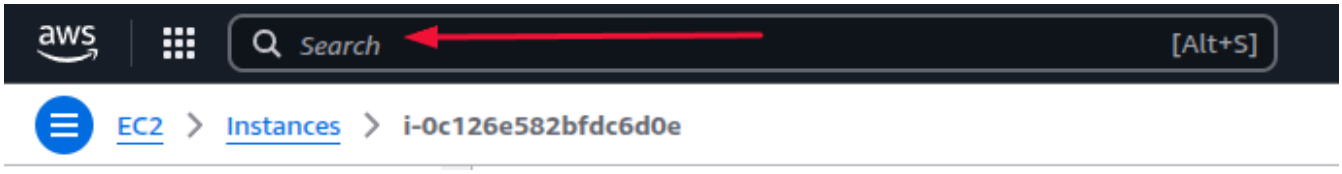
Stage 1: AWS Environment Setup

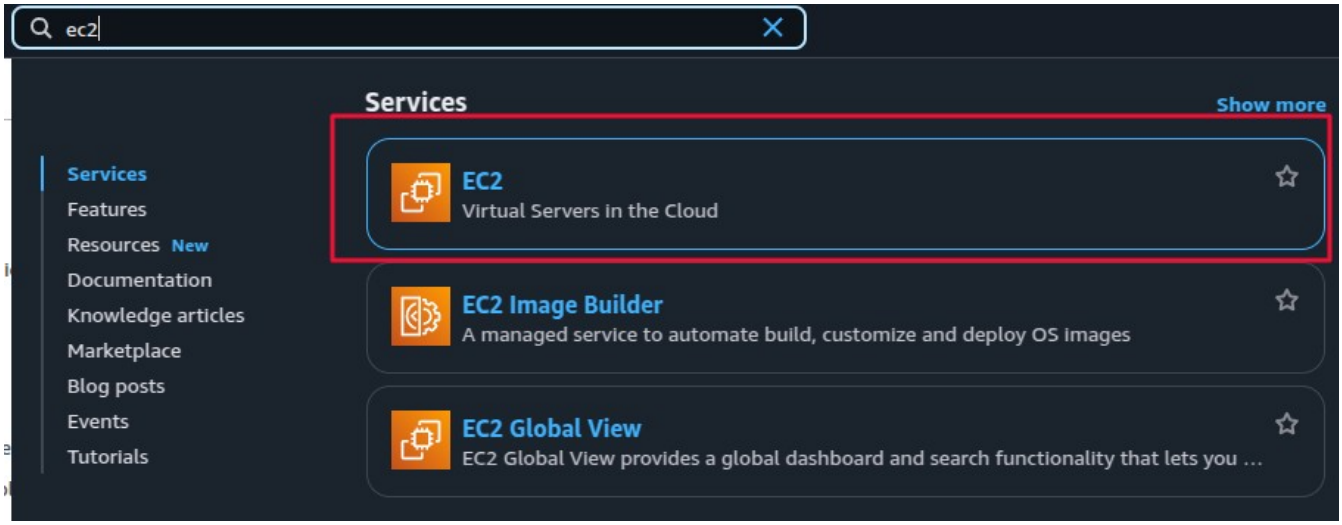
1. Navigate to https://aws.amazon.com/free/ and set a free account (credit card information must be provided on step 3 of 5-step-verification process – please provide a valid credit card details)

2. Login to AWS with received credentials

3. Navigate to AWS > Services and search for EC2:

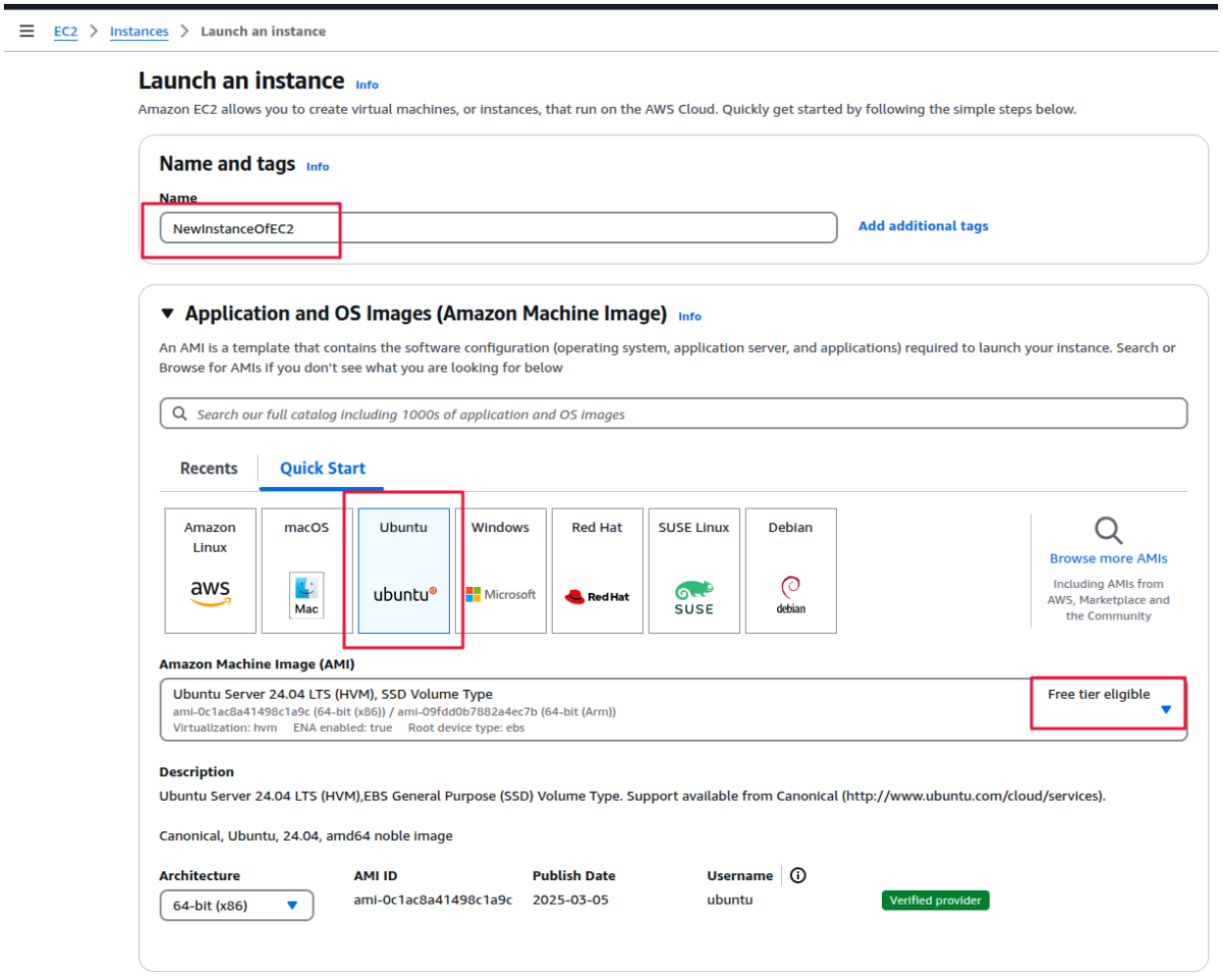


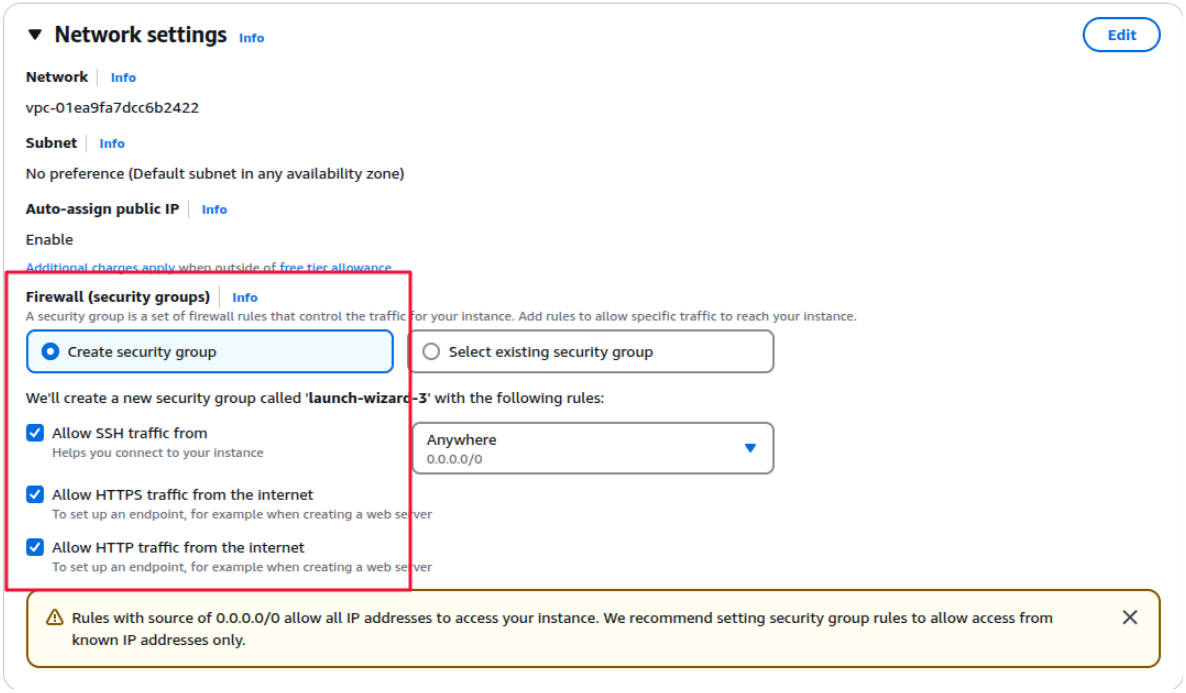
4. Choose EC2 instance:

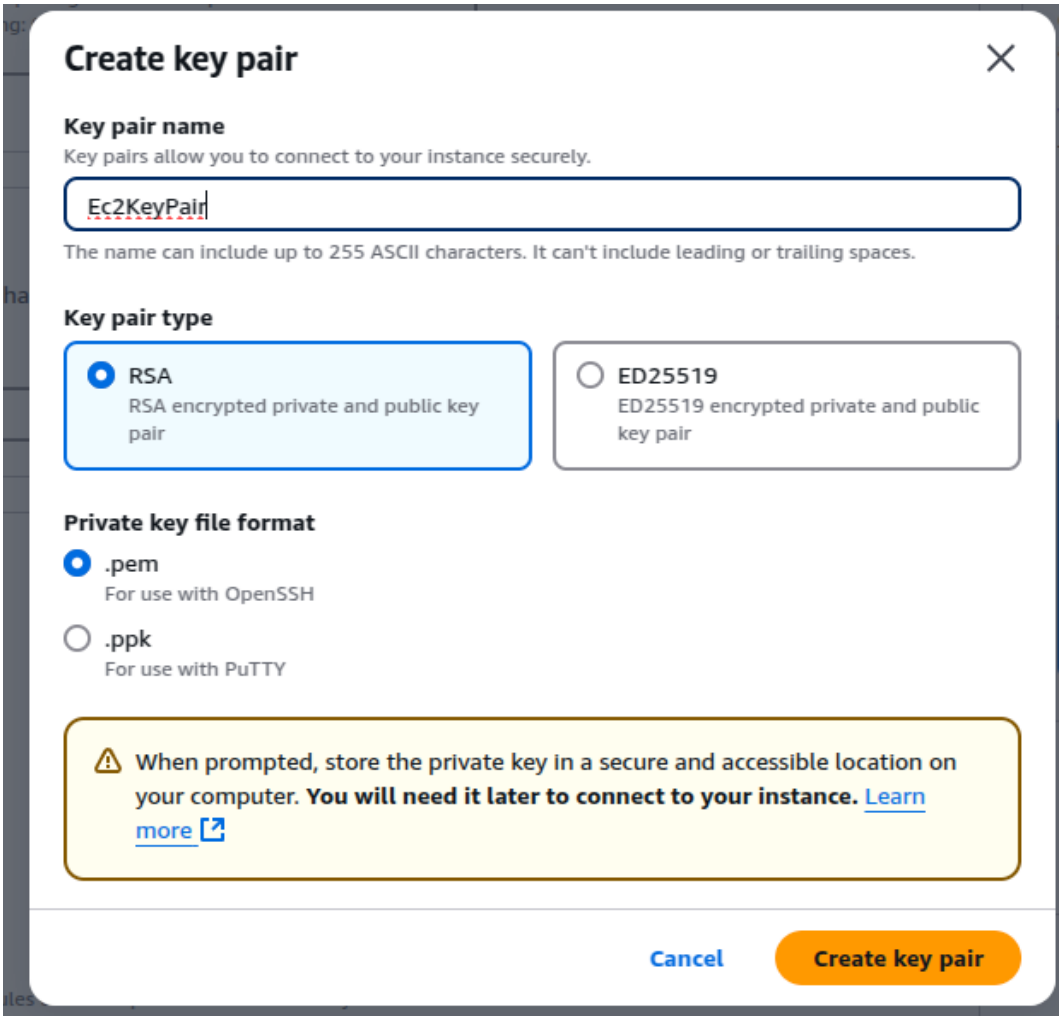


5. Create EC2 instance with the following parameters:

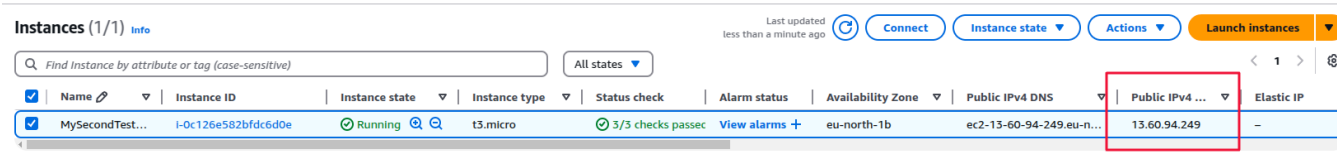
   a. **Name**: Choose a meaningful name.
   b. **Amazon Machine Image (AMI)**: Use **Ubuntu 22.04 LTS** or **Amazon Linux 2**.
   c. **Instance Type**: Choose **t3.micro** (Free Tier eligible).
   d. **Key Pair**: Create/download a key pair if you don't have one.
   e. **Security Group**:
      i. Allow **SSH (port 22)** for your IP.
      ii. Allow **HTTP (port 80)** for public access.
      iii. Allow **HTTPS (port 443)** if using SSL.
   f. Click **Launch**.



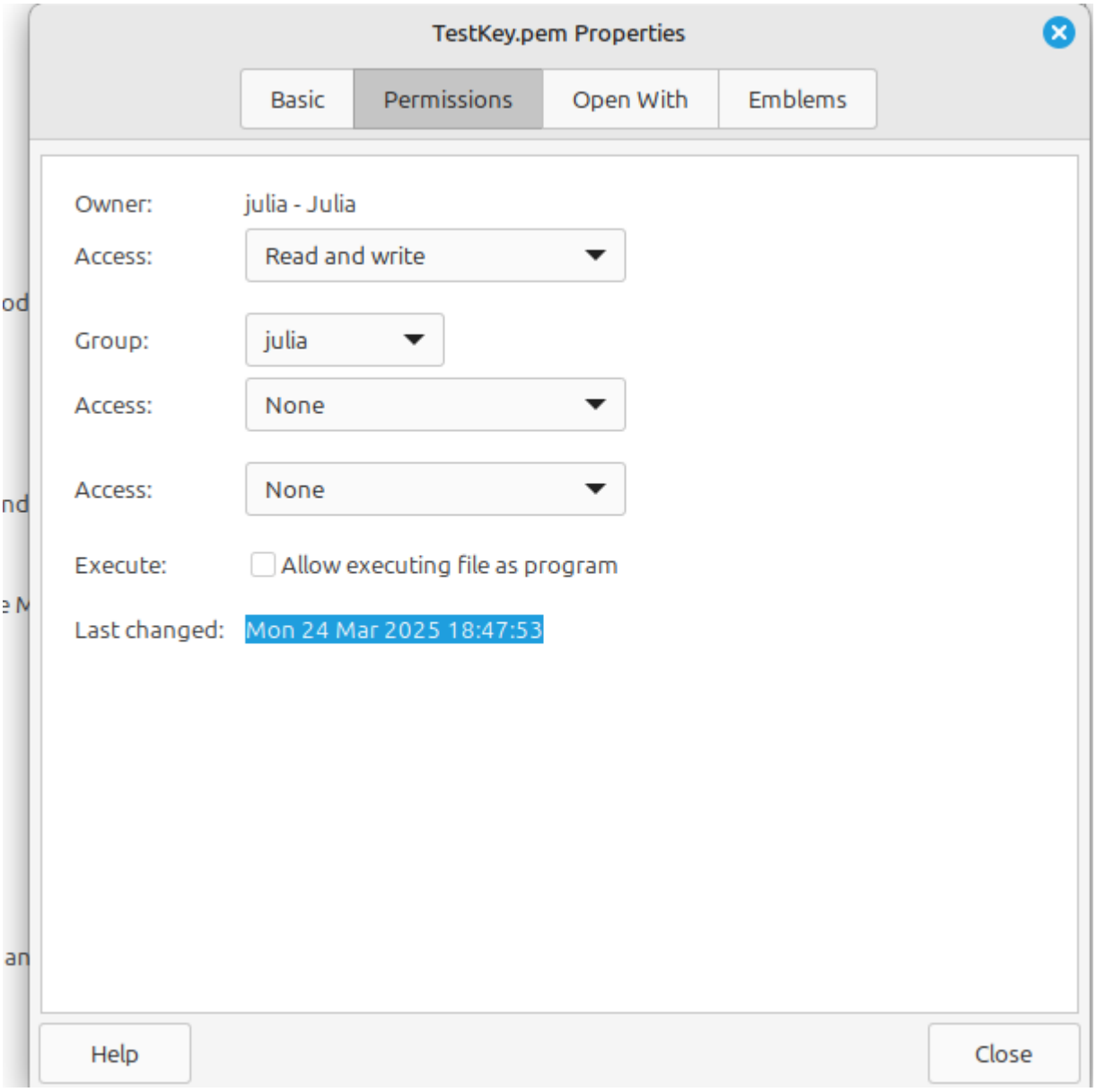

Network settings Info
Edit
Network Info
vpc-01ea9fa7dcc6b2422
Subnet Info
No preference (Default subnet in any availability zone)
Auto-assign public IP Info
Enable
Additional charges apply when outside of free tier allowance
Firewall (security groups) Info
A security group is a set of firewall rules that control the traffic for your instance. Add rules to allow specific traffic to reach your instance.
Create security group
Select existing security group
We'll create a new security group called 'launch-wizard-3' with the following rules:
Allow SSH traffic from
Helps you connect to your instance
Anywhere
0.0.0.0/0
Allow HTTPS traffic from the internet
To set up an endpoint, for example when creating a web server
Allow HTTP traffic from the internet
To set up an endpoint, for example when creating a web server
Rules with source of 0.0.0.0/0 allow all IP addresses to access your instance. We recommend setting security group rules to allow access from known IP addresses only.


Create key pair
Key pair name
Key pairs allow you to connect to your instance securely.
Ec2KeyPair
The name can include up to 255 ASCII characters. It can't include leading or trailing spaces.
Key pair type
RSA
RSA encrypted private and public key pair
ED25519
ED25519 encrypted private and public key pair
Private key file format
.pem
For use with OpenSSH
.ppk
For use with PuTTY
When prompted, store the private key in a secure and accessible location on your computer. You will need it later to connect to your instance. Learn more
Cancel
Create key pair

6. On your computer (Linux, terminal/Windows, Putty) run command to connect to AWS machine: ssh -i your-key.pem ubuntu@your-ec2-public-ip (you can pick up public address of your AWS instance in ECS > Dashboard > Instances):



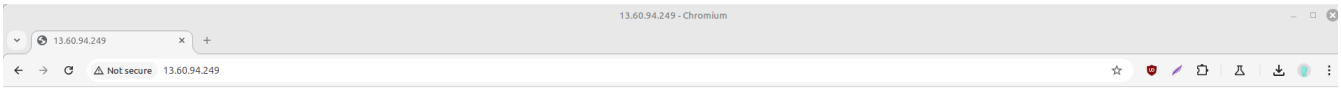
Note: there maybe issues with using your .key file. If the file is not accepted, navigate to File>Properties>Permissions and set Group Access to None:



7. Install Apache server by running following sequence of commands on your AWS machine:
    a. sudo apt update
    b. sudo apt install apache2 -y
    c. sudo systemctl enable apache2
    d. sudo systemctl start apache2
8. Verify: Visit **http://your-ec2-public-ip** in a browser to see a public Apache landing page
9. Create an index.html file:

    echo '<h1>Hello from Julia on EC2!</h1>' | sudo tee /var/www/html/index.html

    Note: You may add any text with echo command:



Hello from Apache on EC2! For the mobile of the best Senior DevOps, send me an email!