Installation Guide with AWS (Advanced)

Step by step journey using AWS EC2 Ubuntu 24.04

For this guide you need basic knowledge with Linux, SSH, Bash

- Getting Started
- Register AWS Account
- Register Domain Name
- Create Virtual Machine
- Install Finmars Platform

Getting Started

Hello!
Welcome to Finmars, below you will find guidance of how to Install Everything

We also recommend you to obtain Finmars ID

Here is summary of what we will achieve during this tutorial
To complete this guide you will need **Mac** or **Linux**, it will require to use **Terminal**

- Register AWS account - Link
- Register Domain Name - Link
- Create Virtual Machine (VM) - Link
- Install Finmars Platform - Link
- Get to know our User Quick Start guide for next steps

If you have some troubles during Installation - reach for any support channel:

- Create a Github Issue
- Join our Discord Server
- Contact us at support@finmars.com

Register AWS Account

Here is a simple, step-by-step guide to make an AWS account:

1. **Open your web browser**
   (for example: Chrome, Firefox, or Edge).
2. **Go to the AWS website**

   Type aws.amazon.com in the address bar and press Enter.
3. **Start the sign-up**
   Click the **“Create an AWS Account”** button at the top right.
4. **Enter your email and name**
   - In the first box, type your email address.
   - In the box below, type a name for your account (you can use your name or any name you like).
5. **Choose a password**
   - Make a password you can remember.
   - Re-type it to confirm.
6. **Fill in your contact details**
   - Select **“Professional”** or **“Personal”** account.
   - Type your full name, phone number, and address.
   - Click **“Continue”**.
7. **Add payment information**
   - AWS needs a credit or debit card to verify you.
   - Type your card number, month/year, and name on card.
   - Click **“Verify and Add”**.
8. **Confirm your phone number**
   - Choose your country code and type your phone number.
   - Click **“Send SMS”**.
   - You’ll get a text with a code. Type that code into the box.
9. **Pick a support plan**
   - You can choose the **Free Tier** plan (it has no monthly cost).
   - Click **“Continue”**.
10. **Finish and sign in**
    - After a few minutes, AWS will finish setting up.
    - Click **“Sign In to the Console”**.
    - Enter your email and password again.

You now have an AWS account! □□
You can log into the AWS Console and start using services.

Go to next step: Register Domain Name

Register Domain Name

You can register a domain right inside AWS using Route 53. Here’s how, in simple steps:

1. **Sign in to AWS Console**
   Go to https://console.aws.amazon.com and log in.
2. **Open Route 53**
   In the search bar at top, type “Route 53” and click the Route 53 service.
3. **Go to Registered Domains**
   In the left menu, click **“Registered domains.”**
4. **Start a new registration**
   Click the **“Register domain”** button.
5. **Search your name**
   - In the box, type the name you want (for example, `mywebsite.com`).
   - Click **“Check”**.
6. **Choose an available name**
   - If it’s free, click **“Add to cart.”**
   - If not, try a different name or ending (like `.net`).
7. **View your cart**
   Click **“Review”** or go to the cart icon.
8. **Enter contact details**
   - AWS needs your name, address, email, and phone.
   - If you want privacy, check **“Enable privacy protection.”**
   - Click **“Continue.”**
9. **Verify and purchase**
   - Review the price and years (1 year, 2 years, etc.).
   - Click **“Complete order.”**
10. **Wait for confirmation**
    AWS will send you an email when your domain is ready. It usually takes a few minutes.
11. **Create a Hosted Zone** (to use your domain)
    - Back in Route 53, click **“Hosted zones.”**
    - Click **“Create hosted zone.”**
    - Type your new domain name and click **“Create.”**
12. **Point your domain to AWS**
    - In your hosted zone, copy the “Name servers” listed.
    - If AWS registered your domain, this is set automatically.
    - If you used another registrar, paste these name servers into their DNS settings.

Now your domain is registered and ready in AWS! □□
You can add records (A, CNAME, MX) in your hosted zone to make your finmars work. See it in "

Create Virtual Machine" Page

Create Virtual Machine

Sure! Let’s make your EC2 and name it **finmars-platform-vm**. Follow these steps:

1. **Sign in to AWS**
   - Open your browser and go to console.aws.amazon.com.
   - Enter your AWS email and password.
2. **Open EC2**
   - At the top, click the search box and type **EC2**.
   - Click **EC2** under “Services.”
3. **Launch a new instance**
   - Click the blue **Launch instances** button.
4. **Name your instance**
   - In the **Name tag** box, type **finmars-platform-vm**.
5. **Choose AMI (Ubuntu 24.04)**
   - Scroll or search for **Ubuntu Server 24.04 LTS**.
   - Pick 64-bit (x86) (should be default)
   - Click **Select**.
6. **Select instance type (2 vCPU, 8 GiB RAM)**
   - Find and click **t3.large** (it has 2 vCPU and 8 GiB).
7. **Create or select key pair**
   - Choose **Create a new key pair**.
   - Name it (e.g. **finmars-platform-vm-key**).
   - Click **Create Key Pair** and save the `.pem` file safely. - Do not Lose this file, if you lose it, you will not able to connect to your VM again
8. **Configure instance details**
   - Under **Subnet**, pick one (any is fine).
   - Subnet - Default is ok (or do accordingly to your network configuration)
   - Turn **Auto-assign Public IP** to **Enable**. (If already enabled - OK)
   - Turn on checkbox **Allow SSH traffic from**
   - Turn on checkbox **Allow HTTPS traffic from the internet**
   - Turn on checkbox **Allow HTTP traffic from the internet**
   - Leave the rest as default.
   - Click **Next: Add Storage**.
9. **Add storage (256 GiB)**
   - Change the size from **8** to **256** in the root volume row.
   - Keep the volume type as **gp3** or **gp2**.
10. **Review and launch**
    - Check all your settings.
    - Click **Launch Instance**.
11. **Wait for your VM**
    - Click **View Instances**.
    - Wait until its status is **running** and checks pass.

12. **Connect to your VM**
    - Select the instance named **finmars-platform-vm**.
    - Click **Connect**.
    - Follow the instructions, for example:

```
# Move your Download key file to secure folder (~/Downloads not recommended)


# if this first connect
chmod 400 "finmars-platform-vm.pem"
ssh -i ./finmars-platform-vm.pem ubuntu@<Public-IP>



# if this first connect
# Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
# yes
```

Your EC2 named **finmars-platform-vm** is ready! □□

Now you need to assign your Public IP of your freshly created VM to subdomain of your domain.

1. **Sign in to AWS**

   Go to console.aws.amazon.com and log in.
2. **Open Route 53**
   In the top search bar, type **Route 53**, then click the service.
3. **Go to Hosted Zones**
   In the left menu, click **“Hosted zones.”**
4. **Select your domain**
   Find and click the zone named your_domain.tld (for example, `example.com`).
5. **Create the first record**
   - Click **“Create record.”**
   - In **Record name**, type `finmars` (so full name is `finmars.example.com`). - It is Record for Actual Finmars Platform
   - For **Record type**, choose **A – IPv4 address**.
   - In **Value**, type your EC2 public IP (for example, `203.0.113.25`). You can find it in EC2 details
   - Leave **TTL** as default (300).
   - Click **“Create records.”**
6. **Create the second record**
   - Click **“Create record”** again.
   - In **Record name**, type `finmars-auth`(so full name is `finmars-auth.example.com`). - It is Record for Single-Sign-On (SSO) Finmars
   - For **Record type**, choose **A – IPv4 address**.

- In **Value**, type the same EC2 public IP.
- Click **“Create records.”**

7. **Wait a few minutes**
   DNS needs a little time to spread out. After about 5 minutes, both
   - `finmars.example.com`
   - `finmars-auth.example.com`
     will go to your VM’s public IP.

That’s it! Now both sub-domains point to your **finmars-platform-vm** server.

You can verify it by run following command in Terminal (On Mac or Linux)

```
dig finmars.example.com
dig finmars-auth.example.com
```

Output should be like:

```
; <<>> DiG 9.10.6 <<>> finmars.example.com
;; global options: +cmd
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 39082
;; flags: qr rd ra; QUERY: 1, ANSWER: 1, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 4096
;; QUESTION SECTION:
;finmars-platform-vm.finmars.com. IN A

;; ANSWER SECTION:
finmars.example.com. 300 IN A 203.0.113.25

;; Query time: 12 msec
;; SERVER: 192.168.178.1#53(192.168.178.1)
;; WHEN: Wed Jun 11 20:10:02 CEST 2025
;; MSG SIZE  rcvd: 76
```

Now go to next step: Install Finmars Platform

Install Finmars Platform

Here is a Full Guide to install Finmars on your Ubuntu VM:

Complete time of full installation is less than 30 minutes, by the end of it you will get a Finmars Platform Installed on your Linux Server

Prerequisite: You need to open your Terminal and navigate to the directory that contains your key-pair (.pem file) that was created in "Create VM" step of installation guide

1. **Connect to your VM**
   Example:

```
# if this first connect
chmod 400 finmars-platform-vm.pem

ssh -i ./finmars-platform-vm.pem ubuntu@<Public-IP>

# if this first connect
# Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
# yes
```

2. **Install dependencies**

```
sudo apt update
sudo apt install -y ca-certificates curl gnupg lsb-release ntp make git

wget -qO- https://get.docker.com/ | sh

sudo usermod -aG docker $USER
newgrp docker
```

   To check if Docker installed:
   `docker version`

Should output:

```
Client: Docker Engine - Community
 Version:           28.2.2
...
```

3. **Create the finmars folder**

```
sudo mkdir -p /opt/finmars
sudo chown $USER:$USER /opt/finmars
```

4. **Clone the Finmars Platform Community Edition repository from Github**

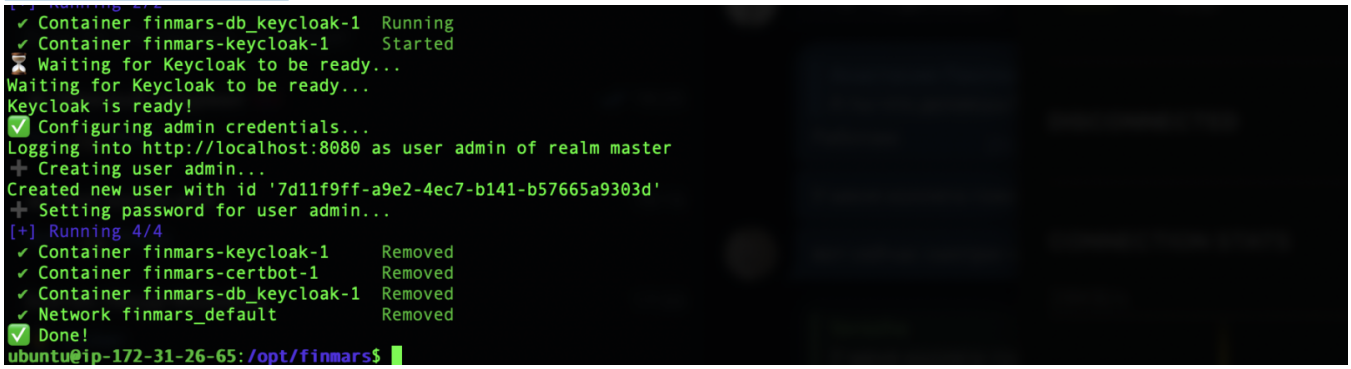
   See https://github.com/finmars-platform/finmars-community-edition repository

```
cd /opt/finmars
git clone https://github.com/finmars-platform/finmars-community-edition.git .
```

5. **Install Finmars Community Edition**

```
make install
```

   You should see something like this as successful resultYou should see something like this as successful result:



6. **Start all services**

```
make up
```

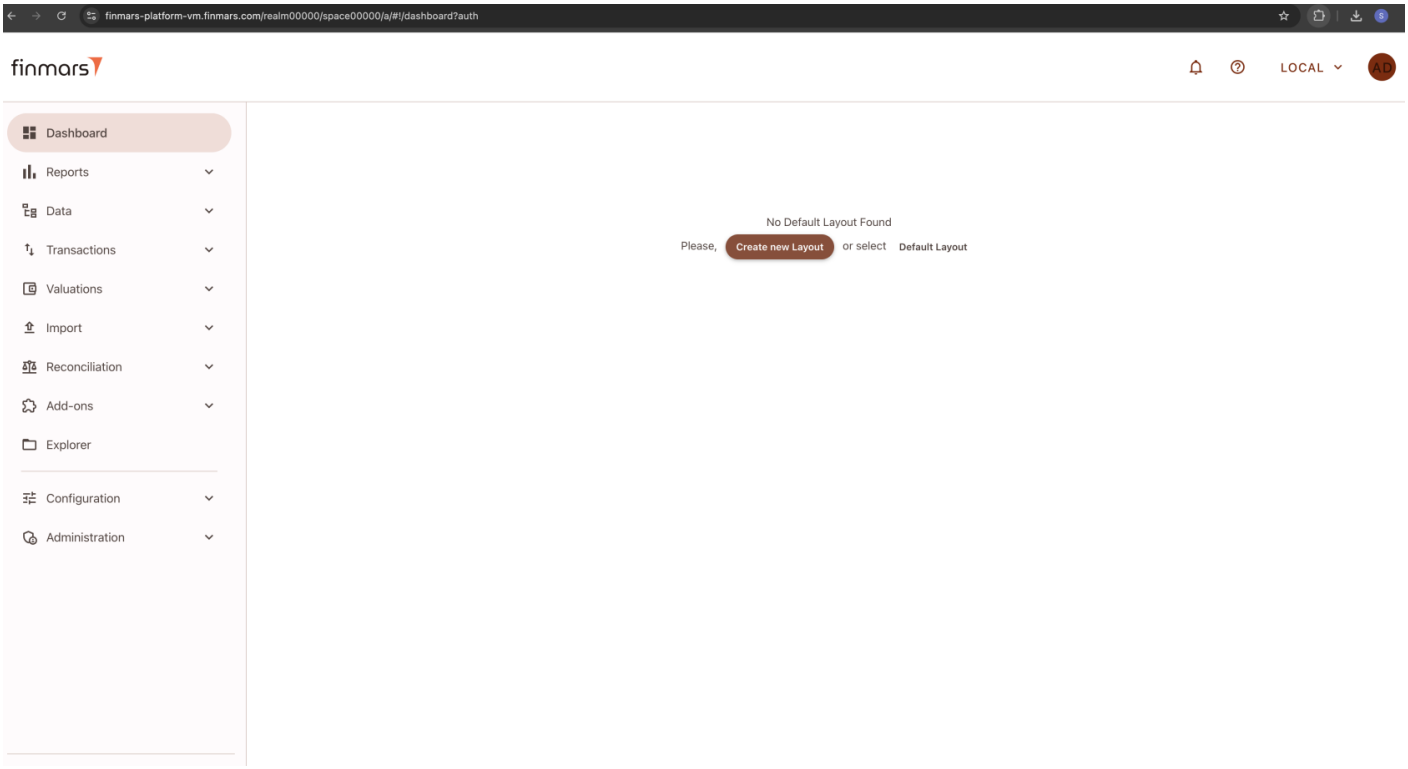
To Verify that is everything running

`docker ps`

And you should see something like:

```
ubuntu@ip-172-31-26-65:/opt/finmars$ docker ps
CONTAINER ID   IMAGE                                COMMAND                  CREATED         STATUS         PORTS                                                
```

After Login you will be redirected to **Dashboard page** in **Finmars Platform**



Congratulations you finished your **Finmars Platform** Installation **Successfully**! Well Done!

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