

## How to deploy a Node.js application in production

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In this post, we will see how to run and deploy NodeJS apps in production. Follow the steps below:

### Step 1 - Install Nodejs

Let's download nodejs from Nodesource. NodeSource is a company which provides enterprise-grade Node support and maintains a repository containing the latest versions of Node.js.

```
curl -sL https://deb.nodesource.com/setup_14.x | sudo -E bash -
```

Let's install nodejs now:

```
sudo apt-get install -y nodejs
```

Check the installation of node and npm using the following commands:

```
node --version && npm --version
```

You will see the versions of nodejs and npm

### Step 2 - Creating a sample nodejs file

Let's create a sample app and paste some basic code into it.

```
sudo vi app.js
```

Paste the following code inside it:

```
const express = require('express')
const app = express()
const port = 3000

app.get('/', (req, res) => {
  res.send('Hello World!')
})

app.listen(port, () => {
  console.log(`Example app listening at http://localhost:${port}`)
})
```

Lets now install express so that we can run this app server:

```
npm install express
```

run the application

```
node app.js
```

You should now be able to see the hello world page when you visit <http://server-ip:3000>

Step 3 - Using pm2 as a process manager

Let's install and use pm2 as a process manager. Install pm2 using the commands below:

```
sudo npm i pm2 -g
```

Start the application using the following command:

```
pm2 start app.js
```

#### Step 4 - Configuring Nginx as a reverse proxy

Now let's configure Nginx as a reverse proxy. This will help us get the security features from Nginx. Also, we can serve static content using Nginx.

Let's install Nginx using the following command:

```
sudo apt install nginx
```

Let's create a conf file for our Nodejs app using the command below

```
sudo vi /etc/nginx/sites-available/nodeApp
```

Copy the following content to this file

```
server{  
    server_name 165.232.177.116;  
  
    location / {  
        proxy_pass http://localhost:3000;  
        proxy_http_version 1.1;  
        proxy_set_header Upgrade $http_upgrade;  
        proxy_set_header Connection 'upgrade';  
        proxy_set_header Host $host;  
        proxy_cache_bypass $http_upgrade;  
    }  
}
```

Activate this configuration using the command below:

```
sudo ln -s /etc/nginx/sites-available/nodeApp /etc/nginx/sites-enabled
```