Shaikh Ateeb Ahmed
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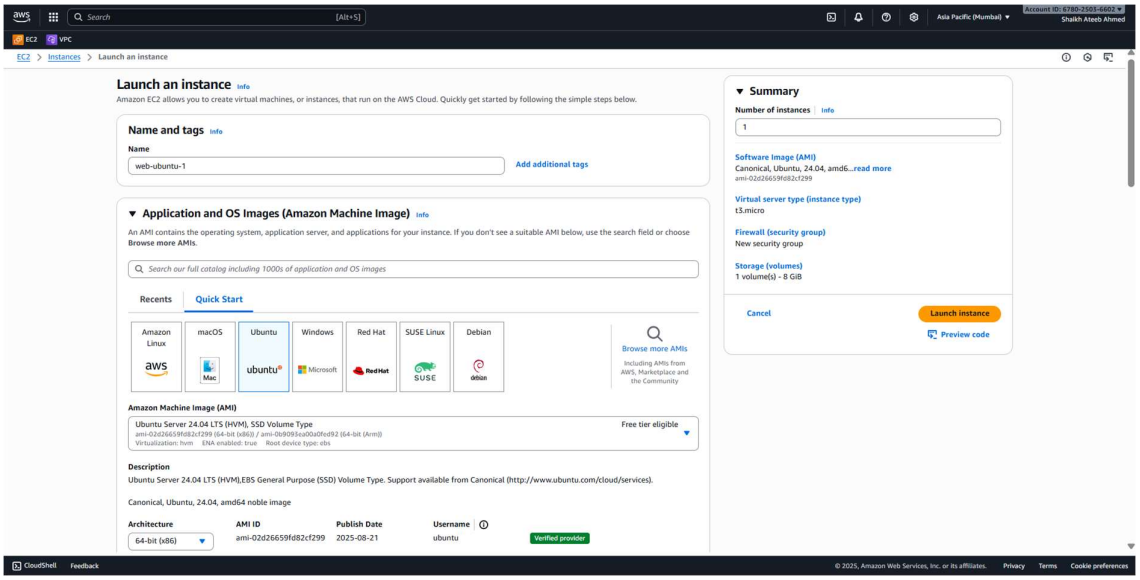
EC2 Instance, Volumes, Snapshots, and Retention

Step1: Launch an EC2 (Ubuntu)

1. Sign in to the AWS Console. Open **EC2** (Services → EC2). From the EC2 dashboard choose **Instances → Launch instances**
2. Pick an **Ubuntu Server** AMI (e.g., Ubuntu 22.04 LTS).
3. In the “Name and tags” area give a name (e.g., web-ubuntu-1).
4. Select an instance type (for testing use t2.micro / t3.micro for free tier).
5. Enable all check marks shown there Allow SHH traffic from, Allow HTTPS traffic from the internet, Allow HTTP traffic from the internet.
6. Add storage the default root volume shown is usually fine (adjust size if needed).
7. **Select (or create) a key pair** under **Key pair (login)** choose an existing key pair or **Create new key pair**: give it a name and **download the .pem** file **once**. Save it somewhere safe AWS only lets you download the private key at creation.
8. **Auto assign public IP** enable it



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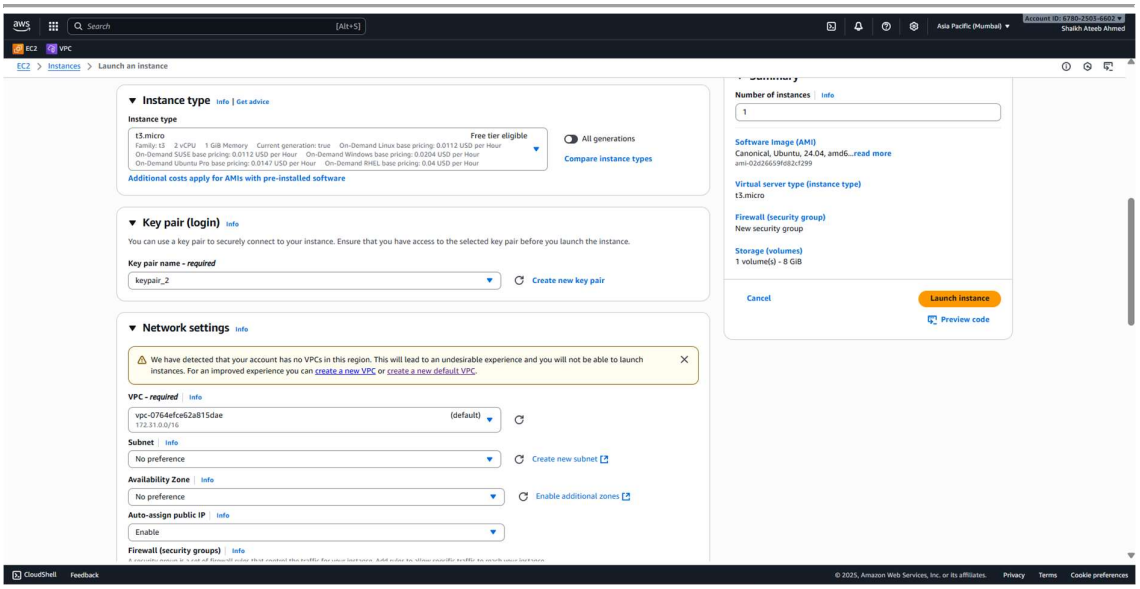


9. Review the choices, then click **Launch instance**. The console will show the instance starting; wait until its state is **running** and the status checks pass.

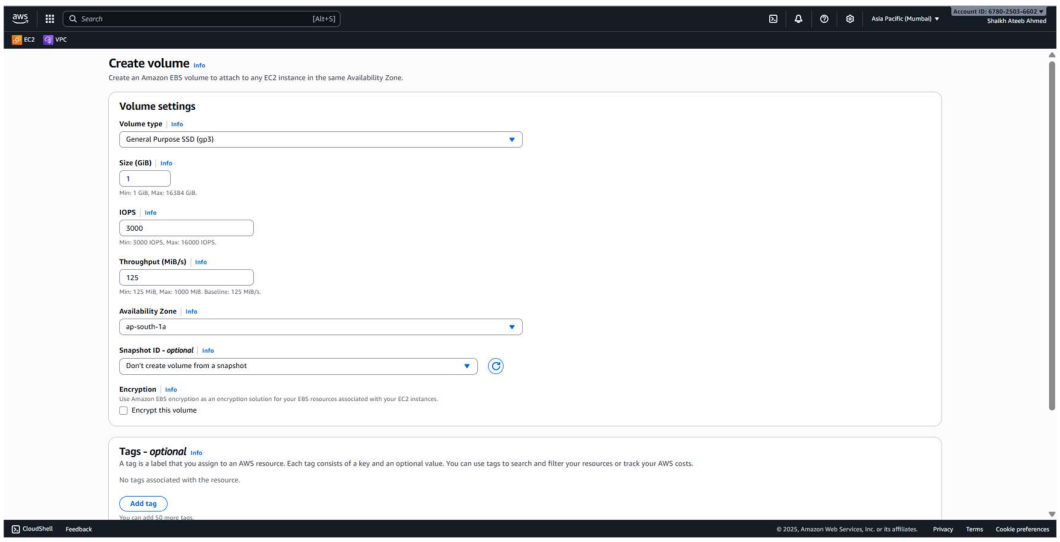
Step2: Create & attach a volume

1. **EC2** → **Volumes** → **Create volume**.
2. In the **Create volume** form:

   Volume type: (default gp3) — you can leave it.

   Size: enter **1** (GiB).

   Availability Zone: **choose the same AZ where your EC2 instance lives** *important: AZ must match the instance.*



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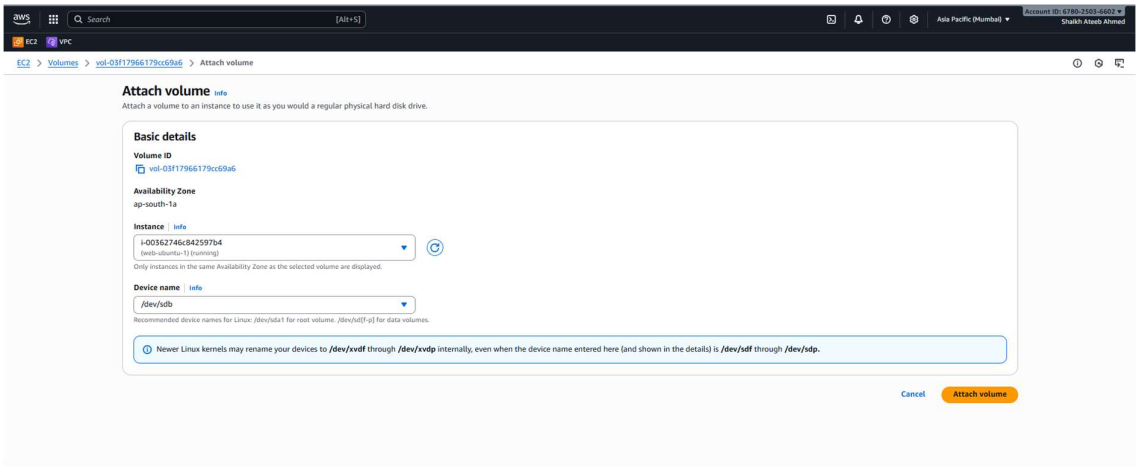
3. Click **Create volume**. Note the new volume ID (e.g., vol-0abcd1234). The new volume will appear with state **creating** then **available**.
4. **Volumes** find the volume you just created (state should be **available**). Select it → **Actions** → **Attach volume**.
5. In the **Attach volume** dialog:

   Instance: pick your EC2 instance from the dropdown.

   Device: you can enter /dev/sdf (or /dev/xvdf) — the console will accept common names.



6. Click **Attach**. The volume state becomes **in-use** and the console shows which instance it's attached to.

Step3: **Create an EBS snapshot (from a volume)**

1. **EC2** → left nav **Elastic Block Store** → **Snapshots** → click **Create snapshot**.
2. **Resource type**: choose **Volume**.
3. **Volume ID**: pick the volume you want to back up (the Encryption field will show if the resulting snapshot will be encrypted—this can't be changed here).
4. **Description**: add a note like EBS snapshot test.

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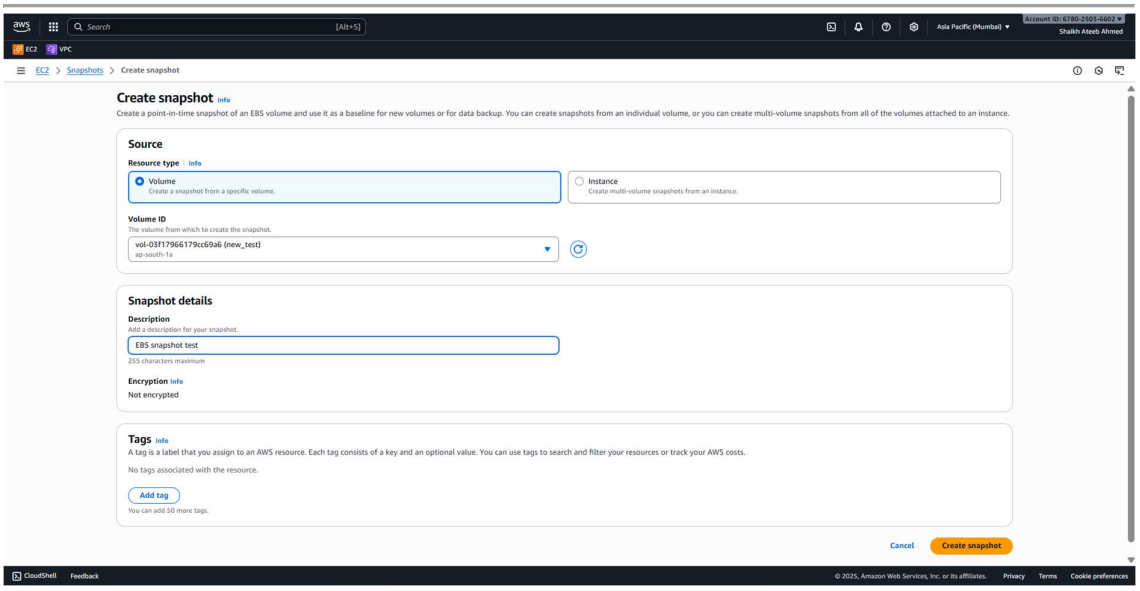

5. Click **Create snapshot**. You'll see it listed with **Status = pending**; it changes to **completed** when done. (EBS snapshots are incremental after the first one.)

Step4: Create an AWS Recycle Bin for EBS snapshots

1. In the Console search box type **Recycle Bin** and open the **Recycle Bin** service.
2. In the left navigation choose **Retention rules** → click **Create retention rule**
3. Enter a **Name** for the rule (example: retain-ebs-snapshot).
4. **Resource type**: For EBS snapshots choose **EBS_SNAPSHOT** (this Recycle Bin supports EBS snapshots and EBS-backed AMIs).
5. Review the configuration and click **Create retention rule**. The rule will appear in the Retention rules list.

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