Step by step procedure for setting up ReactJS development environment

Prerequisite
NodeJS

Created by
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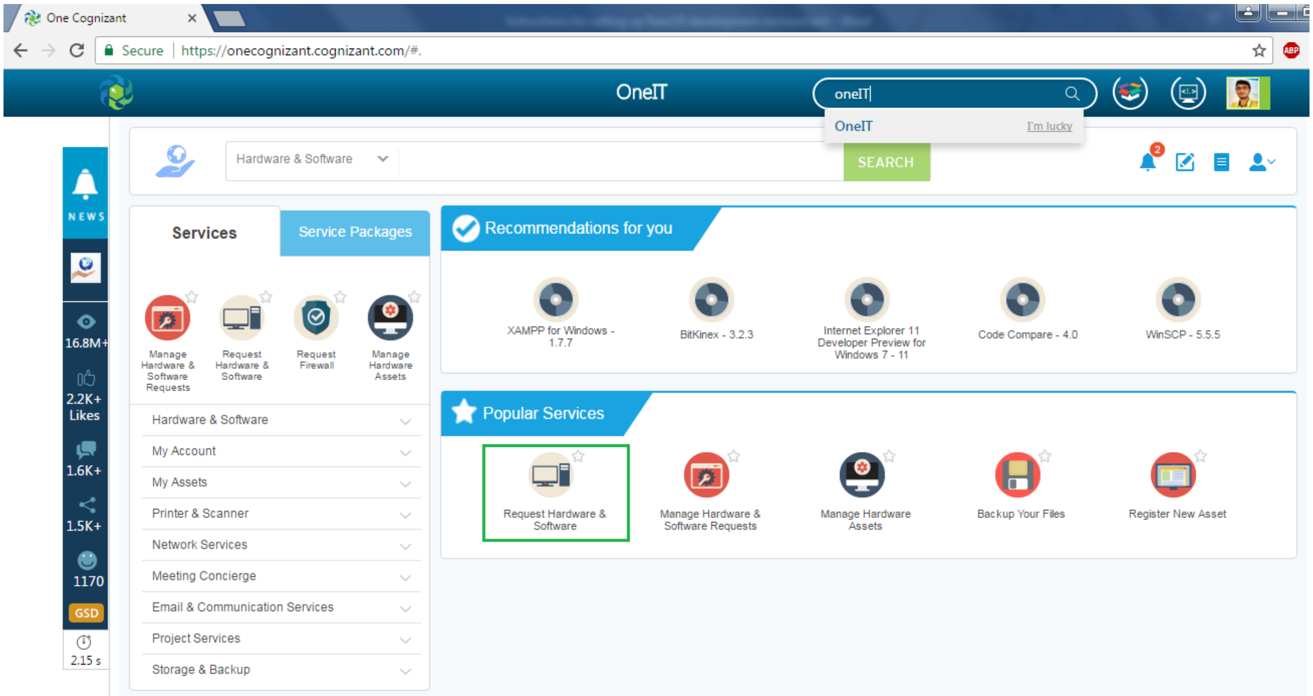
Reviewed by
KK

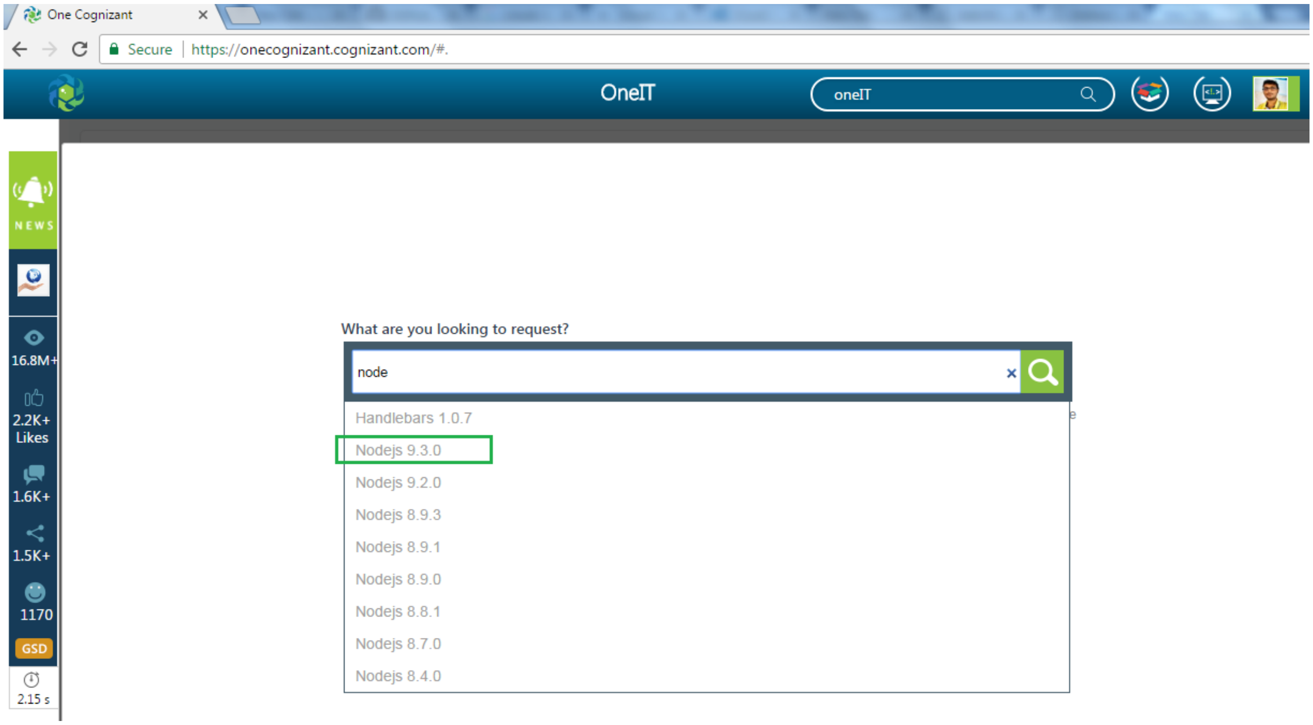
Step 1: Raising GSD to install NodeJS

Navigate to https://onecognizant.cognizant.com/

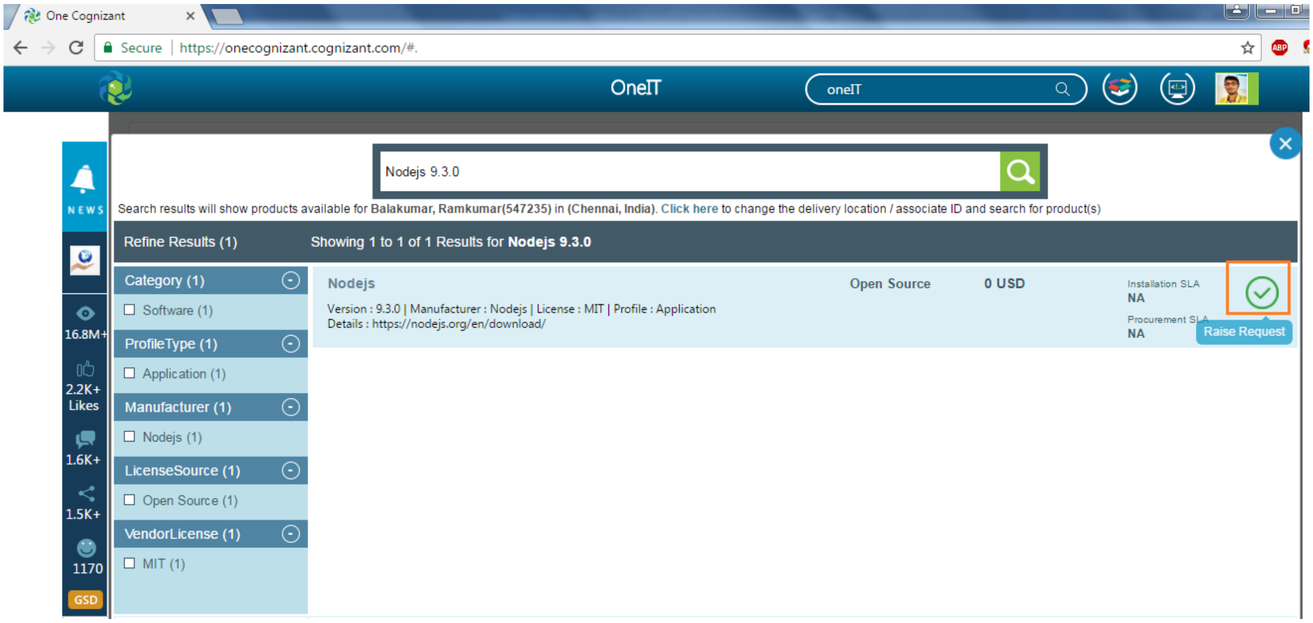
Click on “***Request Hardware & Software***” icon.



This opens up the following window, under “***What are you looking to request?***” text box type “***node”*** and select “***NodeJS 9.3.0***” from auto populate list.



After selecting the required nodejs version, following window will open with details about the app. Click on “***Raise Request***” icon to raise the software installation request.



Nodejs 9.3.0

Search results will show products available for **Balakumar, Ramkumar(547235)** in **(Chennai, India)**. Click here to change the delivery location / associate ID and search for product(s)

Refine Results (1)

Showing 1 to 1 of 1 Results for **Nodejs 9.3.0**

Nodejs | Open Source | 0 USD

Version : 9.3.0 | Manufacturer : Nodejs | License : MIT | Profile : Application
Details : https://nodejs.org/en/download/

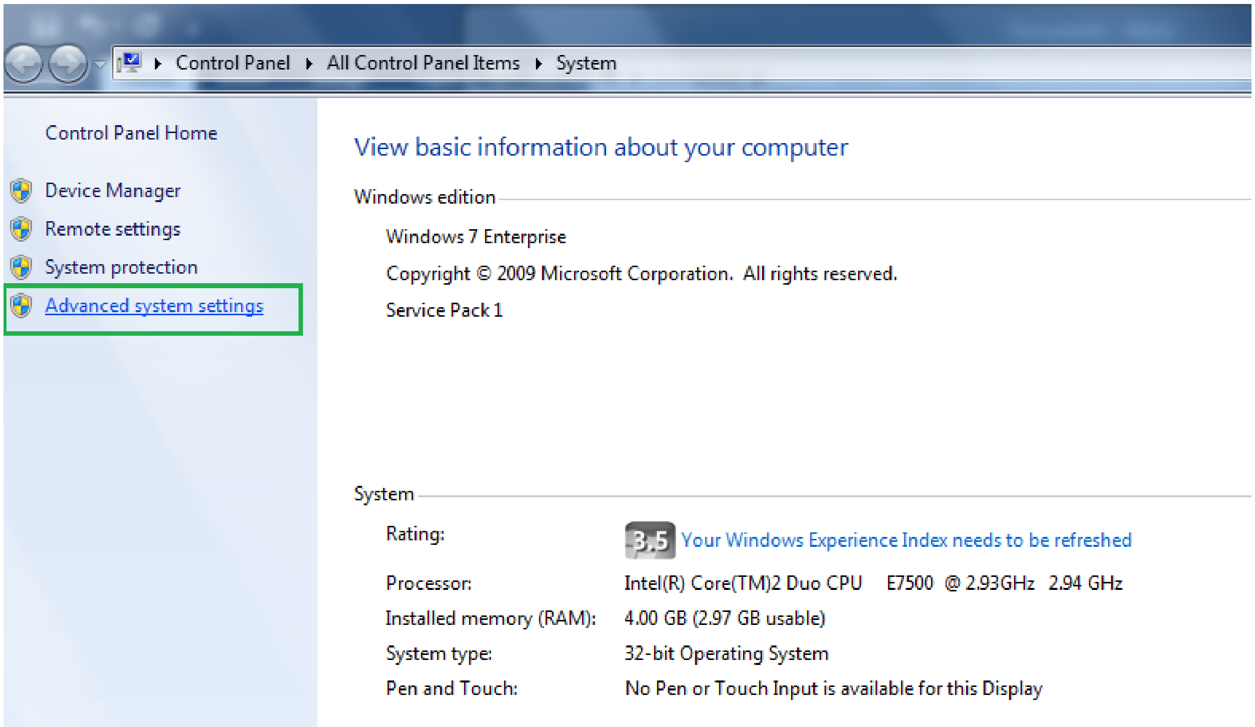
Installation SLA NA
Procurement SLA NA

Once software installation request is completed and NodeJS was successfully installed in to your machine, proceed with Step 3.

Step 2: Setting up environmental variable for Nodejs (Optional)

<u>Note</u>: If you are going to install or already installed "***NodeJs***" as a standalone executable installer by raising GSD in to your machine, you can ignore this (Step 2) step completely, because during installation the following will be configured by the installer automatically.

Navigate to "***Control Panel\All Control Panel Items\System***" and click on "Advanced system settings"



View basic information about your computer

Windows edition

Windows 7 Enterprise

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Service Pack 1

System

Rating: 3.5 Your Windows Experience Index needs to be refreshed

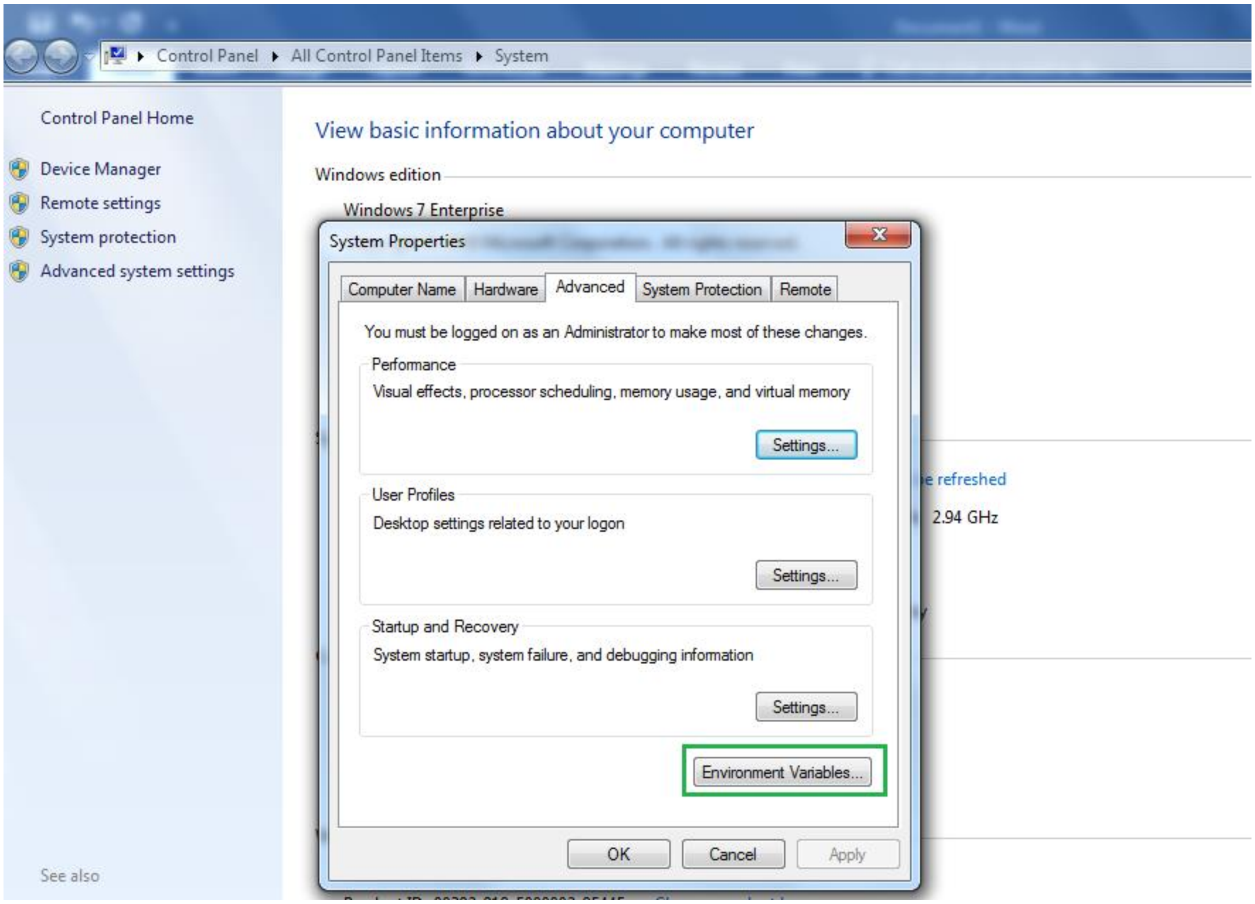
Processor: Intel(R) Core(TM)2 Duo CPU E7500 @ 2.93GHz 2.94 GHz

Installed memory (RAM): 4.00 GB (2.97 GB usable)

System type: 32-bit Operating System

Pen and Touch: No Pen or Touch Input is available for this Display

After clicking Advanced system settings, you can see the below “***System Properties***” dialog box. Click on “***Environment Variables***”



View basic information about your computer

Windows edition

Windows 7 Enterprise

You must be logged on as an Administrator to make most of these changes.

Performance

Visual effects, processor scheduling, memory usage, and virtual memory

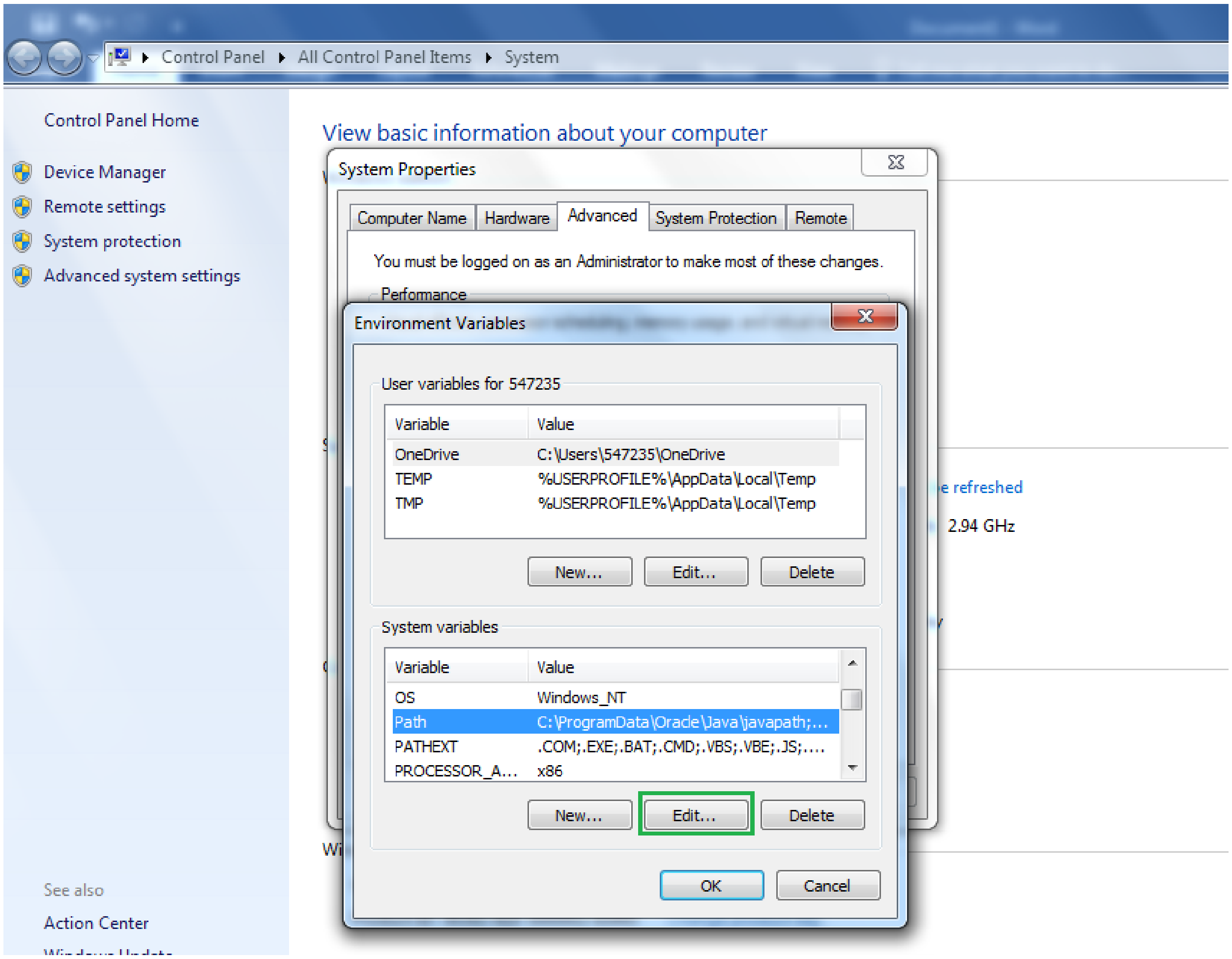
User Profiles

Desktop settings related to your logon

Startup and Recovery

System startup, system failure, and debugging information

After selecting Environment variables, the below dialog box will appear. Under "***System variables***" section, find for a variable name "***Path***". Once found, select the "***Path***" variable and click on "***Edit***" button.



You must be logged on as an Administrator to make most of these changes.

User variables for 547235

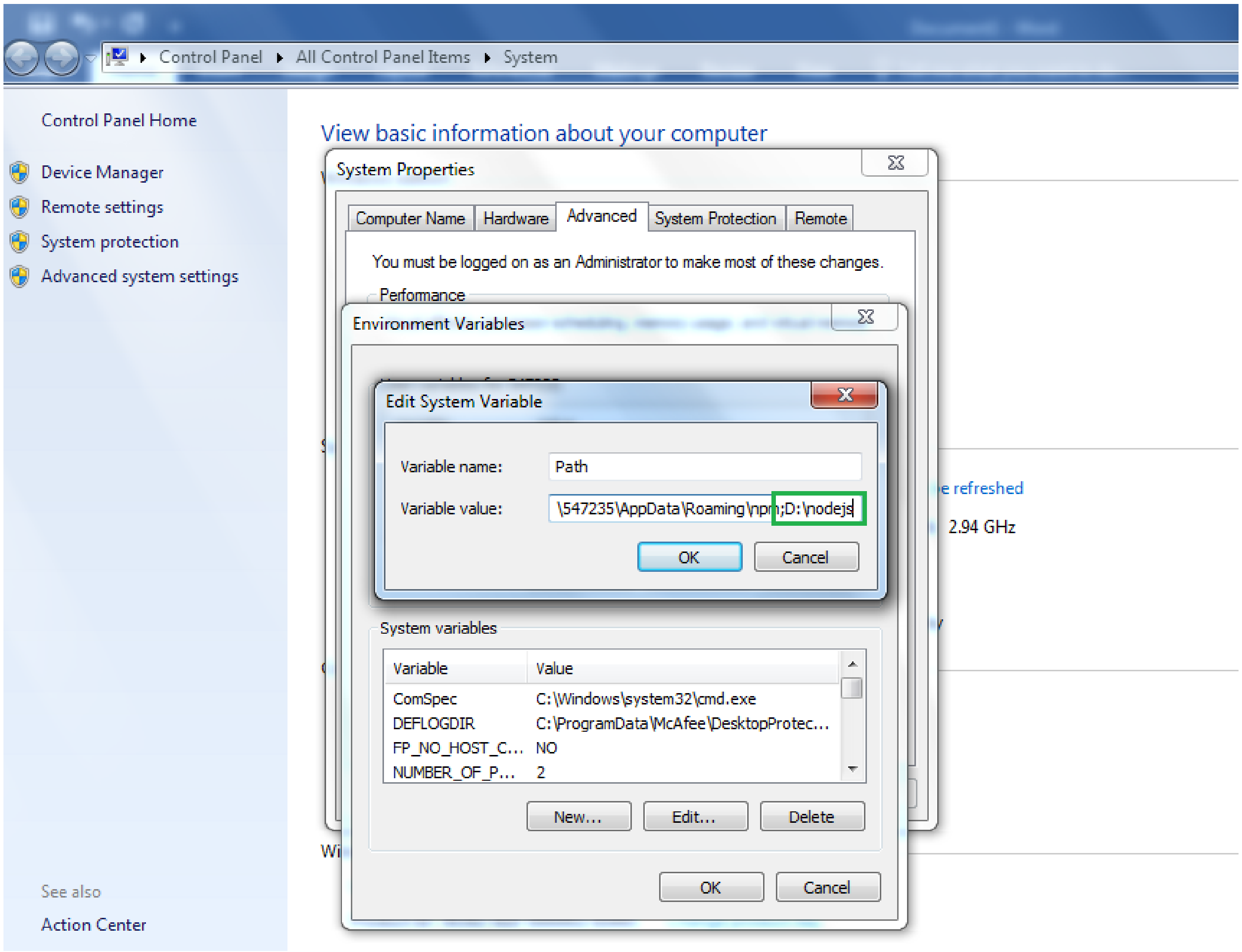
Variable	Value
OneDrive	C:\Users\547235\OneDrive
TEMP	%USERPROFILE%\AppData\Local\Temp
TMP	%USERPROFILE%\AppData\Local\Temp

System variables

Variable	Value
OS	Windows_NT
Path	C:\ProgramData\Oracle\Java\javapath;...
PATHEXT	.COM;.EXE;.BAT;.CMD;.VBS;.VBE;.JS;....
PROCESSOR_A...	x86

This opens up the following window. Under "***Variable value***", at the end of editable field you need to add a separator **";"** followed by the path where nodejs package is present. Here it will be ***";D:\nodejs\"***. *(or where the nodejs package is present)*

Click on "***OK***". Also close all other opened dialog box by selecting "***OK***".



You must be logged on as an Administrator to make most of these changes.

Variable name: Path

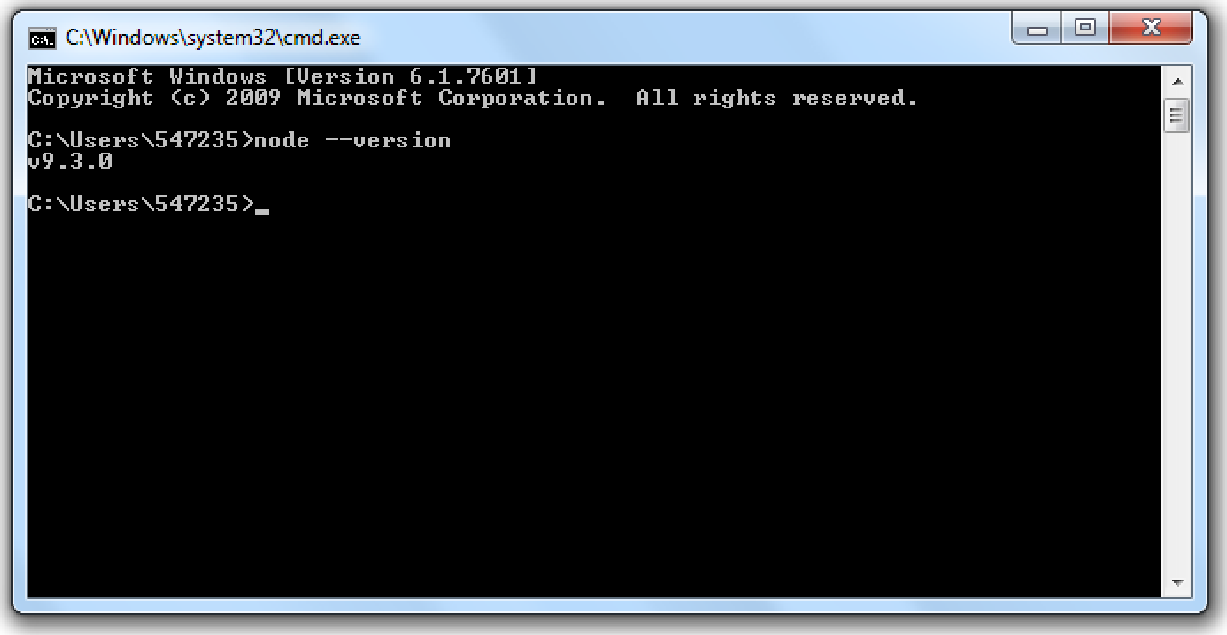
Variable value: \547235\AppData\Roaming\npm;D:\nodejs

Variable	Value
ComSpec	C:\Windows\system32\cmd.exe
DEFLOGDIR	C:\ProgramData\McAfee\DesktopProtec...
FP_NO_HOST_C...	NO
NUMBER_OF_P...	2

Step 3: Verify Nodejs version

To verify whether nodejs environmental path is working as expected, just open command prompt (no run as admin required) and run below command.

```
node --version
```



```
Microsoft Windows [Version 6.1.7601]
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C:\Users\547235>node --version
v9.3.0

C:\Users\547235>_
```
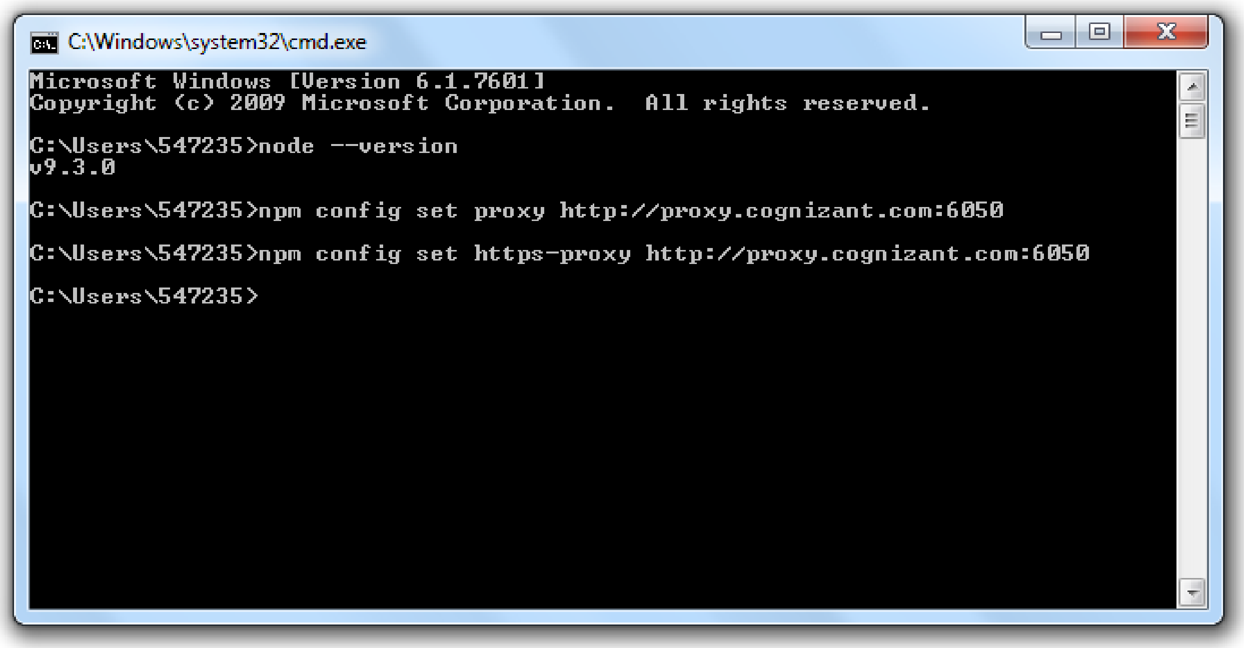

You can see the version of nodejs which was installed on your machine. If any error/issue is faced, we need to setup environment path manually by following step 2.

Step 4: Bypass proxy

We need to install ReactJS supporting packages from npm. For this, we have to bypass proxy to establish network connection, just execute the following command one by one. If proxy is not set in your machine, you can ignore this step.

```
npm config set proxy http://proxy.cognizant.com:6050
npm config set https-proxy http://proxy.cognizant.com:6050
```



```
Microsoft Windows [Version 6.1.7601]
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C:\Users\547235>node --version
v9.3.0

C:\Users\547235>npm config set proxy http://proxy.cognizant.com:6050

C:\Users\547235>npm config set https-proxy http://proxy.cognizant.com:6050

C:\Users\547235>
```
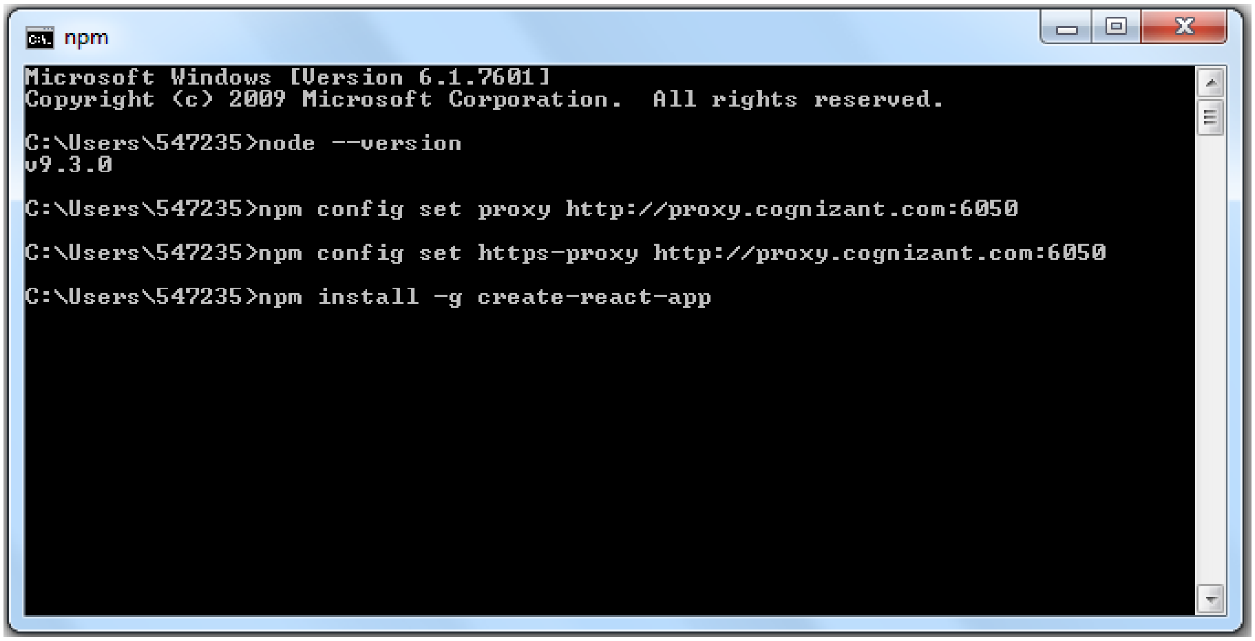

This proxy bypass command will run for one instance and also this command needs to be executed only once at the time of installing ReactJS supporting package. There after no more proxy bypass will require.

Step 5: Installing “create-react-app” package and verify installation status

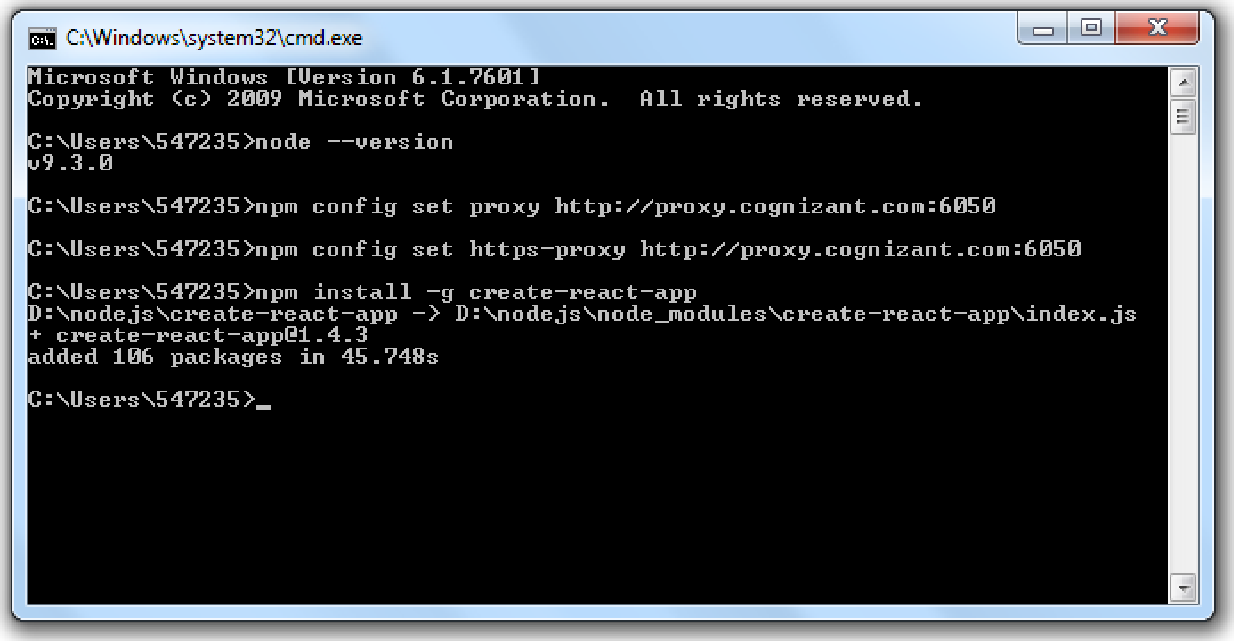
Once network connection is established for npm, run the following command

```
npm install -g create-react-app

(-g denotes installing globally for all users in the system)
```



```
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation.  All rights reserved.

C:\Users\547235>node --version
v9.3.0

C:\Users\547235>npm config set proxy http://proxy.cognizant.com:6050

C:\Users\547235>npm config set https-proxy http://proxy.cognizant.com:6050

C:\Users\547235>npm install -g create-react-app
```

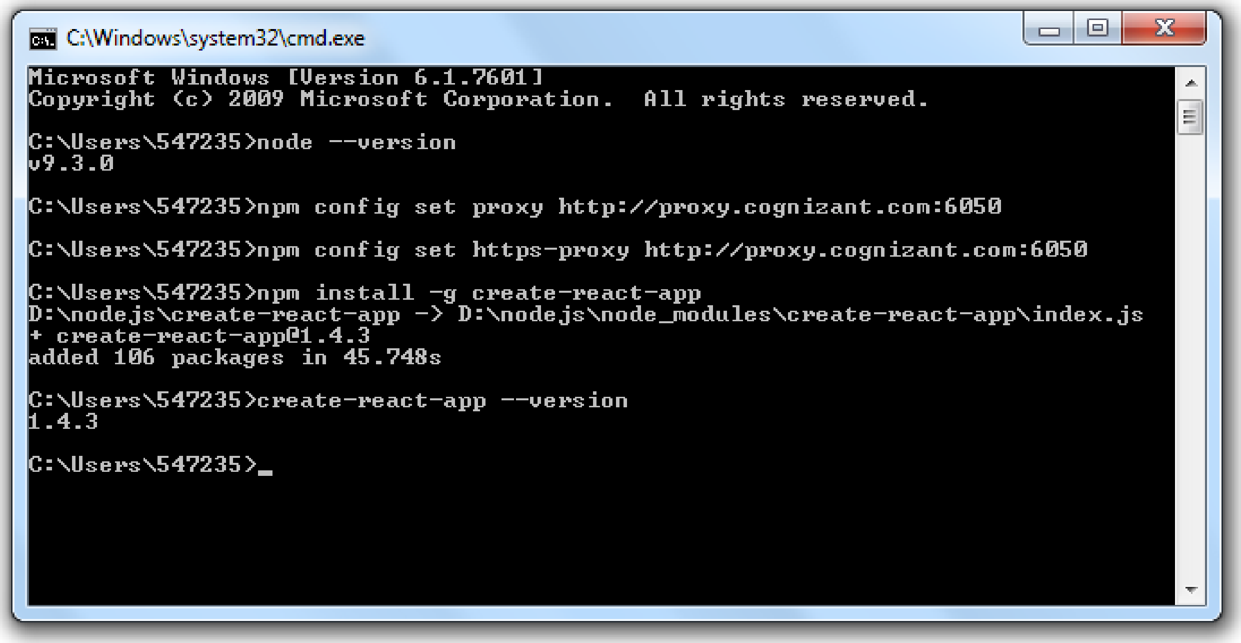
After the package was installed successfully, you can see some similar messages in cmd as given below.



```
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation.  All rights reserved.

C:\Users\547235>node --version
v9.3.0

C:\Users\547235>npm config set proxy http://proxy.cognizant.com:6050

C:\Users\547235>npm config set https-proxy http://proxy.cognizant.com:6050

C:\Users\547235>npm install -g create-react-app
D:\nodejs\create-react-app -> D:\nodejs\node_modules\create-react-app\index.js
+ create-react-app@1.4.3
added 106 packages in 45.748s

C:\Users\547235>_
```

To verify “create-react-app” package installation is working as expected, run below command

```
create-react-app --version
```



```
Microsoft Windows [Version 6.1.7601]
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C:\Users\547235>node --version
v9.3.0

C:\Users\547235>npm config set proxy http://proxy.cognizant.com:6050

C:\Users\547235>npm config set https-proxy http://proxy.cognizant.com:6050

C:\Users\547235>npm install -g create-react-app
D:\nodejs\create-react-app -> D:\nodejs\node_modules\create-react-app\index.js
+ create-react-app@1.4.3
added 106 packages in 45.748s

C:\Users\547235>create-react-app --version
1.4.3

C:\Users\547235>_
```

You can see the version of create-react-app package was installed by npm. If error occur repeat step 6.

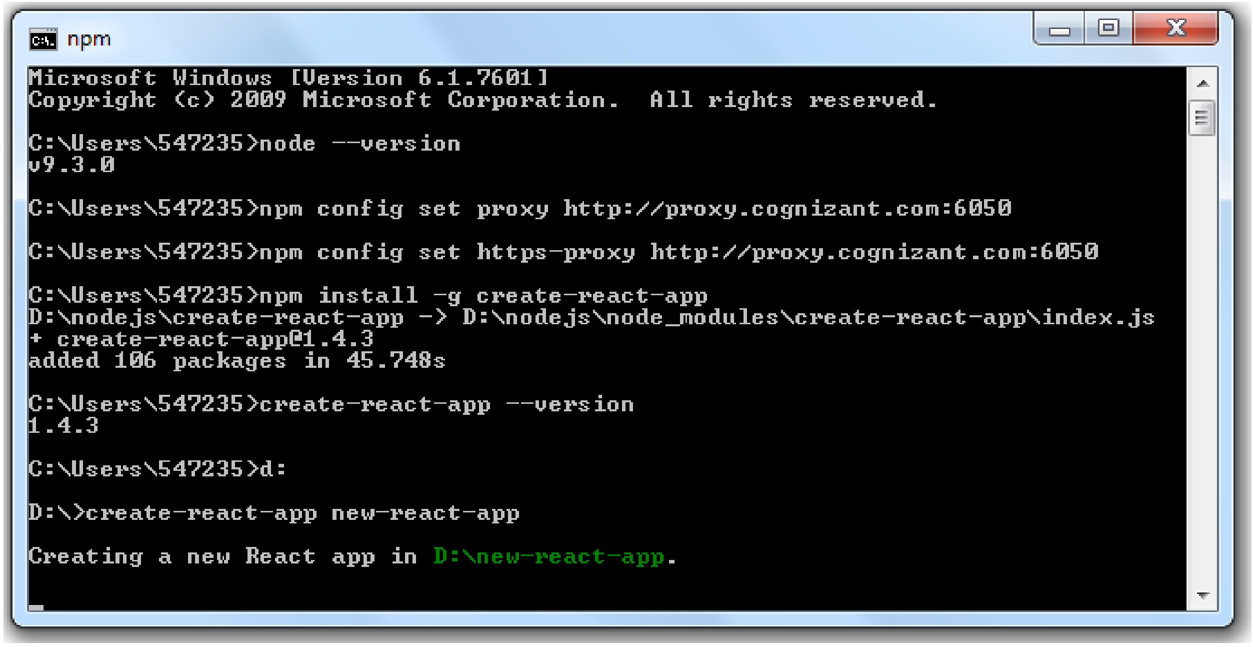
Step 6: Creating new React app

Run below command to create new react app

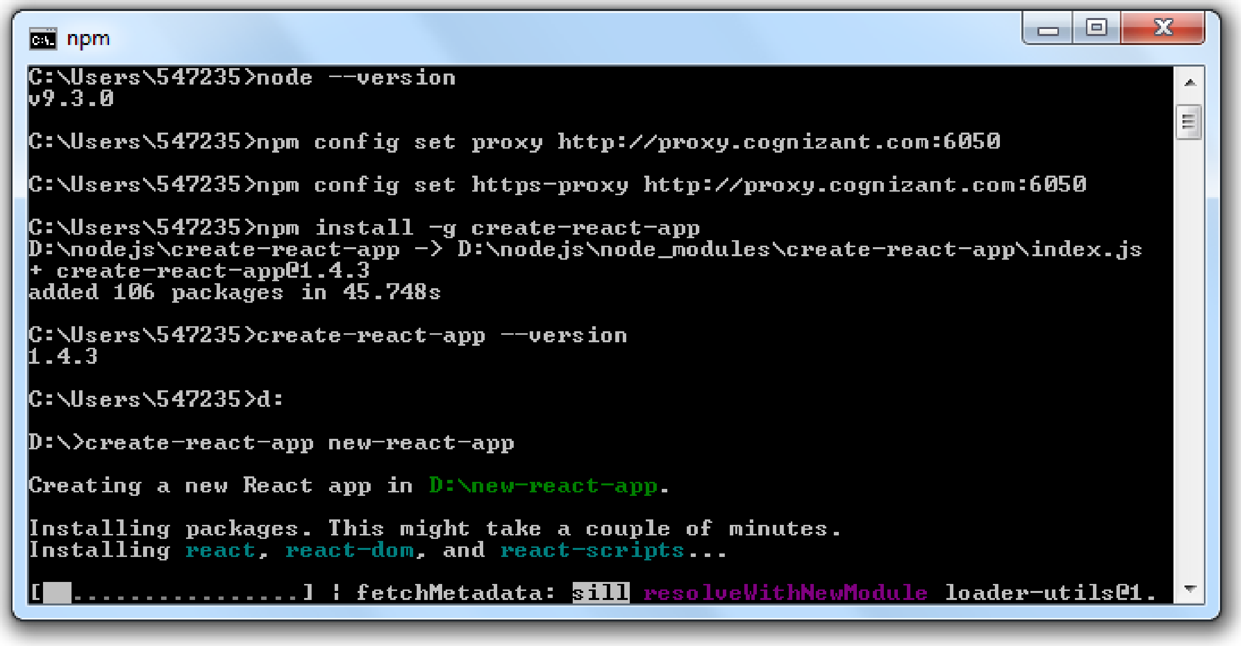
```
create-react-app new-react-app
```

Here,
“***create-react-app***” is the default command which will generate the initial react project.
“***new-react-app***” is the folder name where the project files will get generated. (This can be configurable by providing custom path or custom folder name)

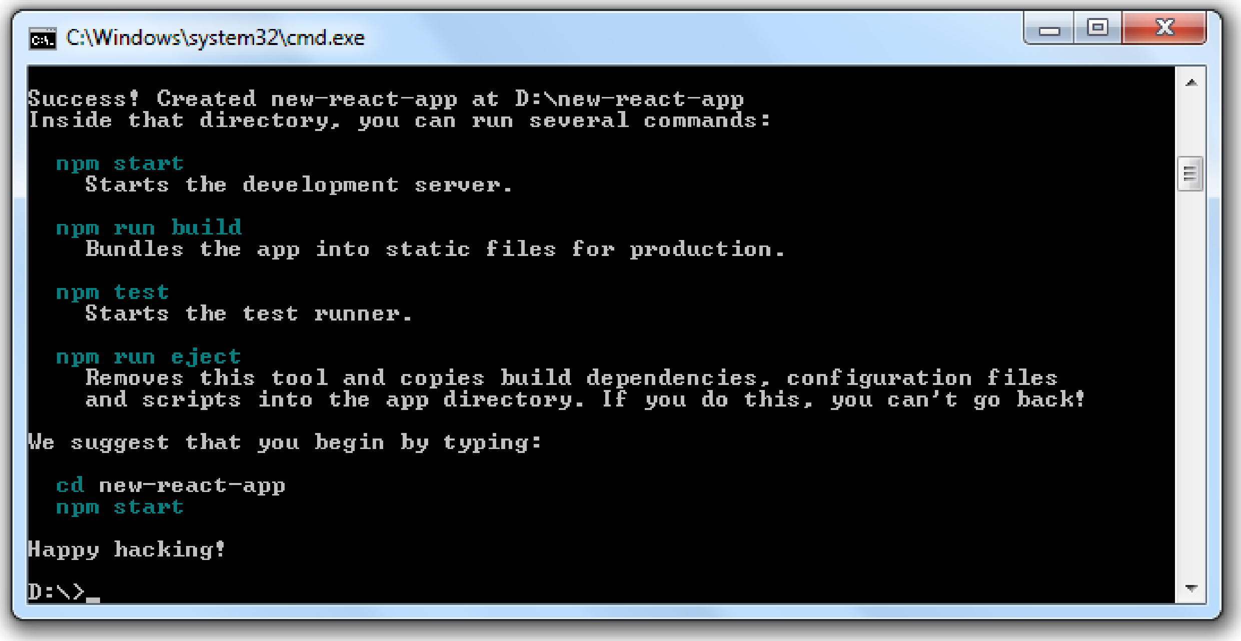
For instance, new react app was created in ***D:\*** drive



```
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation.  All rights reserved.

C:\Users\547235>node --version
v9.3.0

C:\Users\547235>npm config set proxy http://proxy.cognizant.com:6050

C:\Users\547235>npm config set https-proxy http://proxy.cognizant.com:6050

C:\Users\547235>npm install -g create-react-app
D:\nodejs\create-react-app -> D:\nodejs\node_modules\create-react-app\index.js
+ create-react-app@1.4.3
added 106 packages in 45.748s

C:\Users\547235>create-react-app --version
1.4.3

C:\Users\547235>d:

D:\>create-react-app new-react-app

Creating a new React app in D:\new-react-app.

_
```



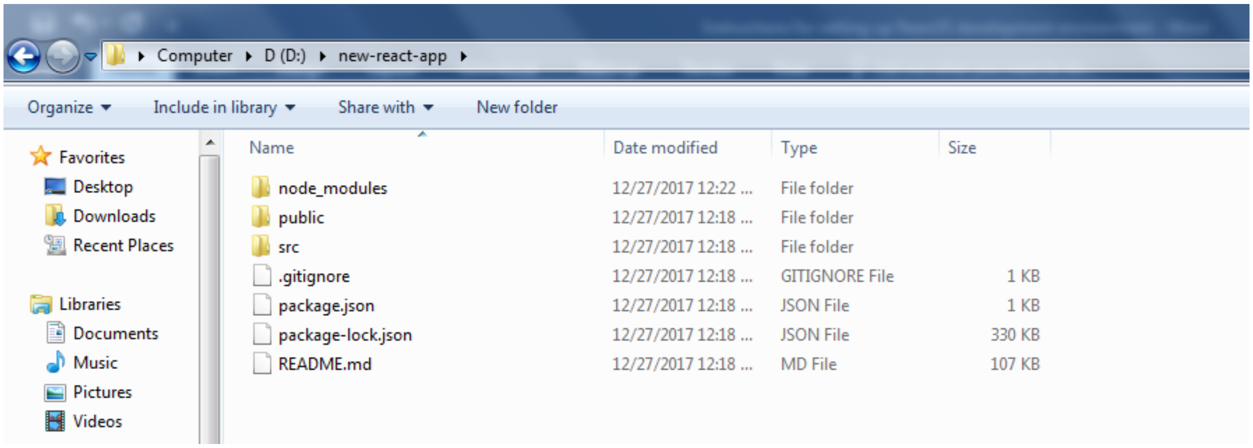
```
C:\Users\547235>node --version
v9.3.0

C:\Users\547235>npm config set proxy http://proxy.cognizant.com:6050

C:\Users\547235>npm config set https-proxy http://proxy.cognizant.com:6050

C:\Users\547235>npm install -g create-react-app
D:\nodejs\create-react-app -> D:\nodejs\node_modules\create-react-app\index.js
+ create-react-app@1.4.3
added 106 packages in 45.748s

C:\Users\547235>create-react-app --version
1.4.3

C:\Users\547235>d:

D:\>create-react-app new-react-app

Creating a new React app in D:\new-react-app.

Installing packages. This might take a couple of minutes.
Installing react, react-dom, and react-scripts...

[█................] ¦ fetchMetadata: sill resolveWithNewModule loader-utils@1.
```



```
Success! Created new-react-app at D:\new-react-app
Inside that directory, you can run several commands:

  npm start
    Starts the development server.

  npm run build
    Bundles the app into static files for production.

  npm test
    Starts the test runner.

  npm run eject
    Removes this tool and copies build dependencies, configuration files
    and scripts into the app directory. If you do this, you can't go back!

We suggest that you begin by typing:

  cd new-react-app
  npm start

Happy hacking!

D:\>_
```

Once the command is executed successfully, navigate to the newly created react app folder in windows explorer to see the folder structure. Given below is the overview of generated folders with essential files respectively

```
new-react-app
├── README.md
├── node_modules
├── package.json
├── .gitignore
├── public
│   └── favicon.ico
│   └── index.html
│   └── manifest.json
└── src
    └── App.css
    └── App.js
    └── App.test.js
    └── index.css
    └── index.js
    └── logo.svg
    └── registerServiceWorker.js
```

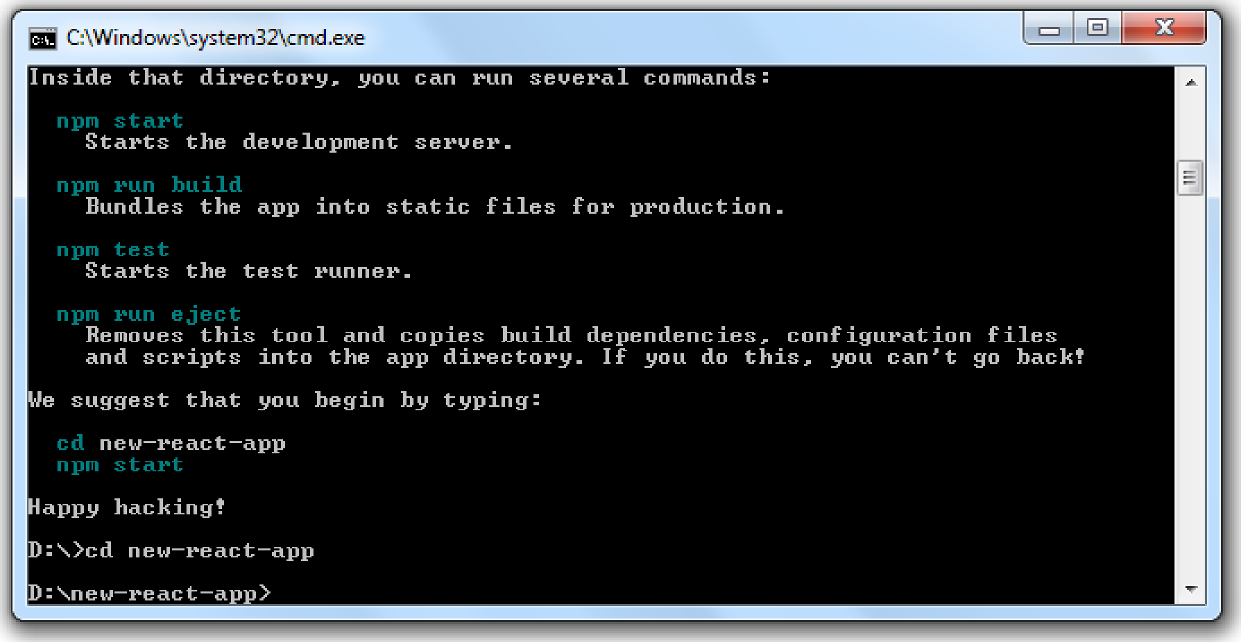


Name	Date modified	Type	Size
node_modules	12/27/2017 12:22 ...	File folder	
public	12/27/2017 12:18 ...	File folder	
src	12/27/2017 12:18 ...	File folder	
.gitignore	12/27/2017 12:18 ...	GITIGNORE File	1 KB
package.json	12/27/2017 12:18 ...	JSON File	1 KB
package-lock.json	12/27/2017 12:18 ...	JSON File	330 KB
README.md	12/27/2017 12:18 ...	MD File	107 KB

Step 7: Running newly created React app in browser

In command prompt, navigate in to the newly created folder, here we can run

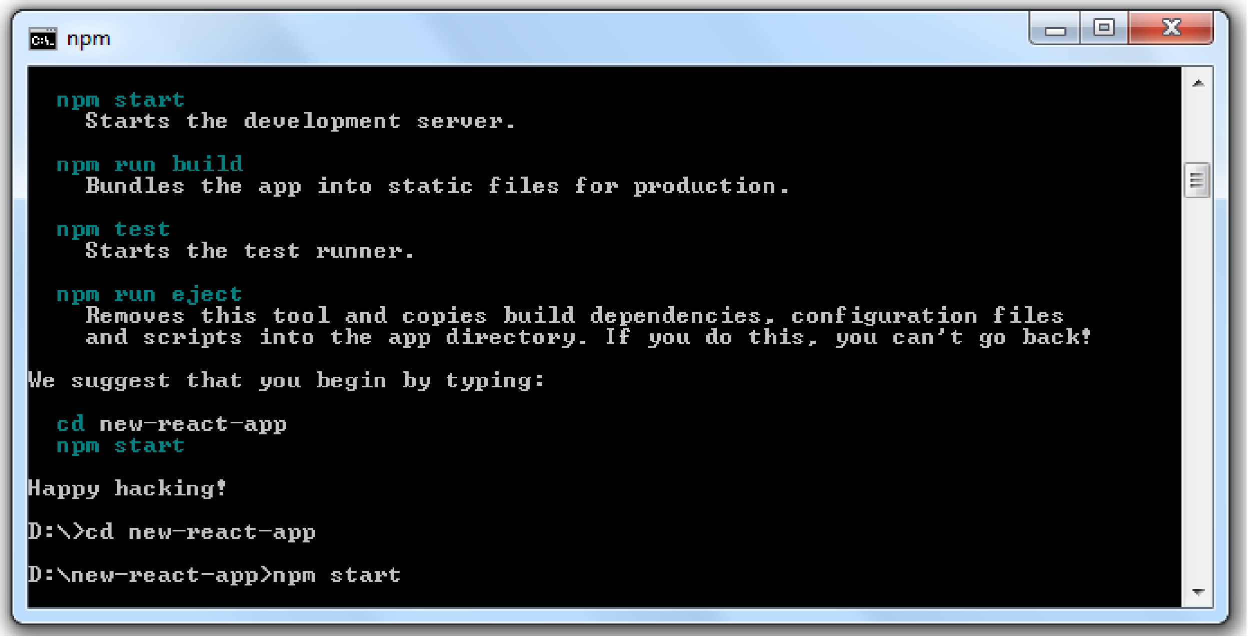
```
cd new-react-app
```



```
Inside that directory, you can run several commands:

  npm start
    Starts the development server.

  npm run build
    Bundles the app into static files for production.

  npm test
    Starts the test runner.

  npm run eject
    Removes this tool and copies build dependencies, configuration files
    and scripts into the app directory. If you do this, you can't go back!

We suggest that you begin by typing:

  cd new-react-app
  npm start

Happy hacking!

D:\>cd new-react-app

D:\new-react-app>
```

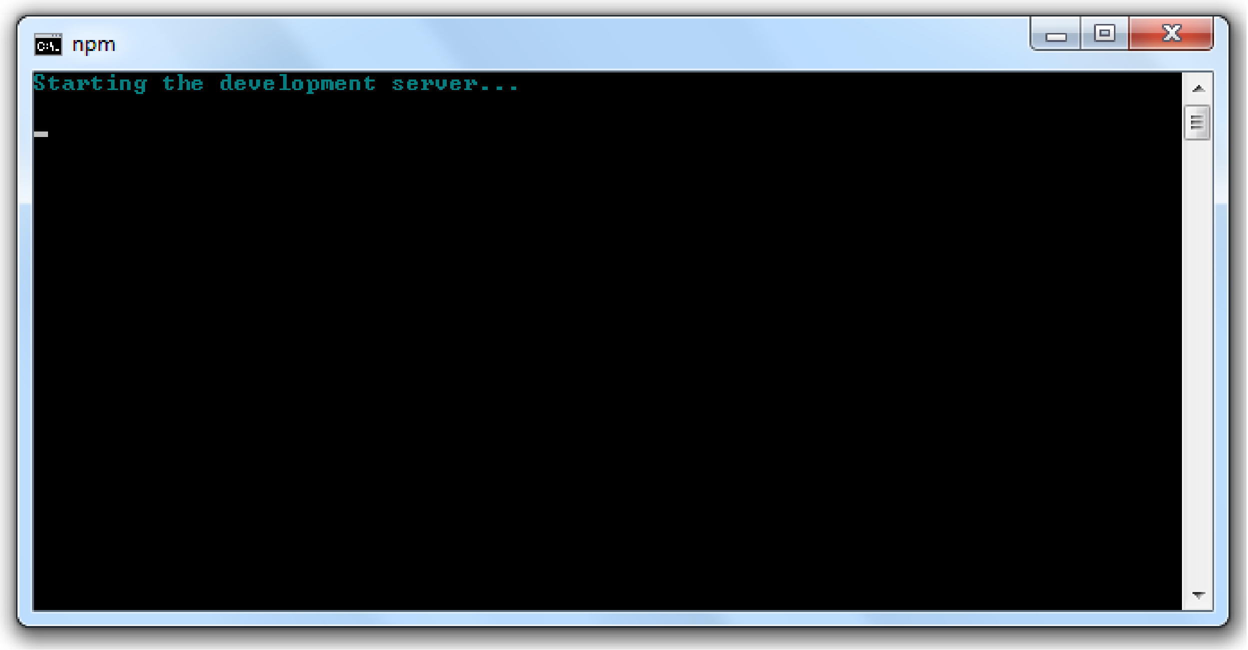
Now we are good to start the server by executing the following command

```
npm start
```



```
  npm start
    Starts the development server.

  npm run build
    Bundles the app into static files for production.

  npm test
    Starts the test runner.

  npm run eject
    Removes this tool and copies build dependencies, configuration files
    and scripts into the app directory. If you do this, you can't go back!

We suggest that you begin by typing:

  cd new-react-app
  npm start

Happy hacking!

D:\>cd new-react-app

D:\new-react-app>npm start
```

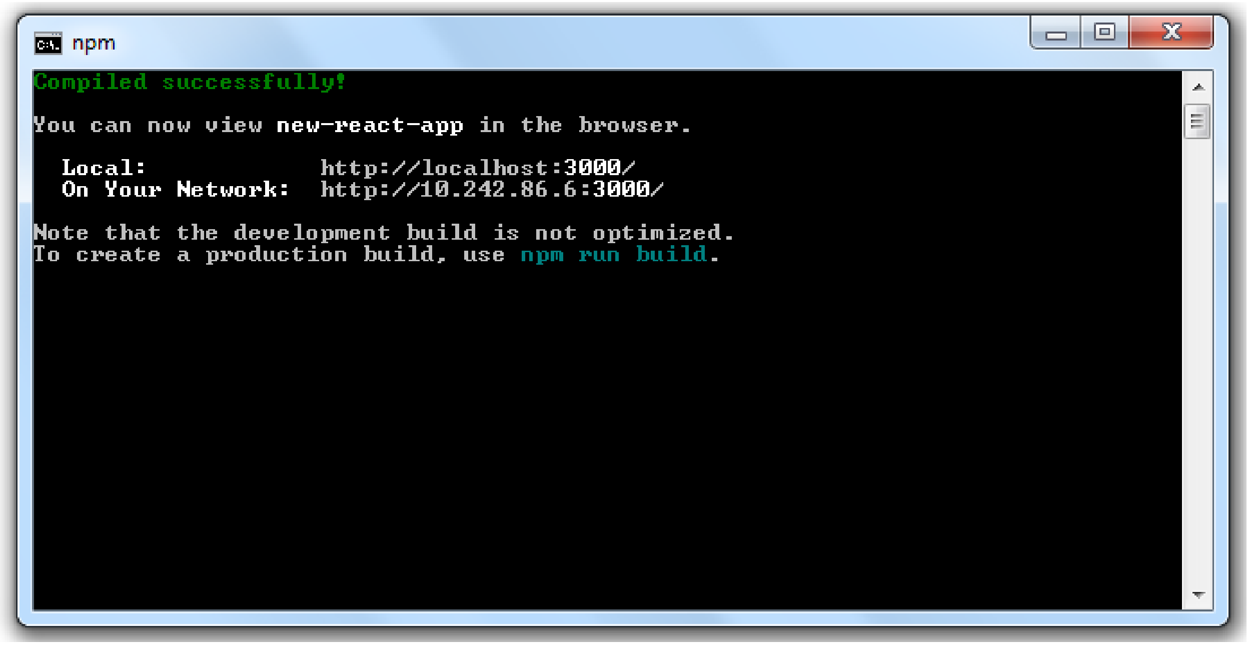
Once the "***npm start***" command is executed successfully, "***Starting the development server***" message will appear in command prompt. In parallel, the react app will kick start automatically by opening your default browser.



```
Starting the development server...
```

At any time, you can run the react app in any compatible browser by hitting the following localhost URL

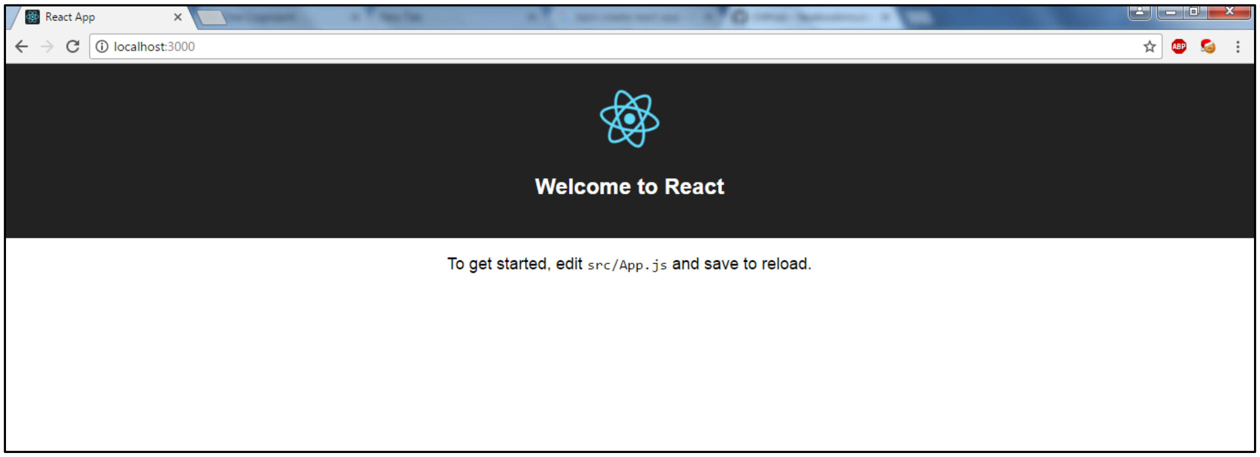
```
http://localhost:3000/
```



```
Compiled successfully!

You can now view new-react-app in the browser.

  Local:            http://localhost:3000/
  On Your Network:  http://10.242.86.6:3000/

Note that the development build is not optimized.
To create a production build, use npm run build.
```

<u>**Note**</u>: The above terminal needs to be in open, as long as the react app is running in browser. Also this terminal will compile the code automatically if any change is done to app and refresh browser consequently to see latest changes without need of doing manual refresh.

Now, the newly created react app is up and running successfully. Happy Coding ☺



Welcome to React

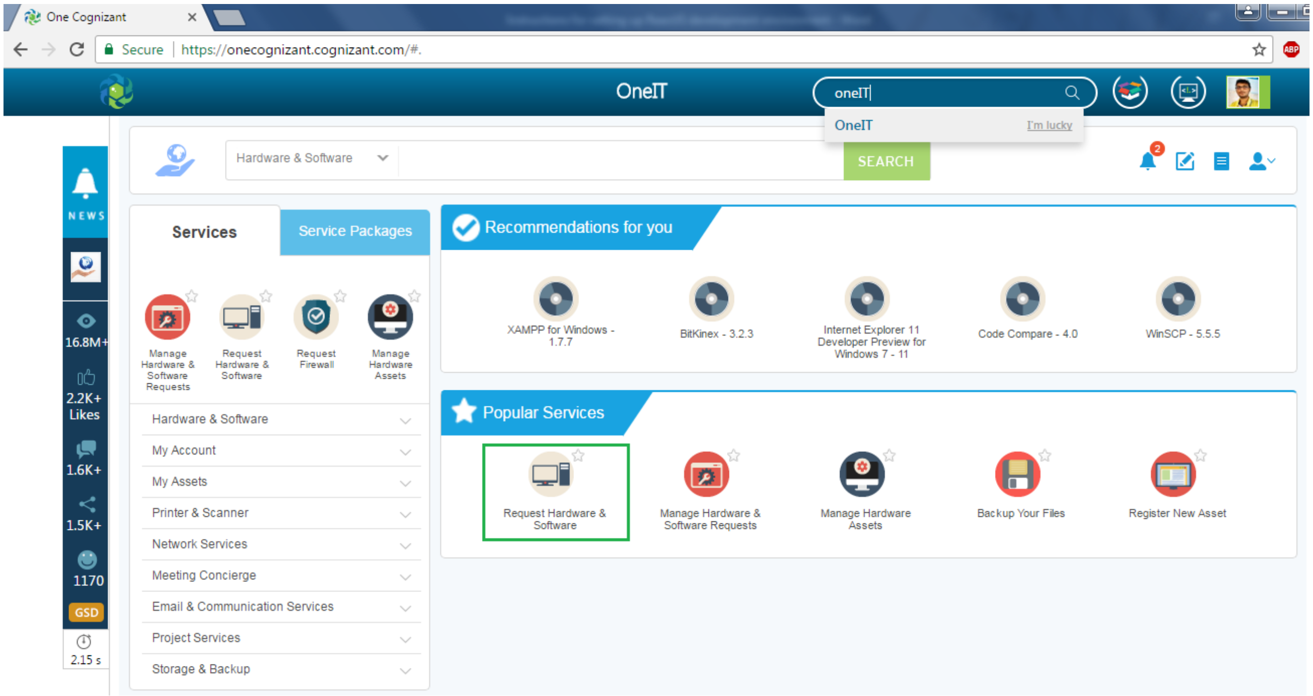
To get started, edit `src/App.js` and save to reload.

IDE: Visual studio code 2017 (Optional)

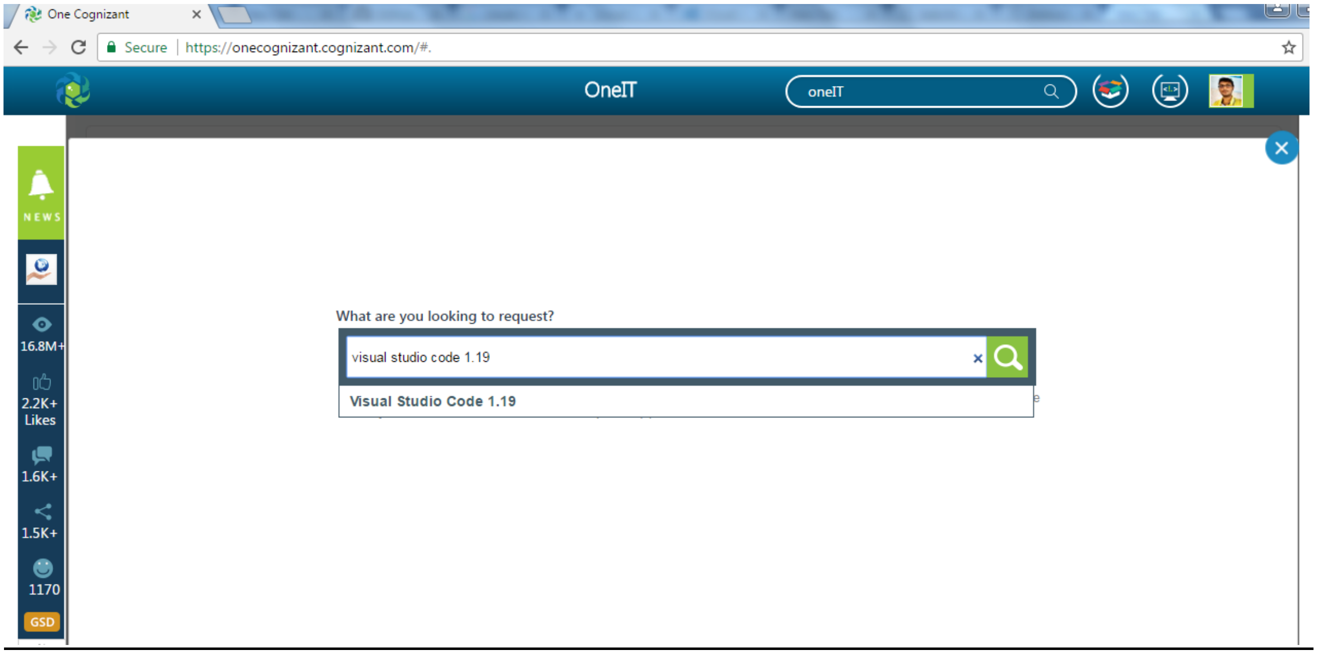
Visual studio code 2017 is an open source IDE and it is highly recommended for developing React, Angular and other similar apps. It includes support for syntax highlighting, intelligent code completion, snippets, code refactoring, etc. It is also customizable, to change the theme, keyboard shortcuts, and preferences.

Navigate to https://onecognizant.cognizant.com/

Click on "***Request Hardware & Software***" icon.



This opens up the following window, under "***What are you looking to request?***" text box type "***visual studio code 1.19"*** and select "***Visual Studio Code 1.19***" from auto populate lists.

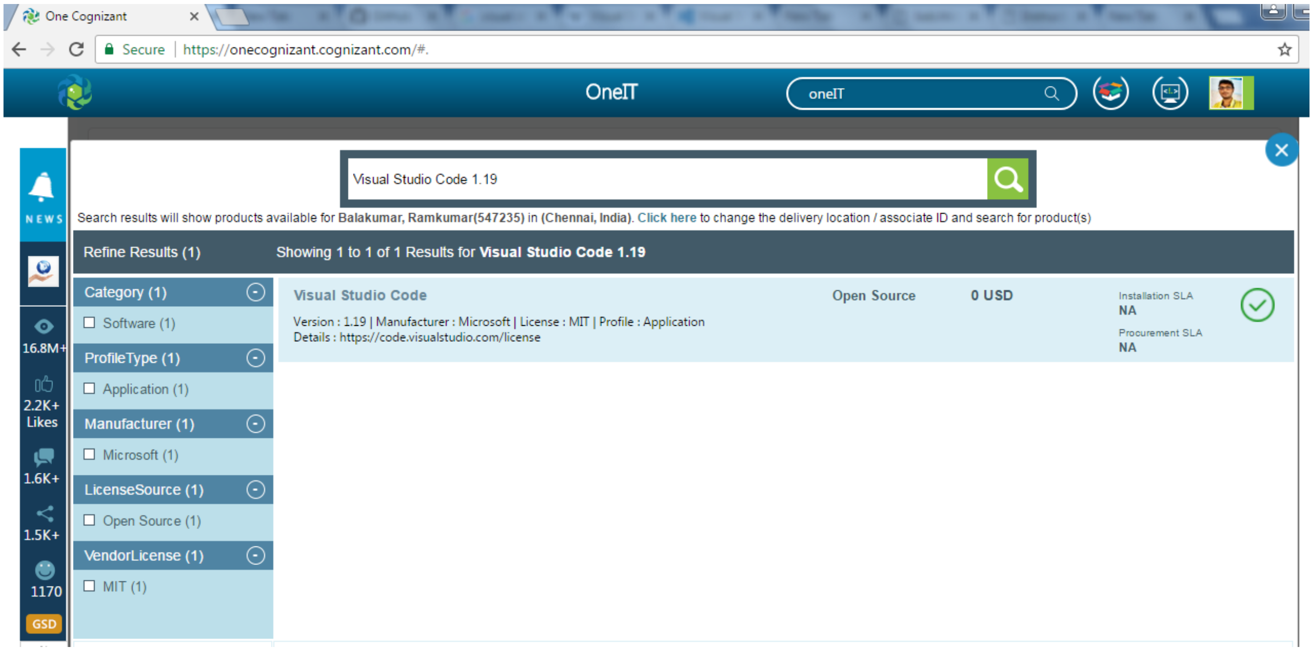


What are you looking to request?

visual studio code 1.19

Visual Studio Code 1.19

After selecting required VSCode version, following window will open with details about the app. Click on "***Raise Request***" icon to raise the software installation request.



Visual Studio Code 1.19

Search results will show products available for **Balakumar, Ramkumar(547235)** in **(Chennai, India)**. Click here to change the delivery location / associate ID and search for product(s)

Refine Results (1)

Showing 1 to 1 of 1 Results for **Visual Studio Code 1.19**

Category (1)
- □ Software (1)

ProfileType (1)
- □ Application (1)

Manufacturer (1)
- □ Microsoft (1)

LicenseSource (1)
- □ Open Source (1)

VendorLicense (1)
- □ MIT (1)

Visual Studio Code — **Open Source** — **0 USD**

Version : 1.19 | Manufacturer : Microsoft | License : MIT | Profile : Application
Details : https://code.visualstudio.com/license

Installation SLA **NA**
Procurement SLA **NA**

Once software installation request is processed successfully, you can start coding using VSCode IDE.