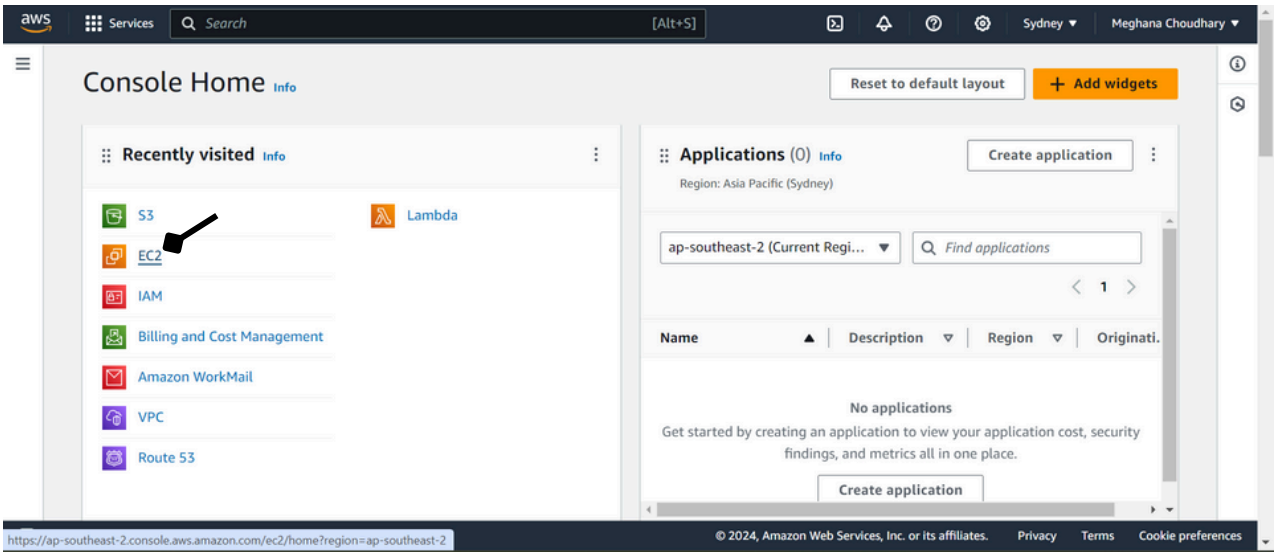
10. PROBLEM STATEMENT:

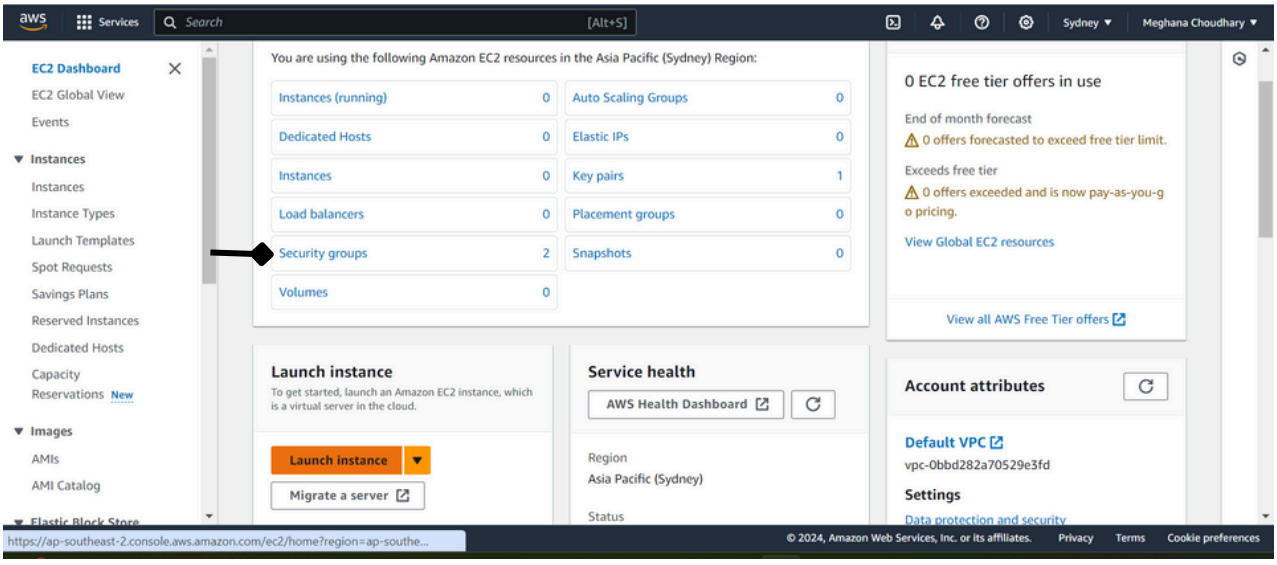
Deploy a project from GitHub to EC2 by creating a new security group and user data.

Creating a EC2 Instance with port 4000 open and deploying a project with user data:-

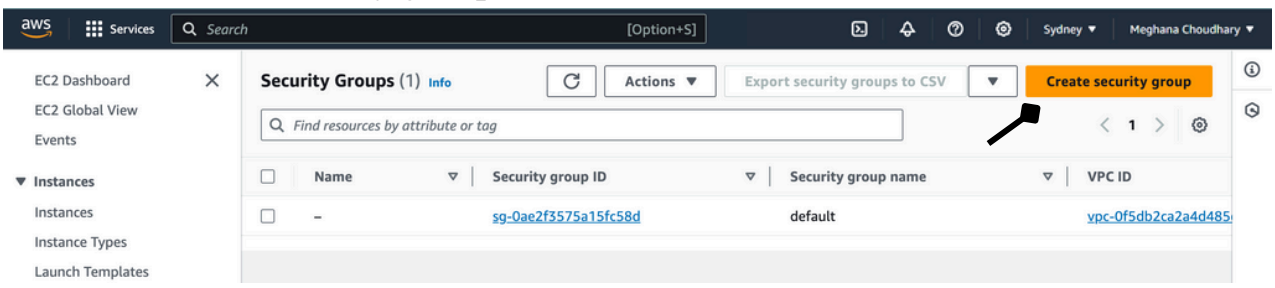
1. Log into AWS console and click on “EC2”.



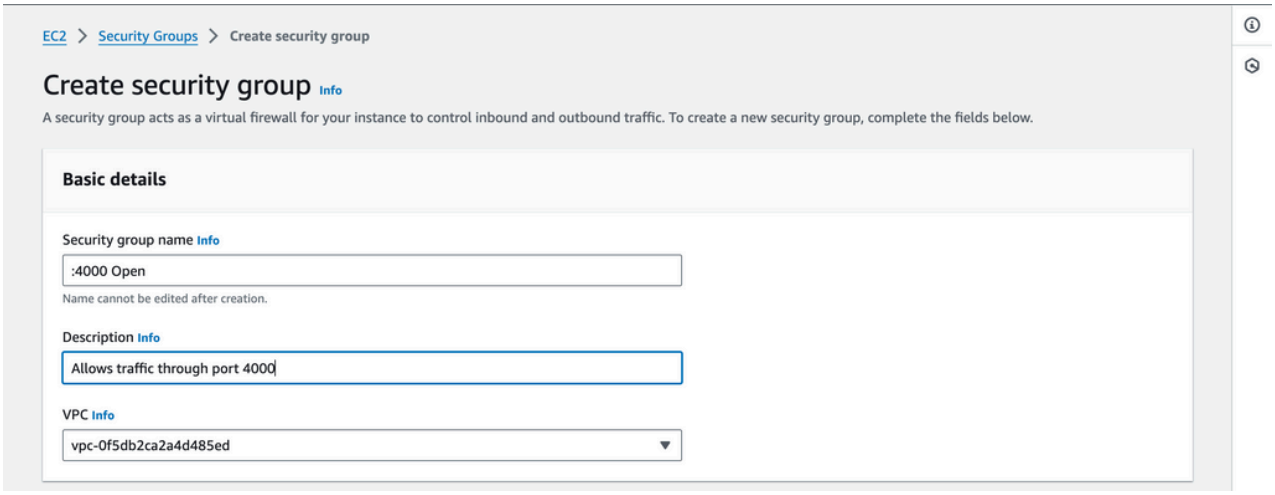
2. Click on ‘Security Groups’.



3. Go to ‘Create security groups’.

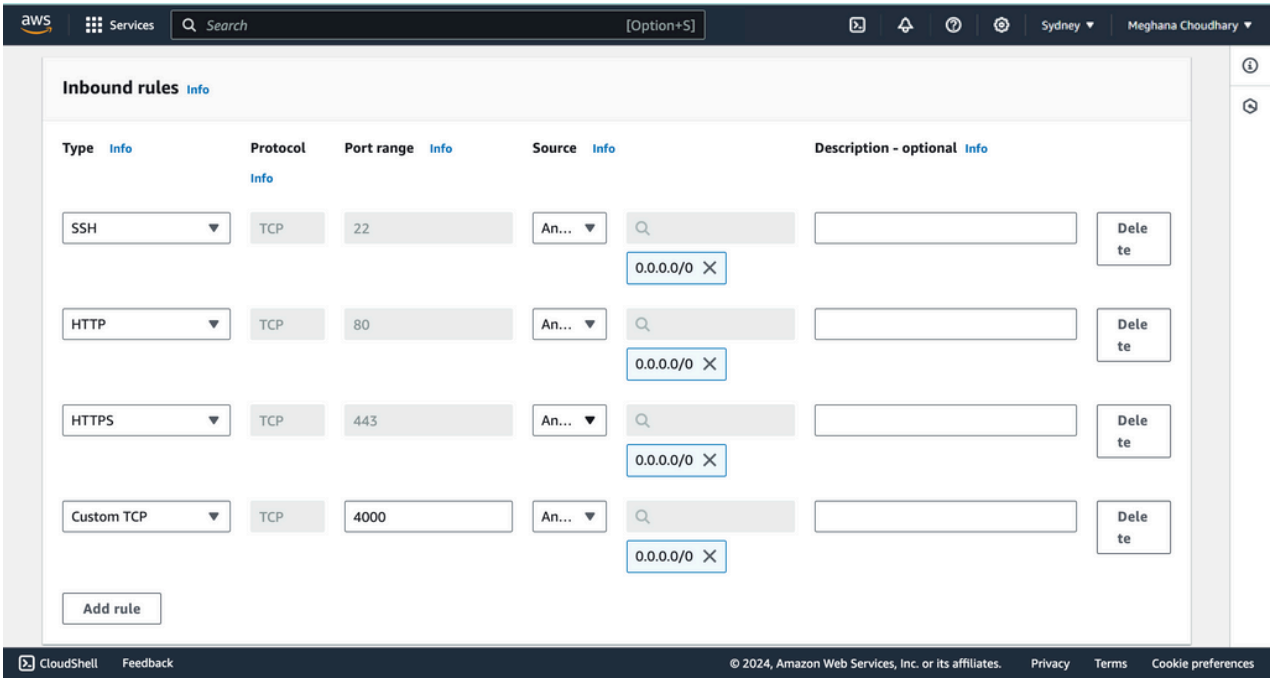


4. Add basic details.

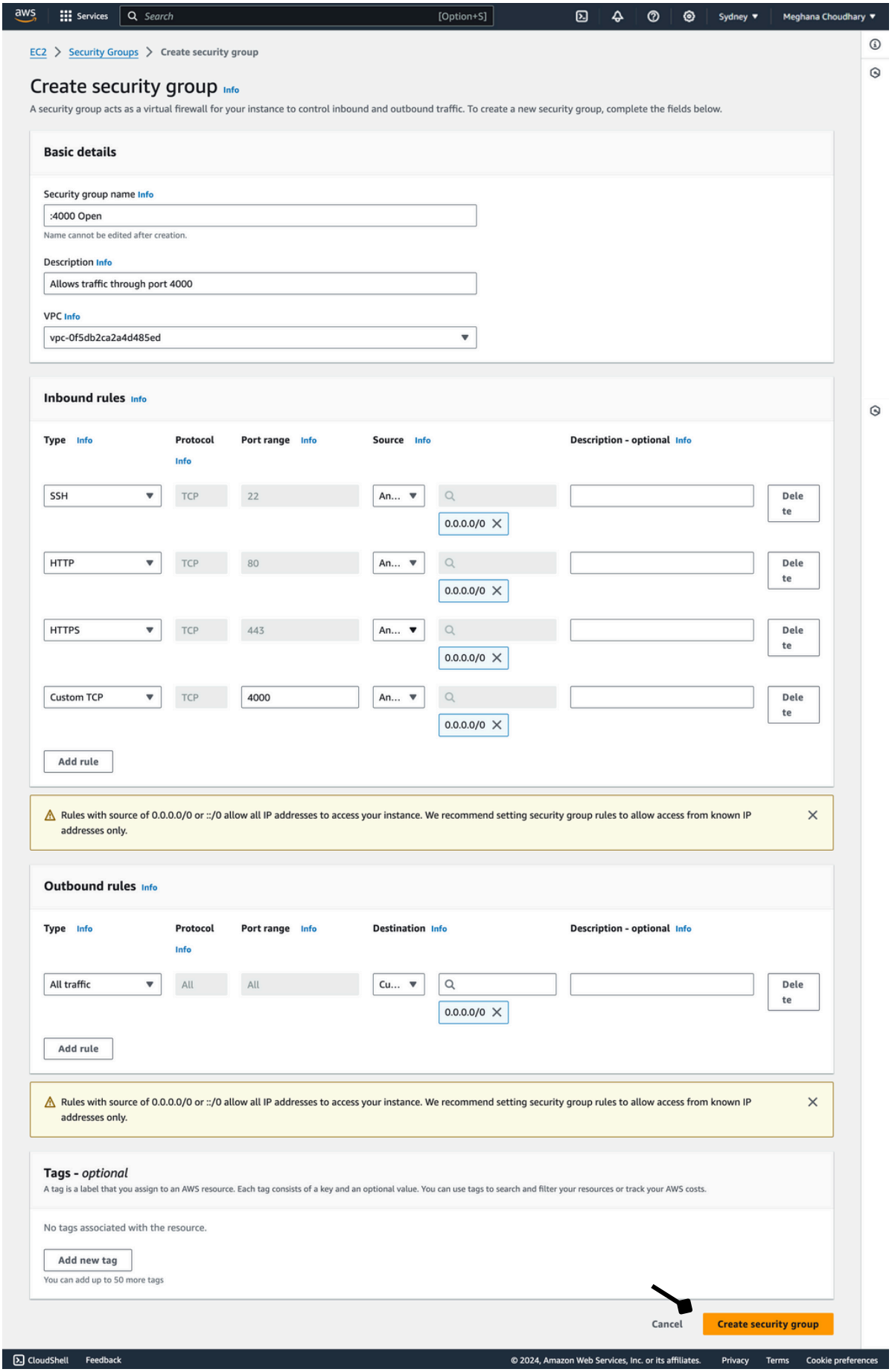


5. In 'Inbound rules' go to 'Add rule'.

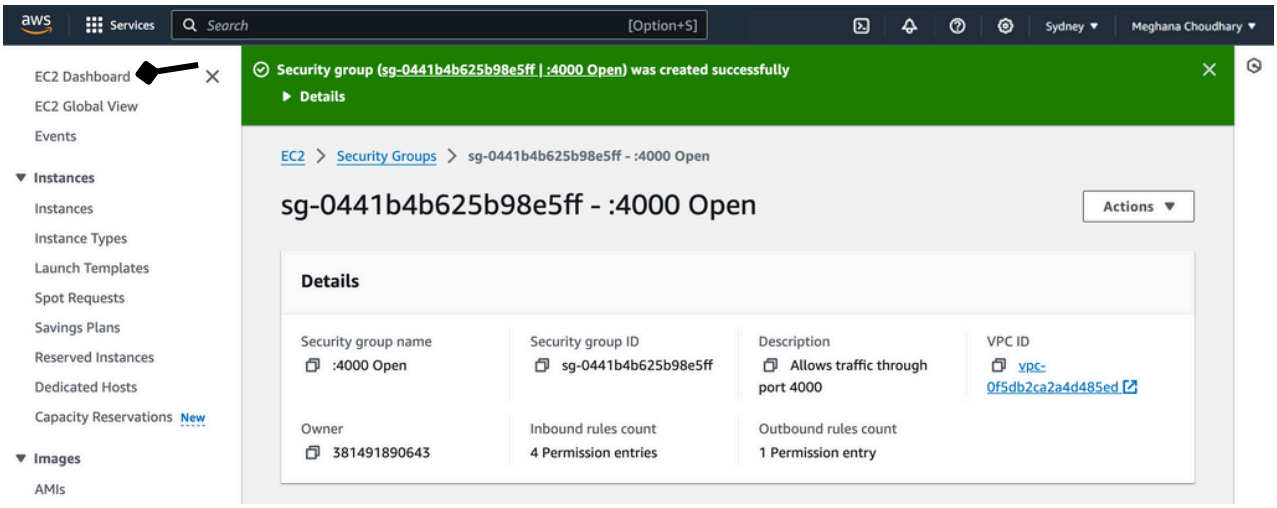
6. Add all the necessary rules like SSH, HTTP and HTTPS from anywhere; along with a Custom TCP rule allowing traffic on port 4000 from anywhere.



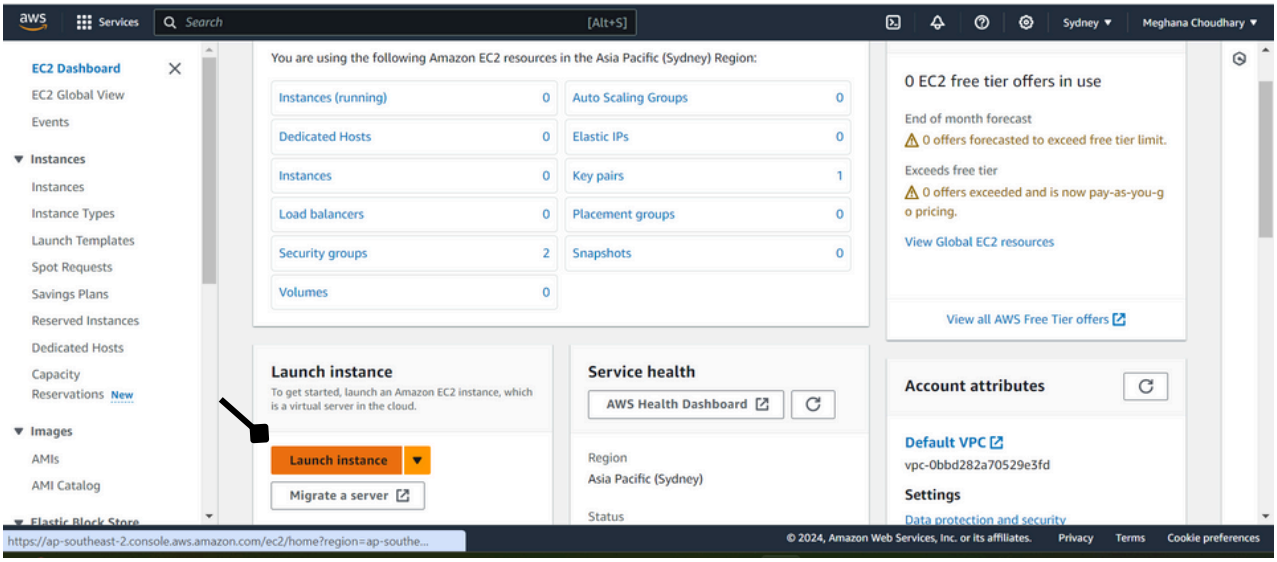
7. Then finally ‘Create security group’.



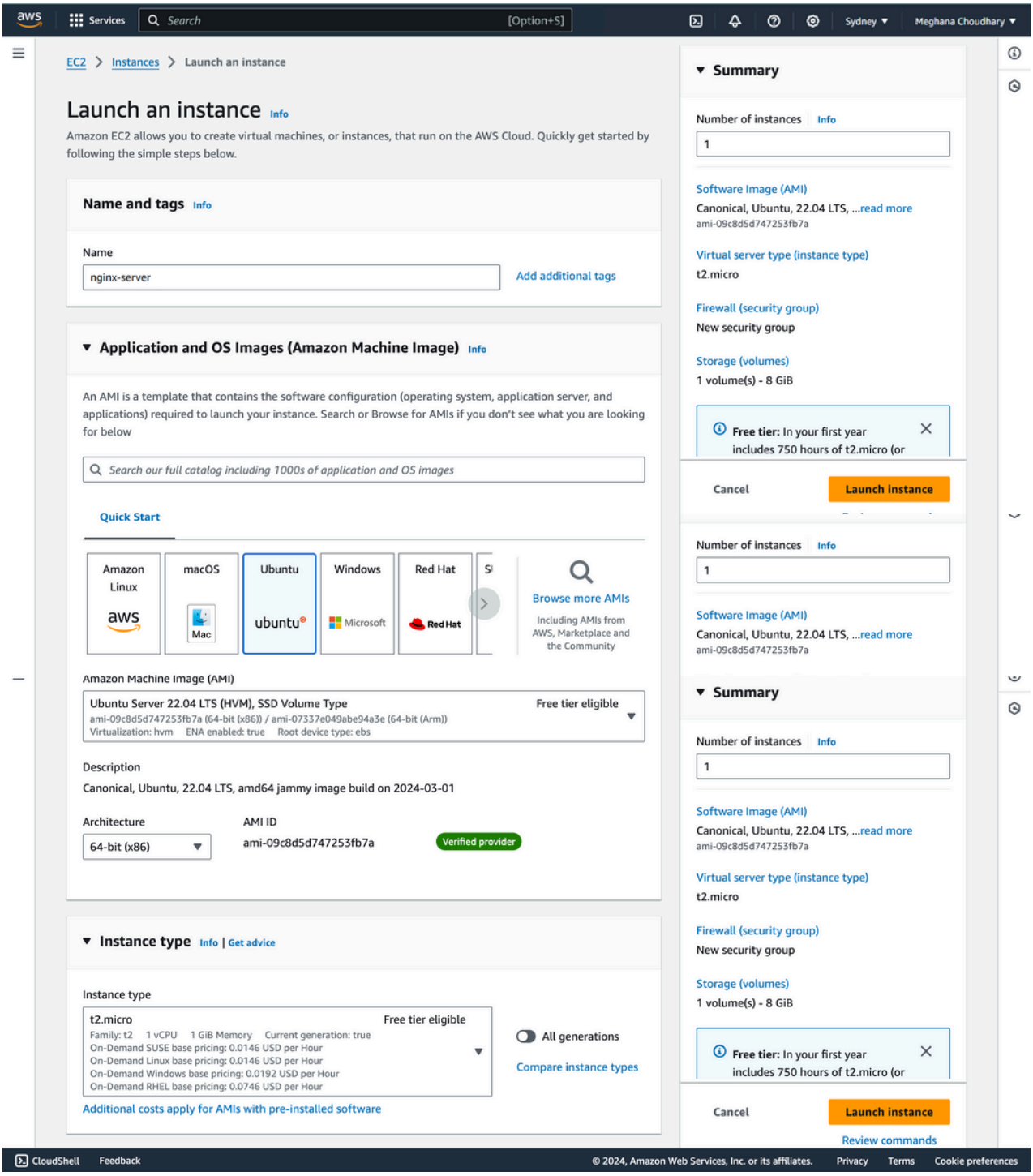
7. After the security group is created, go to ‘EC2 Dashboard’.



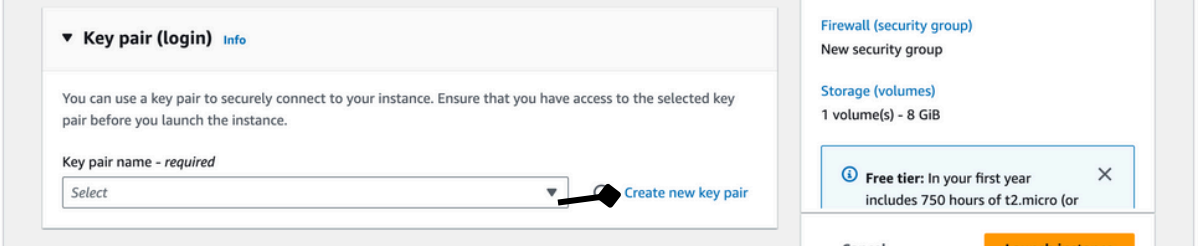
8. Click on ‘Launch instance’.



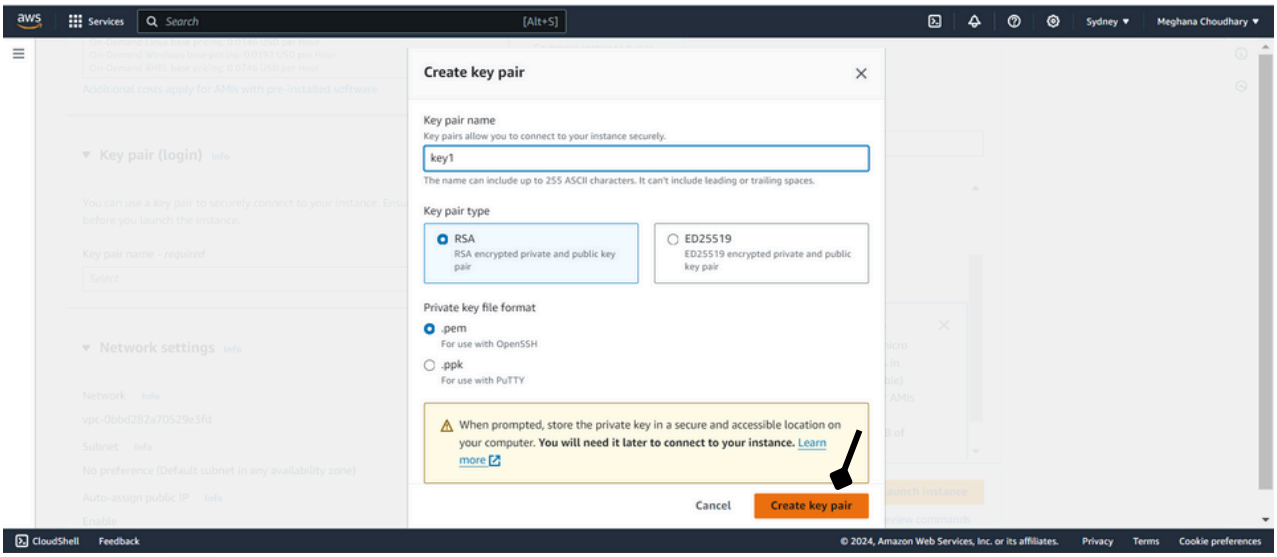
9. Fill the required details.
Give a name to your server and choose ubuntu Server as the OS Image.



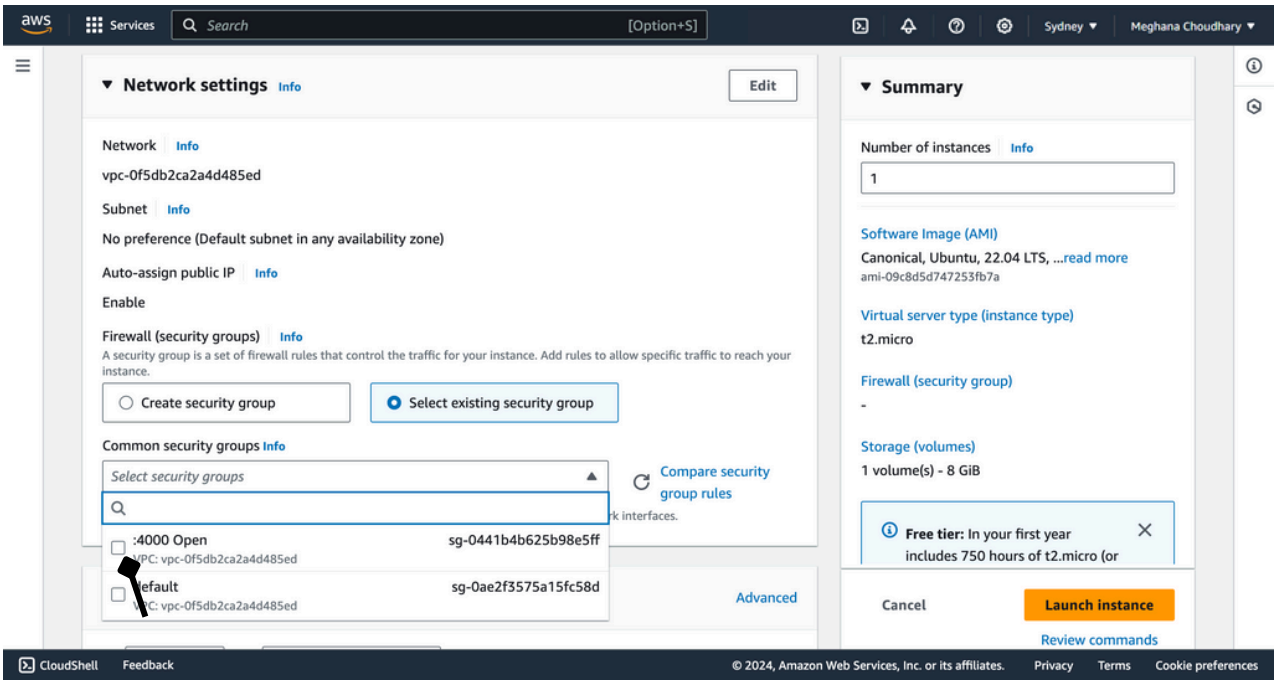
10. For Key pair, if you have a existing key pair select that else 'Create e new key pair'.



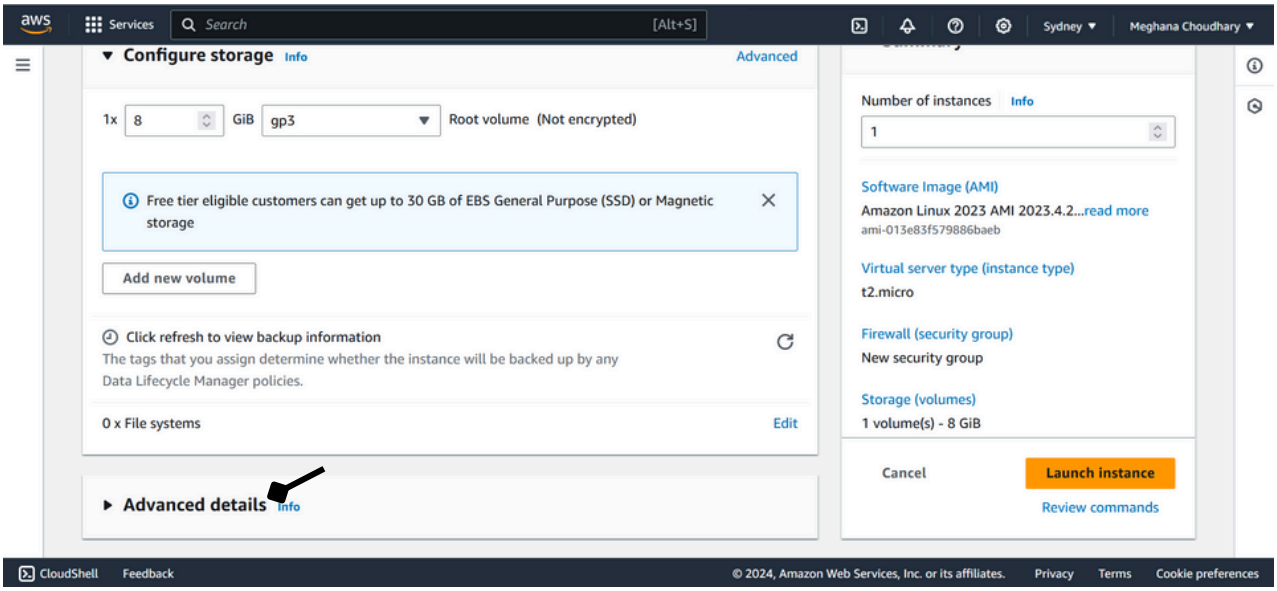
11. Give a name to the key pair. Make sure the key pair type is ‘RSA’ and the file extension is ‘.pem’.



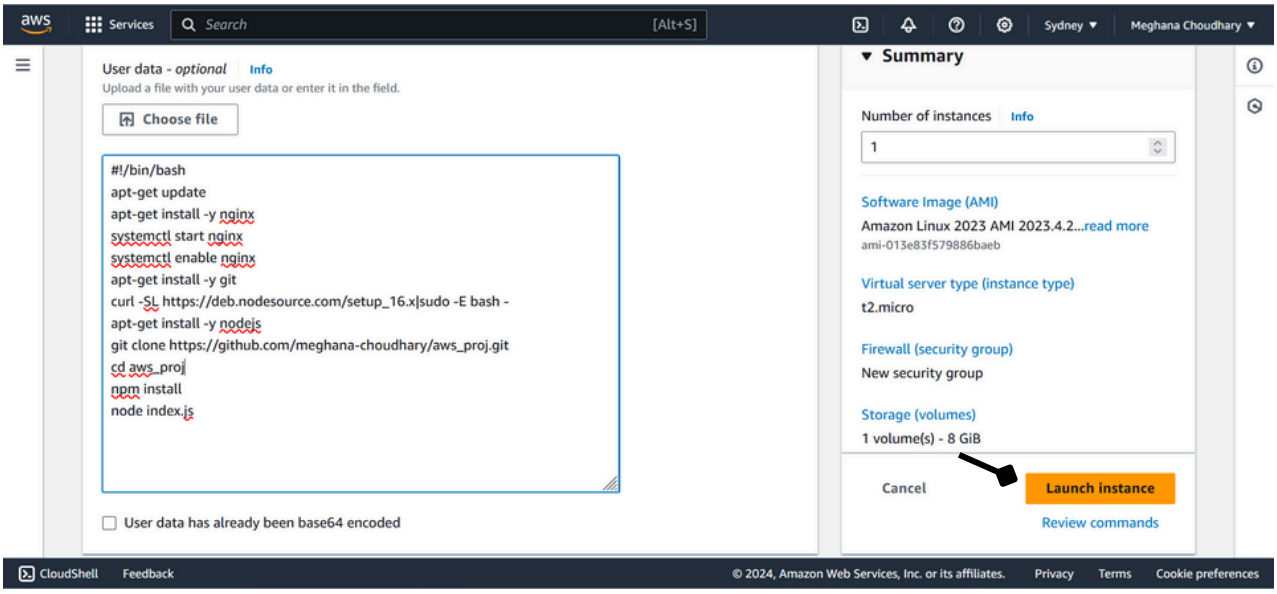
12. For 'Network Settings’ from ‘Select existing security group’ choose the security group you just created.



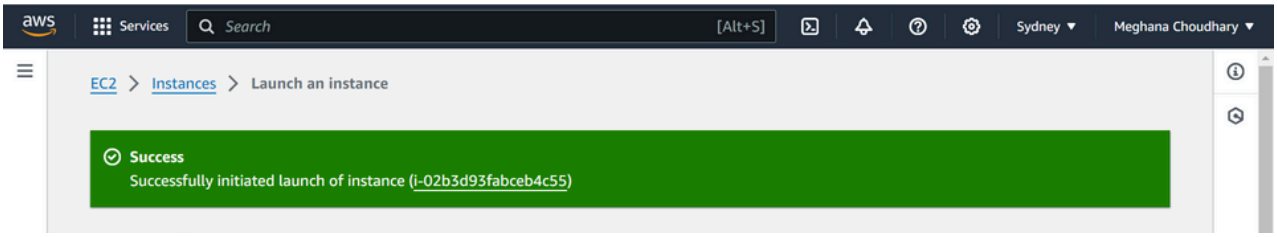
13. Scroll Down and Click on ‘Advanced details’



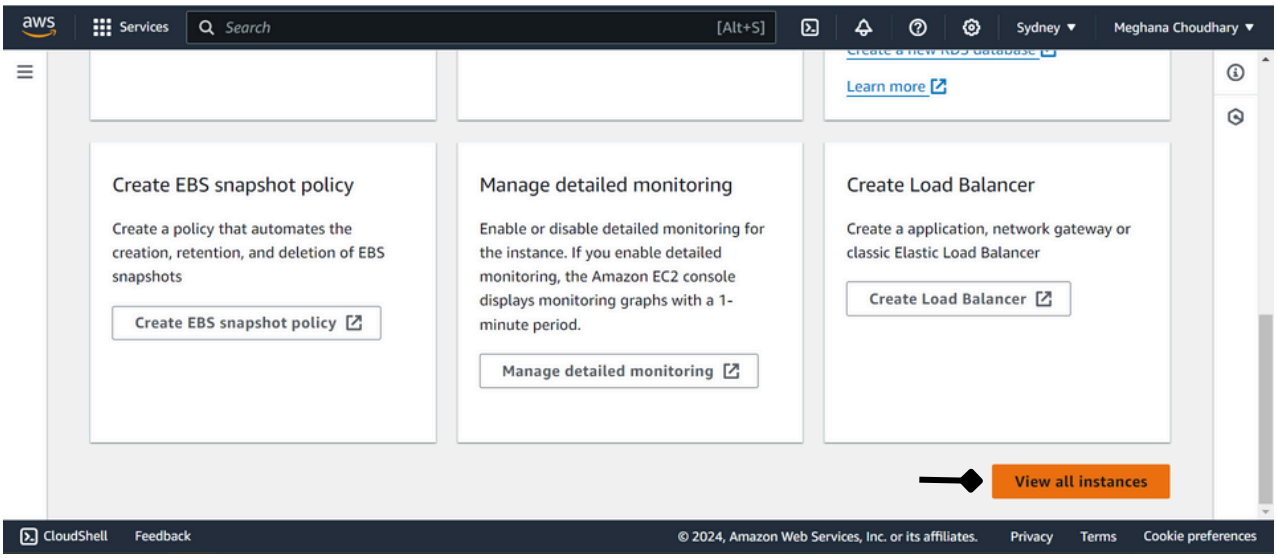
14. In ‘Advanced details’ go to the last, in advanced data put the following bash script. Then click on ‘Launch instance’



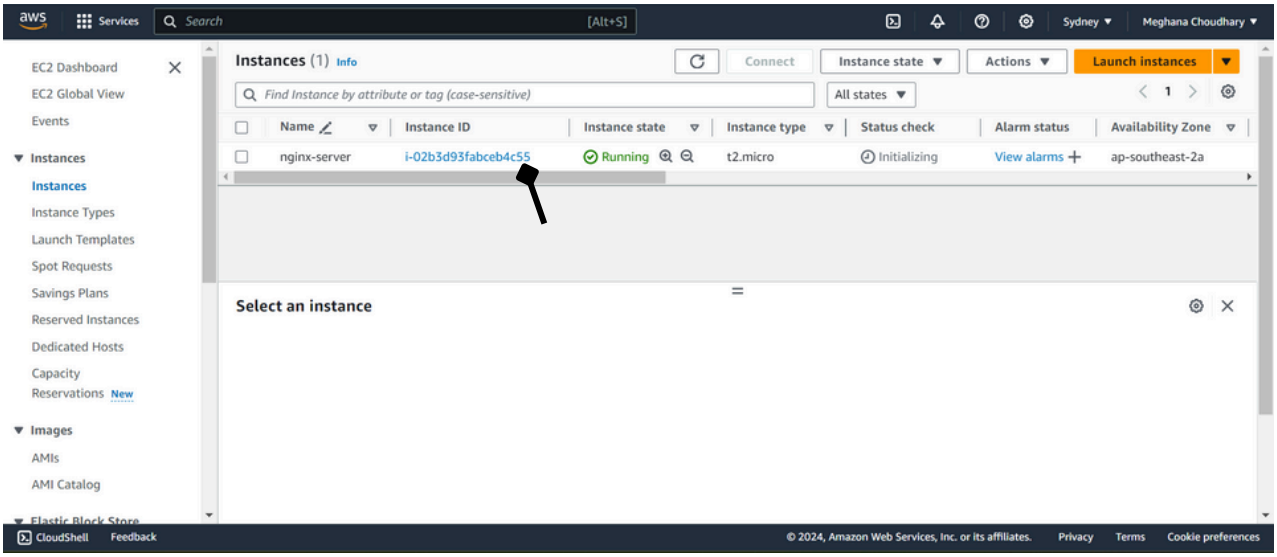
15. Your instance is created successfully.



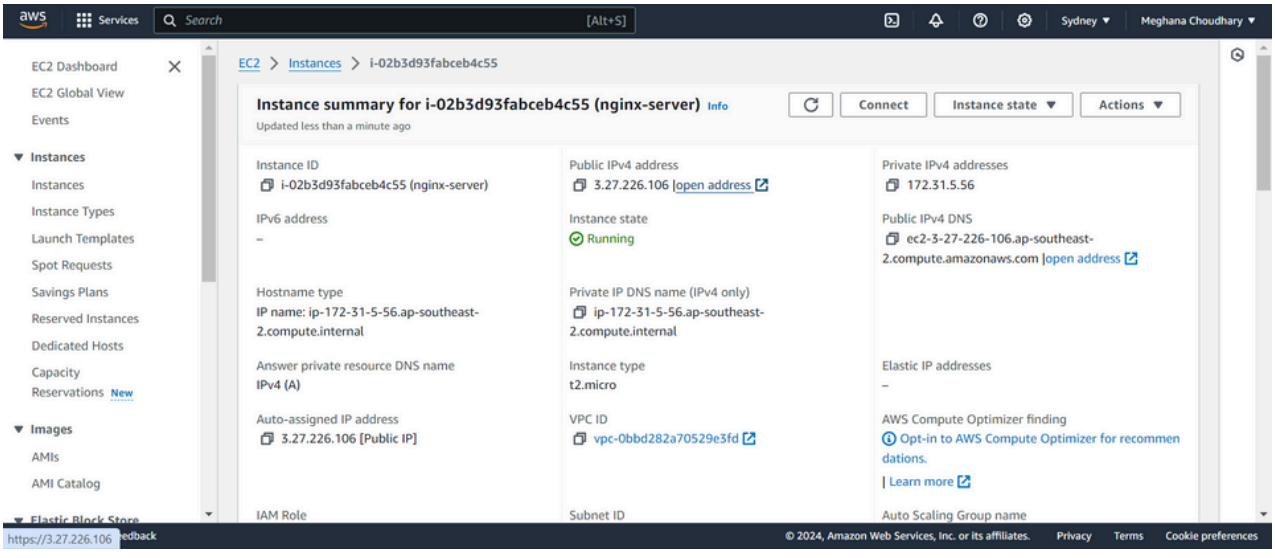
16. Then Scroll Down and Click on ‘View all instances’.



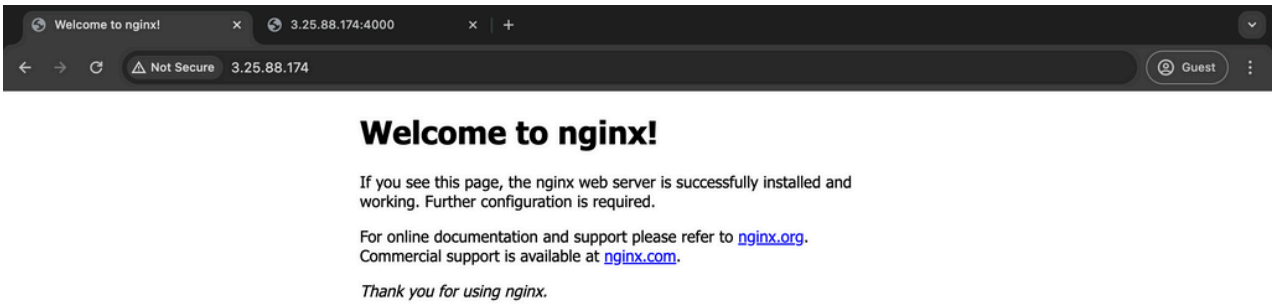
17. You can see your instance is created and running. Click on the ‘Instance ID’ of your instance.



18. Copy the Public IPV4 address of your instance.



19. Now pasting the Public IPV4 address of your EC2 instance in a web browser gets us to the Nginx default welcome page, through the default HTTP port, port 80.



Adding :4000 after the IPV4 address, we get to our Node.js server through our specified port 4000.