การใช้ nodejs เบื้องต้น

- 1.ดาวโหลดติดตั้ง node

- 2.node --version

- 3.npm --version

- 4.สร้างโฟลเดอร์โปรเจ็ค

- 5.เปิด VSCode -> Open Folder

- 6. npm init ที่ command prompt

```
C:\Users\mkrobot>node --version
v20.17.0

C:\Users\mkrobot>npm --version
10.7.0

C:\Users\mkrobot>cd\

C:\>mkdir node1

C:\>cd node1

C:\node1>npm init
```
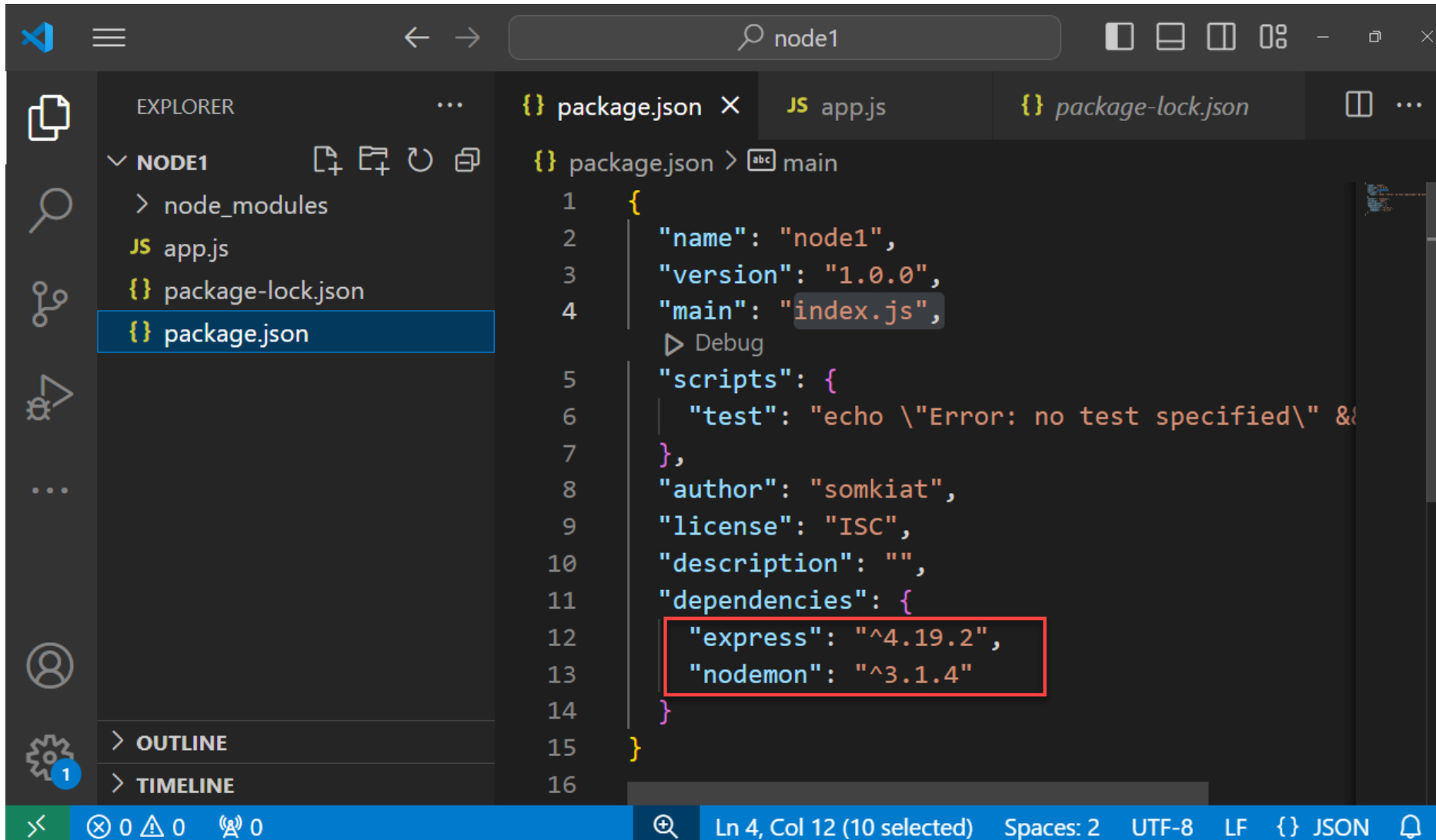
```
C:\node1>npm i express
```

```
C:\node1>npm i nodemon
```

ไฟล์ package.json

การ Run nodejs
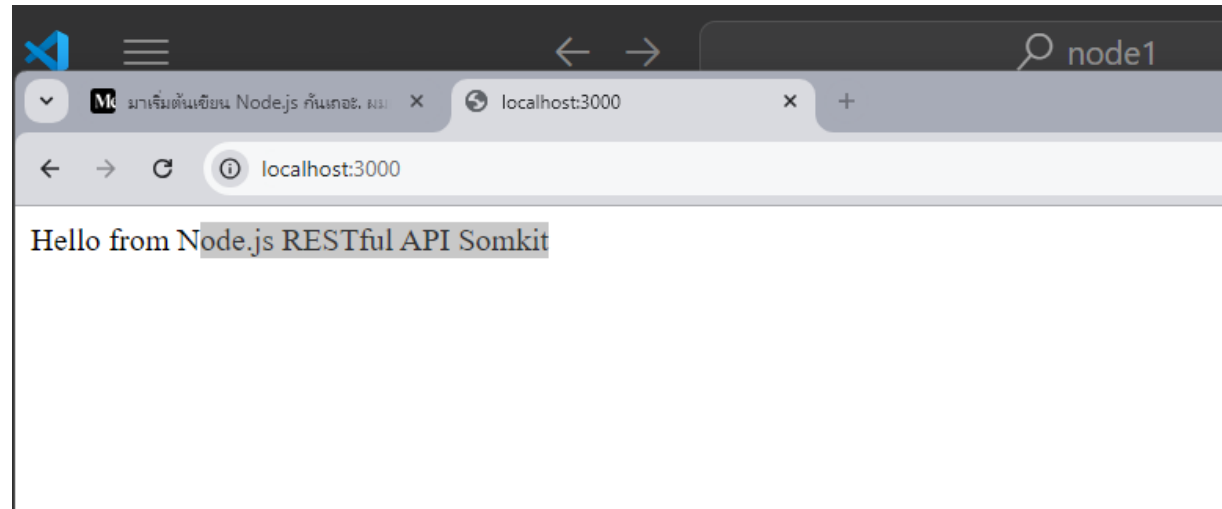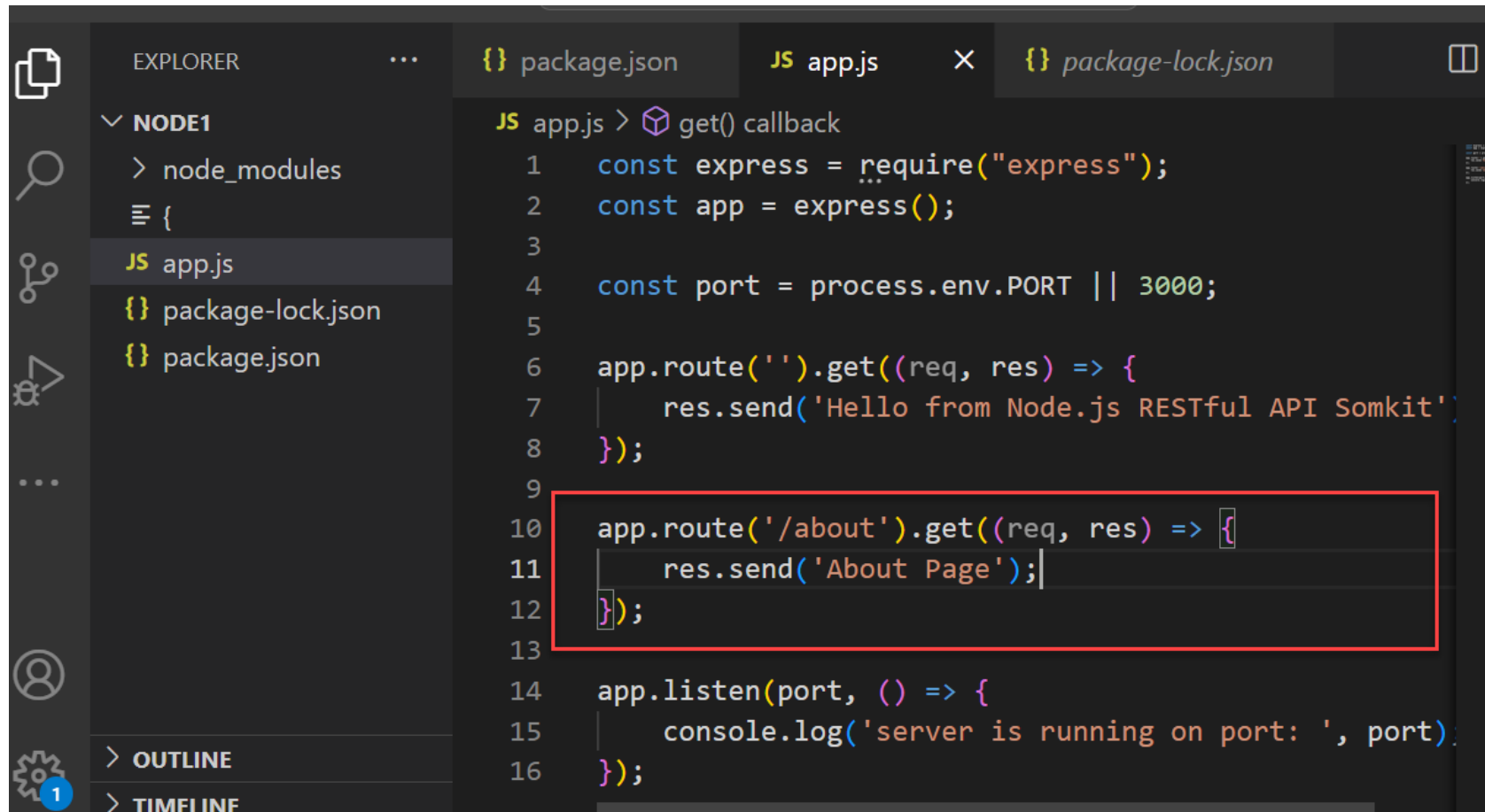
```
C:\node1>node app.js
server is running on port:  3000
```

localhost:3000

Hello from Node.js RESTful API Somkit

```
EXPLORER                    {} package.json        JS app.js        ×        {} package-lock.json              ⬚

∨ NODE1                     JS app.js > ⬡ get() callback
  > node_modules            1    const express = require("express");
  ≡ {                       2    const app = express();
  JS app.js                 3
  {} package-lock.json      4    const port = process.env.PORT || 3000;
  {} package.json           5
                            6    app.route('').get((req, res) => {
                            7        res.send('Hello from Node.js RESTful API Somkit'
                            8    });
                            9
                           10    app.route('/about').get((req, res) => {
                           11        res.send('About Page');
                           12    });
                           13
                           14    app.listen(port, () => {
                           15        console.log('server is running on port: ', port)
                           16    });

> OUTLINE
> TIMELINE
```

```
C:\node1>node app.js
server is running on port:  3000
^C
C:\node1>node app.js
server is running on port:  3000
```

localhost:3000/about

About Page

```
C:\>docker network

Usage:   docker network COMMAND

Manage networks

Commands:
  connect     Connect a container to a network
  create      Create a network
  disconnect  Disconnect a container from a network
  inspect     Display detailed information on one or more networks
  ls          List networks
  prune       Remove all unused networks
  rm          Remove one or more networks

Run 'docker network COMMAND --help' for more information on a command.

C:\>
```

```
C:\node1>docker network create backend-network
e3859a1c8de9cb9558f2e3a48d9ac617c309570b55afdb2a56a519440675b1fb

C:\node1>docker run --name mysql-server --network backend-network -p 3306:3306 -v d:/mysql-data:/var/lib/mysql -e MYSQL_ROOT_PASSWO
RD=1234 -d mysql:latest
docker: Error response from daemon: mkdir d:\mysql-data: The system cannot find the path specified.
See 'docker run --help'.

C:\node1>docker run --name mysql-server --network backend-network -p 3306:3306 -v c:/mysql-data:/var/lib/mysql -e MYSQL_ROOT_PASSWORD=1234 -d mysql:latest
b463d6731e7d1232db51fea8cb0ab60d3e7c2ba45496502dd3a92edb4b989b7b

C:\node1>
```

This PC > Local Disk (C:) >

Search Local Disk (C:)

Sort   View   ...

Name	Date modified	Type	Size
AMD	7/1/2024 10:09 AM	File folder	
Arduino18	4/27/2024 3:06 PM	File folder	
django	8/22/2024 10:28 AM	File folder	
Drivers	3/5/2024 5:48 PM	File folder	
ESD	8/15/2024 12:40 PM	File folder	
HP Universal Print Driver	2/13/2024 9:02 AM	File folder	
Log Files	2/18/2024 11:58 AM	File folder	
mysql-data	8/22/2024 10:27 AM	File folder	
node1	8/22/2024 10:21 AM	File folder	
OneDriveTemp	4/30/2024 7:46 AM	File folder	
PerfLogs	5/7/2022 12:24 PM	File folder	
Program Files	8/22/2024 9:05 AM	File folder	
Program Files (x86)	8/18/2024 12:22 PM	File folder	

```
C:\node_react_mysql>mkdir express-mysql
A subdirectory or file express-mysql already exists.

C:\node_react_mysql>cd express-mysql

C:\node_react_mysql\express-mysql>
```

```
C:\node_react_mysql\express-mysql>npm install express cors mysql2

added 14 packages, and audited 108 packages in 3s

16 packages are looking for funding
  run `npm fund` for details

found 0 vulnerabilities

C:\node_react_mysql\express-mysql>
```
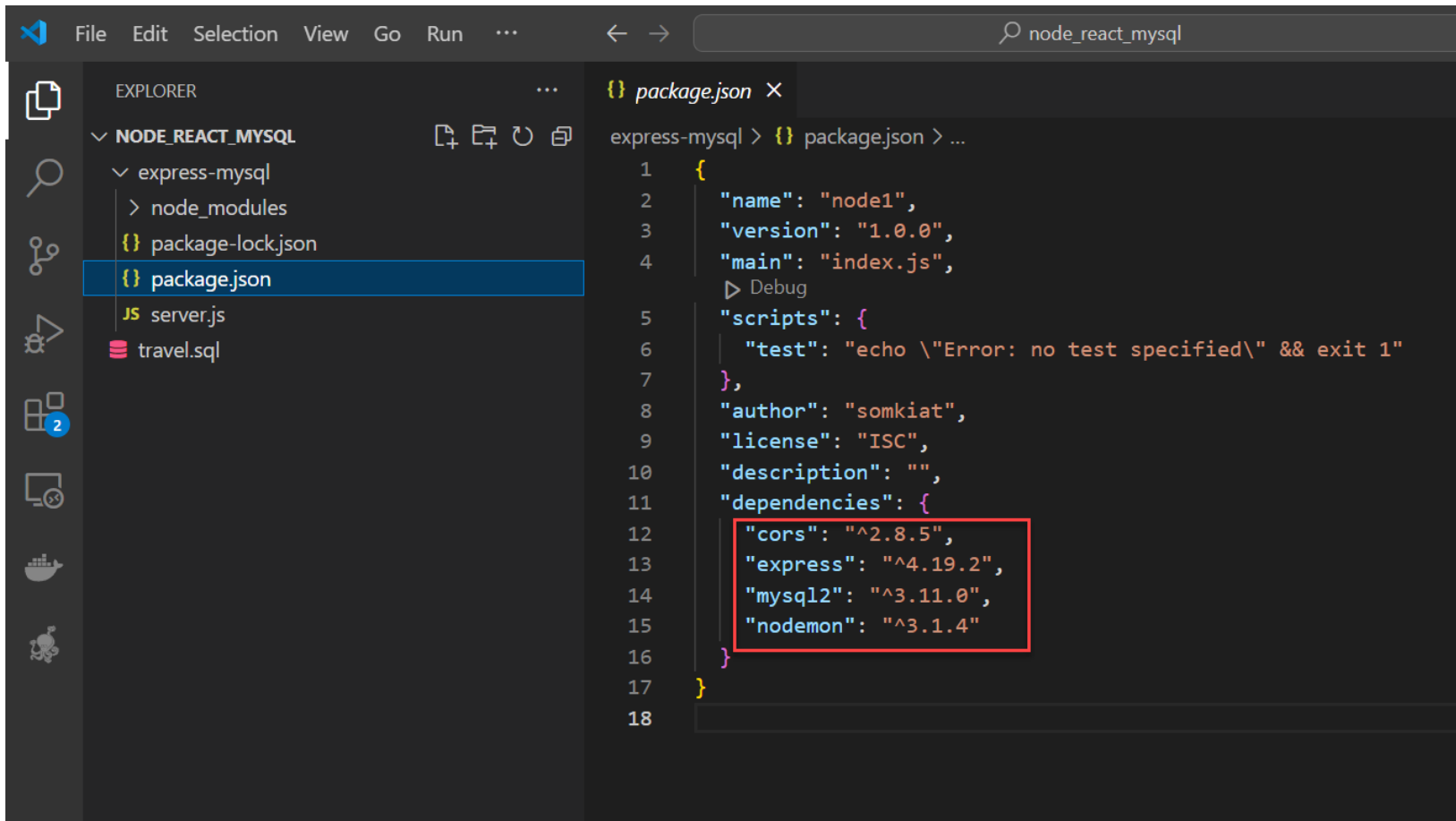
🔍 node_react_mysql

EXPLORER   ···

{} *package.json* ✕

∨ NODE_REACT_MYSQL

express-mysql ⟩ {} package.json ⟩ ...

```json
 1   {
 2     "name": "node1",
 3     "version": "1.0.0",
 4     "main": "index.js",
       ▷ Debug
 5     "scripts": {
 6       "test": "echo \"Error: no test specified\" && exit 1"
 7     },
 8     "author": "somkiat",
 9     "license": "ISC",
10     "description": "",
11     "dependencies": {
12       "cors": "^2.8.5",
13       "express": "^4.19.2",
14       "mysql2": "^3.11.0",
15       "nodemon": "^3.1.4"
16     }
17   }
18
```

∨ express-mysql
  ⟩ node_modules
  {} package-lock.json
  {} package.json
  JS server.js
  🗄 travel.sql

https://expressjs.com/en/resources/middleware/cors.html

expressjs.com/en/resources/middleware/cors.html

Express   🔍 search   Home   Getting started   Guide   API reference   Advanced topics   **Resources**   Blog   🌙

- Demo
- License
- Author

Installation

This is a Node.js module available through the npm registry. Installation is done using the `npm install` command:

```
$ npm install cors
```
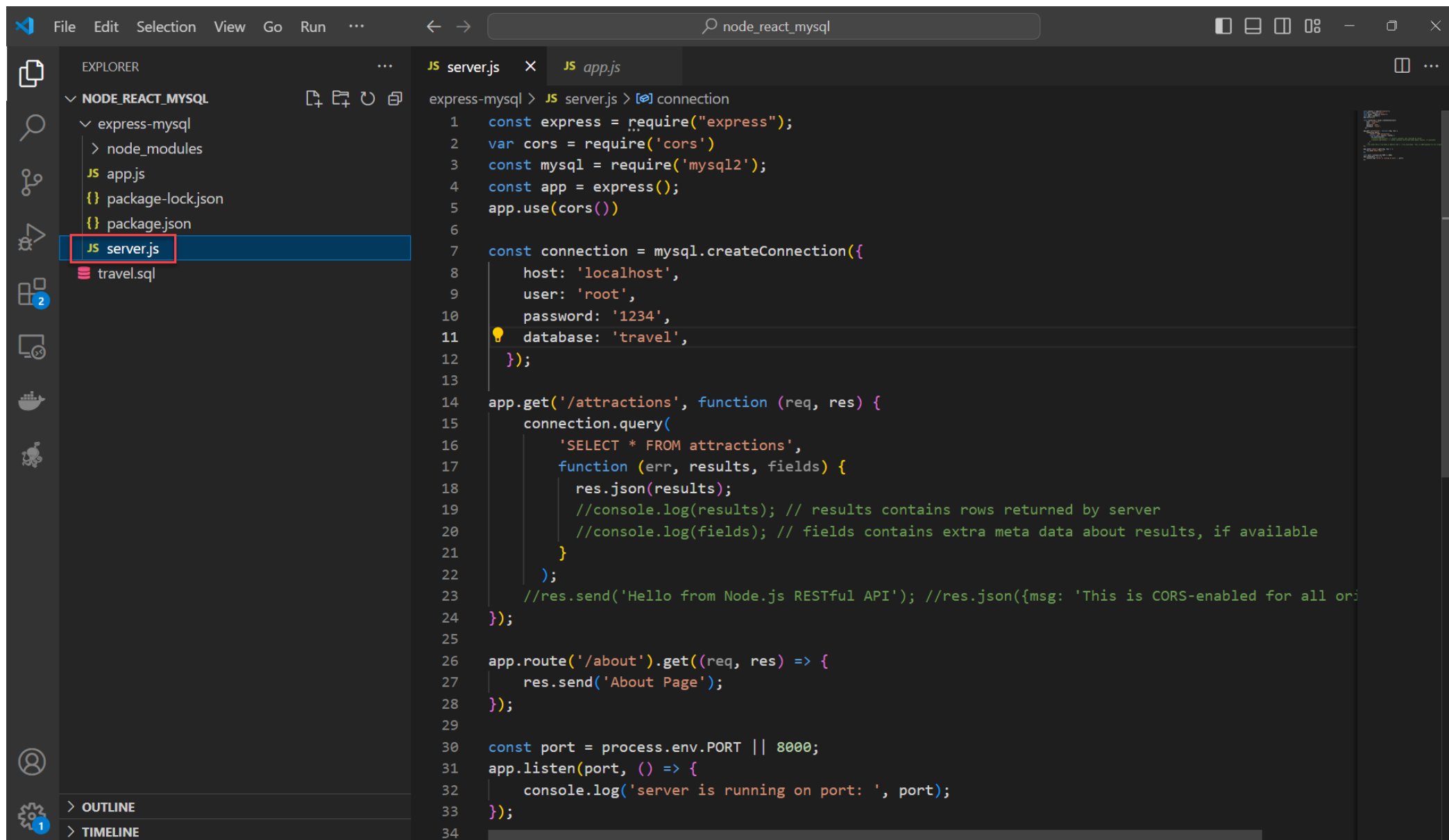
Usage

Simple Usage (Enable *All* CORS Requests)

```javascript
var express = require('express')
var cors = require('cors')
var app = express()

app.use(cors())

app.get('/products/:id', function (req, res, next) {
  res.json({msg: 'This is CORS-enabled for all origins!'})
})

app.listen(80, function () {
  console.log('CORS-enabled web server listening on port 80')
})
```

EXPLORER ···

JS server.js ✕   JS app.js

express-mysql > JS server.js > [@] connection

∨ NODE_REACT_MYSQL
  ∨ express-mysql
    > node_modules
    JS app.js
    {} package-lock.json
    {} package.json
    JS server.js
    🛢 travel.sql

```js
 1  const express = require("express");
 2  var cors = require('cors')
 3  const mysql = require('mysql2');
 4  const app = express();
 5  app.use(cors())
 6
 7  const connection = mysql.createConnection({
 8      host: 'localhost',
 9      user: 'root',
10      password: '1234',
11      database: 'travel',
12  });
13
14  app.get('/attractions', function (req, res) {
15      connection.query(
16          'SELECT * FROM attractions',
17          function (err, results, fields) {
18              res.json(results);
19              //console.log(results); // results contains rows returned by server
20              //console.log(fields); // fields contains extra meta data about results, if available
21          }
22      );
23      //res.send('Hello from Node.js RESTful API'); //res.json({msg: 'This is CORS-enabled for all or
24  });
25
26  app.route('/about').get((req, res) => {
27      res.send('About Page');
28  });
29
30  const port = process.env.PORT || 8000;
31  app.listen(port, () => {
32      console.log('server is running on port: ', port);
33  });
34
```

> OUTLINE
> TIMELINE

```
C:\node_react_mysql\express-mysql>node server.js
server is running on port:  8000
```

ทดสอบการแสดงผล จากฐานข้อมูล

localhost:8000/attractions

Pretty print ☐
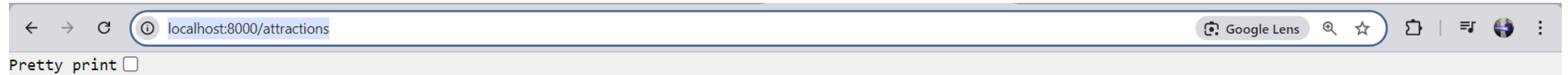
[{"id":1,"name":"Phi Phi Islands","detail":"Phi Phi Islands are a group of islands in Thailand between the large island of Phuket and the Malacca Coastal Strait of Thailand.","coverimage":"https://www.melivecode.com/attractions/1.jpg","latitude":"7.7376190","longitude":"98.7068755"},{"id":2,"name":"Eiffel Tower","detail":"Eiffel Tower is one of the most famous structures in the world. Eiffel Tower is named after a leading French architect and engineer. It was built as a symbol of the World Fair in 1889.","coverimage":"https://www.melivecode.com/attractions/2.jpg","latitude":"48.8583736","longitude":"2.2922926"},{"id":3,"name":"Times Square","detail":"Times Square has become a global landmark and has become a symbol of New York City. This is a result of Times Square being a modern, futuristic venue, with huge advertising screens dotting its surroundings.","coverimage":"https://www.melivecode.com/attractions/3.jpg","latitude":"40.7589652","longitude":"-73.9893574"},{"id":4,"name":"Mount Fuji","detail":"Mount Fuji is the highest mountain in Japan, about 3,776 meters (12,388 feet) situated to the west of Tokyo. Mount Fuji can be seen from Tokyo on clear days.","coverimage":"https://www.melivecode.com/attractions/4.jpg","latitude":"35.3606422","longitude":"138.7186086"},{"id":5,"name":"Big Ben","detail":"Westminster Palace Clock Tower which is most often referred to as Big Ben. This is actually the nickname for the largest bell that hangs in the vent above the clock face.","coverimage":"https://www.melivecode.com/attractions/5.jpg","latitude":"51.5007325","longitude":"-0.1268141"},{"id":6,"name":"Taj Mahal","detail":"The Taj Mahal or Tachomhal is a burial building made of ivory white marble. The Taj Mahal began to be built in 1632 and was completed in 1643.","coverimage":"https://www.melivecode.com/attractions/6.jpg","latitude":"27.1751496","longitude":"78.0399535"},{"id":7,"name":"Stonehenge","detail":"Stonehenge is a monument prehistoric In the middle of a vast plain in the southern part of the British. The monument itself consists of 112 gigantic stone blocks arranged in 3 overlapping circles.","coverimage":"https://www.melivecode.com/attractions/7.jpg","latitude":"51.1788853","longitude":"-1.8284037"},{"id":8,"name":"Statue of Liberty","detail":"The Statue of Liberty is a colossal neoclassical sculpture on Liberty Island in New York Harbor in New York City, in the United States. The copper statue, a gift from the people of France to the people of the United States.","coverimage":"https://www.melivecode.com/attractions/8.jpg","latitude":"40.6891670","longitude":"-74.0444440"},{"id":9,"name":"Sydney Opera House","detail":"The Sydney Opera House is a multi-venue performing arts centre in Sydney. Located on the banks of the Sydney Harbour, it is often regarded as one of the most famous and distinctive buildings and a masterpiece of 20th century architecture.","coverimage":"https://www.melivecode.com/attractions/9.jpg","latitude":"-33.8586110","longitude":"151.2141670"},{"id":10,"name":"Great Pyramid of Giza","detail":"The Great Pyramid of Giza is the oldest and largest of the pyramids in the Giza pyramid complex bordering present-day Giza in Greater Cairo, Egypt. It is the oldest of the Seven Wonders of the Ancient World, and the only one to remain largely intact.","coverimage":"https://www.melivecode.com/attractions/10.jpg","latitude":"29.9791670","longitude":"31.1341670"},{"id":11,"name":"Hollywood Sign","detail":"The Hollywood Sign is an American landmark and cultural icon overlooking Hollywood, Los Angeles, California. It is situated on Mount Lee, in the Beachwood Canyon area of the Santa Monica Mountains. Spelling out the word Hollywood in 45 ft (13.7 m)-tall white capital letters and 350 feet (106.7 m) long.","coverimage":"https://www.melivecode.com/attractions/11.jpg","latitude":"34.1340610","longitude":"-118.3215920"},{"id":12,"name":"Wat Phra Kaew","detail":"Wat Phra Kaew, commonly known in English as the Temple of the Emerald Buddha and officially as Wat Phra Si Rattana Satsadaram, is regarded as the most sacred Buddhist temple in Thailand. The complex consists of a number of buildings within the precincts of the Grand Palace in the historical centre of Bangkok.","coverimage":"https://www.melivecode.com/attractions/12.jpg","latitude":"13.7513890","longitude":"100.4925000"}]