DOP: / /2023 **DOS: / /2023**

Experiment No: 10

Title: A) Configuring Express Settings and creating Express application using request and response objects.

Theory:

🔷What is Express.js:

Express is a fast, assertive, essential and moderate web framework of Node.js. You can assume express as a layer built on the top of the Node.js that helps manage a server and routes. It provides a robust set of features to develop web and mobile applications.

Let's see some of the core features of Express framework:

- It can be used to design single-page, multi-page and hybrid web applications.
- It allows to setup middlewares to respond to HTTP Requests.
- It defines a routing table which is used to perform different actions based on HTTP method and URL.
- It allows to dynamically render HTML Pages based on passing arguments to templates.

🔷Express.js Request Object

Express.js Request and Response objects are the parameters of the callback function which is used in Express applications.

The express.js request object represents the HTTP request and has properties for the request query string, parameters, body, HTTP headers, and so on.

Syntax:

```
app.get('/', function (req, res) {
  // --
})
```

Request Object Methods:

1. req.accepts (types)
2. req.get(field)
3. req.is(type)
4. req.param(name [, defaultValue])

🔷Express.js Response Object:

The Response object (res) specifies the HTTP response which is sent by an Express app when it gets an HTTP request.

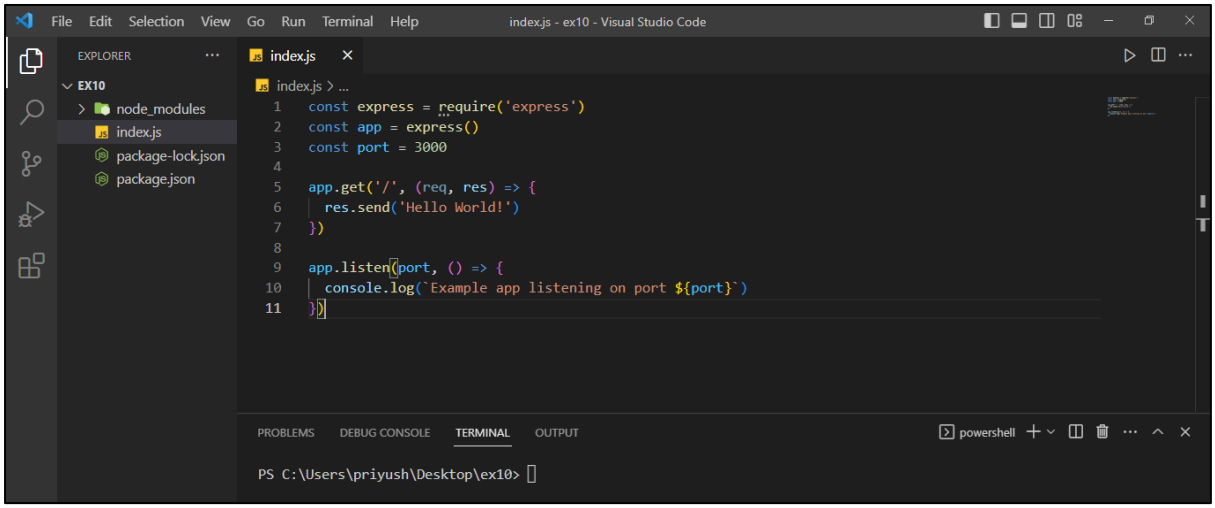
What it does

- It sends response back to the client browser.
- It facilitates you to put new cookies value and that will write to the client browser (under cross domain rule).
- Once you res.send() or res.redirect() or res.render(), you cannot do it again, otherwise, there will be uncaught error.

Response Object Methods:

1. Response Append method
2. Response Attachment method
3. Response Cookie method
4. Response ClearCookie method
5. Response Download method
6. Response End method
7. Response Format method
8. Response Get method
9. Response JSON method:

Input:



Output:

Conclusion: - we understanding Configuring Express Settings and creating Express application using request and response objects.

DOP: / /2023 **DOS: / /2023**

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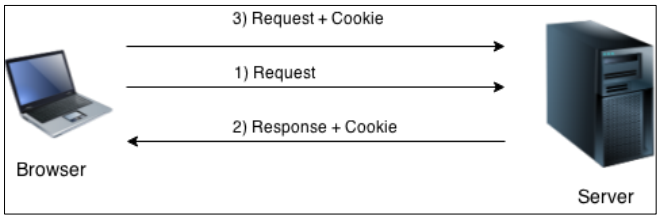
Title: B) Build Express application by Sending and Receiving Cookie

What are cookies

Cookies are small piece of information i.e. sent from a website and stored in user's web browser when user browses that website. Every time the user loads that website back, the browser sends that stored data back to website or server, to recognize user.



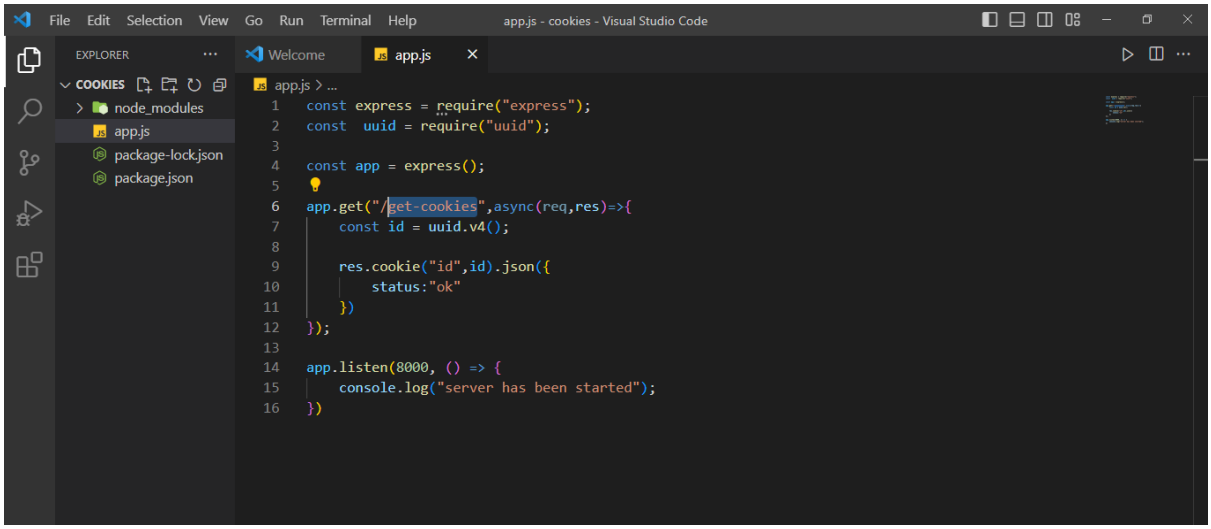
Install cookie

You have to acquire cookie abilities in Express.js. So, install cookie-parser middleware through npm by using the following command:

Step:

1. npm init –y
2. Define a route:Cookie-parser parses Cookie header and populate req.cookies with an object keyed by the cookie names.

Input:

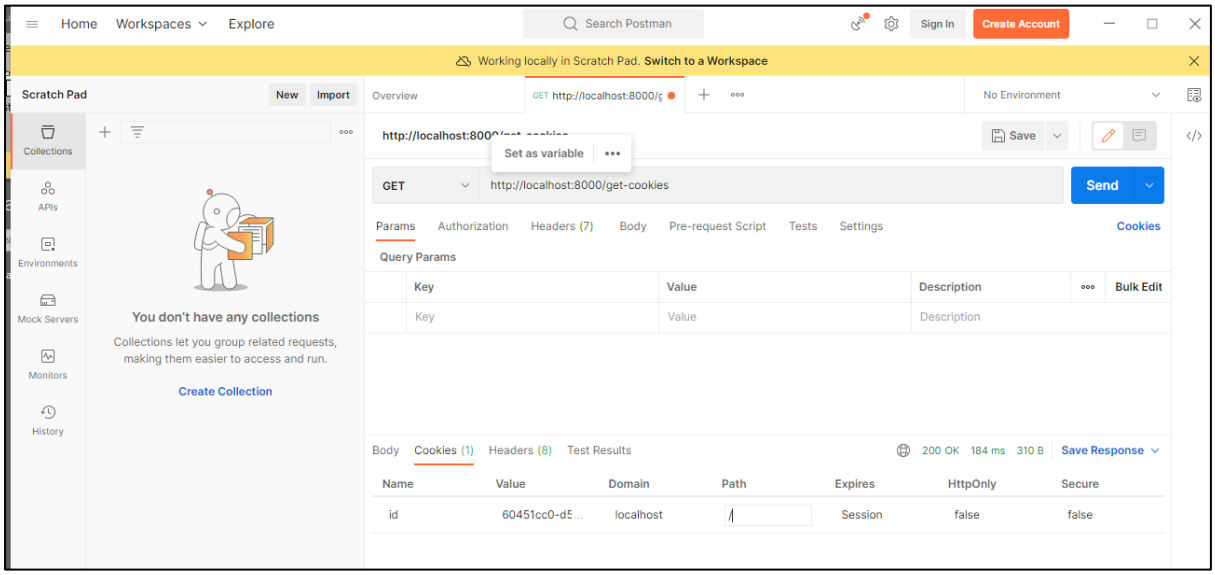


Output:

Open the page **http://localhost:8000/** on your browser:

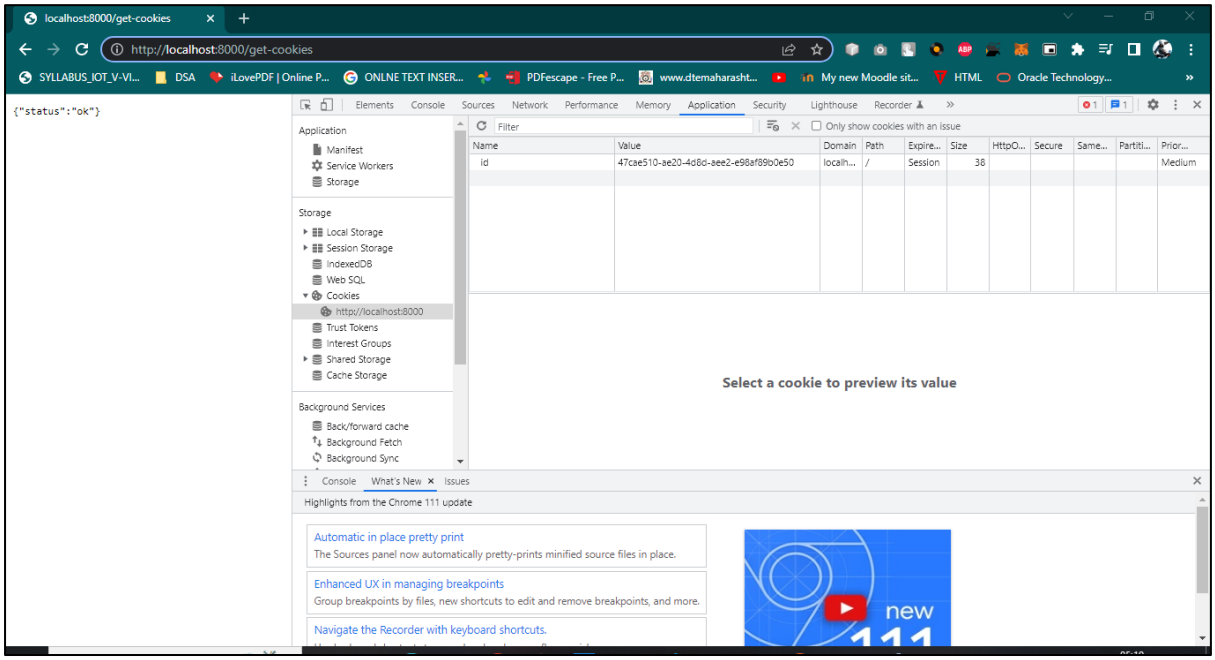
Set cookie:

Now open **http://localhost:8000/get-cookies** to set the cookie:



Get cookie:

Now open **http://localhost:8000/get-cookies** to get the cookie:



Conclusion: We implement the Build Express application by Sending and Receiving Cookie