Practical – 8

Aim: Working with NoSQL Databases. (MongoDB)

1. Install MongoDB on your operating system.(Windows/Linux/Mac)

   Step-1: Download the installer.
   Download the MongoDB Community .msi installer from the following link:

   https://www.mongodb.com/try/download/community

   In the Version dropdown, select the version of MongoDB to download.

   In the Platform dropdown, select Windows.

   In the Package dropdown, select msi.

   Click Download.

   Step-2: Run the MongoDB installer.
   For example, from the Windows Explorer/File Explorer:

   Go to the directory where you downloaded the MongoDB installer (.msi file). By default, this is your Downloads directory.

   Double-click the .msi file.

   Step-3: Follow the MongoDB Community Edition installation wizard.
   The wizard steps you through the installation of MongoDB and MongoDB Compass.

   Choose Setup Type

   You can choose either the Complete (recommended for most users) or Custom setup type. The Complete setup option installs MongoDB and the MongoDB tools to the default location. The Custom setup option allows you to specify which executables are installed and where.
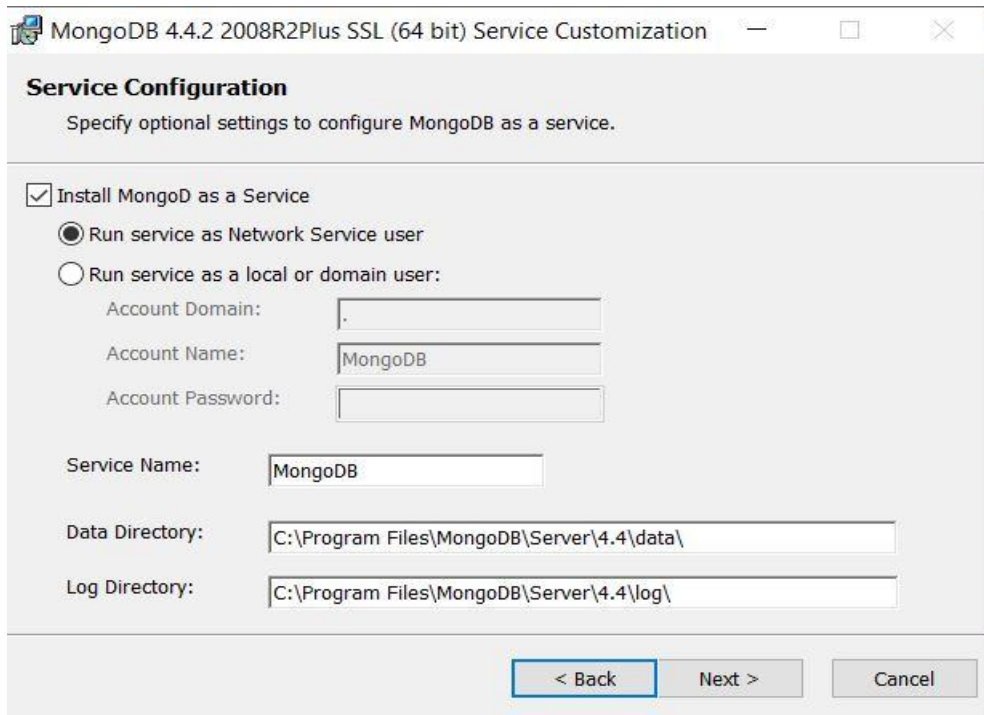
   Service Configuration

   Starting in MongoDB 4.0, you can set up MongoDB as a Windows service during the install or just install the binaries.

The following installs and configures MongoDB as a Windows service.

Starting in MongoDB 4.0, you can configure and start MongoDB as a Windows service during the install, and the MongoDB service is started upon successful installation.

Select Install MongoD as a Service MongoDB as a service.
Select either:
- o   Run the service as Network Service user (Default)
      This is a Windows user account that is built-in to Windows
      or
- o   Run the service as a local or domain user
      - ▪   For an existing local user account, specify a period (i.e. .) for the Account Domain and specify the Account Name and the Account Password for the user.
      - ▪   For an existing domain user, specify the Account Domain, the Account Name and the Account Password for that user.

Service Name. Specify the service name. Default name is MongoDB. If you already have a service with the specified name, you must choose another name.
Data Directory. Specify the data directory, which corresponds to the --dbpath. If the directory does not exist, the installer will create the directory and sets the directory access to the service user.
Log Directory. Specify the Log directory, which corresponds to the --logpath. If the directory does not exist, the installer will create the directory and sets the directory access to the service user.

When ready, click Install.

If You Installed MongoDB as a Windows Service

The MongoDB service is started upon successful installation.

To begin using MongoDB, connect a mongo.exe shell to the running MongoDB instance. Either:

- From Windows Explorer/File Explorer, go to C:\Program Files\MongoDB\Server\4.4\bin\ directory and double-click on mongo.exe.
- Or, open a Command Interpreter with Administrative privileges and run:

  "C:\Program Files\MongoDB\Server\4.4\bin\mongo.exe"

2. Create a database of your name on MongoDB. Verify whether the database shows in the list or not.

```
> use parth
switched to db parth
> show databases
admin   0.000GB
config  0.000GB
local   0.000GB
>
```

3. Create a collection named "stories" and verify whether the database shows in the list or not.

```
> db.createCollection("stories")
{ "ok" : 1 }
> show databases
admin   0.000GB
config  0.000GB
local   0.000GB
parth   0.000GB
>
```

```
> show collections
stories
```

4. Create documents under stories, where various documents contains- time of putting the story, name of the person who viewed the story, comment on the story, number of shares of the story and so on.

```
> db.stories.insert(
... {
... created_time:"5:00 PM 5/10/2020",
... reviewer_name:"parth",
... comment:"None",
... no_of_shares:"100",
... })
WriteResult({ "nInserted" : 1 })
>
```

```
> db.stories.insertMany([{created_time:"4:00 PM 5/10/2020",reviewer_name:"rohit",comment:"Good",no_of_shares:"150",},{created_time:"3:00 PM 5/10/2020",reviewer_name:"sachin",comment:"Nice",no_of_shares:"200",}])
{
        "acknowledged" : true,
        "insertedIds" : [
                ObjectId("5fa13ec2062ffd71ae692f68"),
                ObjectId("5fa13ec2062ffd71ae692f69")
        ]
}
>
```

5. Enlist all the documents under the collection stories.

```
> db.stories.find().pretty()
{
        "_id" : ObjectId("5fa13d89062ffd71ae692f67"),
        "created_time" : "5:00 PM 5/10/2020",
        "reviewer_name" : "parth",
        "comment" : "None",
        "no_of_shares" : "100"
}
{
        "_id" : ObjectId("5fa13ec2062ffd71ae692f68"),
        "created_time" : "4:00 PM 5/10/2020",
        "reviewer_name" : "rohit",
        "comment" : "Good",
        "no_of_shares" : "150"
}
{
        "_id" : ObjectId("5fa13ec2062ffd71ae692f69"),
        "created_time" : "3:00 PM 5/10/2020",
        "reviewer_name" : "sachin",
        "comment" : "Nice",
        "no_of_shares" : "200"
}
```