

# Node.js Installation and Configuration Guide

## Step 1: Download Node.js

1. Visit the official website: <https://nodejs.org/en>
2. Download the recommended LTS version for MacOS.

## Step 2: Installation

1. Run the downloaded **.pkg** installer and follow the prompts.
2. Use the default installation path: `/usr/local/bin/node` and `/usr/local/lib/node_modules`
3. Click “**Continue**”, agree to the license, and then click “**Install**”. After installation, click “**Close**”.

## Step 3: Environment Configuration (Optional)

**Configure environment variables if necessary:**

1. Open Terminal.
2. If you want to install the npm package without **sudo**, you can configure it additionally:

```
mkdir ~/.npm-global  
npm config set prefix '~/.npm-global'
```

2. Edit your shell configuration file:

For zsh (macOS default): `nano ~/.zshrc`

For bash: `nano ~/.bash_profile`

3. Add the following line if not present:

```
export PATH="/usr/local/bin:$PATH"
```

4. Save and close the file (`Ctrl+O`, `Enter`, `Ctrl+X`).

5. Apply the changes by running:

```
source ~/.zshrc (or source ~/.bash_profile)
```

## Step 4: Verification

1. Close and reopen Terminal.
2. Verify Node.js installation by entering: `node -v`
3. Verify npm installation by entering: `npm -v`

Both commands should display their respective version numbers.

## Troubleshooting

If commands are not recognized:

- Ensure you edited and sourced the correct shell configuration file.
- Restart Terminal after environment variable changes.
- If problems persist, consider reinstalling Node.js via Homebrew or using nvm (Node Version Manager).

### Notes: Install Homebrew

```
/bin/bash -c "$(curl -fsSL  
https://raw.githubusercontent.com/Homebrew/install/HEAD/install.sh)"
```