

Task 01 (FULL STACK DEVELOPMENT)

1.Create a Node.js server to implement routes for /home, /about, and /contact that respond with different messages for each route.

Program:

```
const http = require('http');
const server = http.createServer((req, res) => {
  res.setHeader('Content-Type', 'text/plain');
  if (req.url === '/home') {
    res.writeHead(200);
    res.end('Welcome to the Home Page!');
  } else if (req.url === '/about') {
    res.writeHead(200);
    res.end('This is the About Page.');
  } else if (req.url === '/contact') {
    res.writeHead(200);
    res.end('Contact us at 22cs050@nandhaengg.org');
  } else {
    res.writeHead(404);
    res.end('Page not found');
  }
});
const port = 3000;
server.listen(port, () => {
  console.log(`Server is running on http://localhost:${port}`);
});
```

output :

Server is running on <http://localhost:3000>

localhost:8000

Page not found

Network 35

2 requests | 406 B transferred | 95 B resources | Finish 102 ms | DOMContentLoaded 0 ms

Console

GET http://localhost:8000/ 404 (Not Found)

Name	Status	Type	Initiator	Size	Time
localhost	404	document	Other	102 B	9.94
localhost	200	html	localhost:8000	218 B	4.18

localhost:8000/home

Welcome to the Home Page!

Network 35

2 requests | 411 B transferred | 96 B resources | Finish 102 ms | DOMContentLoaded 0 ms

Console

GET http://localhost:8000/home 200 (OK)

Name	Status	Type	Initiator	Size	Time
home	200	document	Other	102 B	9.94
localhost	200	html	localhost:8000	218 B	4.18

localhost:8000/contact

Contact us at 22s@cs.columbia.edu

Network 35

2 requests | 412 B transferred | 97 B resources | Finish 102 ms | DOMContentLoaded 0 ms

Console

GET http://localhost:8000/contact 200 (OK)

Name	Status	Type	Initiator	Size	Time
contact	200	document	Other	102 B	9.94
localhost	200	html	localhost:8000	218 B	4.18

localhost:8000/about

This is the About Page.

Network 35

2 requests | 409 B transferred | 96 B resources | Finish 119 ms | DOMContentLoaded 0 ms

Console

GET http://localhost:8000/about 200 (OK)

Name	Status	Type	Initiator	Size	Time
about	200	document	Other	102 B	9.94
localhost	200	html	localhost:8000	218 B	4.18

2.Build a server with a route /greet that accepts a query parameter name and responds with a personalized greeting message, e.g., "Hello, [name]!"

Program:

```
const http = require('http');
const url = require('url');
const server = http.createServer((req, res) => {
  res.setHeader('Content-Type', 'text/plain');
  const parsedUrl = url.parse(req.url, true);
  if (parsedUrl.pathname === '/greet') {
    const name = parsedUrl.query.name;
    if (name) {
      res.writeHead(200);
      res.end(`Hello, ${name}!`);
    } else {
      res.writeHead(400);
      res.end('Name query parameter is missing');
    }
  } else {
    res.writeHead(404);
    res.end('Page not found');
  }
});

const port = 3000;
server.listen(port, () => {
  console.log(`Server is running on http://localhost:${port}`);
});
```

output :

Server is running on http://localhost:3000

localhost:3000

Page not found

Network

Filter

Hide extension URLs

Fetch/XHR Doc CSS JS Font Img Media Manifest WS Wasm Other

Blocked response cookies Blocked requests 3rd-party requests

100 ms 200 ms 300 ms 400 ms 500 ms 600 ms

Name	Status	Type	Initiator	Size	Time
localhost	404	document	Other	189 B	4 ms
totalusers	200	fetch	content.js:2	218 B	420 ms

2 requests | 406 B transferred | 85 B resources | Finish: 520 ms | DOMContentLoaded: 420 ms

Console

What's new

top Filter Default levels No issues

GET http://localhost:3000/ 404 (Not Found) 3000/1

localhost:3000/greetName=M...
localhost:3000/greetName=Mohana%20Prasath

Hello, Mohana Prasath!

Network

Filter

Hide extension URLs

Fetch/XHR Doc CSS JS Font Img Media Manifest WS Wasm Other

Blocked response cookies Blocked requests 3rd-party requests

100 ms 200 ms 300 ms 400 ms 500 ms

Name	Status	Type	Initiator	Size	Time
greetName-Mohana%20Pra...	200	document	Other	190 B	5 ms
totalusers	200	fetch	content.js:2	346 B	270 ms

2 requests | 536 B transferred | 93 B resources | Finish: 438 ms | DOMContentLoaded: 59 ms

Console

What's new

top Filter Default levels No issues