### **Django xizmatini Nginx va HTTPS bilan ishga tushirish bo‘yicha qo‘llanma**

#### **1. Virtual mashinani ishga tushirish**

VirtualBox/VMware yuklab oling va o‘rnating yoki Windows bo‘lsa, WSL2 dan foydalaning.  
 Ubuntu 22.04 bilan yangi virtual mashina yarating.  
 Kamida 4 GB RAM, 4 ta protsessor (CPU) va 40 GB disk hajmi ajrating.  
 Virtual mashinani ishga tushiring va Ubuntu o‘rnating.

| Birinchi topshiriq uchun linux ubuntu 22.04 operatsion tizimini ishga tushirish kerak. |
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#### **2. Kerakli paketlarni o‘rnatish**

| sudo apt update && sudo apt upgrade -y |
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| sudo apt install -y git nginx python3 python3-venv python3-pip openssl |
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#### **3. SSH sozlash va repozitoriy klonlash**

Agar SSH kalitlaringiz bo‘lmasa, yangi kalit yarating:

| ssh-keygen -t rsa -b 4096 -C "[your\_email@example.com](mailto:your_email@example.com)"(3 marta enterni bosing) |
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| cat /home/your\_pc\_name/.ssh/id\_rsa.pub |
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| Ommaviy kalitni GitHub/GitLab/Bitbucket repozitoriyingizga qo‘shing. |
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| git clone [git@github.com](mailto:git@github.com):your-repo/django-project.git |
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**4. Django o‘rnatish va ishga tushirish**

cd django-project

python3 -m venv venv

source venv/bin/activate

pip install -r requirements.txt

python manage.py migrate

python manage.py collectstatic --noinput

Gunicorn bilan Django serverini ishga tushirish:

pip install gunicorn

| gunicorn --bind 0.0.0.0:8000 your\_project.wsgi:application |
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#### **5. Nginx sozlash (HTTP)**

Konfiguratsiya faylini ochamiz:

sudo nano /etc/nginx/sites-available/django

Quyidagi konfiguratsiyani qo‘shamiz:

server {

listen 80;

server\_name your\_domain\_or\_ip;

location / {

proxy\_pass http://127.0.0.1:8000;

proxy\_set\_header Host $host;

proxy\_set\_header X-Real-IP $remote\_addr;

proxy\_set\_header X-Forwarded-For $proxy\_add\_x\_forwarded\_for;

}

}

| Nginx sozlash (HTTP) |
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Sozlamalarni qo‘llash va Nginx-ni qayta ishga tushirish:

sudo ln -s /etc/nginx/sites-available/django /etc/nginx/sites-enabled/

| sudo systemctl restart nginx |
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6. HTTPS sozlash (o‘z-o‘zini imzolagan sertifikat)

sudo openssl req -x509 -nodes -days 365 -newkey rsa:2048 \

-keyout /etc/ssl/private/nginx-selfsigned.key \

-out /etc/ssl/certs/nginx-selfsigned.crt

Nginx konfiguratsiyasini yangilaymiz:

server {

listen 443 ssl;

server\_name your\_domain\_or\_ip;

ssl\_certificate /etc/ssl/certs/nginx-selfsigned.crt;

ssl\_certificate\_key /etc/ssl/private/nginx-selfsigned.key;

location / {

proxy\_pass http://127.0.0.1:8000;

proxy\_set\_header Host $host;

proxy\_set\_header X-Real-IP $remote\_addr;

proxy\_set\_header X-Forwarded-For $proxy\_add\_x\_forwarded\_for;

}

}

| HTTPS sozlash (o‘z-o‘zini imzolagan sertifikat) |
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Nginx-ni qayta ishga tushiramiz:

sudo systemctl restart nginx

| Loyihani HTTPS orqali ishga tushirish |
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Endi xizmatga HTTPS orqali ulanishingiz mumkin!