

# Detailed Explanation of Commands — investordeal.in Deployment

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## **sudo apt update / sudo apt upgrade**

- apt update: Refreshes the package lists from repositories.
- apt upgrade: Upgrades installed packages to newer versions.

In logs: 42 packages were upgradable. Some packages deferred due to phasing. Kernel upgraded (6.8.0-79) but running

## **sudo apt-get install -y nodejs**

Checks if Node.js is installed. Node.js 18.19.1 was already the latest version.

## **sudo npm install -g pm2**

Installs PM2 globally. PM2 is a process manager for Node.js apps.

Commands:

```
pm2 start app.js --name myapp
pm2 save
pm2 startup
```

## **sudo apt install git -y**

Ensures Git is installed. Git was already the newest version (2.43).

## **sudo apt install nginx -y**

Ensures Nginx web server is installed. Already installed (1.24).

## **git clone https://github.com/HousDev/Dist.git**

Clones your website repository into /var/www/html/Dist.

This is the folder nginx will serve from.

## **sudo nano /etc/nginx/sites-available/investordeal.in**

Edits the nginx site configuration file for your domain.

Config contained:

```
server_name investordeal.in www.investordeal.in;
root /var/www/html/Dist;
index index.html;
try_files $uri $uri/ =404;
```

## **sudo ln -s /etc/nginx/sites-available/investordeal.in /etc/nginx/sites-enabled/**

Creates a symbolic link to enable the site in nginx.

If 'File exists' appears, symlink already exists.

## **sudo nginx -t**

Tests nginx configuration syntax.

Warnings seen: conflicting server\_name — caused by multiple server blocks defining the same domain.

Eventually fixed by cleaning duplicate configs.

## **sudo systemctl restart nginx**

Restarts nginx service to apply configuration changes.

## **sudo systemctl restart nginx (cont.)**

## **sudo ufw allow OpenSSH / sudo ufw allow 'Nginx Full' / sudo ufw enable**

Configures firewall (UFW):

- Allows SSH access (so you don't lock yourself out).
- Allows HTTP (80) and HTTPS (443) traffic.
- Enables firewall at boot.

## **sudo chown -R www-data:www-data /var/www/html/Dist && sudo chmod -R 755 /var/www/html/Dist**

Sets file permissions:

- Ownership set to www-data (nginx user).
- Directories readable/executable, files readable.

Without this, nginx may throw '403 forbidden'.

## **sudo tail -f /var/log/nginx/error.log**

Views nginx error log in real-time.

Errors seen: 'directory index of /var/www/html/Dist/ is forbidden' — means index.html missing or permissions issue.

## **sudo lsof -i :80 / sudo netstat -tulnp / sudo fuser 80/tcp**

Used to check which processes are listening on port 80.

Confirmed nginx was listening. Ensures no Apache conflict.

## **sudo systemctl stop nginx / sudo kill -9 nginx / sudo systemctl start nginx**

Stops nginx, kills leftover processes, and starts clean.

Fixes 'bind() to 0.0.0.0:80 failed' errors.

## **dig investordeal.in / dig www.investordeal.in +short**

DNS lookup for domain records.

Result: Two IPs: 84.32.84.32 and 31.97.202.89. Let's Encrypt may validate against either IP, causing failures if one is unreachable.

## **curl ifconfig.me / curl -4 ifconfig.me / curl -6 ifconfig.me**

Shows public IP of this server.

IPv4: 31.97.202.89

IPv6: 2a02:4780:12:4398::1

## **sudo apt install certbot python3-certbot-nginx -y**

Installs Certbot and nginx plugin for automatic SSL setup.

## **sudo certbot --nginx -d investordeal.in -d www.investordeal.in**

Requests Let's Encrypt SSL certificates.

Initially failed due to validation at wrong IP (84.32.84.32).

Later succeeded, installed certs into /etc/letsencrypt/live/investordeal.in/.

## **sudo systemctl status nginx**

Shows nginx service status, confirms it is active and running.