🚀 Deploy Business Market Research Agent on Ubuntu VPS

This guide shows **exactly how to deploy ONE Streamlit app** (Business Market Research Agent) on your VPS and connect it to:

👉 **https://business.yashodeep.app**

It is **beginner-friendly**, copy-paste ready, and based on what you already did successfully.

Final Architecture

```
Browser (HTTPS)
   ↓
Nginx (443 / 80)
   ↓
Streamlit App (127.0.0.1:8504)
   ↓
Business Agent (GitHub Repo)
```

DNS Configuration

In your domain DNS panel, add this **A record**:

Type	Host	Value
A	business	72.61.238.224

TTL: 300

🖐 Wait 1–5 minutes for DNS to propagate.

SSH Into Your VPS

```
ssh root@72.61.238.224
```

Clone GitHub Repository

```
cd /opt
git clone https://github.com/codewithyasho/business-agent.git
cd business-agent
```

Create Virtual Environment & Install Dependencies

```
python3 -m venv .venv
source .venv/bin/activate
pip install -r requirements.txt
```

Test Streamlit App Locally (IMPORTANT)

```
streamlit run app.py --server.port 8504 --server.address 127.0.0.1
```

Open in browser:

```
http://127.0.0.1:8504
```

👈If app loads correctly → stop it using **Ctrl+C**

Run App 24/7 Using systemd

Create service file

```
sudo nano /etc/systemd/system/business.service
```

Paste this configuration

```
[Unit]
Description=Business Market Research Agent
After=network.target

[Service]
```

```
User=root
WorkingDirectory=/opt/business-agent
ExecStart=/opt/business-agent/.venv/bin/streamlit run app.py --server.port 8504
--server.address 127.0.0.1
Restart=always

[Install]
WantedBy=multi-user.target
```

Enable & start service

```
sudo systemctl daemon-reload
sudo systemctl enable business
sudo systemctl start business
systemctl status business
```

Verify port:

```
ss -tulnp | grep 8504
```

You must see:

```
127.0.0.1:8504
```

Configure Nginx Reverse Proxy

Open nginx config:

```
nano /etc/nginx/sites-available/yashodeep.conf
```

Add this block

```
# ========================
# BUSINESS APP (8504)
# ========================
server {
    listen 80;
    server_name business.yashodeep.app;

    location / {
```

```
        proxy_pass http://127.0.0.1:8504;
        proxy_set_header Host $host;
        proxy_set_header X-Real-IP $remote_addr;
        proxy_set_header X-Forwarded-For $proxy_add_x_forwarded_for;
        proxy_http_version 1.1;
        proxy_set_header Upgrade $http_upgrade;
        proxy_set_header Connection "upgrade";
    }
}
```

Reload nginx:

```
nginx -t
sudo systemctl reload nginx
```

Test:

```
http://business.yashodeep.app
```

Enable HTTPS (SSL Certificate)

```
sudo certbot --nginx -d business.yashodeep.app
```

Certbot will: - Install SSL certificate - Enable HTTPS (443) - Redirect HTTP → HTTPS - Auto-renew certificate

Firewall Check

```
sudo ufw allow 80
sudo ufw allow 443
sudo ufw reload
```

👉**Do NOT open port 8504 publicly**

Final Result

Open in browser:

```
https://business.yashodeep.app
```

👂Your Business Market Research Agent is now **LIVE, secure, and running 24/7**.

Common Errors & Fixes

502 Bad Gateway

    • App not running
    • Wrong port in nginx

Check:

```
ss -tulnp | grep 8504
```

App Stops After Logout

    • Started using terminal

👈Fix: Use `systemd` (already done)

Best Practices (Remember)

    • One app = one port = one domain
    • Always bind Streamlit to `127.0.0.1`
    • Never expose Streamlit ports publicly
    • Always let **certbot manage SSL**

🚀You Are Production-Ready

You now know how to: - Deploy Streamlit apps - Use Nginx reverse proxy - Configure SSL - Run apps 24/7

This is **industry-level deployment knowledge**.

👂 Keep building!