

AI-03017 Inventree Setup Ubuntu

Owner	© Rigel Arcayan
Tags	Project
Created time	@September 21, 2025 10:42 AM

What is Inventree? what's the story of the application and founder? Is it really free or there's a catch? How Inventree get their revenue? Provide a Step by Step on the setup and installation for Ubuntu. (bare metal install and then Docker)

InvenTree is an open-source inventory management system designed to help businesses and hobbyists manage parts, stock, and bills of materials. It's built to be extensible with a wide range of features for organizing inventory, managing suppliers, and tracking stock levels.

The Story and Founder

The InvenTree project was started in 2017 by **Oliver**, an electrical engineer from Australia who goes by the GitHub handle "SchrodingersGat". He created it to solve a personal need for better inventory management, and it grew into an open-source project with a community of contributors. The project is maintained by this core team and is driven by the needs and contributions of its users.

Free or is there a catch? How it earns revenue?

InvenTree is genuinely **free** and **open source**, licensed under the MIT license. This means you can use, modify, and distribute the software without any cost. There's no catch like a "freemium" model, hidden fees, or feature limitations. Because it's a community-driven open-source project, InvenTree doesn't have a traditional corporate revenue model. It's not funded and doesn't sell subscriptions or licenses. Its existence and development are supported by volunteer effort and contributions from its users and developers who are passionate about the project.

InvenTree Setup on Ubuntu

Here are two common ways to install InvenTree on an Ubuntu server: a bare-metal installation and a Docker installation.

Bare-Metal Installation

This method involves installing all the required software components directly on your Ubuntu server.

1. System Preparation:

- Update your system:

```
sudo apt-get update && sudo apt-get upgrade
```

- Install necessary dependencies, including Python 3, pip, and a database (PostgreSQL is recommended):

```
sudo apt-get install python3 python3-pip python3-dev libpq-dev nginx curl
```

2. Database Setup:

- Install PostgreSQL:

```
sudo apt install postgresql postgresql-contrib
```

- Create a dedicated database user and the database for InvenTree.

```
sudo -i -u postgres
```

```
createuser --interactive
```

```
createdb inventree
```

- Set a password for the new user and exit the PostgreSQL prompt.

```
psql
```

```
ALTER USER inventreeuser WITH ENCRYPTED PASSWORD  
'inventreepassword';
```

```
\q
```

```
exit
```

3. InvenTree Installation:

- Create a dedicated user and directory for the application:

```
sudo useradd -m -s /bin/bash inventree
```

```
sudo su - inventree
```

- Clone the InvenTree source code from GitHub:

```
git clone https://github.com/inventree/InvenTree.git
```

```
cd InvenTree
```

- Set up a virtual environment and install InvenTree:

```
python3 -m venv env
```

```
source env/bin/activate
```

```
pip3 install -r requirements.txt
```

```
pip3 install gunicorn psycopg2-binary
```

4. Configuration & Initialization:

- Create a configuration file `inventree_config.py` in the `InvenTree` directory with your database details.

- Run database migrations to set up the schema:

```
python3 manage.py migrate
```

- Create an administrator superuser:

```
python3 manage.py createsuperuser
```

5. Running the Server:

- For production, you'll need a process manager like **Supervisor** and a web server like **Nginx** to serve the application and static files.
- Configure Supervisor to manage the InvenTree Gunicorn process. This ensures the application runs continuously and restarts automatically if it crashes.
- Configure Nginx as a reverse proxy to direct web traffic to your Gunicorn application server and serve static files efficiently.

Docker Installation

This is the recommended method for production environments as it simplifies dependencies and provides a consistent, isolated environment.

1. Install Docker and Docker Compose:

- Follow the official Docker documentation to install **Docker Engine** and **Docker Compose** on your Ubuntu server.
- Add your user to the docker group to run commands without sudo:

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

2. Download InvenTree Configuration:

- Create a directory for your InvenTree instance and navigate into it:

```
mkdir ~/inventree-docker
```

```
cd ~/inventree-docker
```

- Download the official Docker Compose and environment files from the InvenTree GitHub repository:

```
wget
```

```
https://raw.githubusercontent.com/inventree/InvenTree/master/docker/docker-compose.yml
```

```
wget
```

```
https://raw.githubusercontent.com/inventree/InvenTree/master/docker/.env
```

3. Configure Environment Variables:

- Open the `.env` file and adjust the variables as needed. The most important one is `INVENTREE_SITE_URL` which defines the URL for your application.
- For production, you should also set a `INVENTREE_SECRET_KEY` for security.

4. Run the Docker Containers:

- Start the InvenTree services using Docker Compose. The first time you run this, it will download the necessary images and set up the database.

```
docker compose up -d
```

- Run the initial setup commands inside the container:

```
docker compose run --rm inventree-server invoke update -s
```

- This command will perform database migrations and create the initial database schema. You can also use `docker compose run --rm inventree-server invoke createsuperuser` to create your admin user.

5. Access the Application:

- InvenTree is now running in Docker containers. You can access it by navigating to the URL you specified in the `.env` file. Docker Compose handles the networking between the database, application, and proxy containers.