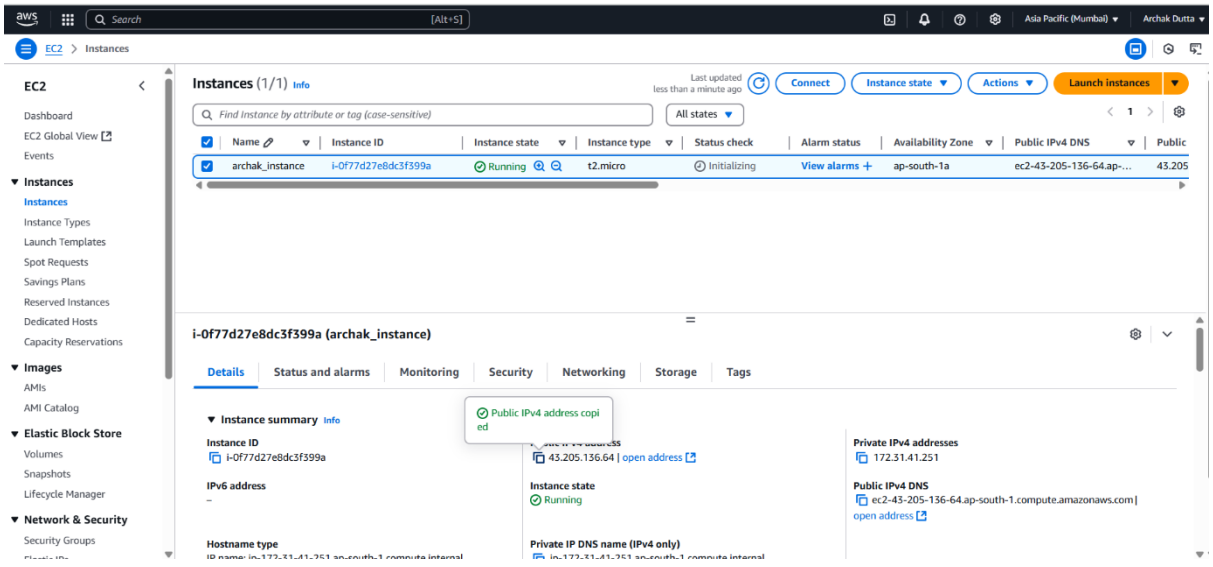




5.In advanced settings option's **User data part** add some commands. Then click launch instance.



6.Now copy the **public IPv4 address** of the created instance(43.205.136.64).



7.Paste the IP address in an incognito web browser.

8.Finally paste IP address as IP address as (IP:4000) i.e. 43.205.136.64:4000 to find the deployed project in EC2.

The commands used in point no. 5 under User Data part are-

#!/bin/bash

apt-get update

apt-get install -y nginx

systemctl start nginx

systemctl enable nginx

apt-get install -y git

curl -SL https://deb.nodesource.com/setup_16.x|sudo -E bash -

apt-get install -y nodejs

git clone http://github.com/sudip7407/Repo1.git

cd Repo1

npm install

node index.js