

# Install MongoDB

## 1. Introduction

Target: Debian 11  
Home directory: /var/lib/mongodb  
OS user: mongodb  
Service name: mongodb

## 2. Creating username

```
useradd --create-home --home-dir /var/lib/mongodb mongodb
```

## 3. Creating file structure

- Config
- Database
- Logs

```
cd /var/lib/mongodb && mkdir database config logs
```

## 4. Download files

- MongoDB
- MongoDB Shell
- MongoDB Tools

```
wget https://fastdl.mongodb.org/linux/mongodb-linux-x86_64-debian11-7.0.4.tgz
```

```
wget https://downloads.mongodb.com/compass/mongosh-2.1.0-linux-x64.tgz
```

```
wget https://fastdl.mongodb.org/tools/db/mongodb-database-tools-debian11-x86_64-100.9.3.tgz
```

## 5. Extract files into home directory

```
tar xvf mongodb-linux-x86_64-debian11-7.0.4.tgz -directory /var/lib/mongodb
```

```
tar xvf mongosh-2.1.0-linux-x64.tgz --directory /var/lib/mongodb
```

```
tar xvf mongodb-database-tools-debian11-x86_64-100.9.3.tgz --directory /var/lib/mongodb
```

## 6. Remove TGZ files

```
rm -r *.tgz
```

## 7. Create symlinks in home directory

- **mongod**
- **mongosh**
- **mongodump**
- **mongorestore**

```
ln -s /var/lib/mongodb/mongodb-linux-x86_64-debian11-7.0.4/bin/mongod /var/lib/mongodb
```

```
ln -s /var/lib/mongodb/mongosh-2.1.0-linux-x64/bin/mongosh /var/lib/mongodb/
```

```
ln -s mongodb-database-tools-debian11-x86_64-100.9.3/bin/mongodump
```

```
ln -s mongodb-database-tools-debian11-x86_64-100.9.3/bin/mongorestore
```

## 8. Setup service files into config directory

- MongoDB cold service file: **/var/lib/mongodb/config/mongodb-cold.service**
- MongoDB production service file: **/var/lib/mongodb/config/mongodb-production.service**

```
chmod 400 /var/lib/mongodb/config/mongodb-cold.service
```

```
chmod 400 /var/lib/mongodb/config/mongodb-production.service
```

## 9. Change ownership recursively

```
chown -R mongodb:mongodb /var/lib/mongodb/*
```

```
chmod g-rwx -R /var/lib/mongodb/*
```

```
chmod o-rwx -R /var/lib/mongodb/*
```

## 10. Start service in Cold mode

```
cp config/mongodb-cold.service mongodb.service
```

```
systemctl enable /var/lib/mongodb/mongodb.service
```

```
systemctl start mongodb
```

## 11. Create database user admin

- Create database admin user file: `/var/lib/mongodb/config/create-database-admin-user.js`
- Execute script and provide password:

```
/var/lib/mongodb/mongosh --nodb /var/lib/mongodb/config/create-database-admin-user.js
```

## 12. Setup config file (TLS mode)

- Config file (TLS mode): `/var/lib/mongodb/config/mongod-tls.config`

## 13. Setup keyCert file

```
cat /etc/letsencrypt/live/xxx/fullchain.pem >  
/var/lib/mongodb/config/mongodbCertAndKey.pem
```

```
cat /etc/letsencrypt/live/xxx/privkey.pem >>  
/var/lib/mongodb/config/mongodbCertAndKey.pem
```

```
chown mongodb:mongodb  
/var/lib/mongodb/config/mongodbCertAndKey.pem
```

```
chmod 400 /var/lib/mongodb/config/mongodbCertAndKey.pem
```

## 14. Restart service in Production mode

```
systemctl stop mongodb
```

```
systemctl disable mongodb
```

```
rm mongodb.service
```

```
cp config/mongodb-production.service mongodb.service
```

```
systemctl daemon-reload
```

```
systemctl enable /var/lib/mongodb/mongodb.service
```

```
systemctl start mongodb.service
```

## 15. Extra

- Port 27017 must be open.

- A valid certificate for our domain must be available