How to Install MongoDB on Windows?

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Looking to install MongoDB on your Windows machine? This detailed guide will help you **install MongoDB on Windows** (Windows Server 2022, 2019, and Windows 11) quickly and efficiently. Whether you're a **developer** or a **beginner**, follow this guide for seamless **MongoDB installation**, including setting up **environment variables** and running the **MongoDB server**.

In this article on **MongoDB Installation on Windows**, we will walk through the **step-by-step installation** and setup process of MongoDB. This guide is compatible with Windows Server 2022, 2019, and Windows 11, ensuring you're up and running quickly. From **setting up environment variable**s to running the **MongoDB server**, we have covered everything.

Why Choose MongoDB?

MongoDB is one of the most popular NoSQL databases, known for its **flexibility**, **scalability**, and **unmatched performance**. It's designed to handle modern application development and real-time data storage with ease. Whether you're building **web applications**, **mobile apps**, or data-driven platforms, MongoDB provides the **perfect foundation** for your data needs.

Requirements for Installing MongoDB on Windows

1. Supported Versions

- MongoDB 4.4 or higher (64-bit only).

2. Compatible Operating Systems:

- Windows Server 2022
- Windows Server 2019
- Windows 11

2. Permissions Required:

The user running MongoDB services (mongod, mongos) must have membership in the following groups:

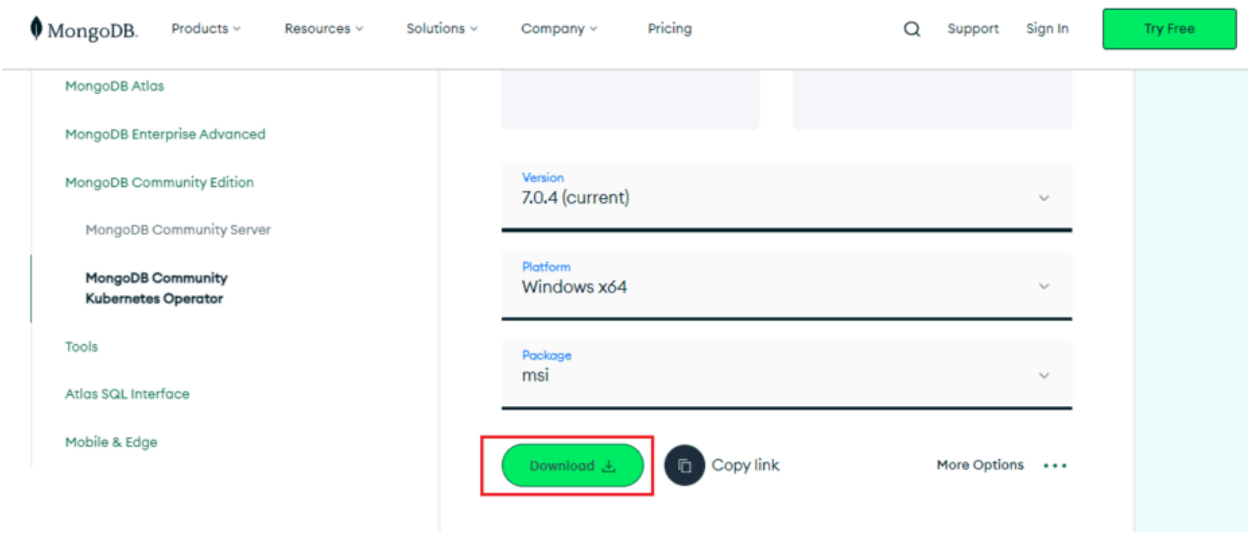
- **Performance Monitor Users**
- **Performance Log Users**

How to Install MongoDB on Windows Using MSI

To install MongoDB on Windows, first, download the MongoDB server and then install the MongoDB shell. The Steps below explain the installation process in detail and provide the required resources for the smooth **download and install MongoDB**.

Step 1: Download MongoDB Community Server

Go to the MongoDB Download Center to download the MongoDB Community Server.

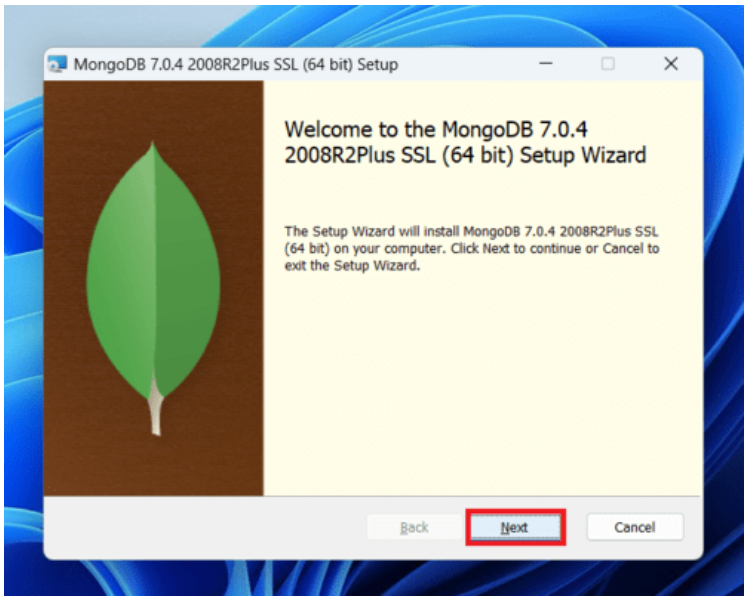


Here, You can select any version, Windows, and package according to your requirement. For Windows, we need to choose:

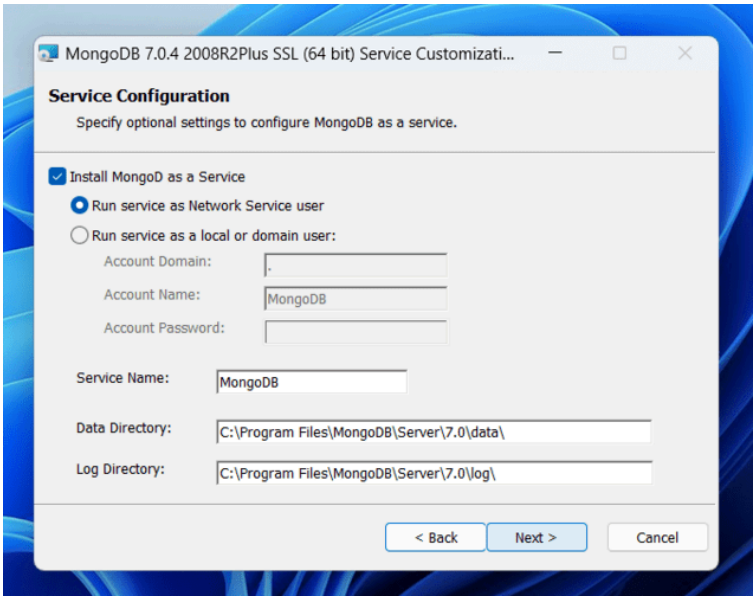
- **Version: 7.0.4**
- **OS: Windows x64**
- **Package: msi**

Step 2: Install MongoDB

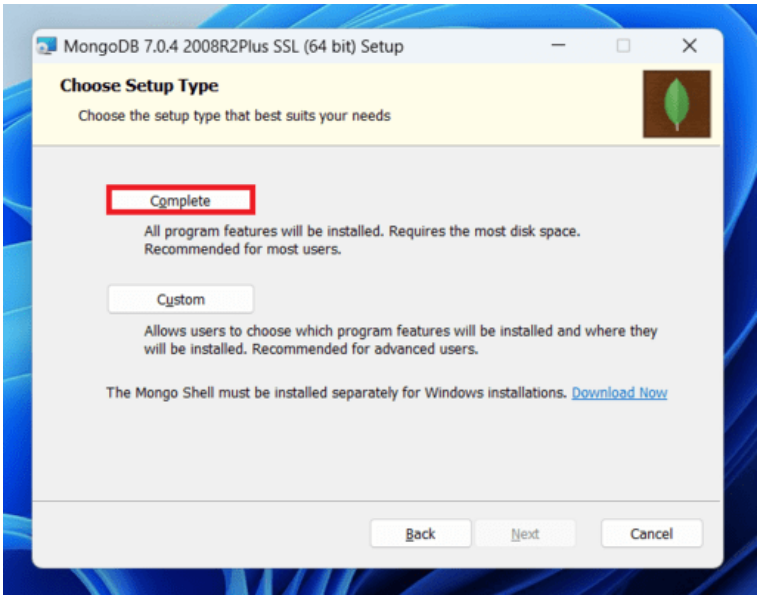
- When the download is complete open the **msi file** and click the **next button** in the startup screen:



- Now accept the **End-User License Agreement** and click the next button:

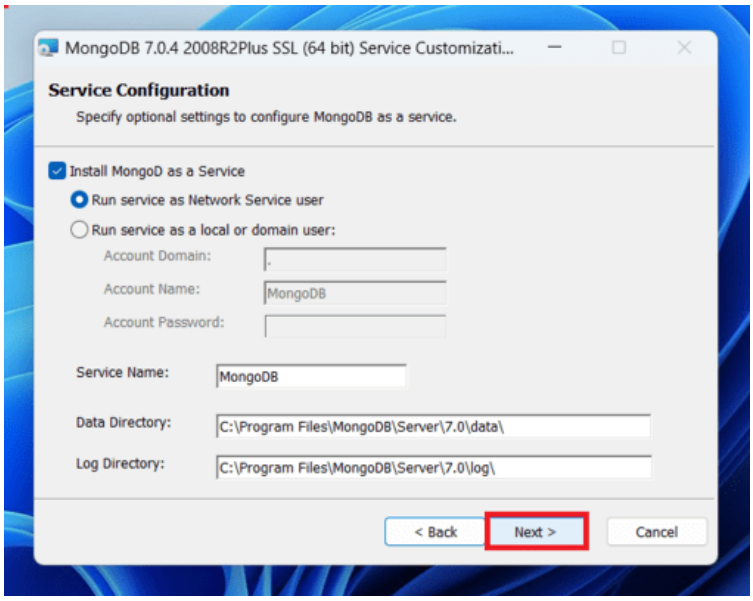


- Now select the **complete option** to install all the program features. Here, if you can want to install only selected program features and want to select the location of the installation, then use the **Custom option***:*

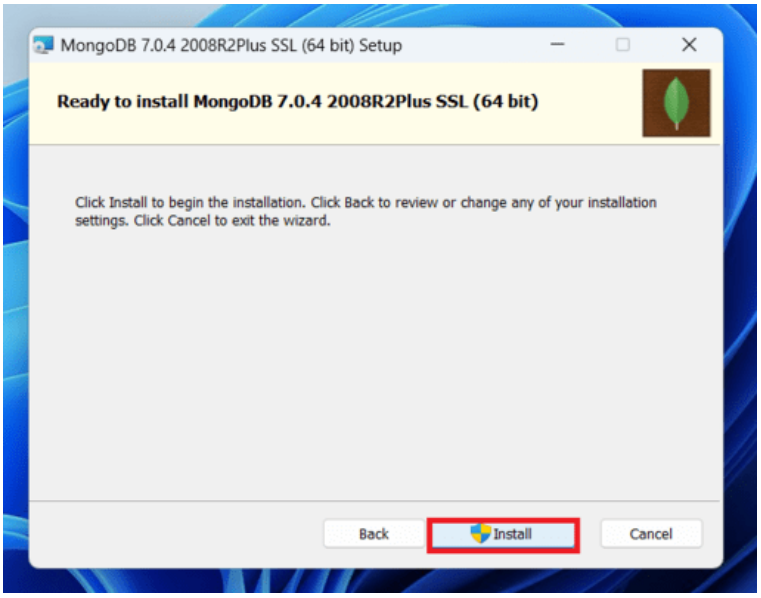


Step 3: Configure MongoDB Service

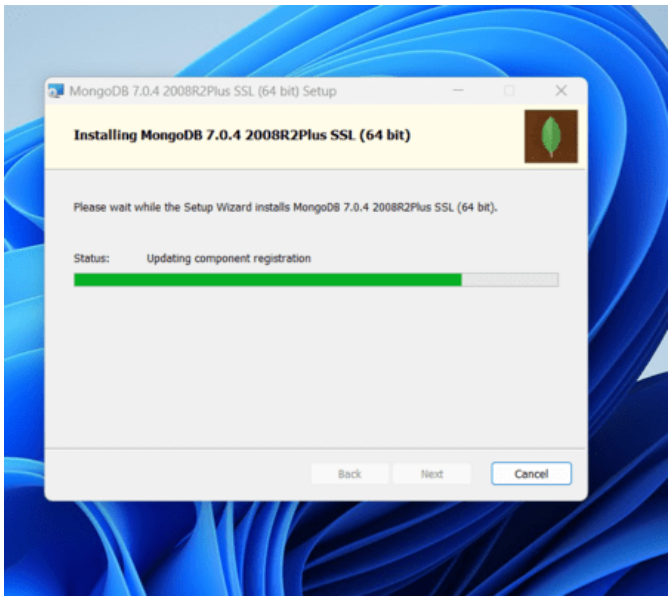
- Select "**Run service as Network Service user**" and copy the path of the data directory. **Click Next**:



- Click the **Install button** to start the MongoDB installation process:



- After clicking on the install button installation of MongoDB begins:

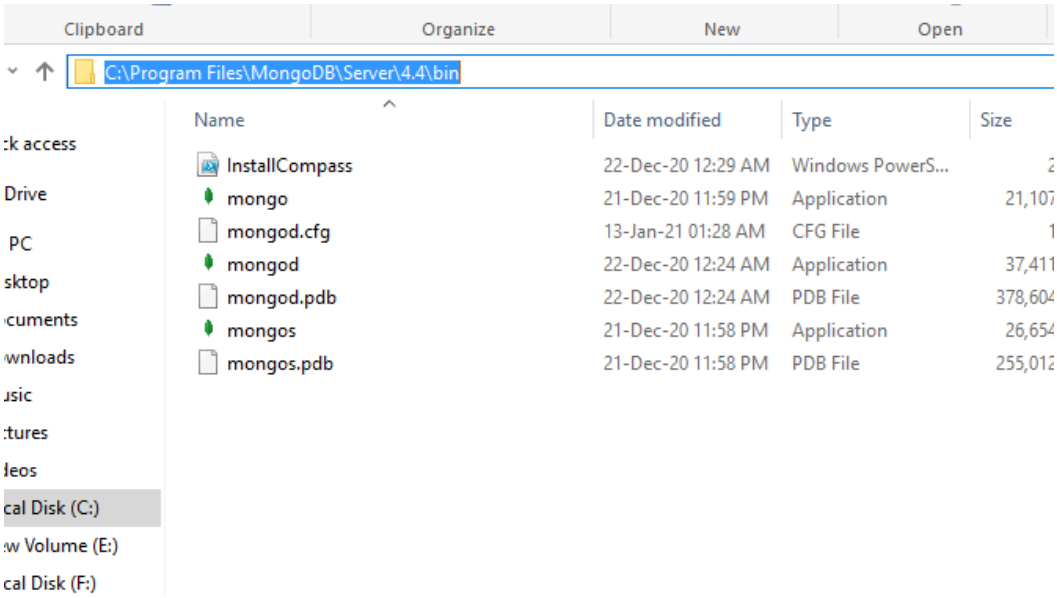


Step 4: Complete Installation

- Now click the **Finish button** to complete the MongoDB installation process:

Step 5: Set Environment Variables

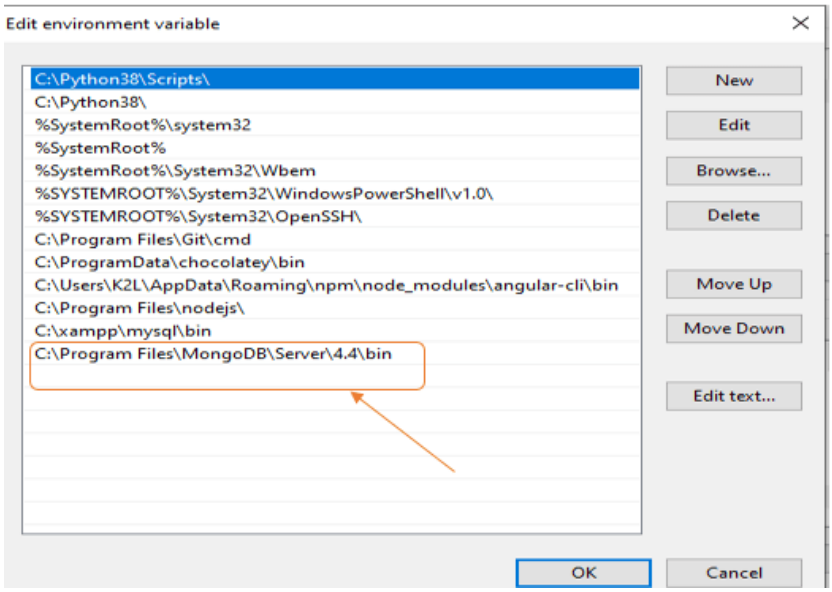
- Now we go to the location where MongoDB installed in step 5 in your system and copy the **bin** path:



- Now, to create an environment variable open system **properties >> Environment Variable >> System variable >> path >> Edit**

Environment variable

- paste the copied link to your environment system and **click Ok**:



Run MongoDB Server (mongod)

Step 1. Start MongoDB Service

- After setting the environment variable, we will run the MongoDB server, i.e. **mongod**.

- So, open the **command prompt** and run the following command:

```
mongod
```

When you run this command you will get an error i.e. **C:/data/db/ not found**.

Step 2. Create Required Folders

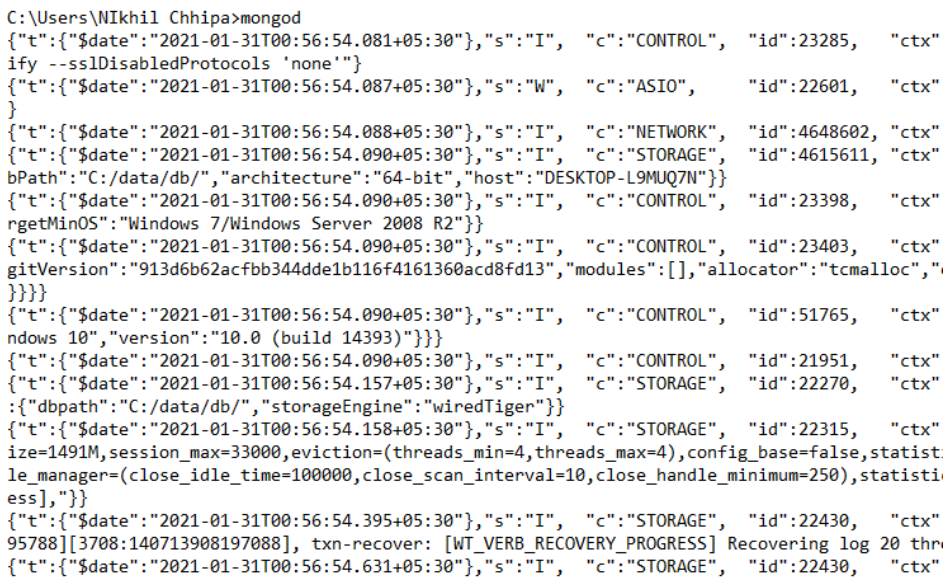
- Now, Open **C** drive and create a folder named "**data**"
- Inside the **data** folder create another folder named "**db**".

Step 3. Restart MongoDB

After creating these folders. Again open the command prompt and run the following command:

```
mongod
```

Now, this time the MongoDB server(i.e., mongod) will run successfully.



Run the MongoDB Shell (mongo)

Step 1. Connect to MongoDB Server

- Now we are going to connect our server (mongod) with the mongo shell. So, keep that mongod window
- open a new command prompt window and type:

```
mongo
```

- You are now connected to the MongoDB shell.

Please do not close the mongod window if you close this window your server will stop working and it will not able to connect with the mongo shell.

```
C:\Users\NIkhil Chhipa>mongo
MongoDB shell version v4.4.3
connecting to: mongodb://127.0.0.1:27017/?compressors=disabled&gssapiServiceName=mongodb
Implicit session: session { "id" : UUID("96cca5da-dc9f-4a40-a2bb-732ee37600c0") }
        2021-01-28T20:56:52.570+05:30: Access control is not enabled for the database. Read and write access
configuration is unrestricted
---
---
        Enable MongoDB's free cloud-based monitoring service, which will then receive and display
        metrics about your deployment (disk utilization, CPU, operation statistics, etc).

        The monitoring data will be available on a MongoDB website with a unique URL accessible to you
        and anyone you share the URL with. MongoDB may use this information to make product
        improvements and to suggest MongoDB products and deployment options to you.

        To enable free monitoring, run the following command: db.enableFreeMonitoring()
        To permanently disable this reminder, run the following command: db.disableFreeMonitoring()
---
>
```

Step 2. Create a Database

Now you can make a new **database**, **collections**, and **documents** in your shell. Use the following command to create a new database:

```
use database_name
```

The use **Database_name** command makes a new database in the system if it does not exist, if the database exists it uses that database:

```
use gfg
```

Step 3: Add Data to a Collection

Insert a document into a collection using:

```
db.collection_name.insertOne({field: value})
```

The **db.Collection_name** command makes a new collection in the gfg database and the insertOne() method inserts the document in the **student** collection:

```
db.student.insertOne({Akshay:500})
```

```
> use gfg
switched to db gfg
> db.student.insertOne({Akshay:500})
{
        "acknowledged" : true,
        "insertedId" : ObjectId("60083bf8b7388ed4d54157c9")
}
> db.student.find().pretty()
{ "_id" : ObjectId("60083bf8b7388ed4d54157c9"), "Akshay" : 500 }
> 
```

Installing MongoDB on Windows Without Admin Rights

Here is Step by Step process on How to Install MongoDB on Windows without Admin Rights –

Step 1: Download the MongoDB ZIP Archive

Get the ZIP version of MongoDB from the official MongoDB website.

Step 2: Extract Files

Extract the **ZIP** archive to a location on your computer where you have **write permissions**, such as your user directory.

Step 3: locate the “bin” folder

- Navigate to the extracted MongoDB directory and locate the “**bin**” folder.
- Open a command prompt window and navigate to the “bin” folder within the **MongoDB directory**.

Step 4: Run MongoDB Server Without Installation

Run the MongoDB server by executing the command with the path to the directory where you want to store MongoDB data files. Make sure to use a location where you have write permissions.

```
Command: mongod.exe --dbpath=path\to\data\directory, replacing
"path\to\data\directory"
```

Step 5: Run MongoDB Shell