MongoDB Secure Setup Guide (Ubuntu)

📚Reference: [Official MongoDB Docs](#)

🧰Prerequisites

- Ubuntu 20.04 or later
- Root or sudo access
- Internet connection

---

1. 📦Install MongoDB (v6.0)

Step 1: Import the public key

```
wget -qO - https://pgp.mongodb.com/server-6.0.asc | sudo tee /etc/apt/
trusted.gpg.d/mongodb-server-6.0.gpg
```

Step 2: Add MongoDB v6.0 repository

```
echo "deb [ arch=amd64,arm64 ] https://repo.mongodb.org/apt/ubuntu focal/
mongodb-org/6.0 multiverse" | sudo tee /etc/apt/sources.list.d/mongodb-
org-6.0.list
```

Step 3: Update packages and install MongoDB

```
sudo apt update
sudo apt install -y mongodb-org=6.0.14 mongodb-org-server=6.0.14 mongodb-org-
shell=6.0.14 mongodb-org-mongos=6.0.14 mongodb-org-tools=6.0.14
```

Step 4: Pin the version to avoid auto-upgrade

```
echo "mongodb-org hold" | sudo dpkg --set-selections
```

Step 5: Start and enable MongoDB

```
sudo systemctl start mongod
sudo systemctl enable mongod
```

Verify service:

```
sudo systemctl status mongod
```

2. 🔧Configure MongoDB for Remote Access

Edit the Config File:

```
sudo nano /etc/mongod.conf
```

Modify or add:

```
net:
  bindIp: 0.0.0.0  # Allow connections from any IP
  port: 27017
```

💡 `bindIp: 127.0.0.1` restricts access to localhost only.

Restart MongoDB:

```
sudo systemctl restart mongod
```

3. 🧱Set Up Authentication

Enable Authorization:

Edit `/etc/mongod.conf` :

```
security:
  authorization: enabled
```

Restart MongoDB again:

```
sudo systemctl restart mongod
```

4.   Create Admin User

Start the shell:

```
mongosh
```

Create user in `admin` **database:**

```
use admin

db.createUser({
  user: "admin",
  pwd: "Admin123vms",
  roles: [ { role: "userAdminAnyDatabase", db: "admin" },
"readWriteAnyDatabase" ]
})
```

Exit:

```
.exit
```

---

5. 🔐Create Application DB User

Reconnect with authentication:

```
mongosh -u "admin" -p "Admin123vms" --authenticationDatabase "admin"
```

Create new user for app:

```
use myappdb

db.createUser({
  user: "appuser",
  pwd: "AppUser123",
  roles: [ { role: "readWrite", db: "myappdb" } ]
})
```

---

6. 🩲Allow External Access (Firewall)

Allow port 27017:

```
sudo ufw allow 27017/tcp
```

Optional: Allow all (for development only)

```
sudo ufw allow from any to any port 27017 proto tcp
```

🔍Use caution: open access to all IPs is risky in production.

Check firewall status:

```
sudo ufw status
```

---

7. 🧪 Test Remote Access

Using mongosh:

```
mongosh "mongodb://admin:Admin123vms@<SERVER_IP>:27017/?authSource=admin"
```

Using MongoDB Compass:

- **Hostname**: `<SERVER_IP>`
- **Username**: `admin`
- **Password**: `Admin123vms`
- **Authentication Database**: `admin`
- **Port**: `27017`

🔗Done!

MongoDB v6.0 is now:

- Installed from the official MongoDB repo
- Remotely accessible
- Auth protected
- User-role secured
- Firewall configured