Send JSON-format student data from node.js server via NGRok

19673 Jisen Fang

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Concept

JSON: JSON stands for JavaScript Object Notation. It is a lightweight format for storing and transporting data that often used in data sent from a server to a web page.

Node.js: Node.js is a back-end JavaScript runtime environment that uses JavaScript on the server.

NGRok: Ngrok could map your local private address to a public address in this project.

Student Info

Student ID	Student Name	Score
11111	Bruce Lee	84
22222	Jackie Chen	93
33333	Jet Li	88

student_info.js

```
const http = require('http');

const students = [
    { id: 11111, name: 'Bruce Lee', score: 84 },
    { id: 22222, name: 'Jackie Chen', score: 93 },
    { id: 33333, name: 'Jet Li', score: 88 },
];
```

```
const server = http.createServer(function(req, res) {
    if (req.url.startsWith('/api/score?student_id=')) {
        const studentId = parseInt(req.url.split('=')[1]);
        const student = students.find(student => student.id ===
studentId);

        if (student) {
            res.writeHead(200, { 'Content-Type': 'application/json'
});
            res.end(JSON.stringify(student));
        } else {
            res.writeHead(404, { 'Content-Type': 'text/plain' });
            res.end('Student not found');
        }
    } else {
        res.writeHead(404);
        res.end();
    }
});

const PORT = 8000;
server.listen(PORT, () => {
    console.log(`Server is running on port ${PORT}`);
});
```

node.js server

1. Create a student-server directory

   mkdir student-server

   cd student-server

2. Initialize a Node.js Project

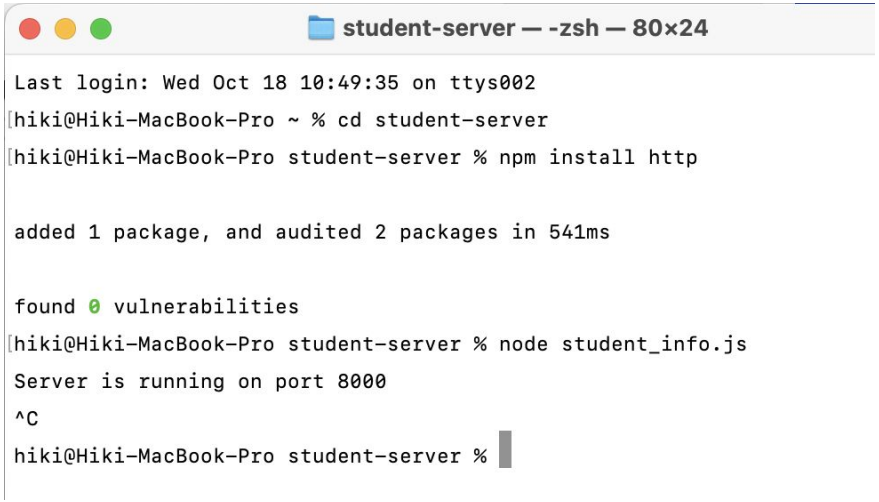
   npm init -y

3. Copy the student_info.js to the directory
4. Install required dependencies

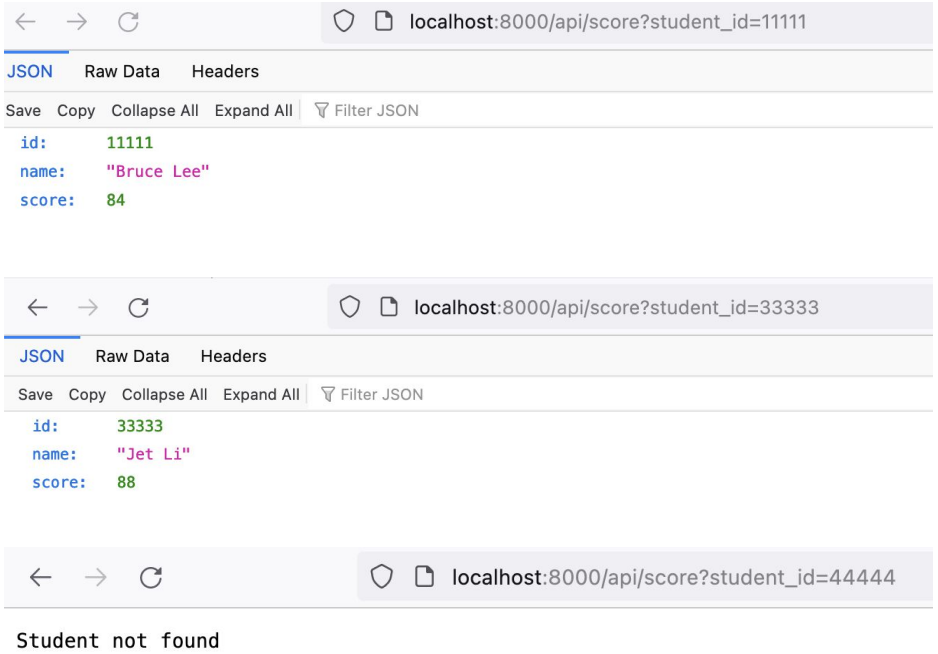
   npm install http

5. Run the server

   node student_info.js



localhost


localhost:8000/api/score?student_id=11111
JSON
Raw Data
Headers
Save
Copy
Collapse All
Expand All
Filter JSON
id: 11111
name: "Bruce Lee"
score: 84
localhost:8000/api/score?student_id=33333
JSON
Raw Data
Headers
Save
Copy
Collapse All
Expand All
Filter JSON
id: 33333
name: "Jet Li"
score: 88
localhost:8000/api/score?student_id=44444
Student not found

Set up NGRok

1. Install NGRok via Homebrew

   brew install ngrok/ngrok/ngrok

2. Add authtoken, you need to sign up a account for authtoken

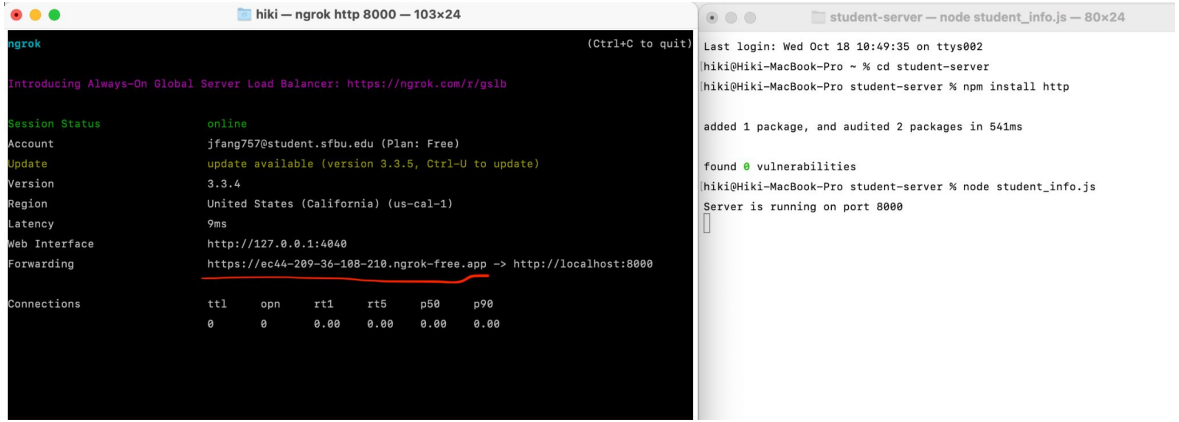
   ngrok config add-authtoken <token>

```
remote: Compressing objects: 100% (97/97), done.
remote: Total 128 (delta 24), reused 49 (delta 17), pack-reused 60
Receiving objects: 100% (128/128), 19.38 KiB | 4.84 MiB/s, done.
Resolving deltas: 100% (35/35), done.
Tapped 1 cask (13 files, 28.8KB).
==> Downloading https://bin.equinox.io/a/mCL51Hi52gn/ngrok-v3-3.3.4-darwin-arm64
######################################################################## 100.0%
==> Installing Cask ngrok
==> Linking Binary 'ngrok' to '/opt/homebrew/bin/ngrok'
🍺  ngrok was successfully installed!
hiki@Hiki-MacBook-Pro ~ % ngrok config add-authtoken 2[redacted]RaT9yqcPQPC6rNq
Authtoken saved to configuration file: /Users/hiki/Library/Application Support/ngrok/ngrok.yml
hiki@Hiki-MacBook-Pro ~ % ngrok http 80
hiki@Hiki-MacBook-Pro ~ % ngrok http 8000
```

Start NGRok

1. Start a tunnel

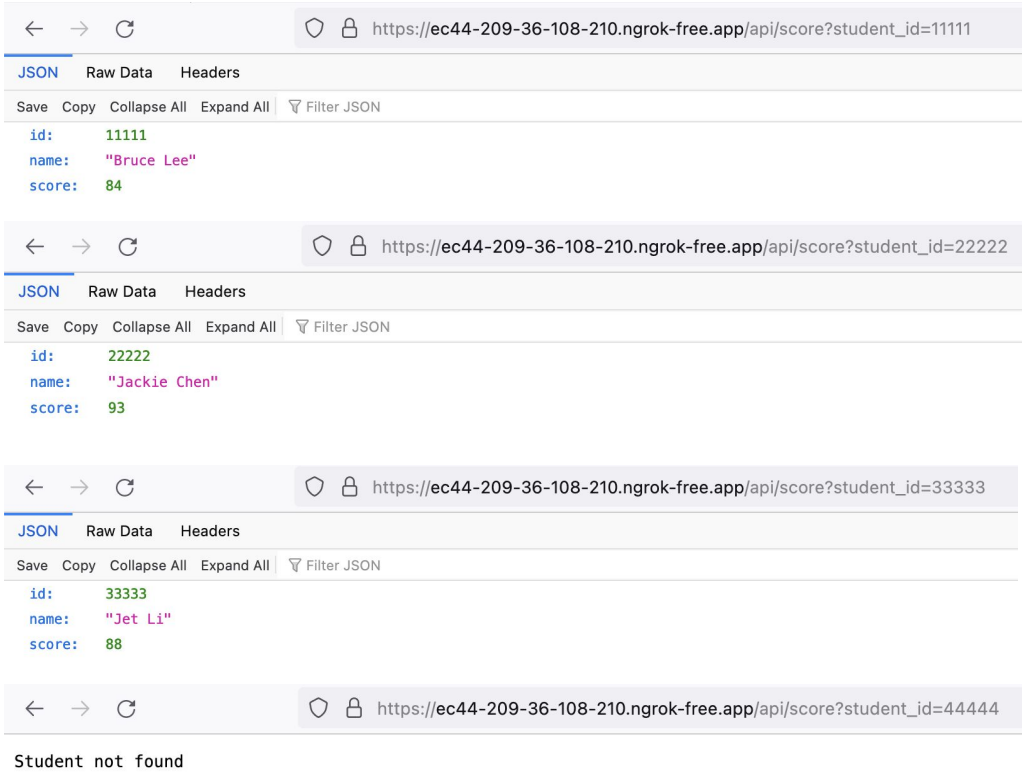
   ngrok http 8000



Use the address above the red line to access server

Ex: http://ec44-209-36-108-210.ngrok-free.app/api/score?student_id=11111

Result


https://ec44-209-36-108-210.ngrok-free.app/api/score?student_id=11111
JSON Raw Data Headers
Save Copy Collapse All Expand All Filter JSON
id: 11111
name: "Bruce Lee"
score: 84
https://ec44-209-36-108-210.ngrok-free.app/api/score?student_id=22222
JSON Raw Data Headers
Save Copy Collapse All Expand All Filter JSON
id: 22222
name: "Jackie Chen"
score: 93
https://ec44-209-36-108-210.ngrok-free.app/api/score?student_id=33333
JSON Raw Data Headers
Save Copy Collapse All Expand All Filter JSON
id: 33333
name: "Jet Li"
score: 88
https://ec44-209-36-108-210.ngrok-free.app/api/score?student_id=44444
Student not found