

Software specifications

Chapter number	Software required (With version)	Free/Proprietary	If proprietary, can code testing be performed using a trial version	If proprietary, then cost of the software	Download links to the software	Hardware specifications	OS required
1	NodeJS and NPM	Free	Yes	free	https://nodejs.org/en/blog/release/v0.12.7/	256 MB Ram and more, with as little as 1 core.	Windows or any platform, every platform installer is available to download
2.	MongoDB	Free	Yes	Free	https://www.mongodb.com/download-center	Minimum 512 MB and Also, 64-bit hardware is usually needed. The 32-bit version of MongoDB can only hold 2GB of data.	Windows or any platform, every platform installer is available to download

Detailed installation steps (software-wise)

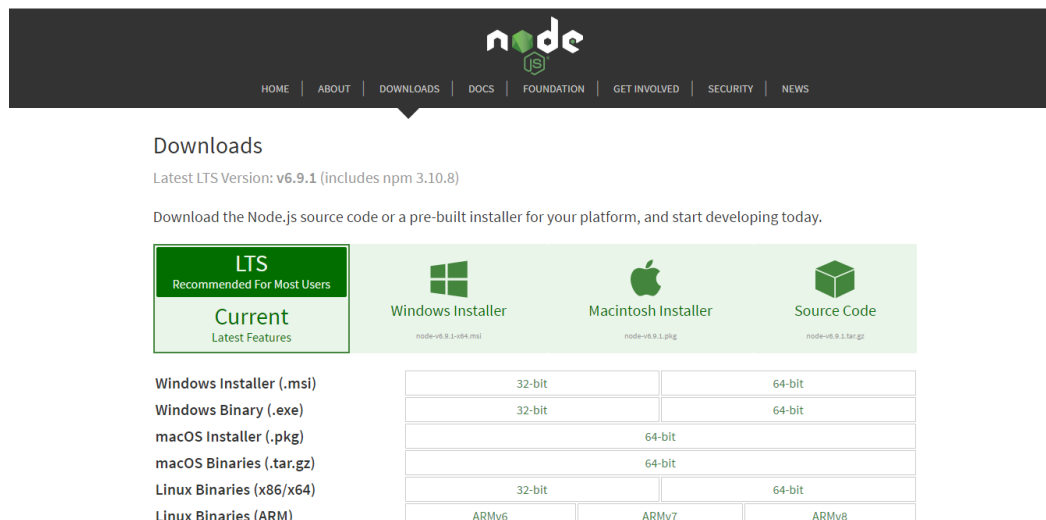
The steps should be listed in a way that it prepares the system environment to be able to test the codes of the book.

1. NodeJS and NPM:

Installing Node and NPM

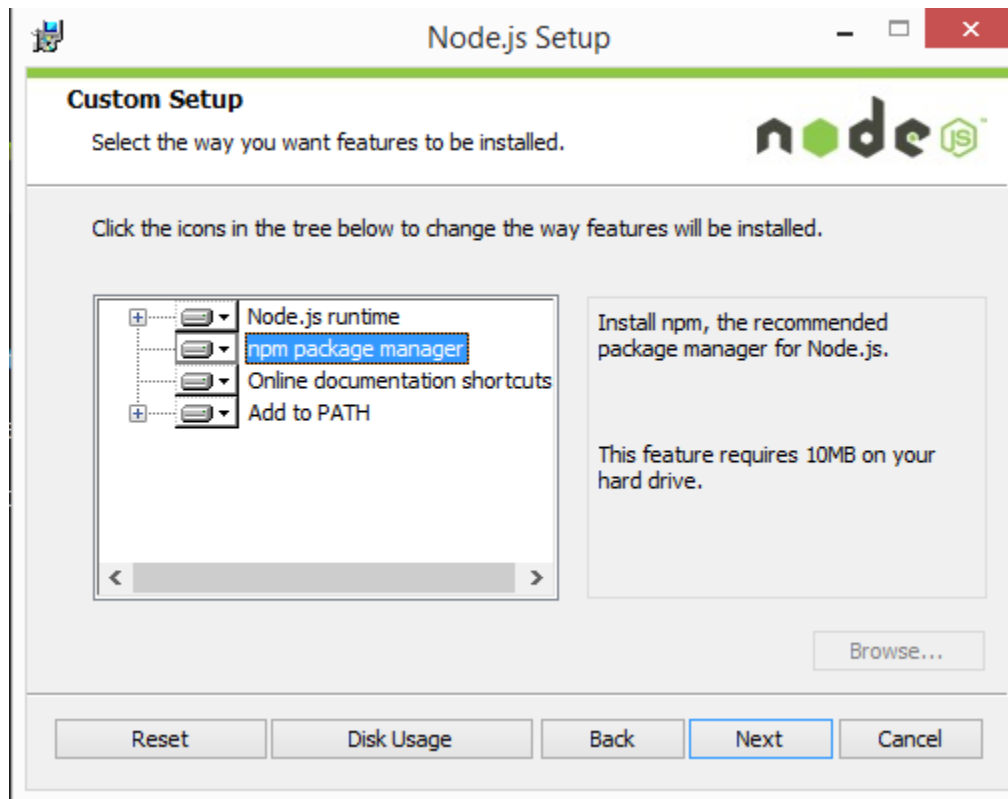
First we need to download and install the node if you have already installed and configured Node, feel free to skip this section. We can download Node.js from <http://nodejs.org> and follow the instructions mentioned here:

- Download the installer for your operating system from <http://nodejs.org/>. Nodejs provides different installer as per your platform. In this chapter, we will use the windows installer to setup



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- We can also download the previous release of node version <https://nodejs.org/en/download/releases/>. In this chapter we are using node.js 0.12 branch make sure you downloading the same
- Run the installer and the MSI file that we downloaded.
- The installer wizard will ask for your choice of features to be installed, you can select as per your choice. Usually, we install with default complete installation as per choices selected:



- If the installation asks for the system restart, then restart your computer.
- Once the system is restarted, we can check whether Node.js was set up properly or not.
- Open the command prompt and run the following command:
`node --version` // will result something like v0.12.10

You should be able to see the version information, which ensures that the installation was successful.

2. MongoDB:

- a) Download the package as per the available version for your operating
- b) system. For Windows, we have to download mongodb-win32-x86_64-enterprise-windows-64-3.0.6-signed.msi.
- c) Run your Installer Wizard, accept the license, and select the complete installation when prompted:
- d) After installation, open the mongodb directory and go to the bin folder.
- e) Open the command prompt and run the following command to set the
- f) database path. Choose the path as per your setup:
 - i. `mongod --dbpath D:\B04569_Chapter_08\Code\serverside-testing\data`
- g) Running the previous command will start a server and wait for connections.
- h) Then, open a new command window in the same directory and type mongo to connect with your database:
 - i. `Mongo`
- i) Once you run the mongo command, it will start the database connection, and the MongoDB server will show you the following line, which acknowledges that the connection is accepted.
- j) Create the database nodedb using the use nodedb command:
 - i. `use nodedb`
- k) Now, create collections to store your TicketDetails. To create a collection for TicketDetails, let's create a variable that holds the schema and data:

collection:

> tickets =

[

```
{  
  "email" : "",  
  "issuetype" : "",  
  "department" : "",  
  "ticketstate" : "",  
  "comments" : "",  
  "createddate" : ""  
}  
];  
  
> db.tickets.insert(tickets);  
  
BulkWriteResult({  
  "writeErrors" : [ ],  
  "writeConcernErrors" : [ ],  
  "nInserted" : 1,  
  "nUpserted" : 0,  
  "nMatched" : 0,  
  "nModified" : 0,  
  "nRemoved" : 0,
```

```
"upserted" : [ ]
```

```
})
```

Now, we have our data ready to use in the application.