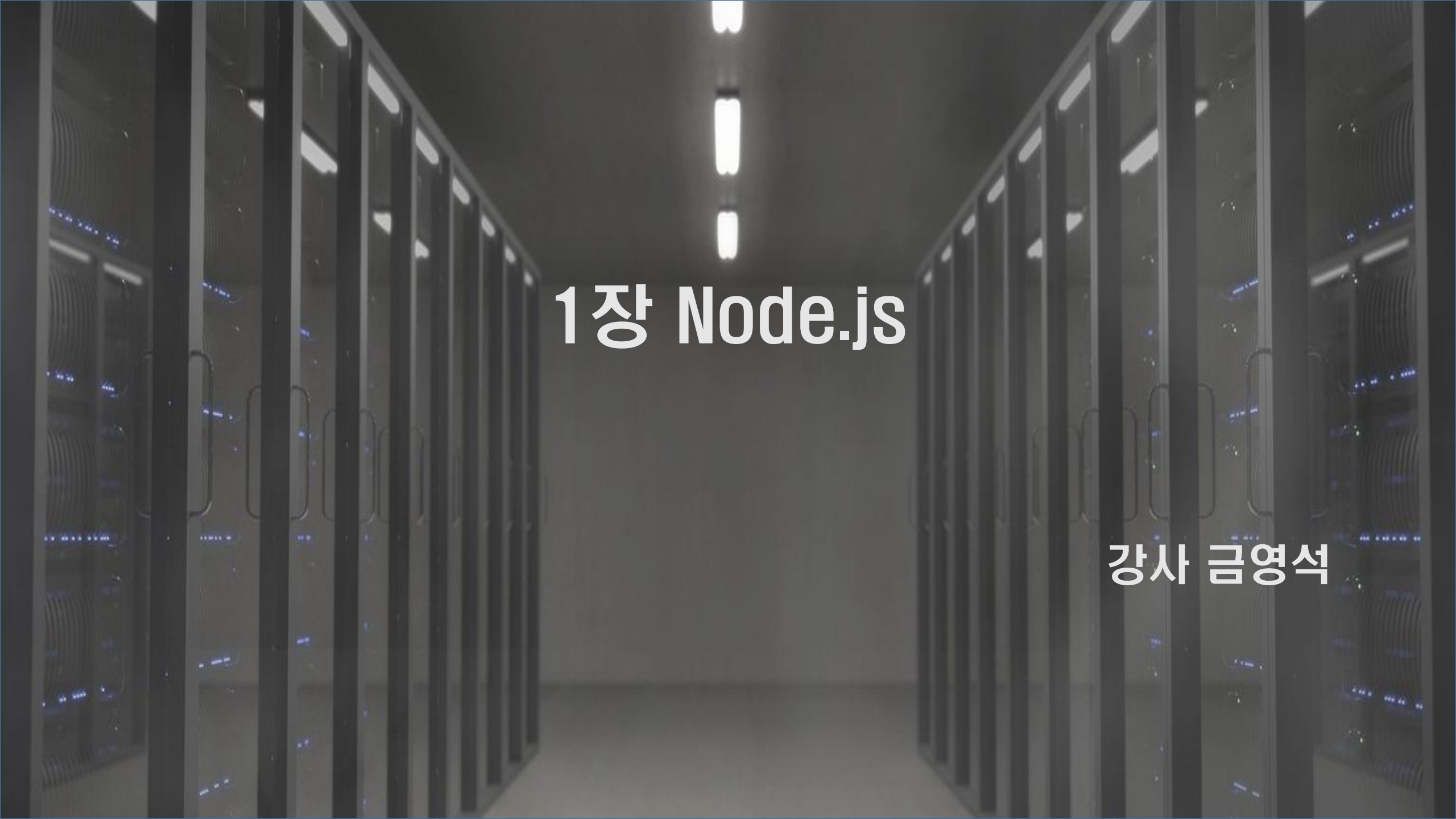
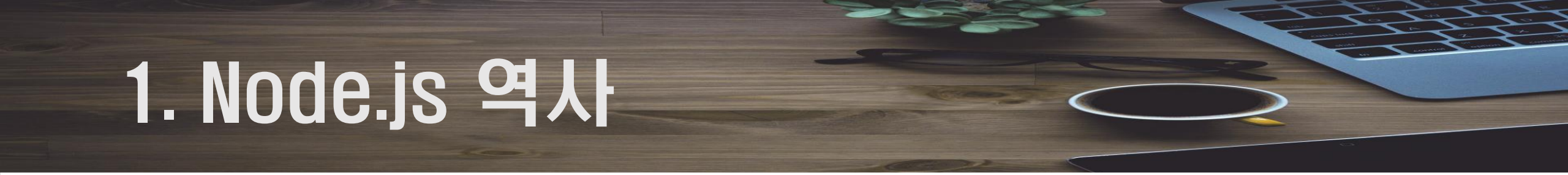


1장 Node.js

강사 금영석

CONTENT



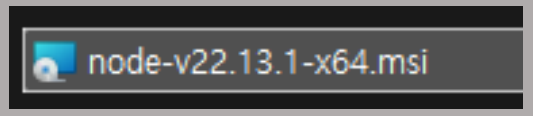
1. Node.js 역사

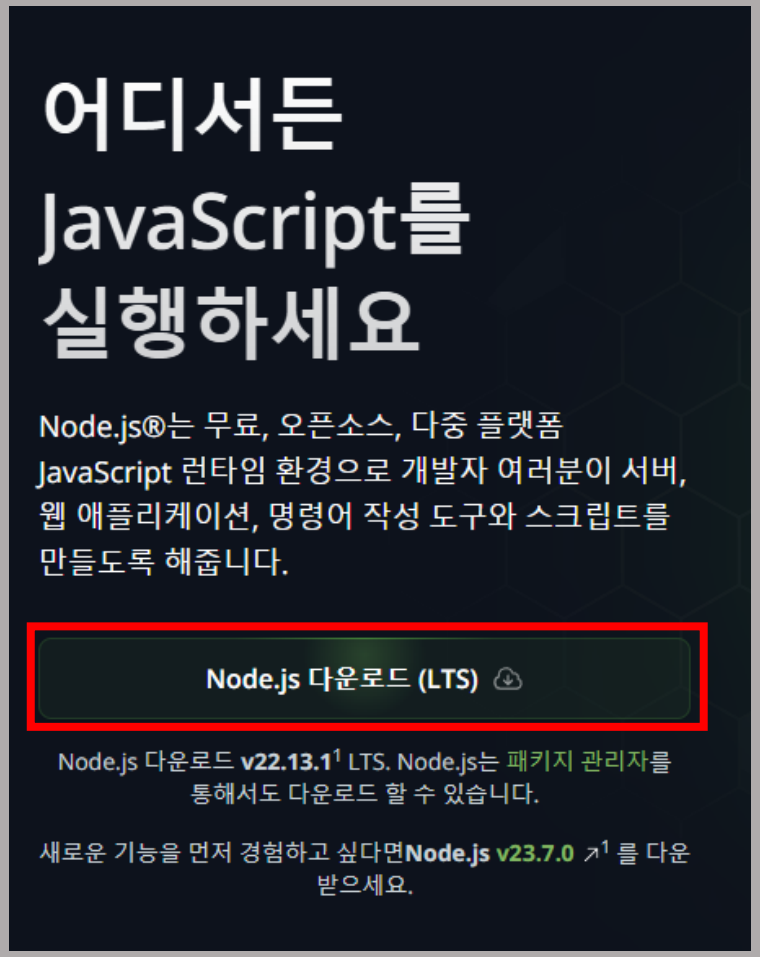
- ✓ 1990년 처음 웹이 등장 했고, 1995년에 JavaScript 를 제작하게 되었다.
- ✓ JavaScript 는 웹 브라우저에서 사용되는 편파적인 언어라는 평도 있었지만 꾸준하게 사용자를 늘려갔다.
- ✓ 2008년 구글이 크롬 웹 브라우저에서 동작하는 JavaScript 성능을 개선하고자 V8 엔진을 개발했고 이를 오픈 소스로 공개했다.
- ✓ V8 엔진에 기반을 두고 라이언 달(Ryan Dahl)은 Node.js 를 만들기 시작했다.
- ✓ Node.js 는 JavaScript를 이용해서 일반적인 프로그래밍 언어처럼 컴퓨터 자체를 제어하게 되었다.

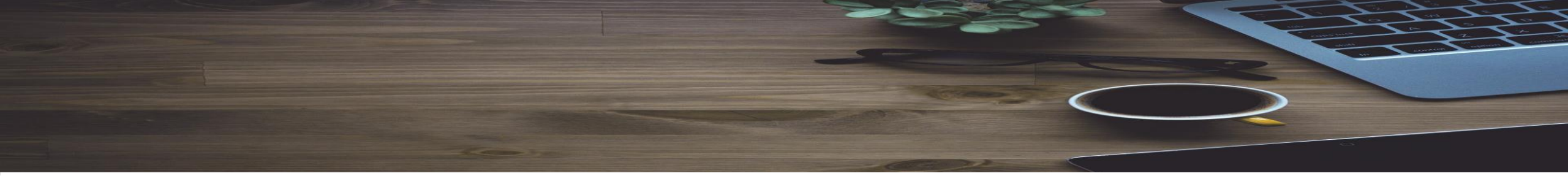
2. Node.js 설치

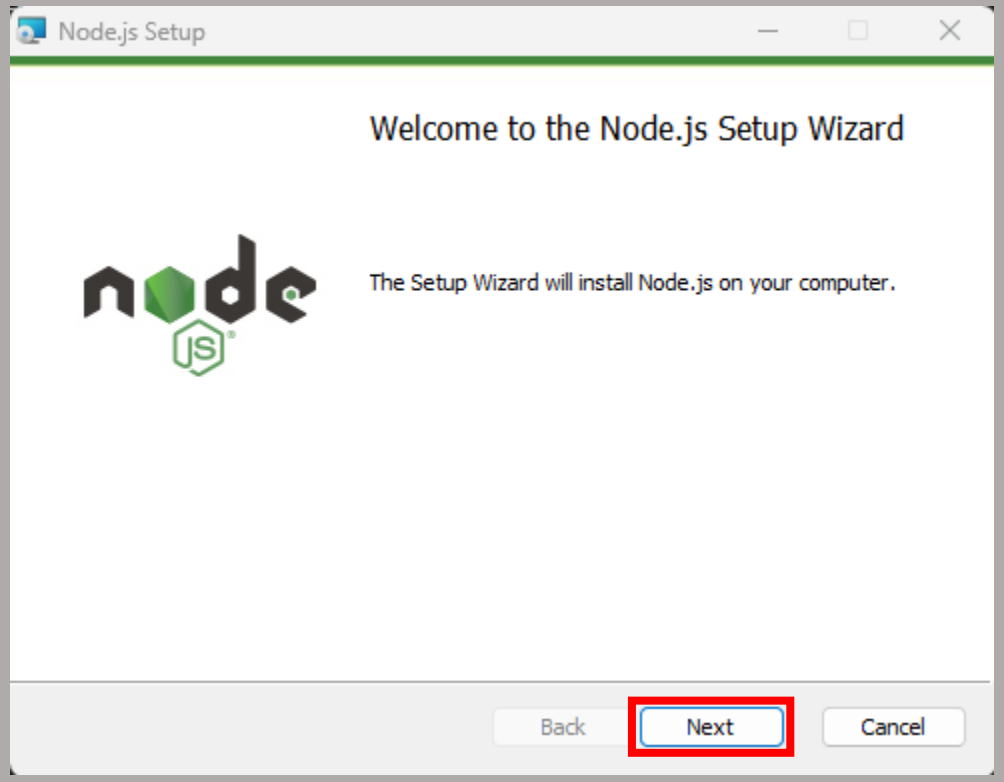
✓ 다운로드 링크

- https://nodejs.org/ko

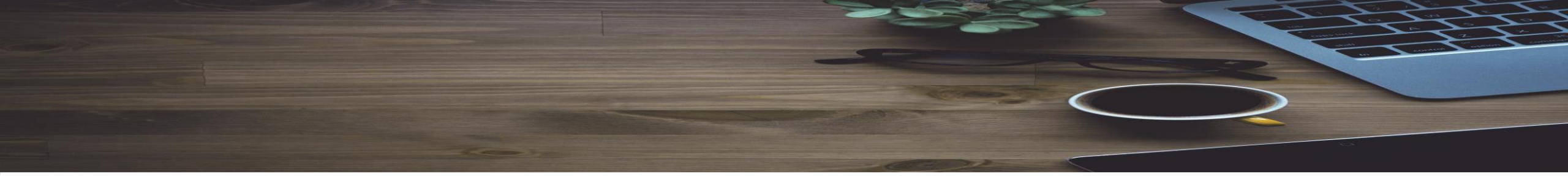


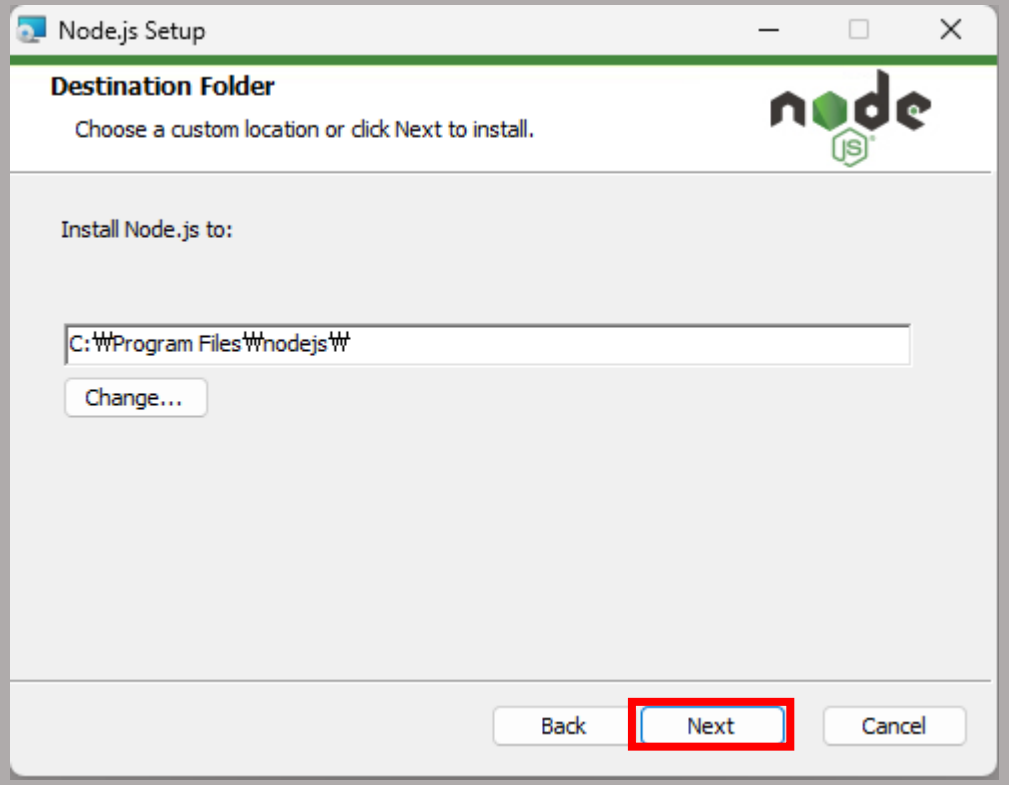


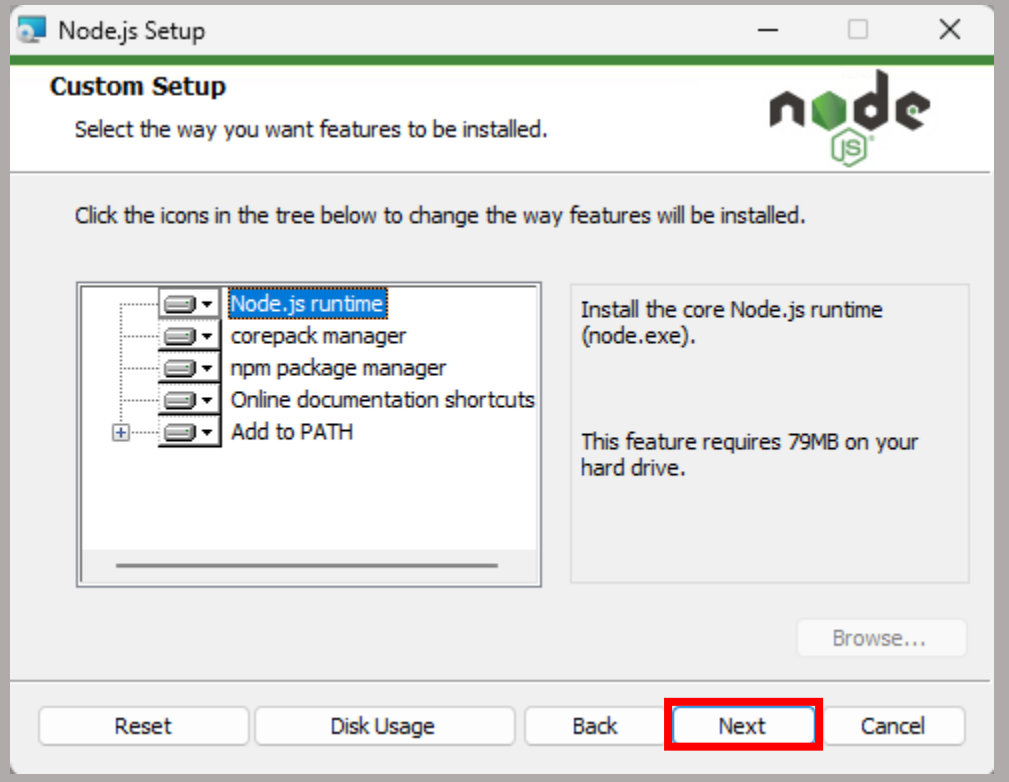


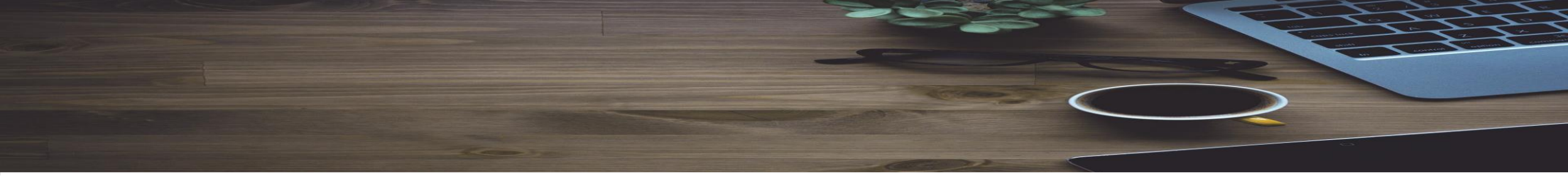

Node.js Setup
Welcome to the Node.js Setup Wizard
The Setup Wizard will install Node.js on your computer.
Back
Next
Cancel

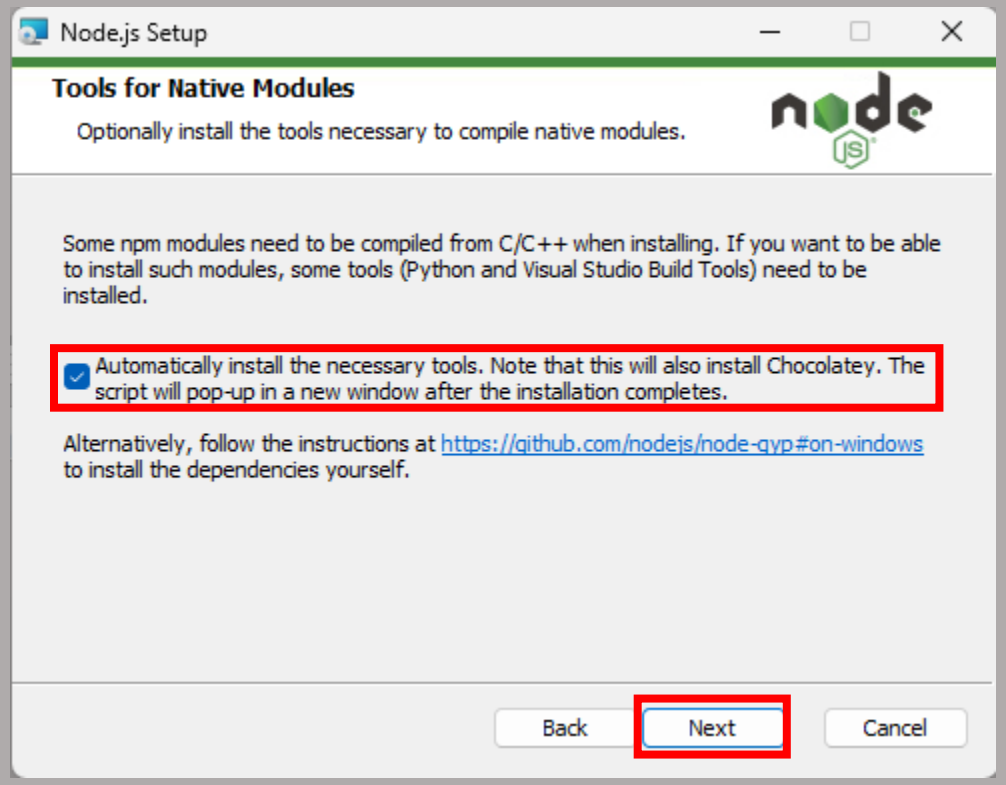

Node.js Setup
End-User License Agreement
Please read the following license agreement carefully
Node.js is licensed for use as follows:
Copyright Node.js contributors. All rights reserved.
Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject
I accept the terms in the License Agreement
Print
Back
Next
Cancel

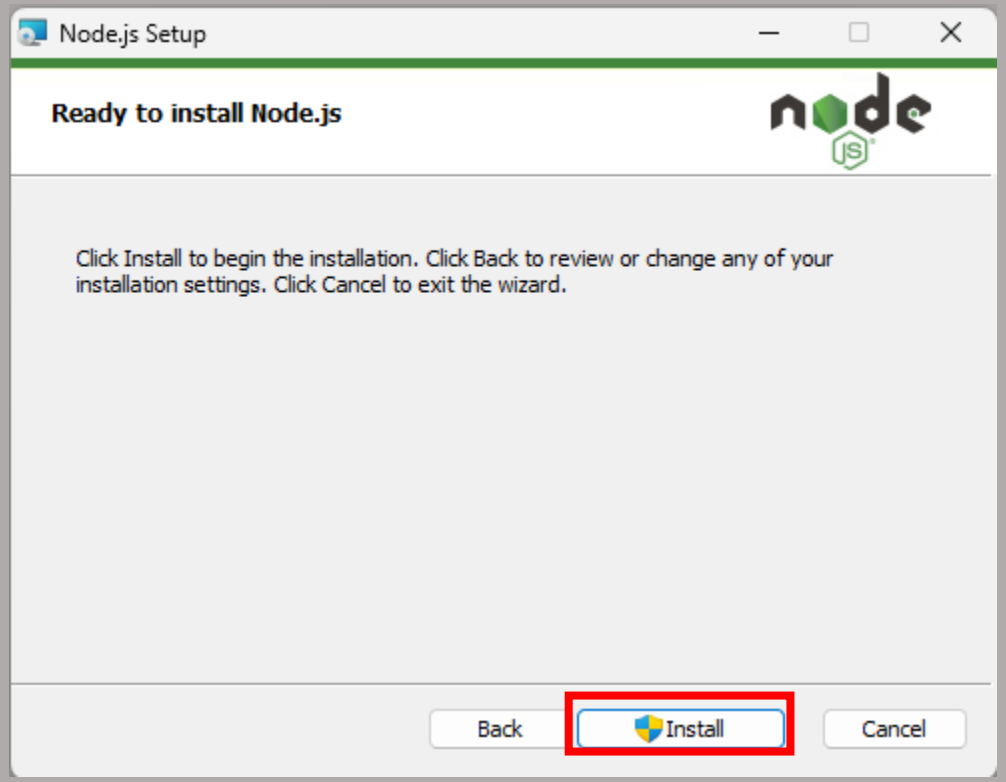


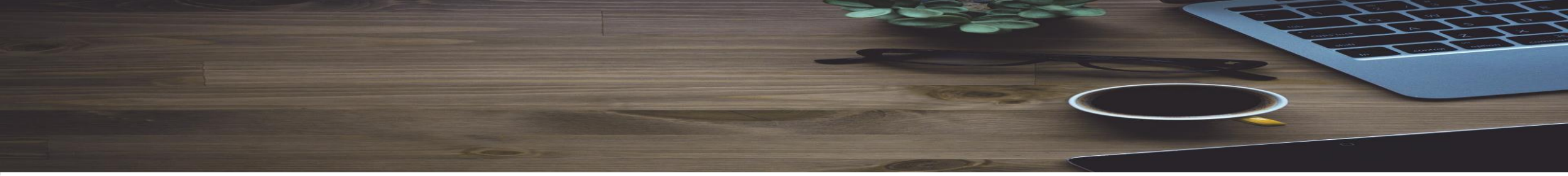

Node.js Setup
Destination Folder
Choose a custom location or click Next to install.
Install Node.js to:
C:₩Program Files₩nodejs₩
Change...
Back
Next
Cancel

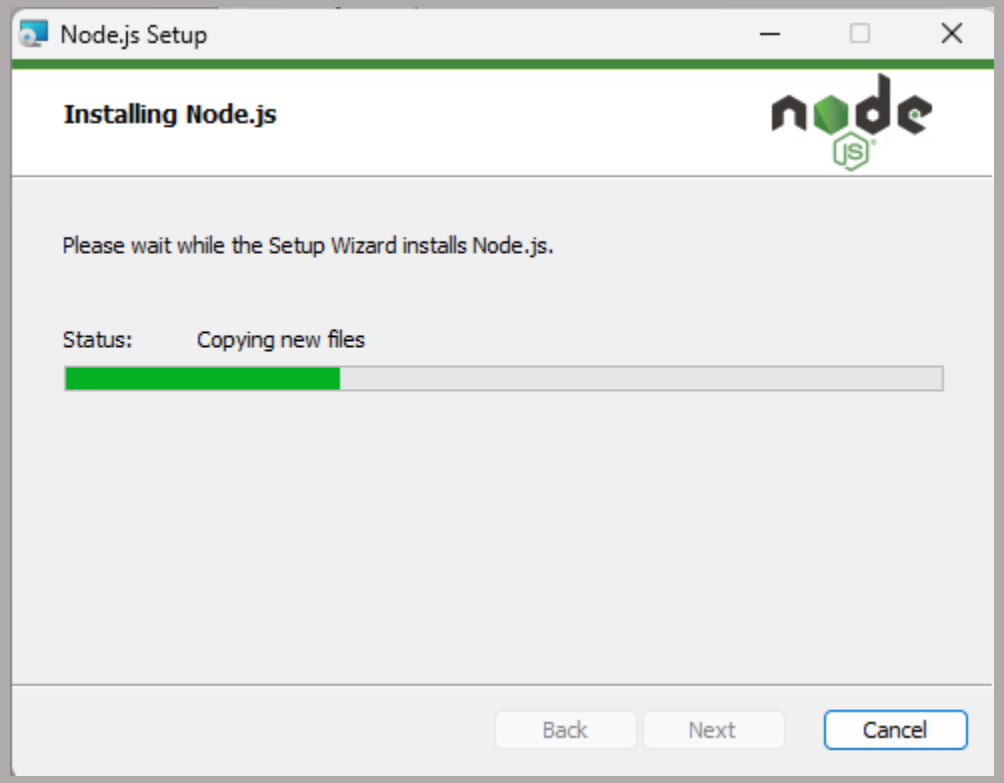

Node.js Setup
Custom Setup
Select the way you want features to be installed.
Click the icons in the tree below to change the way features will be installed.
Node.js runtime
corepack manager
npm package manager
Online documentation shortcuts
Add to PATH
Install the core Node.js runtime (node.exe).
This feature requires 79MB on your hard drive.
Browse...
Reset
Disk Usage
Back
Next
Cancel

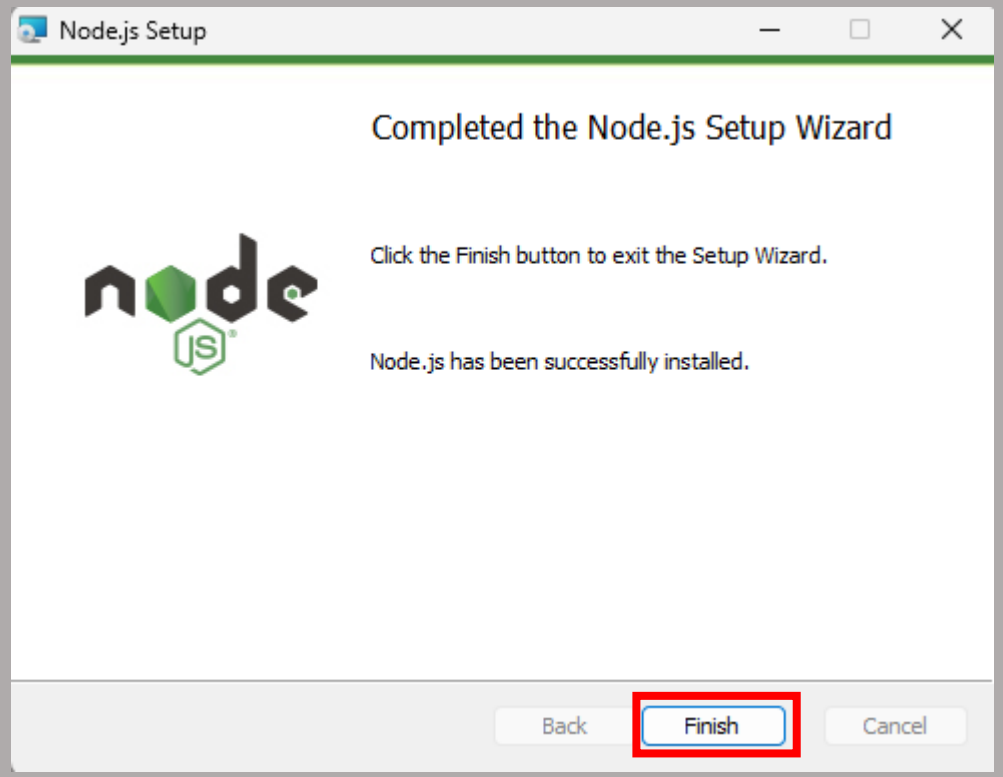


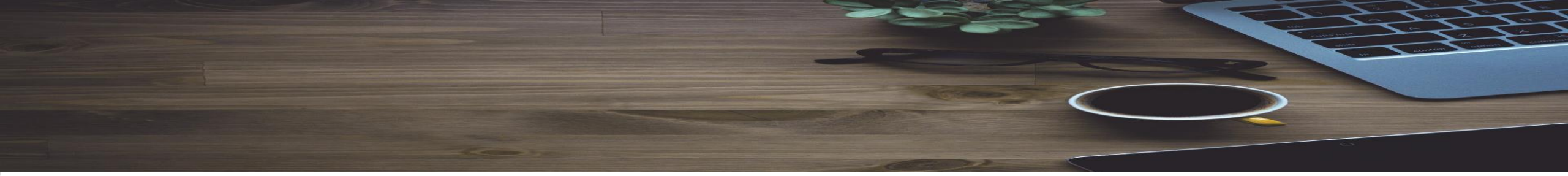

Node.js Setup
Tools for Native Modules
Optionally install the tools necessary to compile native modules.
Some npm modules need to be compiled from C/C++ when installing. If you want to be able to install such modules, some tools (Python and Visual Studio Build Tools) need to be installed.
Automatically install the necessary tools. Note that this will also install Chocolatey. The script will pop-up in a new window after the installation completes.
Alternatively, follow the instructions at https://github.com/nodejs/node-gyp#on-windows to install the dependencies yourself.
Back
Next
Cancel


Node.js Setup
Ready to install Node.js
Click Install to begin the installation. Click Back to review or change any of your installation settings. Click Cancel to exit the wizard.
Back
Install
Cancel

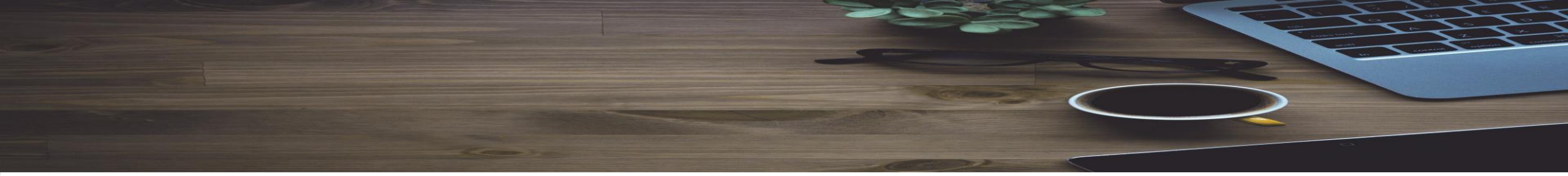



Node.js Setup
Installing Node.js
Please wait while the Setup Wizard installs Node.js.
Status: Copying new files
Back
Next
Cancel

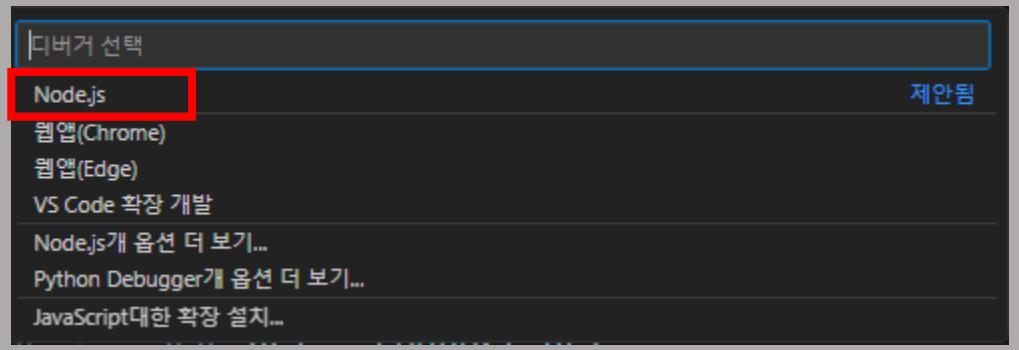

Node.js Setup
Completed the Node.js Setup Wizard
Click the Finish button to exit the Setup Wizard.
Node.js has been successfully installed.
Back
Finish
Cancel

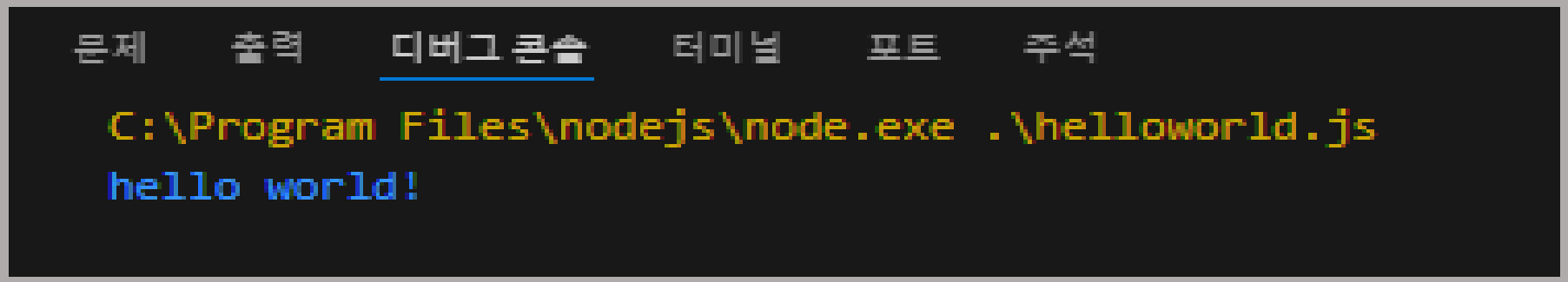


```
C:\Users\kys05>node -v
v22.13.1

C:\Users\kys05>node
Welcome to Node.js v22.13.1.
Type ".help" for more information.
> console.log(1+1)
2
undefined
> .exit
```




파일(F) 편집(E) 선택 영역(S) 보기(V) 이동(G) 실행(R) 터미널(T) 도움말(H)
탐색기
NODE_WORKSPACE
helloworld.js
시작
helloworld.js
helloworld.js
1 console.log("hello world!");

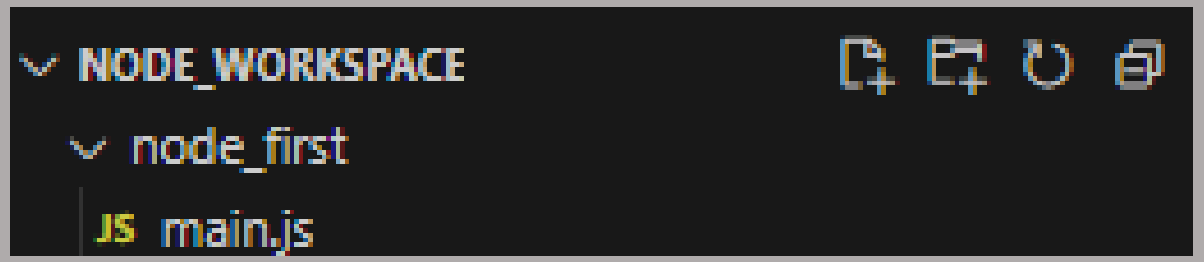

디버거 선택
Node.js
제안됨
웹앱(Chrome)
웹앱(Edge)
VS Code 확장 개발
Node.js개 옵션 더 보기...
Python Debugger개 옵션 더 보기...
JavaScript대한 확장 설치...

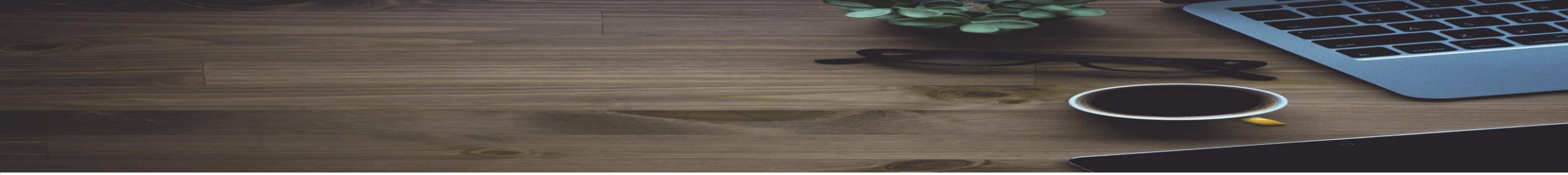

문제
출력
디버그 콘솔
터미널
포트
주석
C:\Program Files\nodejs\node.exe .\helloworld.js
hello world!

3. 간단한 웹 페이지 실행

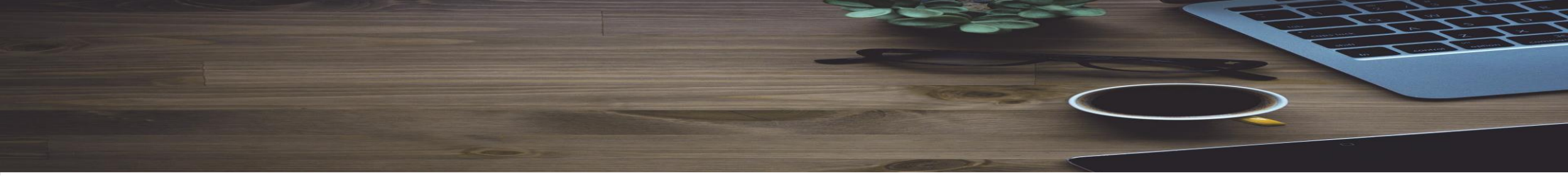
✓ main.js 파일 만들기

- main.js 가 웹 서버가 동작하게 하는 파일 입니다.





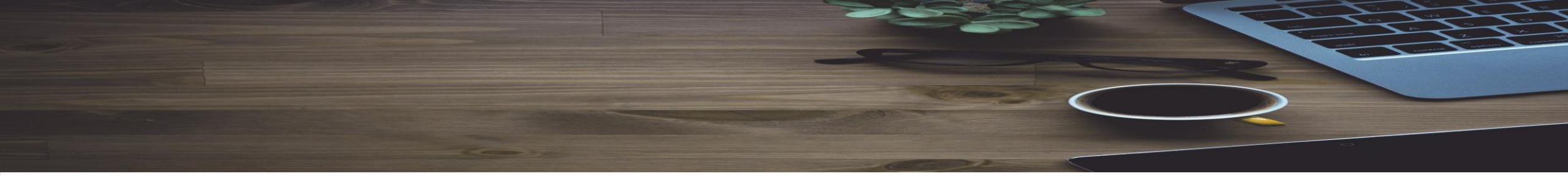
```
var http = require('http');
var fs = require('fs');
var app = http.createServer(function(request, response){
    var url = request.url;
    if(request.url == '/') {
        url = '/index.html';
    }
    if(request.url == '/favicon.ico') {
        return response.writeHead(404);
    }

    response.writeHead(200);
    response.end(fs.readFileSync(__dirname + url));
});

app.listen(3000);
```

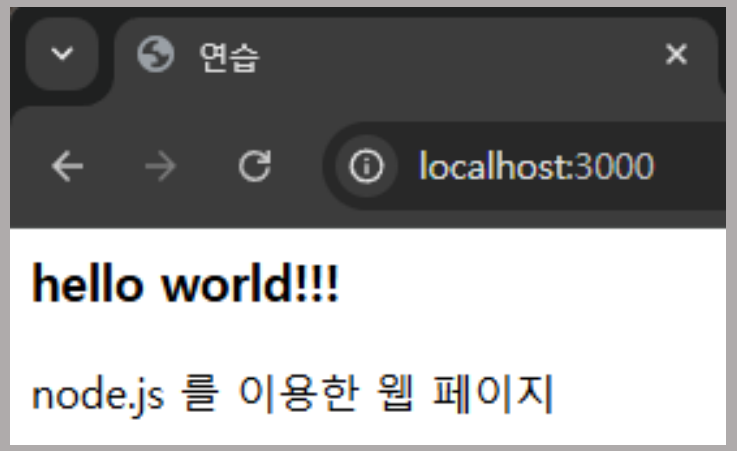


```
C:\Program Files\nodejs\node.exe .\node_first\main.js
Uncaught Error Error: ENOENT: no such file or directory, open 'F:\node_workspace\node_first\index.html'
    at openSync (node:fs:562:18)
    at readFileSync (node:fs:446:35)
    at <anonymous> (file:///F:/node_workspace/node_first/main.js:13:21)
    at emit (node:events:524:28)
    at parserOnIncoming (node:_http_server:1153:12)
    at parserOnHeadersComplete (node:_htt
    --- HTTPINCOMINGMESSAGE ---
```

```
NODE_WORKSPACE
  node_first
    index.html
    main.js
```

```html
<html>
    <head>
        <title>연습</title>
        <meta charset="utf-8">
    </head>
    <body>
        <h3>hello world!!!</h3>
        <p>node.js 를 이용한 웹 페이지</p>
    </body>
</html>
```



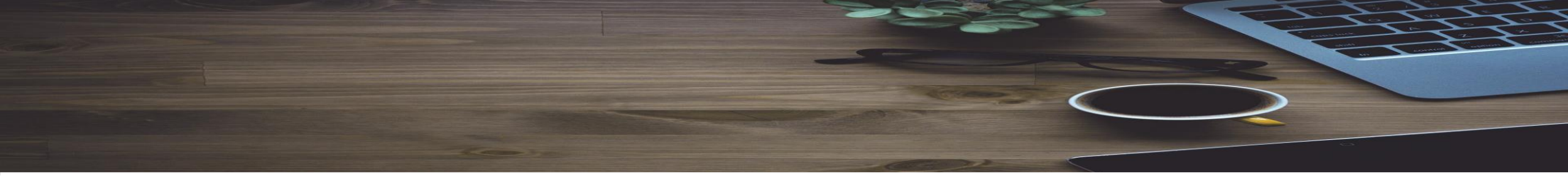



```
C:\Program Files\nodejs\node.exe .\node_first\main.js
```

서버 실행 중

```
문제  출력  디버그 콘솔  터미널  포트  주석
C:\Program Files\nodejs\node.exe .\node_first\main.js
Process exited with code 1
```

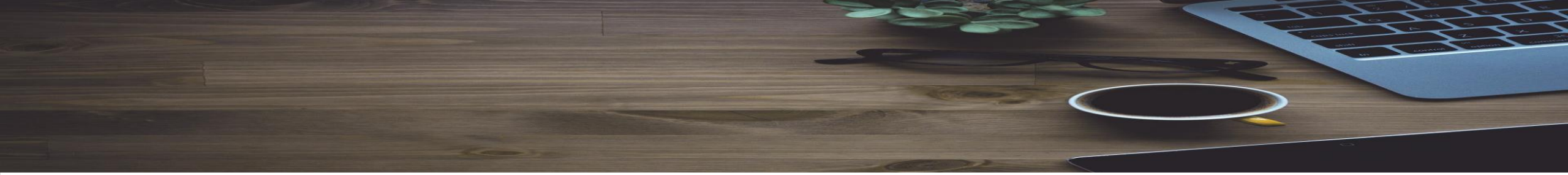
서버 중지



✓ 파라미터 가져오기

https://search.naver.com/search.naver?query=식당

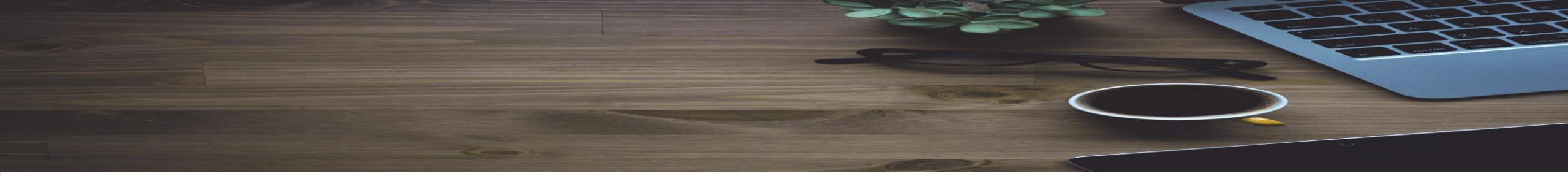
- https://search.naver.com/ : 도메인
- search.naver : 도메인 내 경로
- ? : 파라미터 시작을 의미
- query : 키
- 식당 : 값

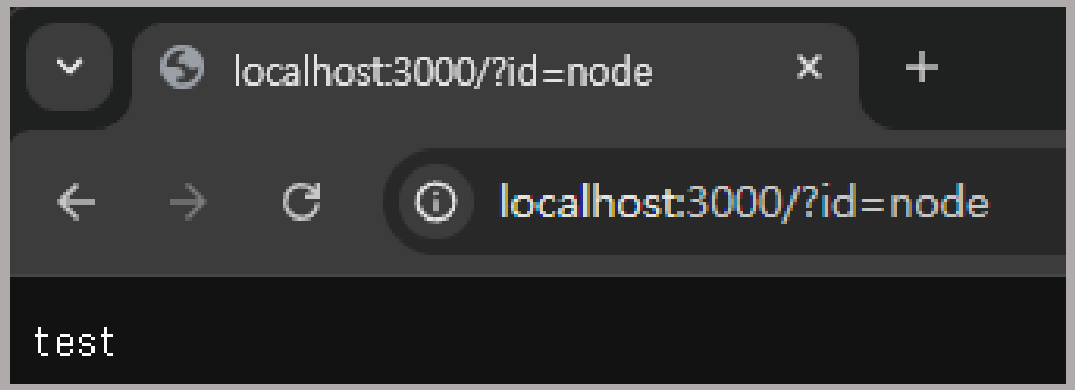


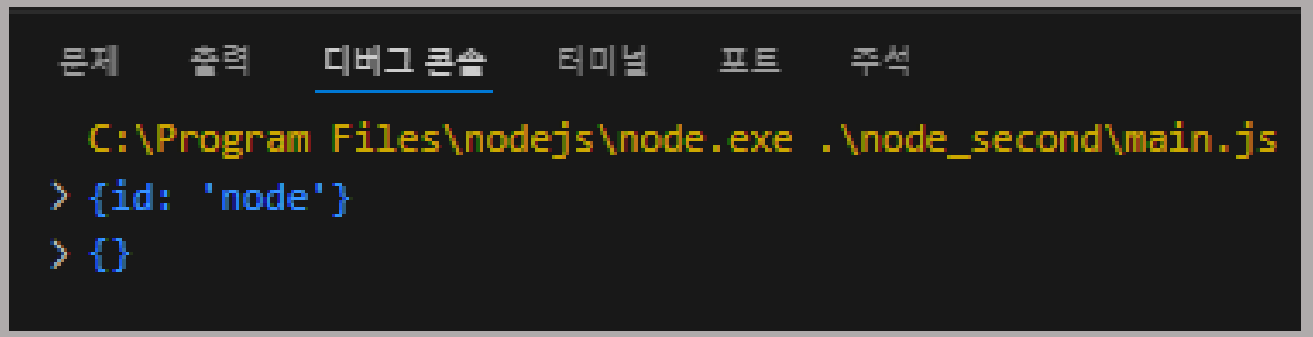
node_second

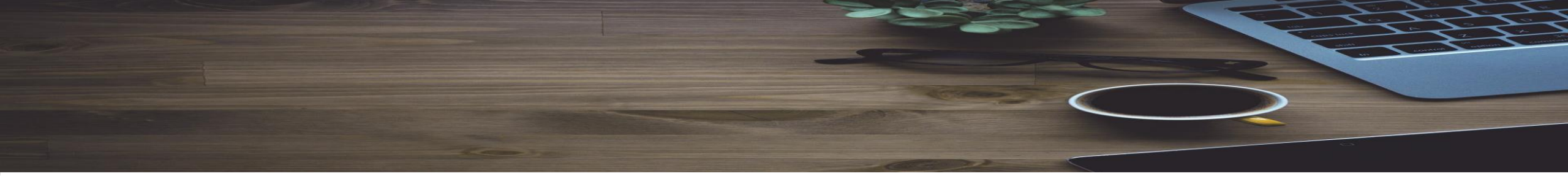
JS main.js

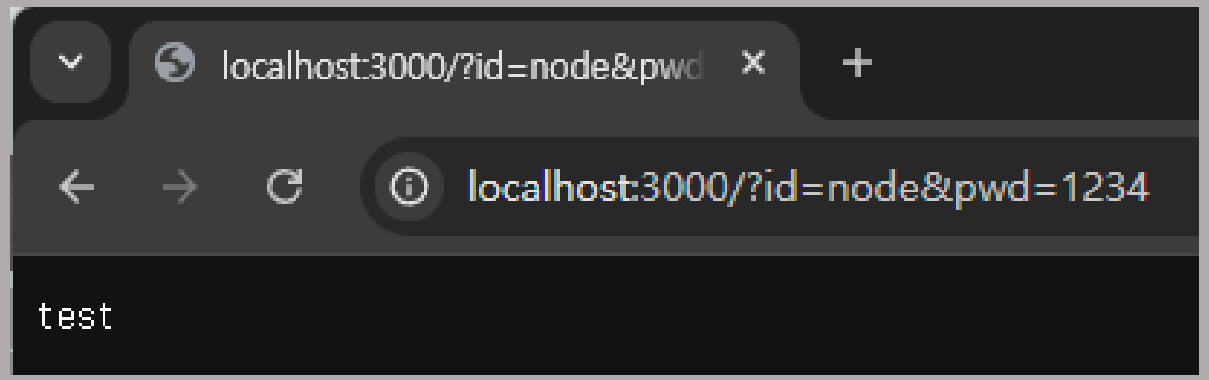
```
var http = require('http');
var fs = require('fs');
var url = require('url');

var app = http.createServer(function(request, response){
    var _url = request.url;
    var queryData = url.parse(_url, true).query;

    console.log(queryData);

    response.writeHead(200);
    response.end('test');
});

app.listen(3000);
```

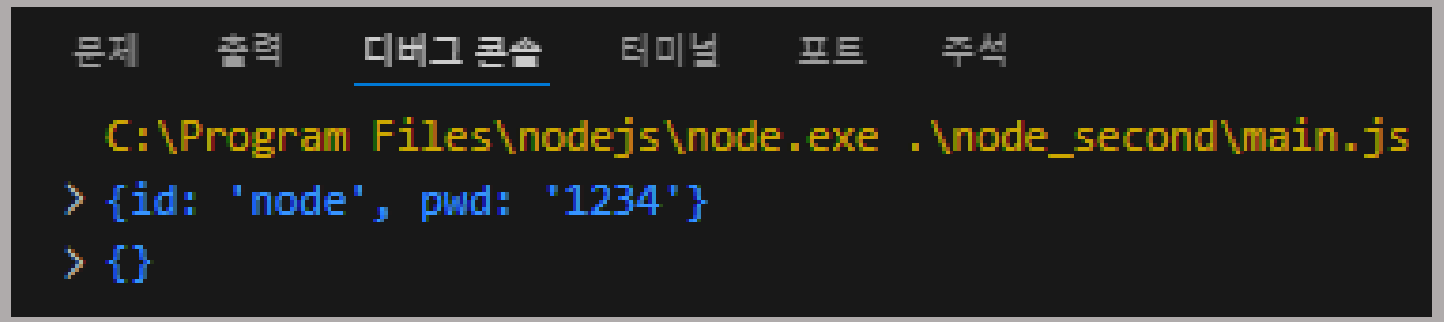


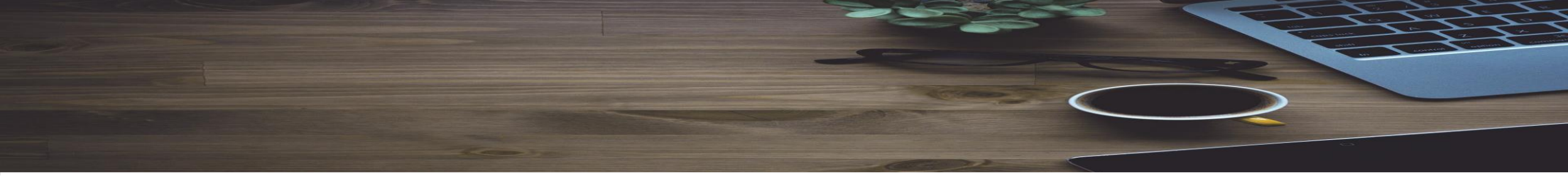

localhost:3000/?id=node
localhost:3000/?id=node
test


문제
출력
디버그 콘솔
터미널
포트
주석
C:\Program Files\nodejs\node.exe .\node_second\main.js
> {id: 'node'}
> {}

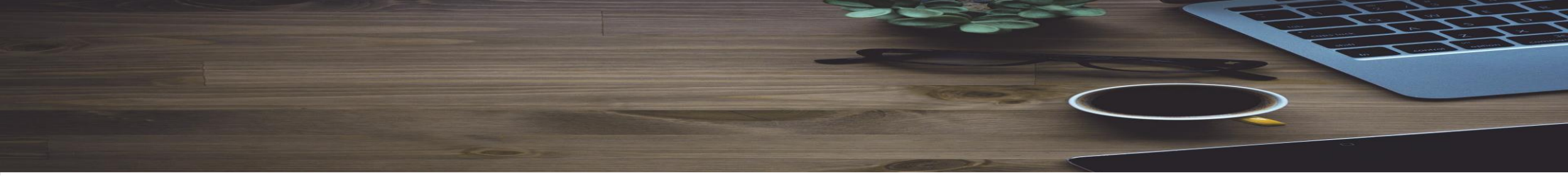



localhost:3000/?id=node&pwd
localhost:3000/?id=node&pwd=1234
test


문제
출력
디버그 콘솔
터미널
포트
주석
C:\Program Files\nodejs\node.exe .\node_second\main.js
{id: 'node', pwd: '1234'}
{}



```
var http = require('http');
var fs = require('fs');
var url = require('url');

var app = http.createServer(function(request, response){
    var _url = request.url;
    var queryData = url.parse(_url, true).query;

    console.log(queryData);

    response.writeHead(200);
    response.end('id : ' + queryData.id + ', pwd : ' + queryData.pwd);
});

app.listen(3000);
```



localhost:3000/?id=node&pwd

localhost:3000/?id=node&pwd=1234

id : node, pwd : 1234

```
PS F:\node_workspace\node_second> node main.js
[Object: null prototype] { id: 'node', pwd: '1234' }
[Object: null prototype] {}
```


수고하셨습니다.