Practical Assignment- 1

Name: Jay Tailor

Roll No: 74

Sem: 7

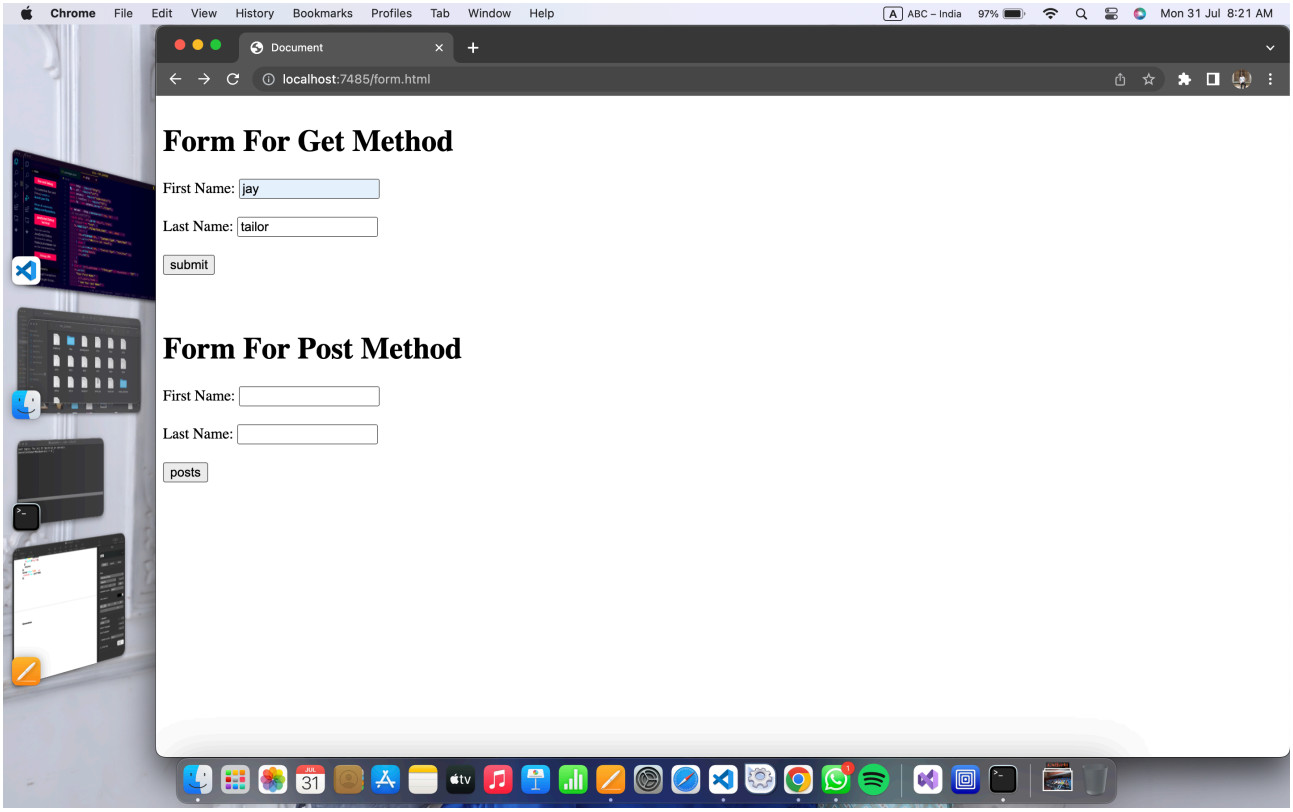
Sub: Practical 15 (Node.js)

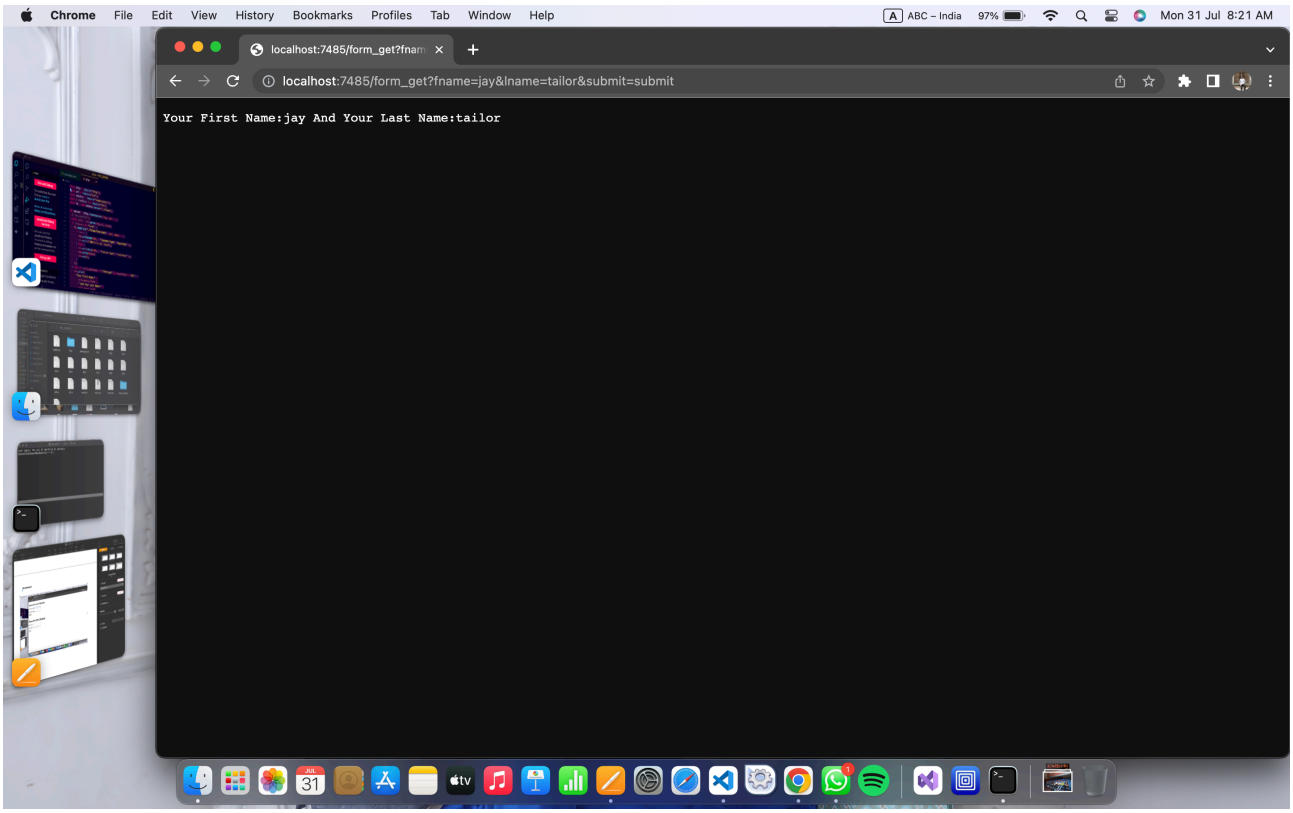
Sub Code: 705

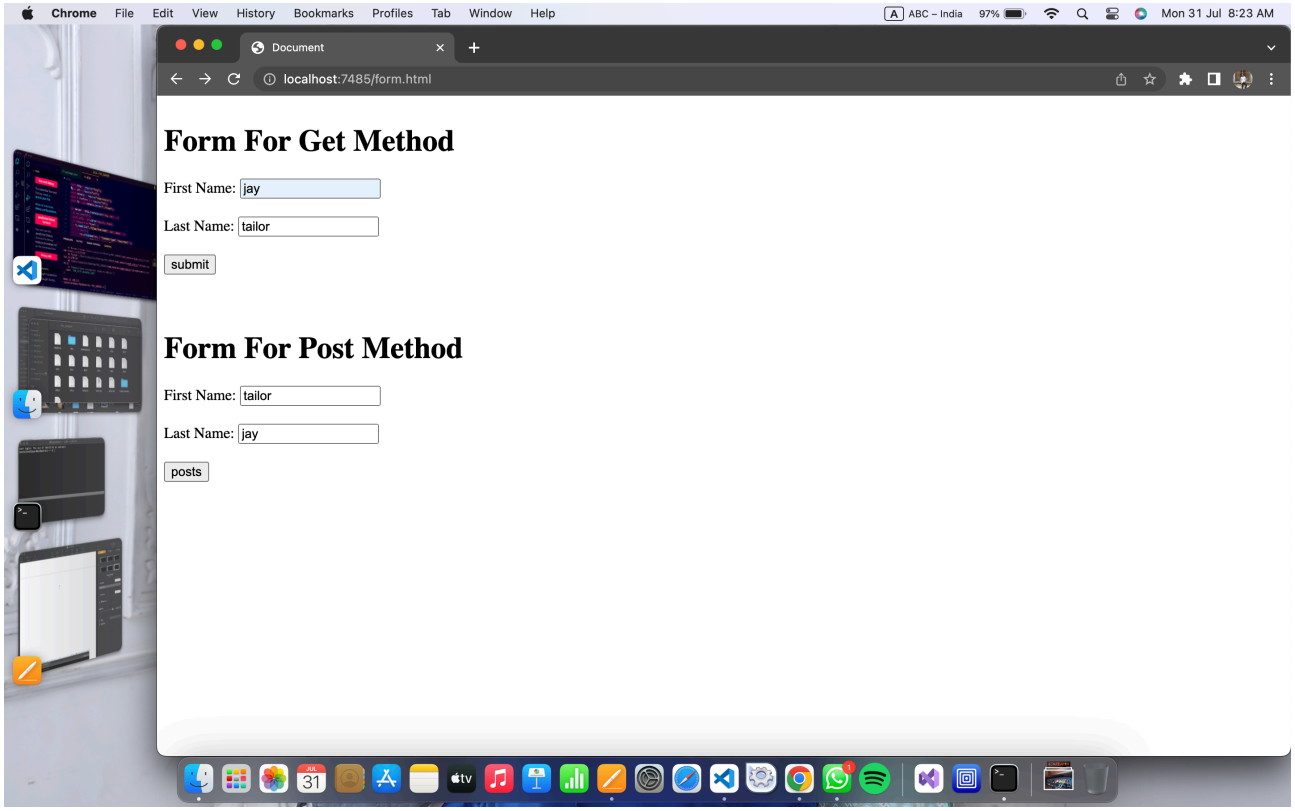
Q1.

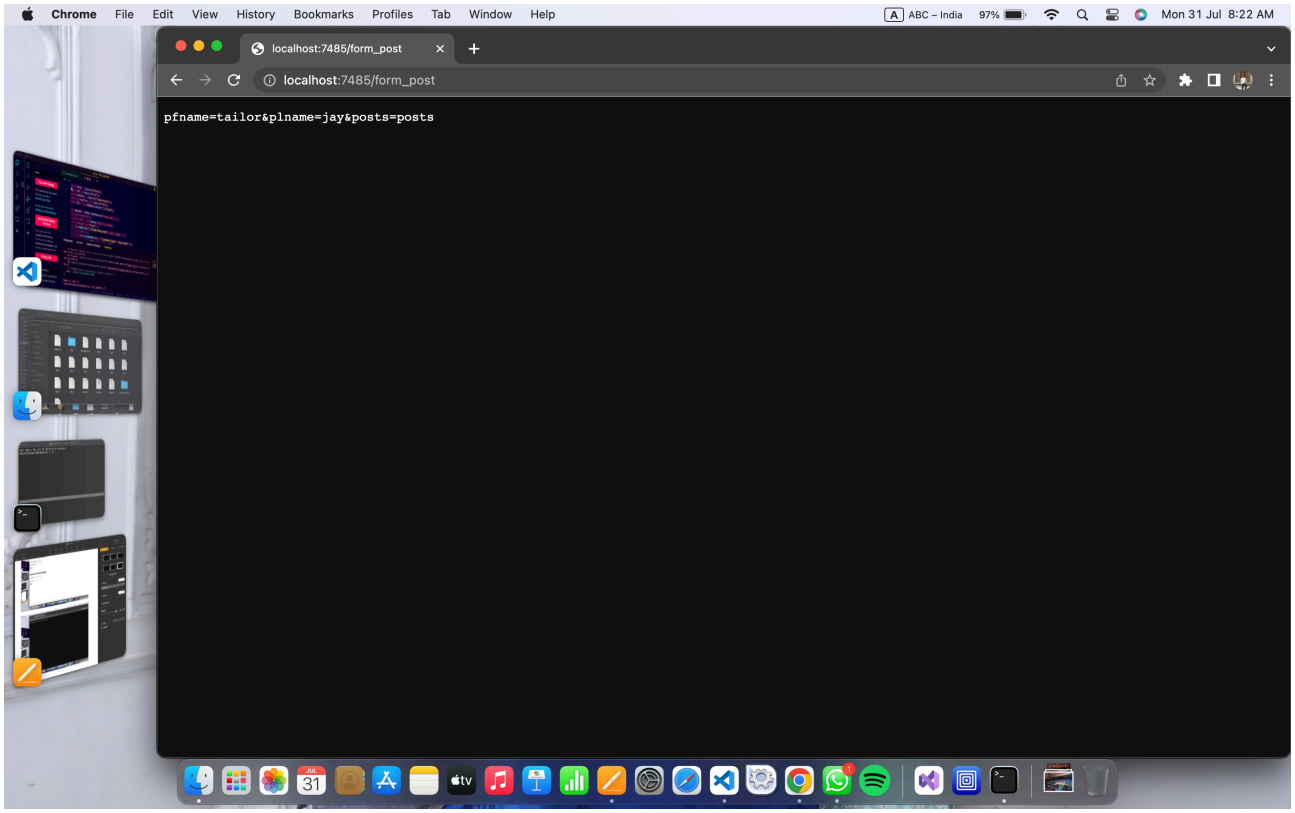
```
const http = require("http");
const url = require("url");
const nstatic = require("node-static");
const { readSync } = require("fs");
const fs = new nstatic.Server("./files");

var server = http.createServer((req, res) => {
  // res.end("p1");
  const url1 = url.parse(req.url, true);
  if (req.url == "form") {
    fs.readFile("./files/form.html", (err, data) => {
      if (err) {
        res.writeHead(404, { "Content-Type": "text/html" });
        res.write("404:file not found");
      } else {
        res.writeHead(200, { "Content-Type": "text/html" });
        res.write(data);
        res.end();
      }
    });
  } else if (url1.pathname == "/form_get" && req.method == "GET") {
    res.write(
      "Your First Name:" +
        url1.query.fname +
        " And Your Last Name:" +
        url1.query.lname
    );
    res.end();
  } else if (url1.pathname == "/form_post" && req.method == "POST") {
    var body = "";
    req.on("data", (postdata) => {
      body += postdata.toString();
    });
    req.on("end", function () {
      res.write(body);
      res.end();
    });
  }
  req
    .on("end", function () {
      fs.serve(req, res);
    })
    .resume();
});
server.listen(7485, () => {
  console.log("port 7485");
});
```

Screenshot:


Chrome File Edit View History Bookmarks Profiles Tab Window Help
Mon 31 Jul 8:21 AM
Document
localhost:7485/form.html
Form For Get Method
First Name: jay
Last Name: tailor
submit
Form For Post Method
First Name:
Last Name:
posts


Chrome File Edit View History Bookmarks Profiles Tab Window Help
Mon 31 Jul 8:21 AM
localhost:7485/form_get?fnam
localhost:7485/form_get?fname=jay&lname=tailor&submit=submit
Your First Name:jay And Your Last Name:tailor

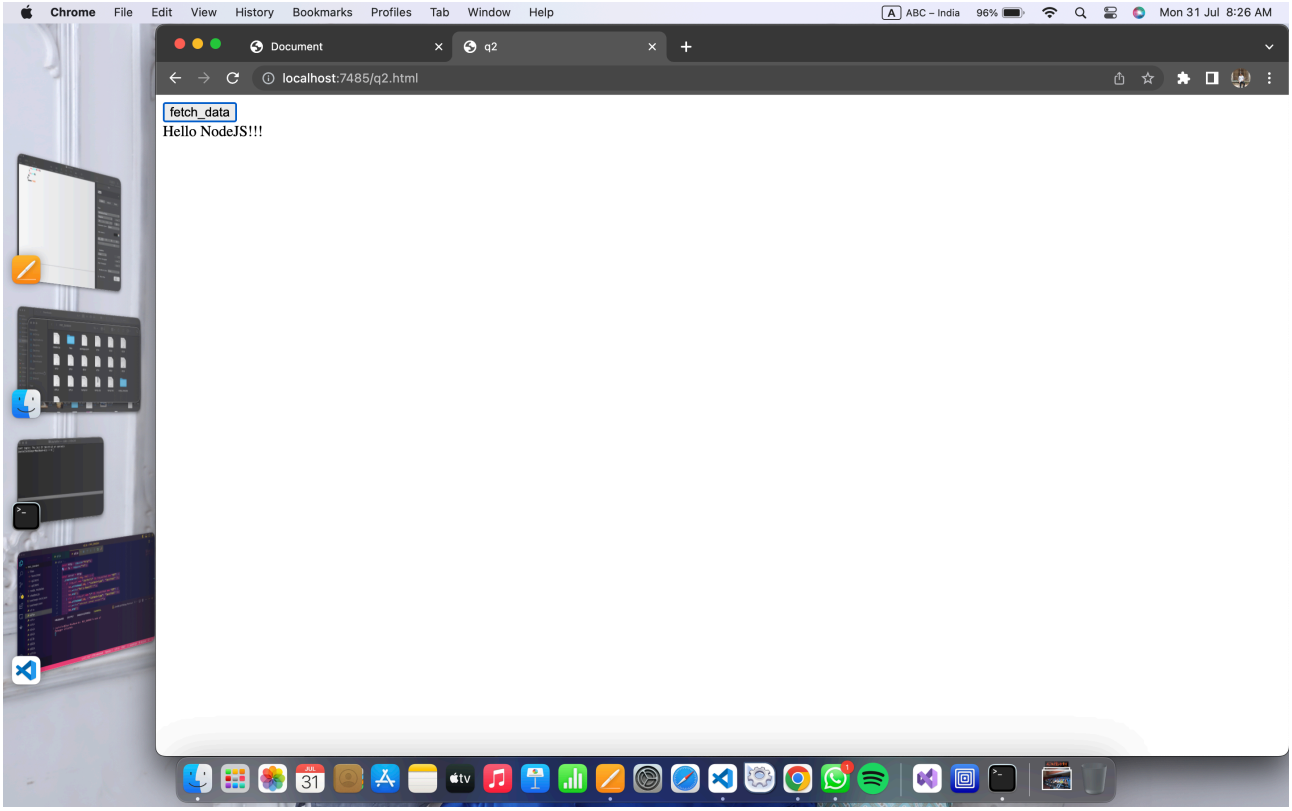

Chrome File Edit View History Bookmarks Profiles Tab Window Help
Mon 31 Jul 8:23 AM
Document
localhost:7485/form.html
Form For Get Method
First Name: jay
Last Name: tailor
submit
Form For Post Method
First Name: tailor
Last Name: jay
posts


Chrome File Edit View History Bookmarks Profiles Tab Window Help
Mon 31 Jul 8:22 AM
localhost:7485/form_post
localhost:7485/form_post
pfname=tailor&plname=jay&posts=posts

Q2.

```
const http = require("http");
const fs = require("fs");

const server = http
  .createServer((req, res) => {
    if (req.url === "/gethello" && req.method === "GET") {
      res.writeHead(200, { "Content-Type": "Text/html" });
      res.write("Hello NodeJS!!!");
      res.end();
    } else if (req.url === "/" && req.method === "GET") {
      res.writeHead(500, { "Content-Type": "Text/html" });
      res.write("internal server error!!");
      res.end();
    }

    fs.readFile("./files/q2.html", null, (err, data) => {
      if (err) {
        res.writeHead(404);
        res.write("file not found");
      } else {
        res.write(data);
      }
      res.end();
    });
  })
  .listen(7485);
```

Screenshot:


Chrome File Edit View History Bookmarks Profiles Tab Window Help
Mon 31 Jul 8:26 AM
Document
q2
localhost:7485/q2.html
fetch_data
Hello NodeJS!!!

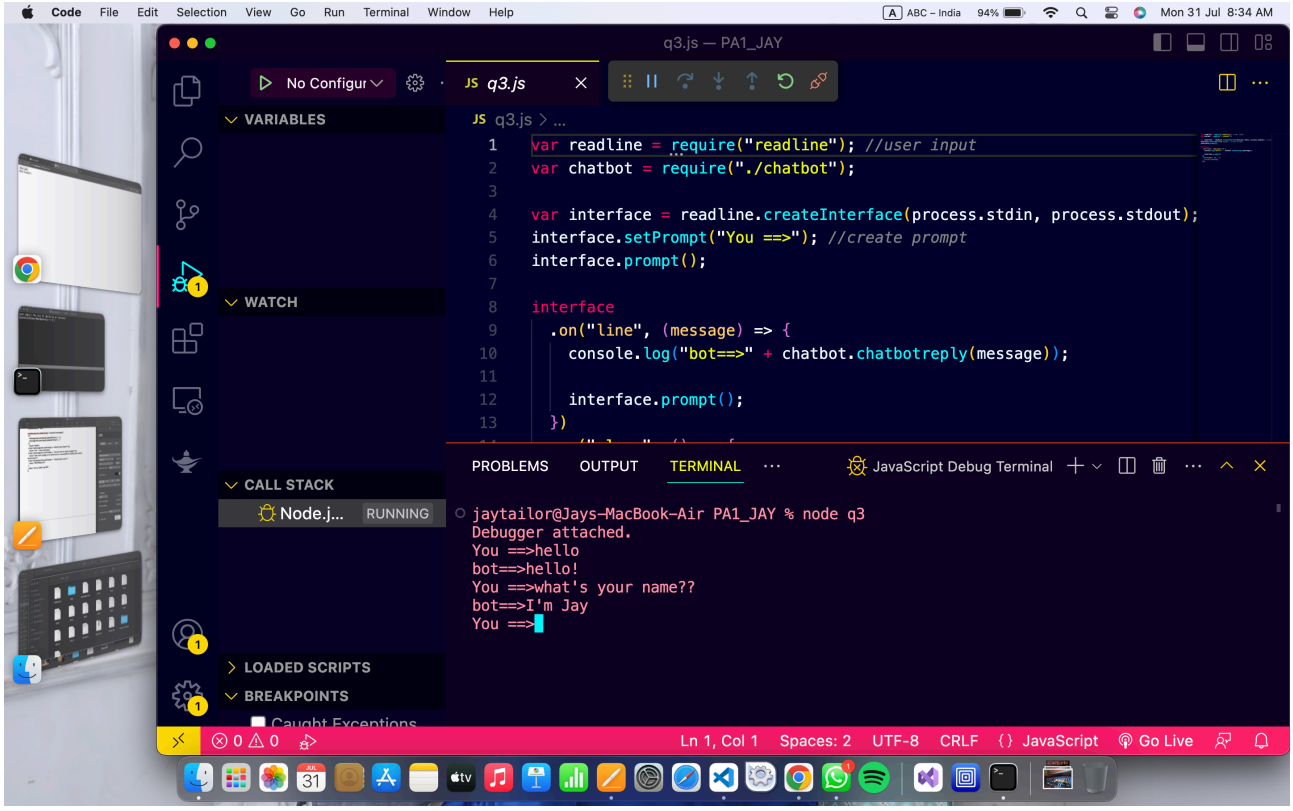
Q3.

```
var readline = require("readline"); //user input
var chatbot = require("./chatbot");

var interface = readline.createInterface(process.stdin, process.stdout); //craete interface for
input output
interface.setPrompt("You ==>"); //create prompt
interface.prompt();

interface
  .on("line", (message) => {
    console.log("bot==>" + chatbot.chatbotreply(message));

    interface.prompt();
  })
  .on("close", () => {
    process.exit(0);
  });
```

Chatbot:

```
this.username = "Jay";

module.exports.chatbotreply = function (message) {
  if (
    message.toLowerCase().indexOf("hey") > -1 ||
    message.toLowerCase().indexOf("hello") > -1
  ) {
    return "hello!";
  } else if (message.toLowerCase() == "what's your name??") {
    return "I'm " + this.username;
  } else if (message.toLowerCase() == "can you tell me about nodejs??") {
    return "yes sure!! nodejs is an open-source, cross-platform JavaScript runtime
environment..";
  } else if (message.toLowerCase() == "okay! thank you:)") {
    return "My Pleasure!!";
  }
  return "sorry, I didn't get it!!";
};
```

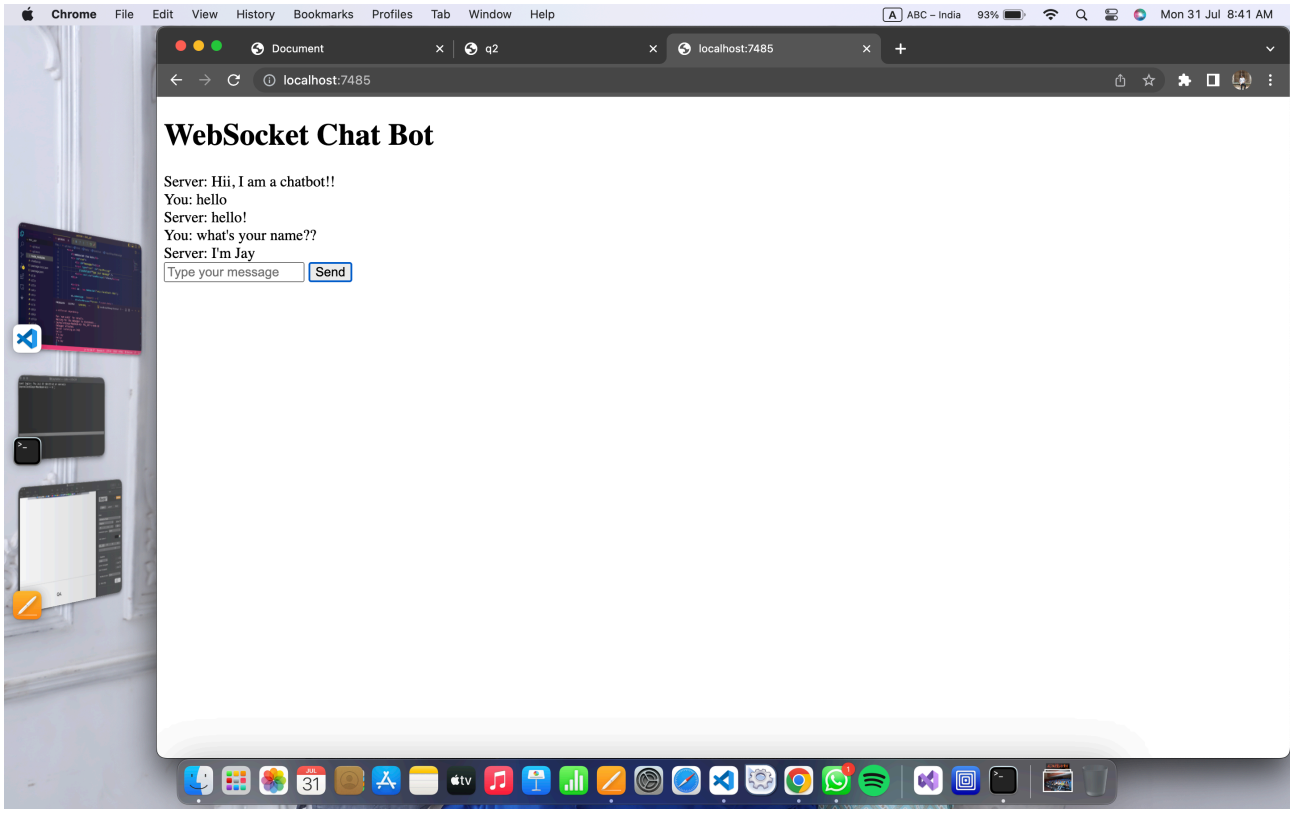
Screenshot:


q3.js — PA1_JAY
VARIABLES
WATCH
CALL STACK
Node.j... RUNNING
LOADED SCRIPTS
BREAKPOINTS
var readline = require("readline"); //user input
var chatbot = require("./chatbot");
var interface = readline.createInterface(process.stdin, process.stdout);
interface.setPrompt("You ==>"); //create prompt
interface.prompt();
interface
.on("line", (message) => {
console.log("bot==>" + chatbot.chatbotreply(message));
interface.prompt();
})
PROBLEMS
OUTPUT
TERMINAL
JavaScript Debug Terminal
jaytailor@Jays-MacBook-Air PA1_JAY % node q3
Debugger attached.
You ==>hello
bot==>hello!
You ==>what's your name??
bot==>I'm Jay
You ==>
Ln 1, Col 1
Spaces: 2
UTF-8
CRLF
JavaScript
Go Live

Q4.

```
const http = require("http");
const ns = require("node-static");
const chatbot = require("./chatbot"); //import chatbot.js module
const WebSocket = require("ws");
var url = require("url");

const file = new ns.Server("./files/q4.html");

const server = http.createServer((req, res) => {
  req
    .on("end", () => {
      file.serve(req, res);
    })
    .resume();
});

server.listen(7485, () => {
  console.log("Server listening on 7485");
});

const wss = new WebSocket.Server({ server: server });

wss.on("connection", (ws) => {
  ws.send("Hii, I am a chatbot!!");

  ws.on("message", (data) => {
    const message = data.toString();
    const reply = chatbot.chatbotreply(message);
    console.log(reply);
    ws.send(reply);
  });
});
```

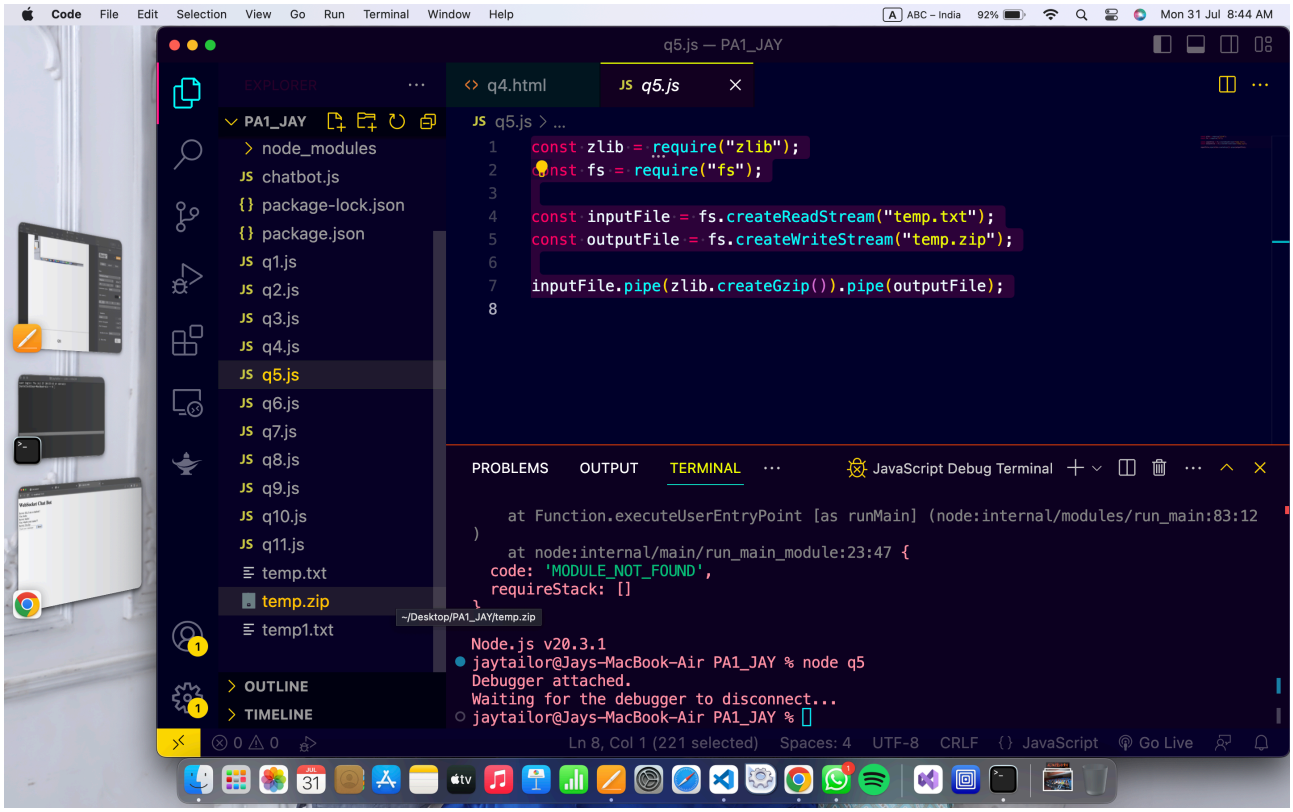
Screenshot:


Chrome File Edit View History Bookmarks Profiles Tab Window Help
Mon 31 Jul 8:41 AM
Document
q2
localhost:7485
localhost:7485
WebSocket Chat Bot
Server: Hii, I am a chatbot!!
You: hello
Server: hello!
You: what's your name??
Server: I'm Jay
Type your message
Send

Q5:

```
const zlib = require("zlib");
const fs = require("fs");

const inputFile = fs.createReadStream("temp.txt");
const outputFile = fs.createWriteStream("temp.zip");

inputFile.pipe(zlib.createGzip()).pipe(outputFile);
```

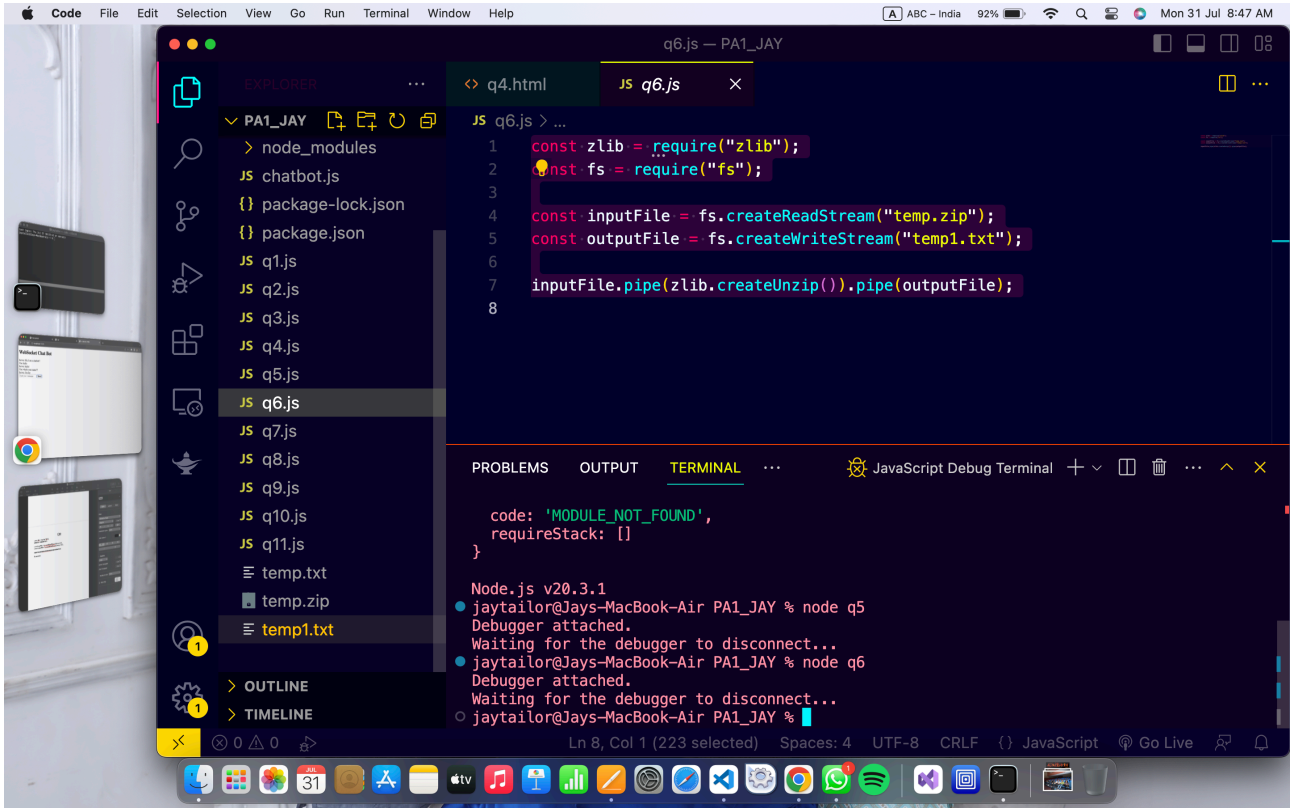
Screenshot:



Q6:

```
const zlib = require("zlib");
const fs = require("fs");

const inputFile = fs.createReadStream("temp.zip");
const outputFile = fs.createWriteStream("temp1.txt");

inputFile.pipe(zlib.createUnzip()).pipe(outputFile);
```

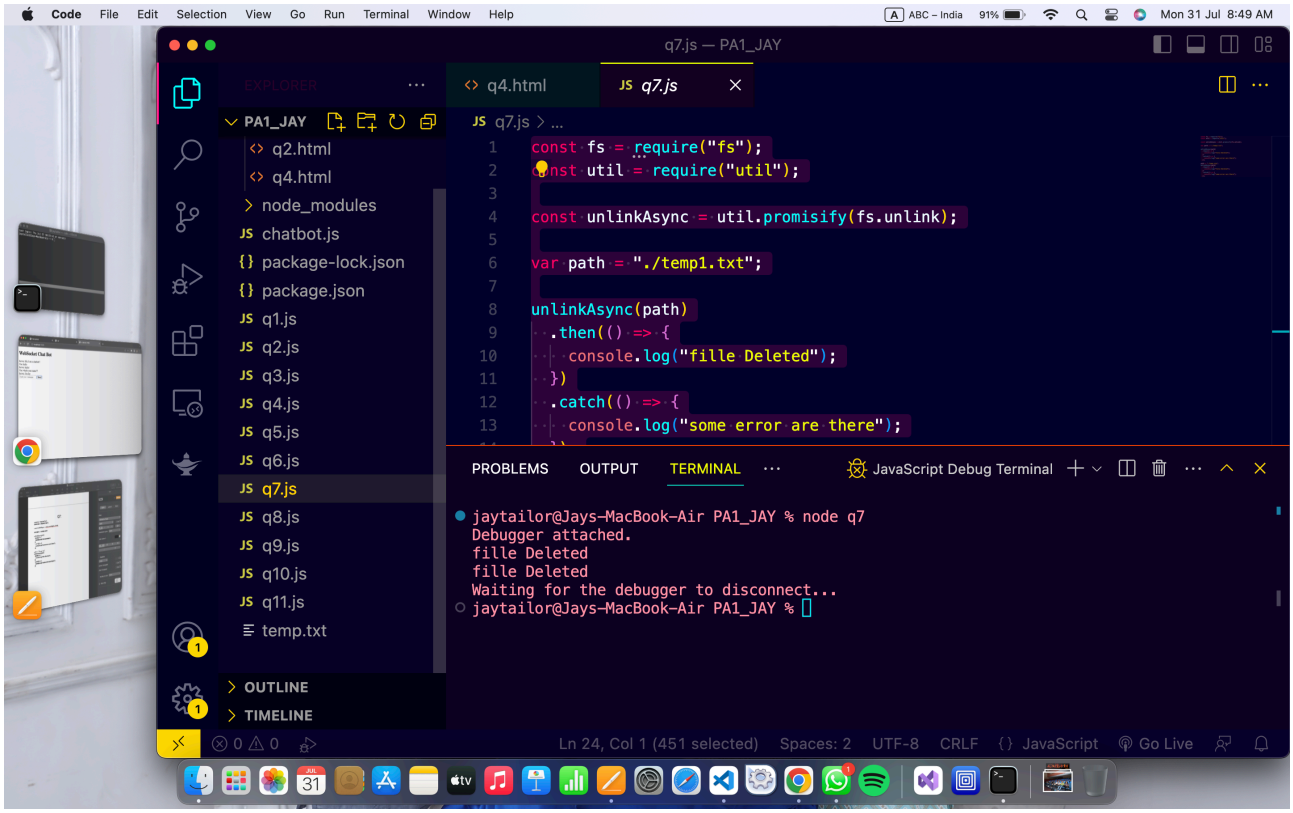
Screenshot:



Q7:

```
const fs = require("fs");
const util = require("util");

const unlinkAsync = util.promisify(fs.unlink);

var path = "./temp1.txt";

unlinkAsync(path)
  .then(() => {
    console.log("fille Deleted");
  })
  .catch(() => {
    console.log("some error are there");
  });

path = "./temp.zip";
unlinkAsync(path)
  .then(() => {
    console.log("fille Deleted");
  })
  .catch(() => {
    console.log("some error are there");
  });
```

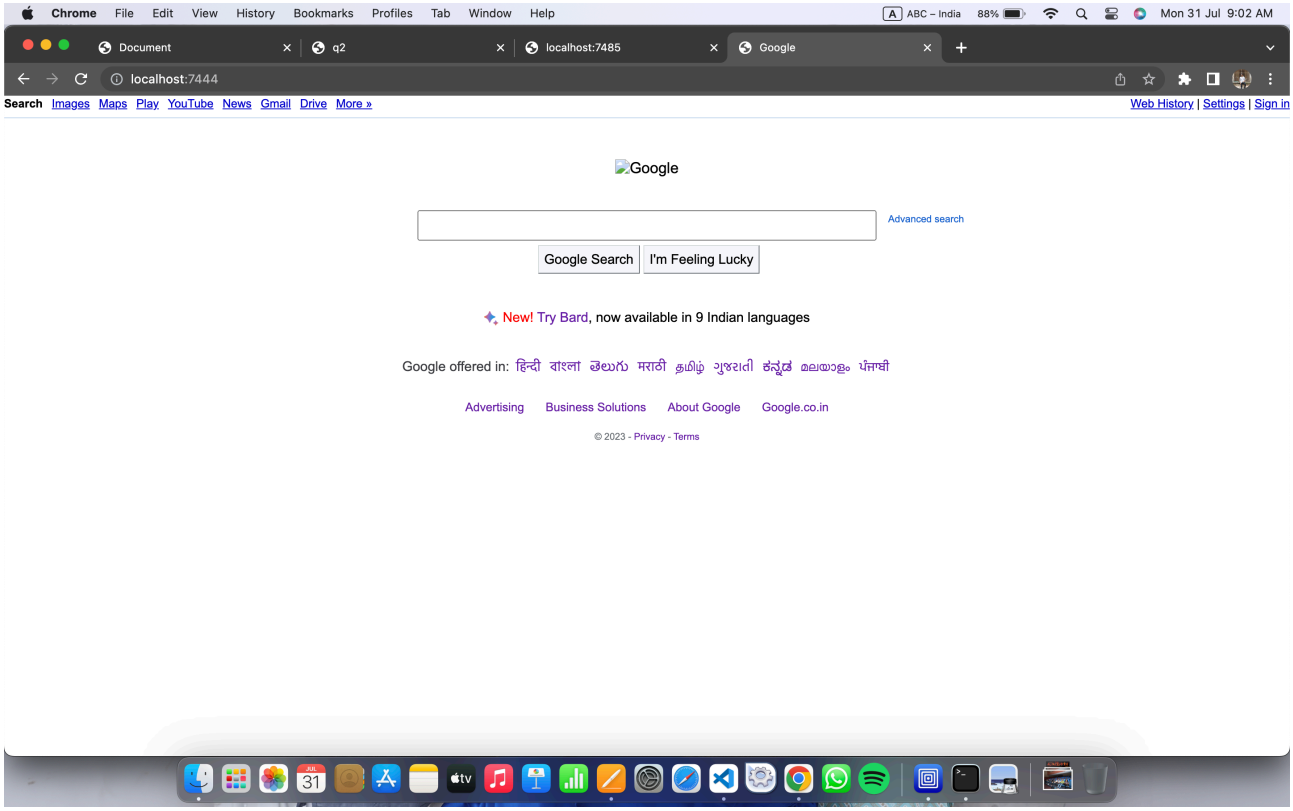
Screenshot:



Q8:

```
const http = require("http");
const server = http.createServer((req, res) => {
  async function fetchGooglePage() {
    try {
      const fetch = await import("node-fetch");
      const response = await fetch.default("https://www.google.com");

      if (!response.ok) {
        throw new Error("Network response was not ok");
      }

      const data = await response.text();
      // console.log(data);
      res.end(data);
    } catch (error) {
      console.error("Error fetching data:", error.message);
    }
  }

  fetchGooglePage();
});

server.listen(7444, () => {
  console.log("Listing on 7444");
});
```

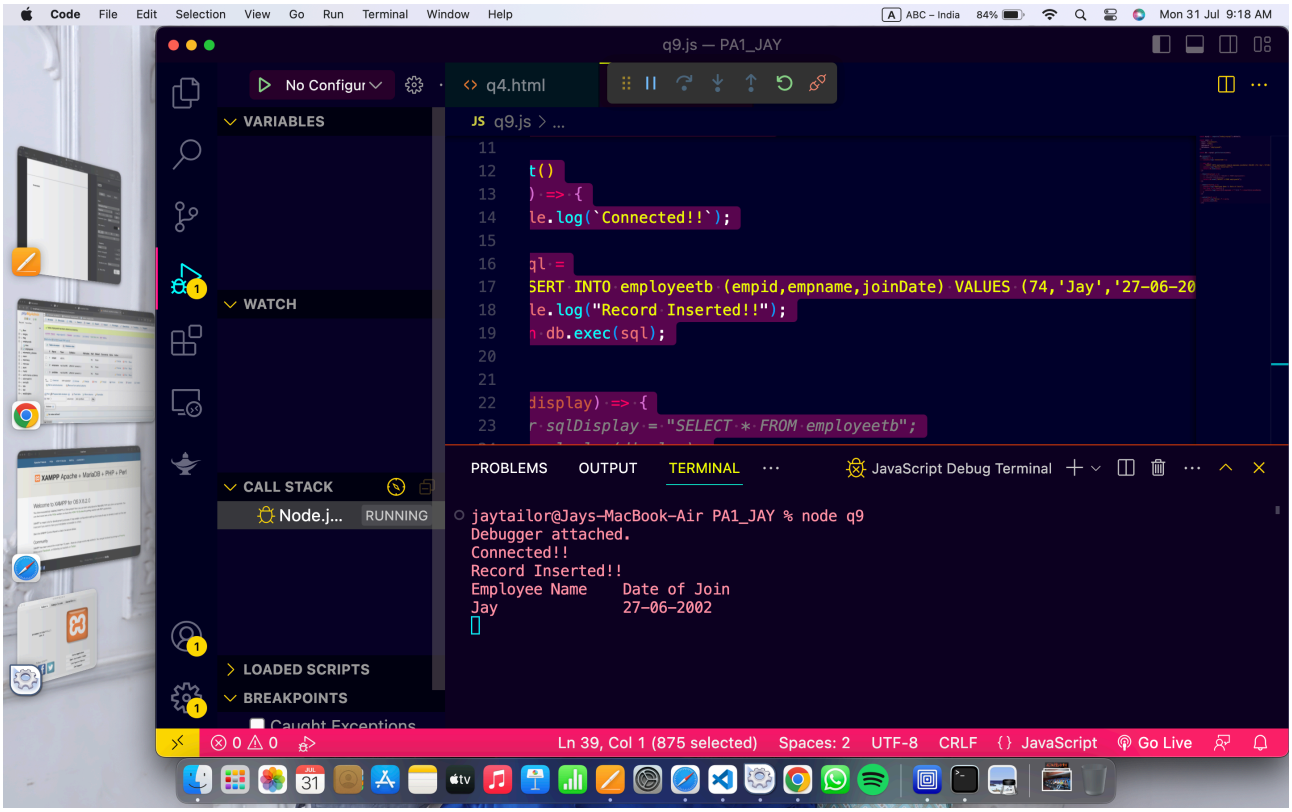
Screenshot:


Chrome File Edit View History Bookmarks Profiles Tab Window Help
ABC – India 88% Mon 31 Jul 9:02 AM
Document
q2
localhost:7485
Google
localhost:7444
Search Images Maps Play YouTube News Gmail Drive More »
Web History | Settings | Sign in
Google
Advanced search
Google Search
I'm Feeling Lucky
New! Try Bard, now available in 9 Indian languages
Google offered in: हिन्दी বাংলা తెలుగు मराठी தமிழ் ગુજરાતી ಕನ್ನಡ മലയാളം ਪੰਜਾਬੀ
Advertising
Business Solutions
About Google
Google.co.in
© 2023 - Privacy - Terms

Q9:

```
const mysql = require("nodejs-mysql").default;

const conn = {
  host: "localhost",
  user: "root",
  password: "",
  database: "employeedb",
};

const db = mysql.getInstance(conn);

db.connect()
  .then(() => {
    console.log(`Connected!!`);

    var sql =
      "INSERT INTO employeetb (empid,empname,joinDate) VALUES (74,'Jay','27-06-2002')";
    console.log("Record Inserted!!");
    return db.exec(sql);
  })

  .then((display) => {
    // var sqlDisplay = "SELECT * FROM employeetb";
    // console.log(display);
    return db.exec("SELECT * FROM employeetb");
  })

  .then((result) => {
    console.log("Employee Name \t Date of Join");
    for (var i in result) {
      console.log(result[i].empname + " \t\t " + result[i].joinDate);
    }
  })

  .catch((err) => {
    console.log("Error: " + err);
    process.exit(0);
  });
```

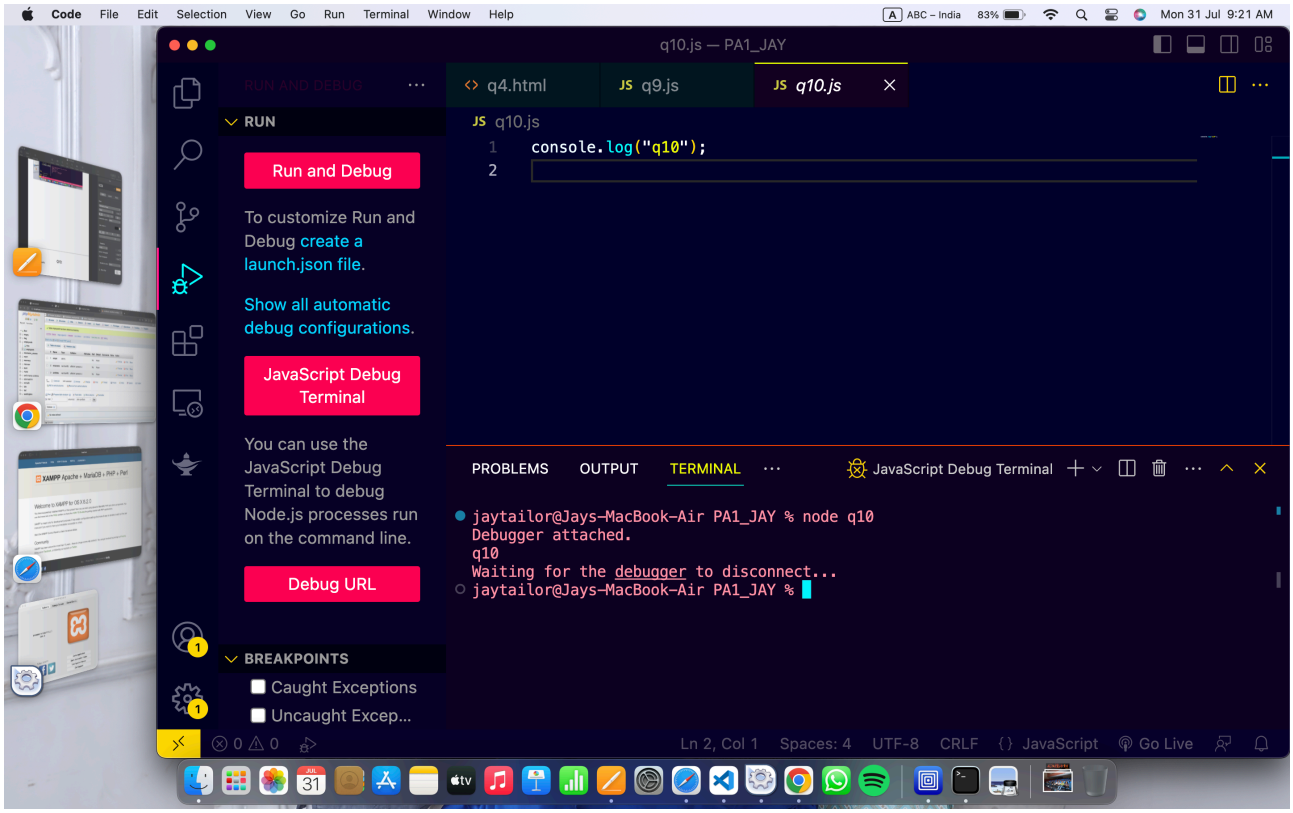
Screenshot:


q9.js — PA1_JAY
No Configur
q4.html
VARIABLES
WATCH
CALL STACK
Node.j... RUNNING
LOADED SCRIPTS
BREAKPOINTS
Caught Exceptions
JS q9.js > ...
SERT INTO employeetb (empid,empname,joinDate) VALUES (74,'Jay','27-06-20
le.log("Record Inserted!!");
db.exec(sql);
sqlDisplay = "SELECT * FROM employeetb";
PROBLEMS
OUTPUT
TERMINAL
JavaScript Debug Terminal
jaytailor@Jays-MacBook-Air PA1_JAY % node q9
Debugger attached.
Connected!!
Record Inserted!!
Employee Name Date of Join
Jay 27-06-2002
Ln 39, Col 1 (875 selected)
Spaces: 2
UTF-8
CRLF
JavaScript
Go Live

Q10:

console.log("q10");

Screenshot:



Q11:

```
{
  "name": "PA1_JAY",
  "version": "1.0.0",
  "description": "",
  "main": "chatbot.js",
  "scripts": {
    "start": "node q10.js",
    "test": "echo \"Error: no test specified\" && exit 1",
    "script1": "node q10.js",
    "script2": "node q2.js",
    "script3": "node q3.js"
  },
  "keywords": [],
  "author": "",
  "license": "ISC",
  "dependencies": {
    "node": "^20.5.0",
    "node-fetch": "^3.3.2",
    "node-static": "^0.7.11",
    "nodejs-mysql": "^0.1.3",
    "static": "^2.0.0",
    "ws": "^8.13.0"
  }
}
```

Screenshot: