

Web Technology with Node js, Angular js and MySQL

AVANTIKA MAHADIK

Faculty, Master of Computer Application (M.C.A.)

Late Bhausaheb Hiray S.S. Trust's Institute of Computer Application

WEB TECHNOLOGY WITH NODE JS, ANGULAR JS AND MYSQL

WEB TECHNOLOGY WITH NODE JS, ANGULAR JS AND MYSQL

LATE BHAUSAHEB HIRAY S.S. TRUST'S INSTITUTE OF COMPUTER
APPLICATION BANDRA, EAST MUMBAI- 51

Author - Ms.Avantika Mahadik

(MCA from University of Mumbai).

Assistant Professor

A Laboratory Manual For Web Technologies with Node.js, Angular.js and MySQL



First Edition, 2023

Copyright © Late Bhausaheb Hiray S.S. Trust's Institute Of Computer Application, Bandra (E), Mumbai-51, 2023

All rights reserved. No part of this publication may be reproduced, distributed, or transmitted in any form or by any means, including photocopying, recording, or other electronic or mechanical methods, without the prior written permission of the author, except in the case of brief quotations embodied in critical reviews and certain other non-commercial uses permitted by copyright law. For permission requests, write to the publisher at the address below.

This book can be exported from India only by the publishers or by the authorized suppliers. Infringement of this condition of sale will lead to Civil and Criminal prosecution.

Paperback ISBN: 978-81-19221-63-9

eBook ISBN: 978-81-19221-65-3

WebPDF ISBN: 978-81-19221-73-8

Note: Due care and diligence has been taken while editing and printing the book; neither the author nor the publishers of the book hold any responsibility for any mistake that may have inadvertently crept in.

The publishers shall not be liable for any direct, consequential, or incidental damages arising out of the use of the book. In case of binding mistakes, misprints, missing pages, etc., the publishers' entire liability, and your exclusive remedy, is replacement of the book within one month of purchase by similar edition/reprint of the book.

Printed and bound in India by
16Leaves
2/579, Singaravelan Street
Chinna Neelankarai
Chennai - 600 041, India
info@16leaves.com
www.16Leaves.com
Call: 91-9940638999

List of Practicals

Module 1 Node js	1
1. Practical 1(a) Installation of Node js	3
2. Practical 1(b) Installation of IDE or Texteditor	11
3. Practical 2 Working with REPL in Node js	19
4. Practical 3 Node js Modules	25
5. Practical 4 Node js Events	35
6. Practical 5 Node js Functions	43
7. Practical 6 File Handling in Node js	47
8. Practical 7 HTTP Server in Node js	51
9. Practical 8 Stream in Node js	55
Module 2 MySQL	61
10. Practical 9 Working with Database in Node js	63
11. Installing XAMPP	65
12. Setting up XAMPP	73
Module 3 Angular js	83
13. Practical 10	85
14. Practical 11 Angular js Directives	95
15. Practical 12 Controllers in Angular	107
16. Practical 13 Angular Js Forms	113
17. Practical 14 Single page Application (SPA)	115

Module 1 Node.js

Practical 1(a) Installation of Node js

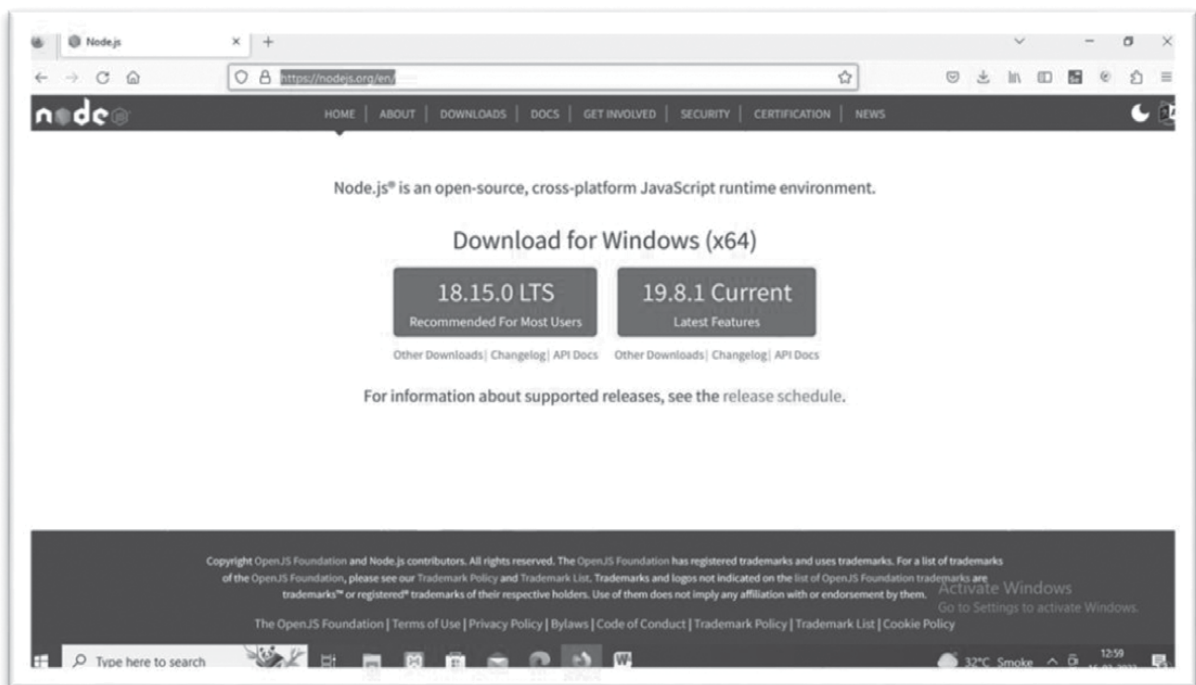
Node.js development environment can be setup in Windows, Mac, Linux and Solaris. The following tools are required for developing a Node.js application on any platform.

1. Node.js
2. Node Package Manager (NPM)
3. IDE (Integrated Development Environment) or TextEditor

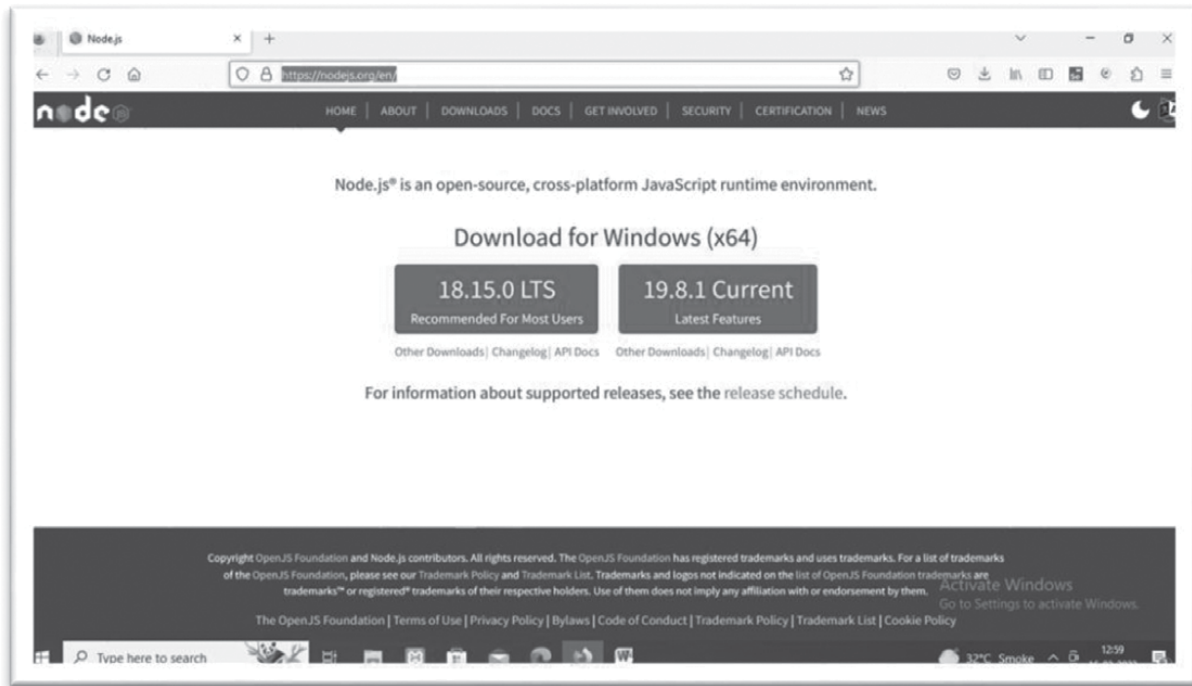
NPM (Node Package Manager) is included in Node.js installation since Node version 0.6.0., so there is no need to install it separately.

Step 1 - Install Node.js on Windows

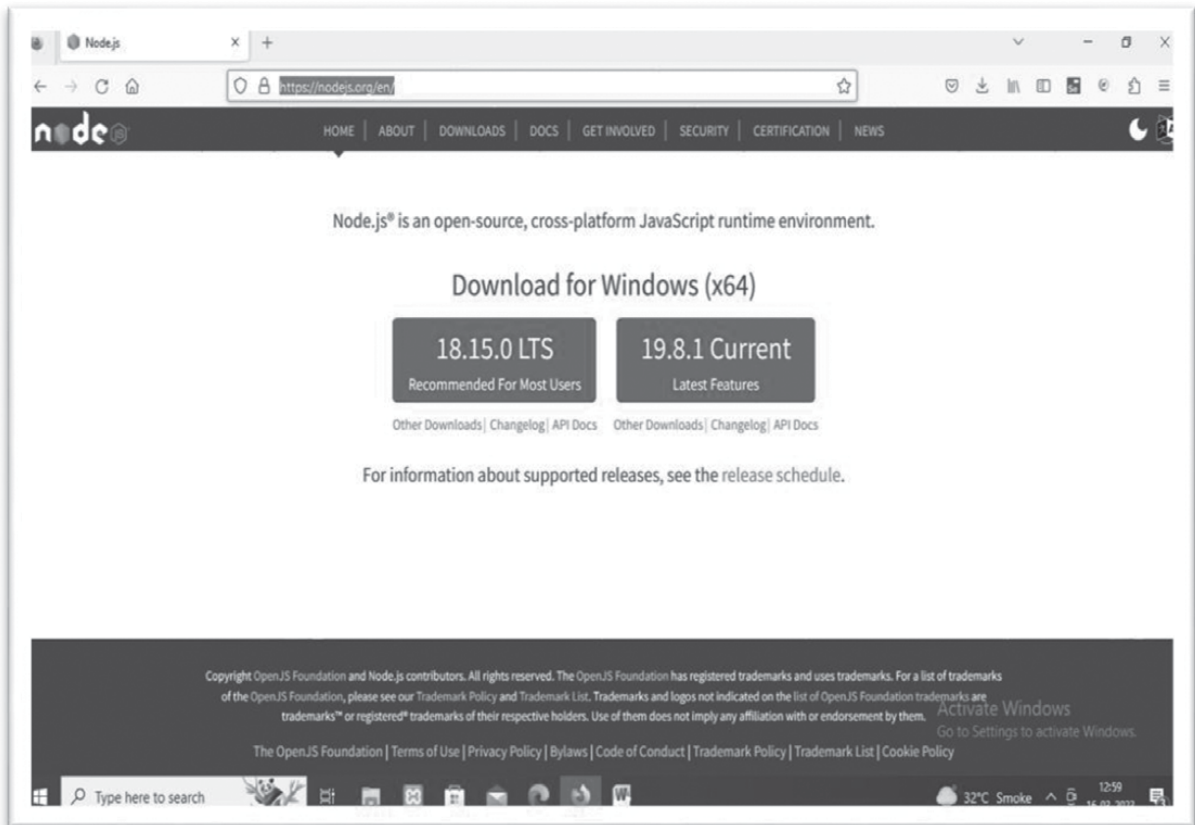
Visit Node js official website is <https://nodejs.org/en/>



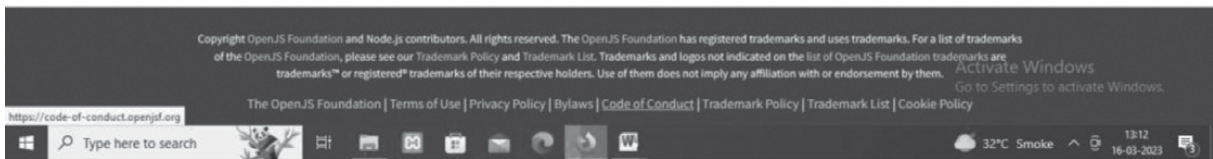
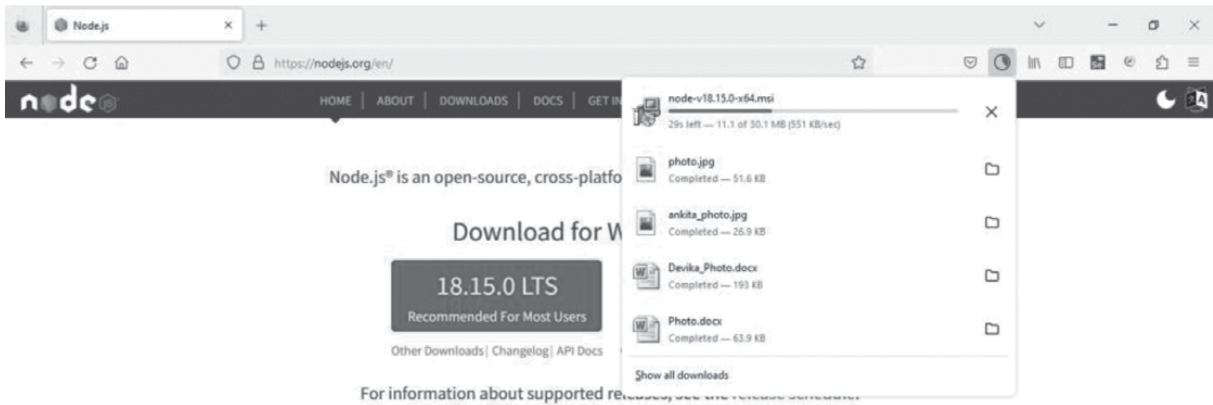
It will automatically detect OS and display download link as per your Operating System. For example, it will display following download link for 64 bit Windows OS.



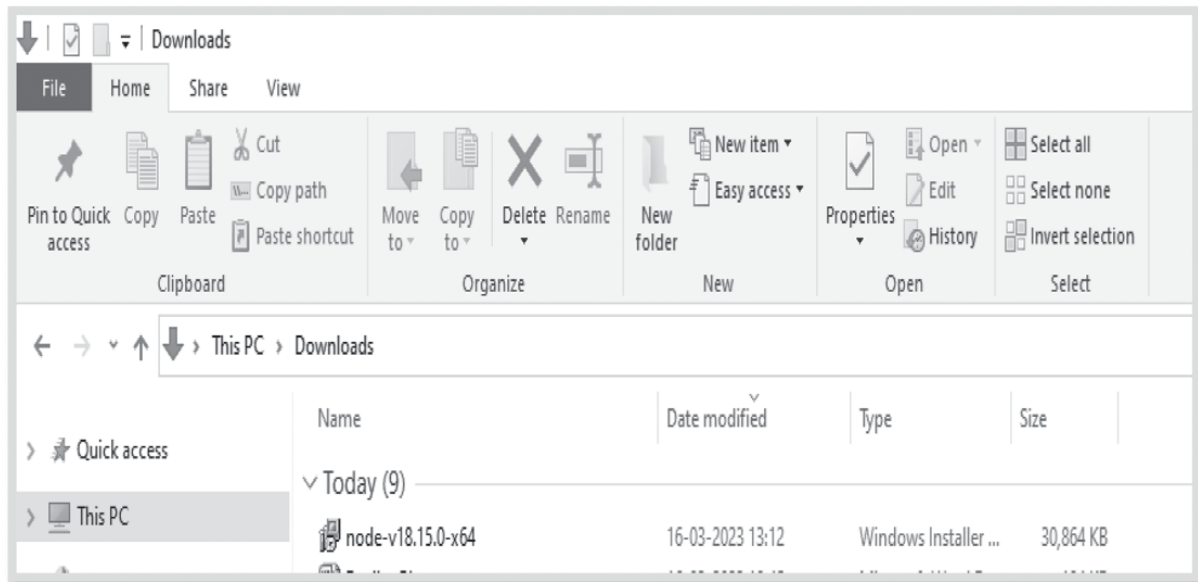
Download Node.JS Installer for Windows

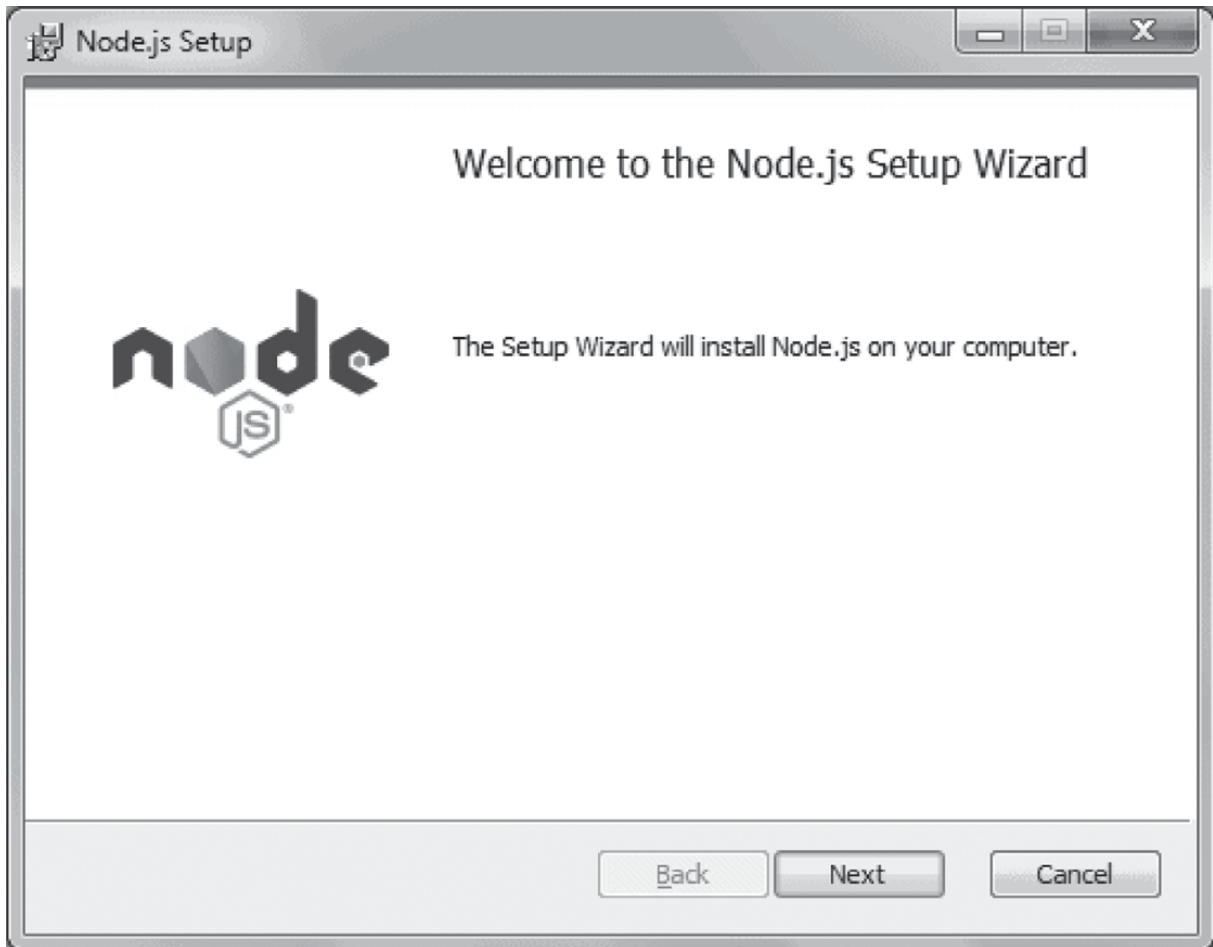


Download node MSI for windows by clicking on 18.15.0 LTS or 19.8.1 Current button.



After you download the MSI, double-click on it to start the installation as shown below.





Node.js Installation

Click Next to read and accept the License Agreement and then click Install. It will install Node.js quickly on your computer. Finally, click finish to complete the installation.

Step 2 - Verify Installation

Once you install Node.js on your computer, you can verify it by opening the command prompt and typing `node -v`. If Node.js is installed successfully then it will display the version of the Node.js installed on your machine, as shown below.

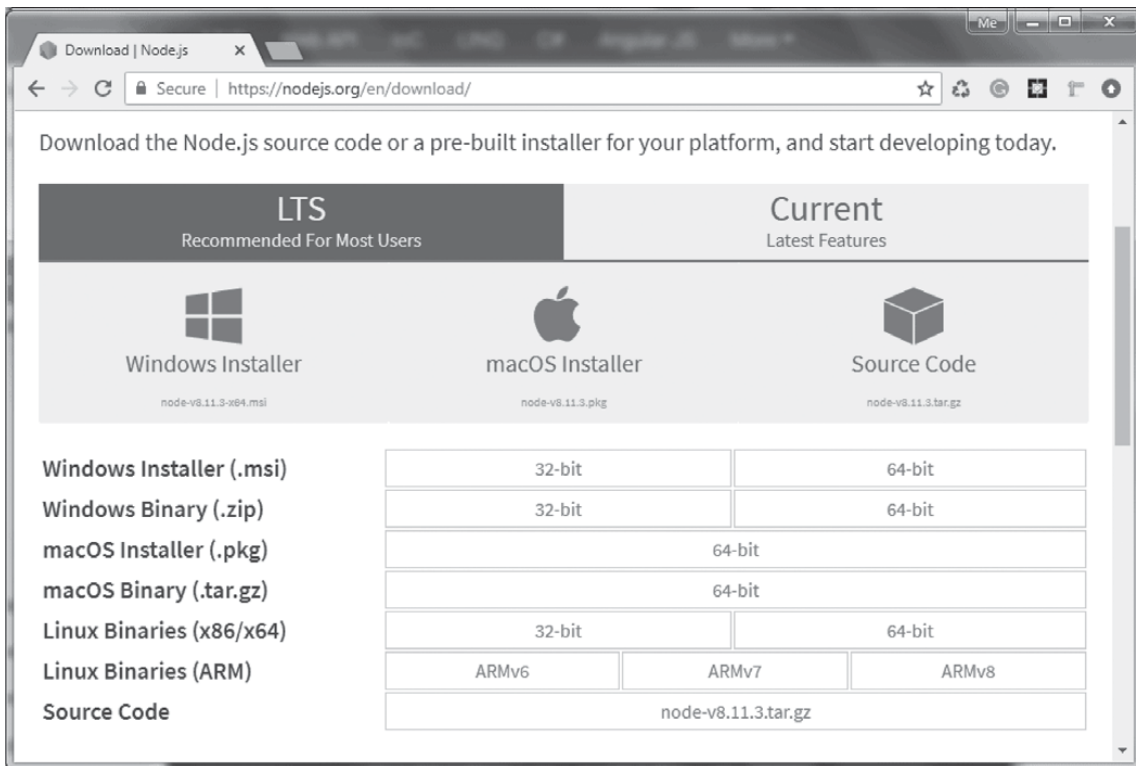
```
Command Prompt
Microsoft Windows [Version 10.0.19044.2604]
(c) Microsoft Corporation. All rights reserved.

C:\Users\Admin>node -v
v19.1.0

C:\Users\Admin>
```

Install Node.js on Mac/Linux

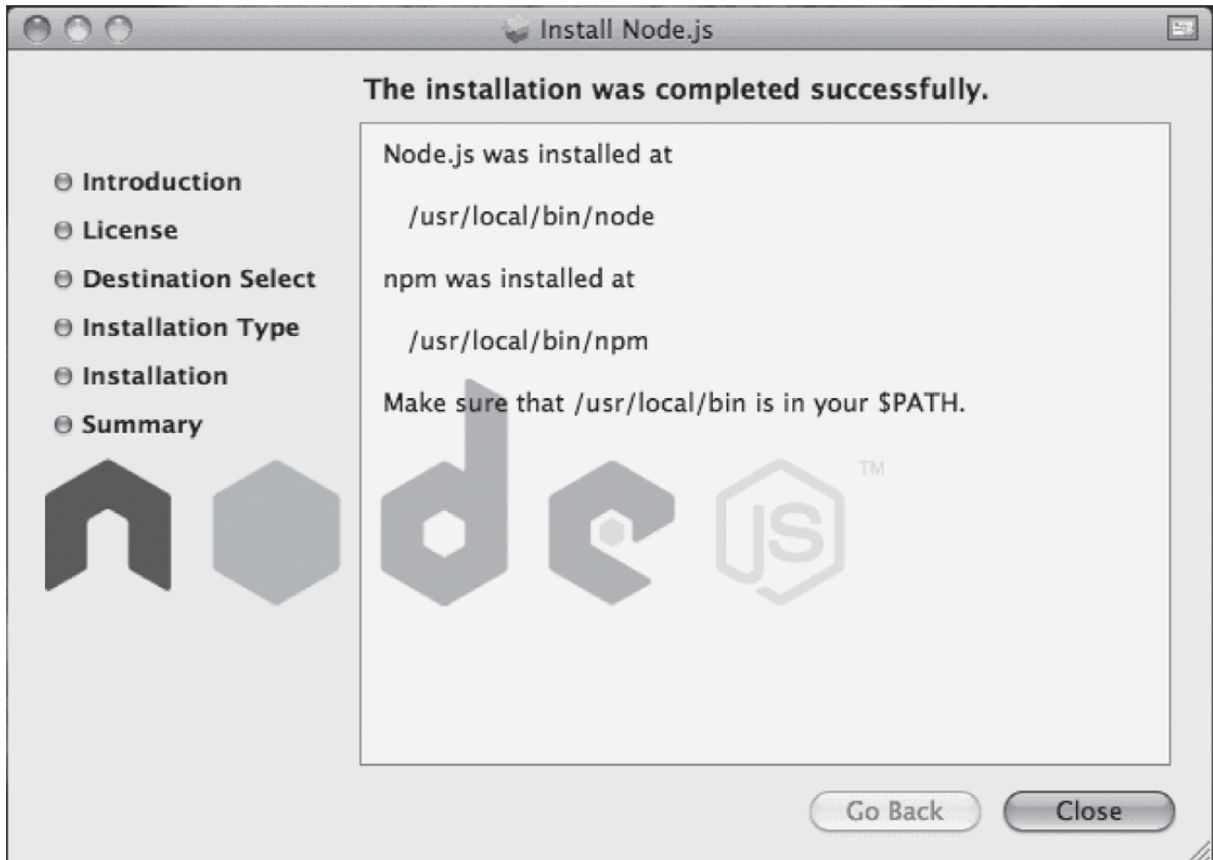
Visit Node.js official web site <https://nodejs.org/en/download> page. Click on the appropriate installer for Mac (.pkg or .tar.gz) or Linux to download the Node.js installer.



Node

Environment Setup

Once downloaded, click on the installer to start the Node.js installation wizard. Click on Continue and follow the steps. After successful installation, it will display summary of installation about the location where it installed Node.js and NPM.



Node.js Installation on OS X

After installation, verify the Node.js installation using terminal window and enter the following command. It will display the version number of Node.js installed on your Mac.

```
$ node -v
```

Optionally, for Mac or Linux users, you can directly install Node.js from the command line using Homebrew package manager for Mac OS or Linuxbrew package manager for Linux Operating System. For Linux, you will need to install additional dependencies, viz. Ruby version 1.8.6 or higher and GCC version 4.2 or higher before installing node.

```
$ brew install node
```

Practical 1(b) Installation of IDE or Texteditor

IDE

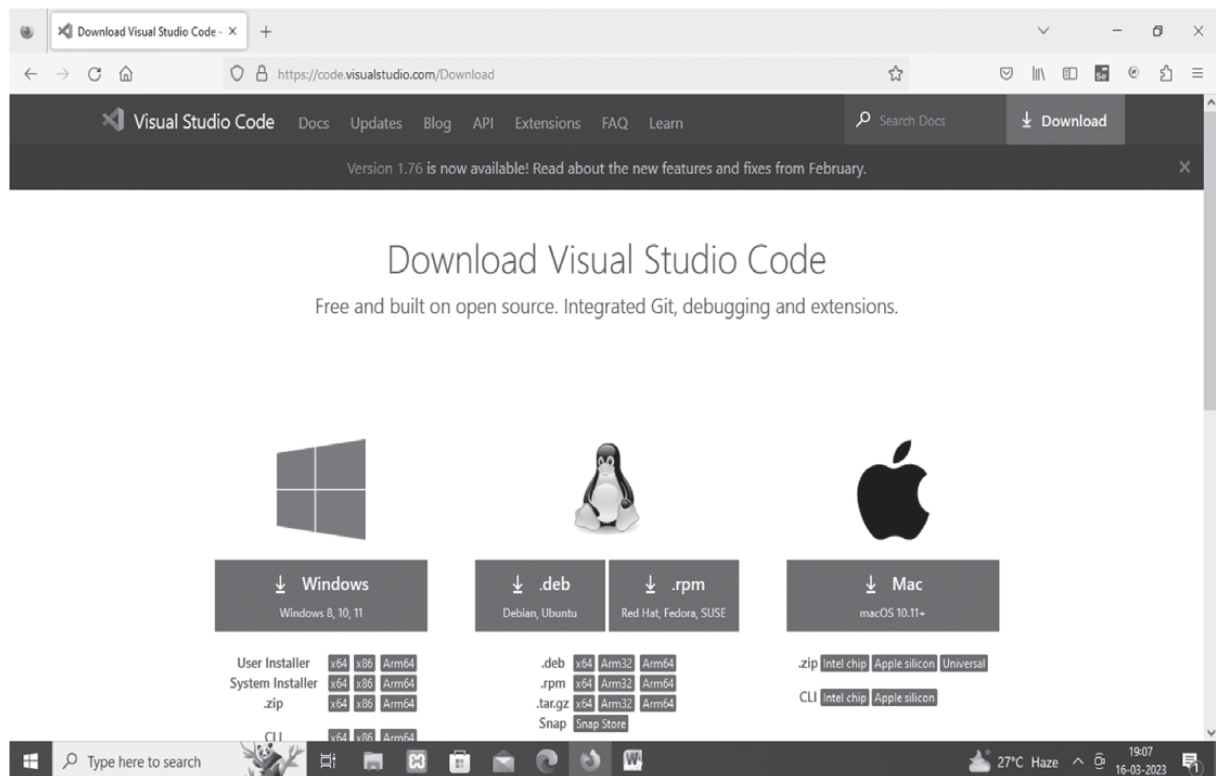
Node.js application uses JavaScript to develop an application. So, you can use any IDE or texteditor tool that supports JavaScript syntax. However, an IDE that supports auto complete features for Node.js API is recommended e.g. Visual Studio code, Visual Studio, Sublime text, Eclipse, Aptana etc.

Here, showing Visual Studio code installation

Step 1 – Visit the official website of the **Visual Studio Code** using any web browser like Google Chrome, Microsoft Edge, etc.

<https://code.visualstudio.com/Download>

Step 2 – Click on Download for windows



Step 3: Click on the installer icon to start the installation process of the Visual Studio Code.

Step 4: After the Installer opens, it will ask you for accepting the terms and conditions of the Visual Studio Code. Click on **I accept the agreement** and then click the **Next** button.

