WEB TECHNOLOGIES LAB MANUAL

LAB-1

AIM:-   Install and configure the IDE

Procedure:-

The IDE we are going to use is SUBMILE TEXT

To install it: first we need to download the source file(.exe file) .

For that we can download it from

https://download.sublimetext.com/sublime_text_build_4121_x64_setup.exe

And after that install the exe file by running it.

To configure..
There is nothing important things to configure it.

LAB-2

AIM:-   Incorporating Javascript on an HTML page and how to link to an external.js file

Procedure:-

Steps to Incorporate a JavaScript file on an HTML page.
1) Create a HTML page
   ```
   <html>
   <head></head>
   <body> body of html</body>
   </html>
   ```
2) Create A javascript file.
   Filename.js
3) Add some test code to the .js file
   console.log('It works!');
4) Add the js file to the HTML page in the head tag of the HTML file.(by using external js file)
   ```
   <script src="filename.js"></script>
   <!--/*external js linking*/-->
   ```
5) Open the web page/html page in the web browser and open console in developer tools and incorporate the JS file.

Example Program:-

```
<!DOCTYPE html>

<html>

<head>

<title>Javascript</title>

</head>

<body>

<h1>CCBP 4.O</h1>

<p id="paragraph"></p>
```
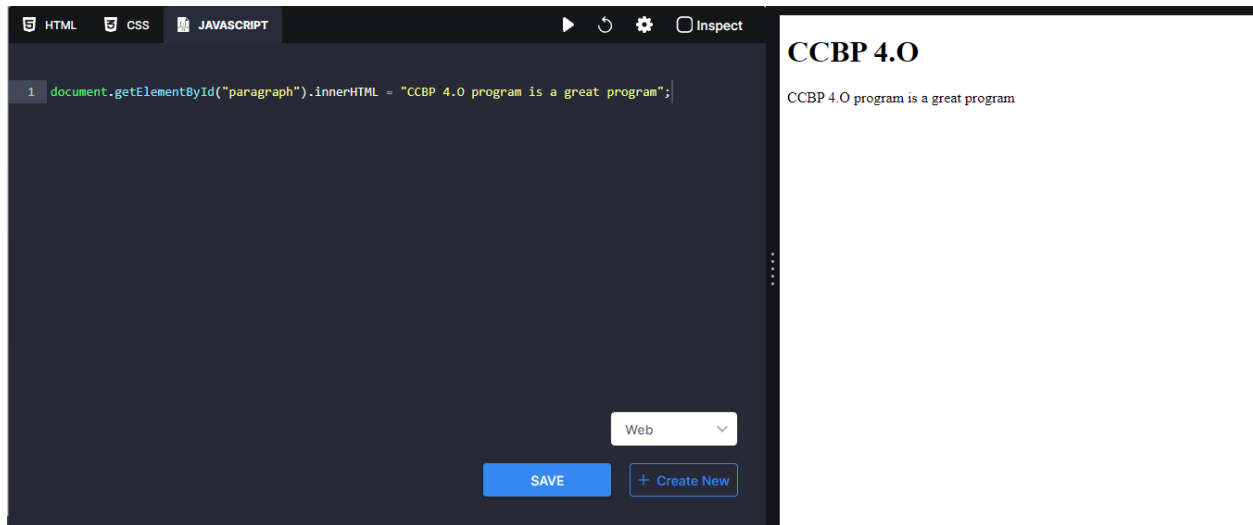
<script src="myscript.js">

</script>

</body>

</html>

External File:-   myscript.js

document.getElementById("paragraph").innerHTML = "CCBP 4.O is a great program";

Output:-

LAB-3

AIM:- Comparing javascript with jquery for some tasks.

<p>A loop with a <mark>continue</mark> statement.</p>
<p>loop will skip the iteration where k = 7.</p>

<p id="maddy"></p>

Procedure:-
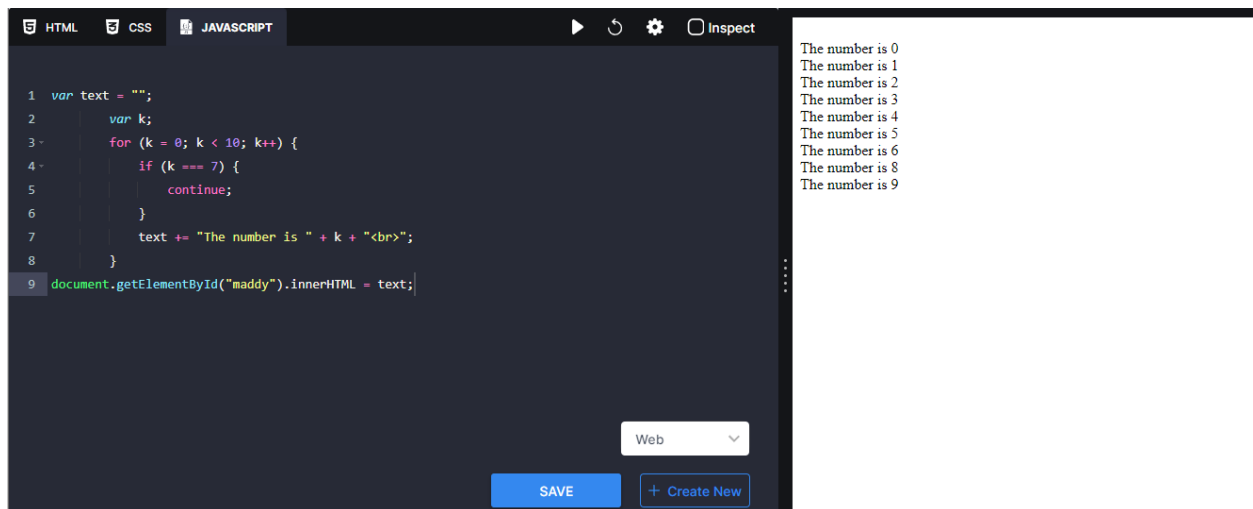
```
<!DOCTYPE html>
<html>
<body>
<script>
        var text = "";
        var k;
        for (k = 0; k < 10; k++) {
                if (k === 7) {
                        continue;
                }
                text += "The number is " + k + "<br>";
        }
        document.getElementById("maddy").innerHTML = text;
    </script>
</body>

</html>
```

OUTPUT:-

```javascript
1   var text = "";
2       var k;
3       for (k = 0; k < 10; k++) {
4           if (k === 7) {
5               continue;
6           }
7           text += "The number is " + k + "<br>";
8       }
9   document.getElementById("maddy").innerHTML = text;
```

```
The number is 0
The number is 1
The number is 2
The number is 3
The number is 4
The number is 5
The number is 6
The number is 8
The number is 9
```

JQUERY:-

```html
<!DOCTYPE html>
<html>

<head>
        <script src=
"https://ajax.googleapis.com/ajax/libs/jquery/3.5.1/jquery.min.js">
        </script>

        <script>
                $(document).ready(function () {
                        $("#hide").click(function () {
                                $("h1").hide();
                        });
                        $("#show").click(function () {
                                $("h1").show();
                        });
                });
        </script>
</head>

<body>
        <h1>
                <mark>
                        On clicking the "Hide_me" button, I will disappear.
```

```
                </mark>
        </h1>
        <button id="hide">Hide_me</button>
        <button id="show">Show_me</button>
</body>

</html>
```
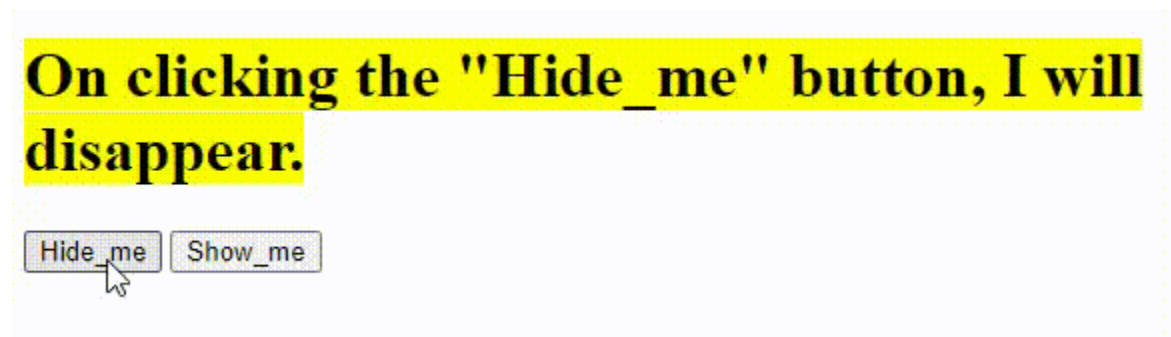
OUTPUT:-

As we click on the Hide_me button, the above-marked heading will disappear, but as soon as we click on the Show_me button it'll again appear

LAB-4

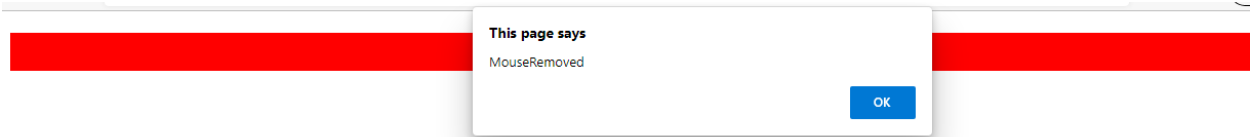AIM:- Creating a web page by using major methods/events in jQuery

Procedure:-

```html
<!DOCTYPE html>
<html>
<head>
        <meta charset="utf-8">
        <title>Jquery 1st</title>
        <!--<script type="text/javascript" href="jquery.js"></script>-->
        <script src="https://ajax.googleapis.com/ajax/libs/jquery/3.6.0/jquery.min.js"></script>
</head>
<body>
        <center><h1 class="head1" id="1st">Hello world</h1></center>

        <script type="text/javascript">
                var i=1;

                for(i=1;i<5;i++){
                                $('#1st').hide(3000).show(2000);
                                $('.head1').css("background-color","red");
                }
                /*Jquery Events*/
                $('.head1').on({
                        mouseenter:function(){
                                //alert("Mouseover");
                        },
                        mouseleave:function(){
                                alert("MouseRemoved");
                        },
                        click:function(){
                                alert("clicked");
                        }
                })
        </script>
</body>
```

</html>

Output:-

This page says

MouseRemoved

OK

LAB-5

AIM:- Implementing a page by using Plugins and local data storage

Procedure:-

Save the below lines of code with .js file extension.

CODE:-

jquery.display.js

```
jquery.fn.display = function() {

   return this.each() = function() {

      alert("element:" + $(this).prop("element"));

   }

}
```

Save the below lines of code with .html file extension.

CODE:-

```
<!DOCTYPE html>

<html>

  <head>

    <script scr="https:/ajax/googleapis.com/ajax/libs/jquery/3.6.0/jquery.min.js"></script>

    <script src="jquery.display.js"></script>

    <script type="text/javascript">

      $(document).ready(function(){

        $("p").display();

      });

    </script>
```

```
        </head>

    <body>

        <p>Hi Hello</p>

    </body>

</html>
```

Output:-
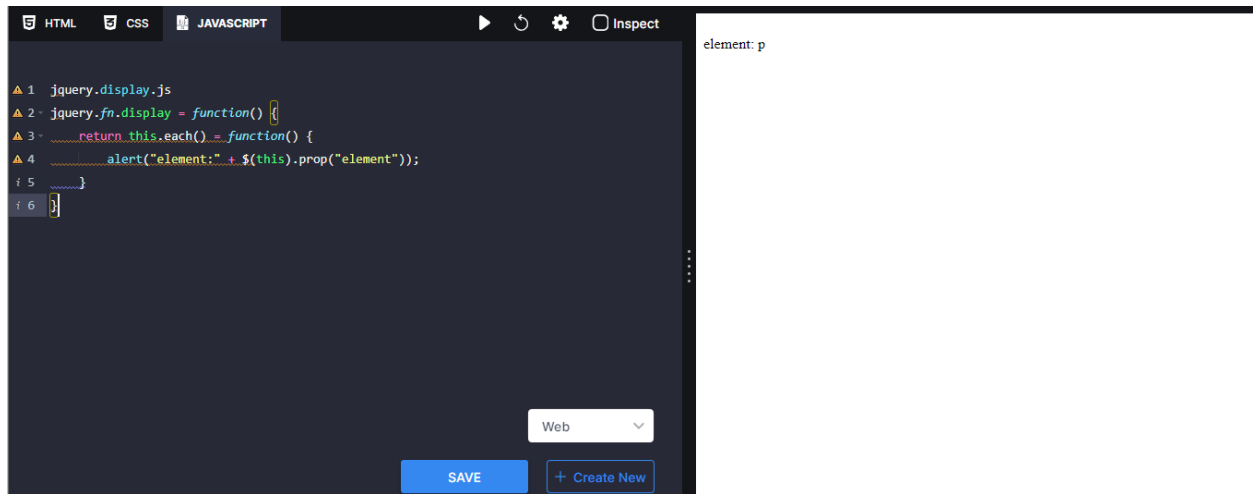
LAB-6

AIM:- Implement Bootstrap in existing websites

Theory:- We use bootstrap in existing websites because it maintains wide browser compatibility,it offers consistent design by using re-usable components and it is very easy to use,quick to learn.

Procedure:-

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <link rel="stylesheet"
href="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/css/bootstrap.min.css"
integrity="sha384-
JcKb8q3iqJ61gNV9KGb8thSsNjpSL0n8PARn9HuZOnIxN0hoP+VmmDGMN5t9UJ0Z"
crossorigin="anonymous" />
    <link rel="stylesheet" href="notifications.css">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Notifications</title>
    <style>
      table{
         border: 1px solid black;
         width: 100%;
      }
      th{
         background-color: rebeccapurple;
         color: white;
         font-weight: bold;
         text-align: center;
      }
      td{
         text-align: center;
      }
      h1{
```

```
        color: rebeccapurple;
        text-align: center;
        text-decoration: underline;
      }
    </style>
</head>
<body>
    <h1 class="mt-4">Notifications</h1>
    <div class="notifications">
      <div class="container">
        <div class="row mt-5 shadow-lg p-2">
          <div class="col-1">
            <table>
              <tr>
                <th>OCT</th>
              </tr>
              <tr>
                <td>29</td>
              </tr>
            </table>
          </div>
          <div class="col-9 ml-5">
            <p>
              <a href="#">Applications are invited for the Post of Residential Medical Officer
on Contract basis(Only Female).</a>
              <span class="new">New</span>
            </p>
          </div>
        </div>
        <div class="row mt-5 shadow-lg p-2">
          <div class="col-1">
            <table>
              <tr>
                <th>OCT</th>
              </tr>
              <tr>
                <td>23</td>
              </tr>
            </table>
          </div>
```

```
        <div class="col-9 ml-5">
            <p>
                <a href="#">One-Day International Webinar on Sustainable Water Resources
Management in Asian Cities: Challenges & Opportunities</a>
                <span class="new">New</span>
            </p>
        </div>
      </div>


    </div>
  </div>
</body>
</html>
```

Output:-
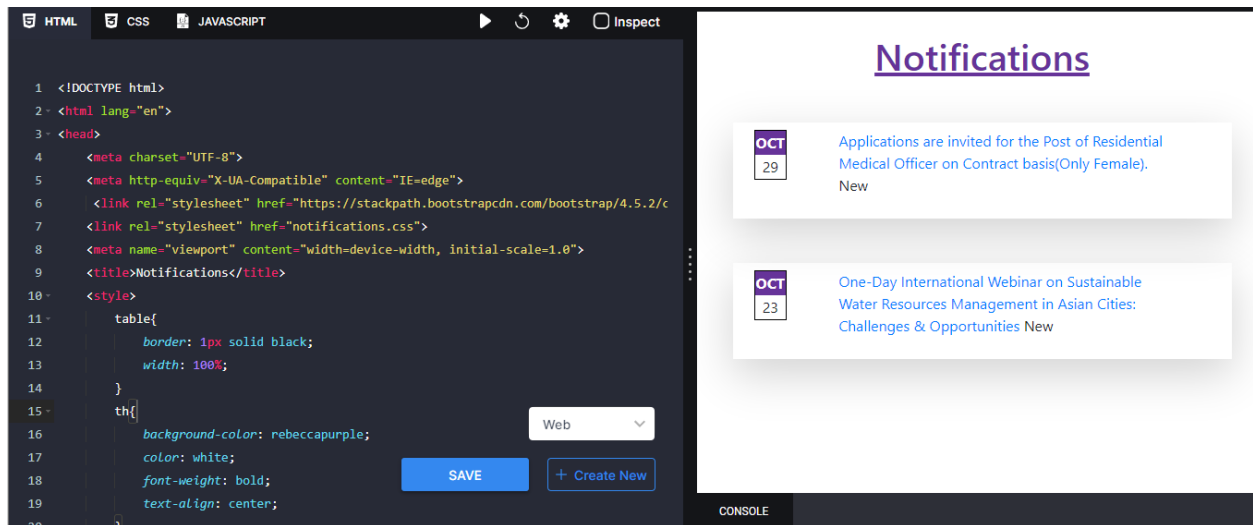
LAB-7

i) AIM:- To create a web page by using Common Bootstrap Components

Procedure:-

```
<!DOCTYPE html>
<html>
<head>
        <meta charset="utf-8">
        <title>Trying BOOTSTRAP</title>
        <link rel="stylesheet" type="text/css" href="CSS/bootstrap.css">
        <script src="bootstrap.js"></script>
        <style type="text/css">
                *{
                        margin: 0;
                        padding: 0;
                        box-sizing: border-box;
                }
    nav div:nth-child(1){
      background-color: rgba(0, 0, 0, 0.2);
      padding: 10px;
    }

    body{
      background-color: rgba(0, 0, 0, 0.9);
    }
  </style>
</head>
<body>
        <nav class="navbar navbar-expand-md navbar-light bg-light">
        <div class="container-fluid">
  <a class="navbar-brand" href="#">WT RECORD</a>
  <button class="navbar-toggler" type="button" data-toggle="collapse" data-
starget="#navbarSupportedContent" aria-controls="navbarSupportedContent" aria-
expanded="false" aria-label="Toggle navigation">
    <span class="navbar-toggler-icon"></span>
  </button>
  <div class=" container collapse navbar-collapse" id="navbarSupportedContent">
```

```html
    <ul class="navbar-nav me-auto mb-5 mb-lg-0"><!-- me-auto mb-2 mb-lg-0 -- these are used
here to separate the search box and buttons-->
      <li class="nav-item">
        <a class="nav-link active"  href="#">Home</a>
      </li>
      <li class="nav-item">
        <a class="nav-link" href="#">Link</a>
      </li>
      <li class="nav-item dropdown">
        <a class="nav-link dropdown-toggle" href="#" id="navbarDropdown" role="button" data-
bs-toggle="dropdown" aria-expanded="false">
          Dropdown
        </a>
        <ul class="dropdown-menu" aria-labelledby="navbarDropdown">
          <li><a class="dropdown-item" href="#">Action</a></li>
          <li><a class="dropdown-item" href="#">Another action</a></li>
          <li><hr class="dropdown-divider"></li>
          <li><a class="dropdown-item" href="#">Something else here</a></li>
        </ul>
      </li>
      <li class="nav-item">
        <a class="nav-link disabled" href="#" tabindex="-1" aria-disabled="true">Disabled</a>
      </li>
    </ul>
    <form class="d-flex">
      <input class="form-control me-2" type="search" placeholder="Search" aria-
label="Search">
      <button class="btn btn-outline-success" type="submit">Search</button>
    </form>
   </div>
  </div>
</nav>

<!--<div class="buttons">
  <a href="#">Home</a>
  <a href="#">About</a>
</div>-->
</body>
</html>
```
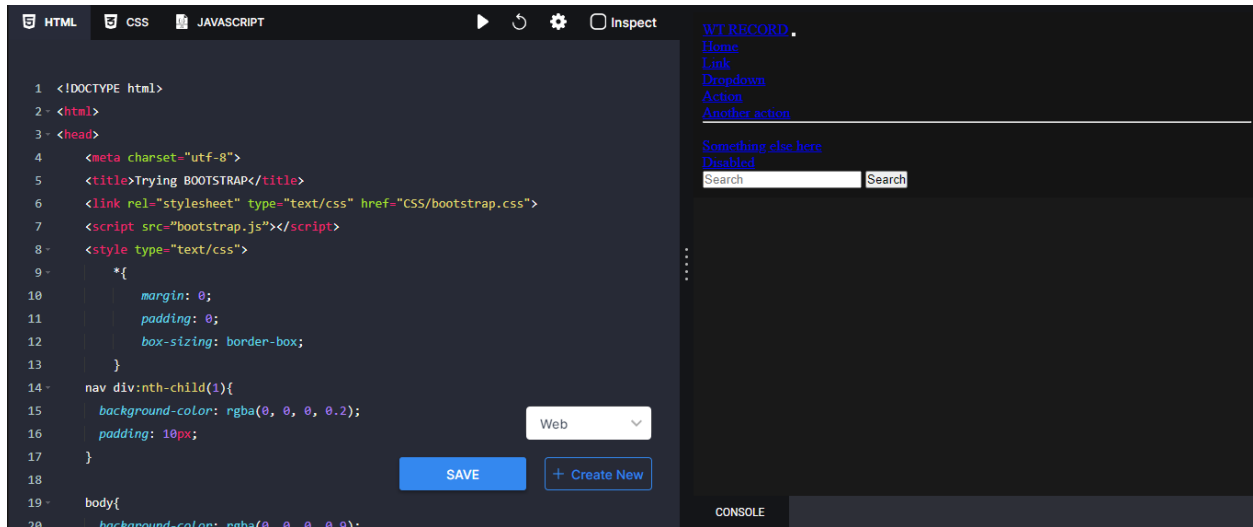
Output:-

ii) AIM:- To create a website by using Bootstrap themes.

Procedure:-

Follow the below url to visit the website created by Bootstrap themes and many more.

https://manasafm.ccbp.tech/
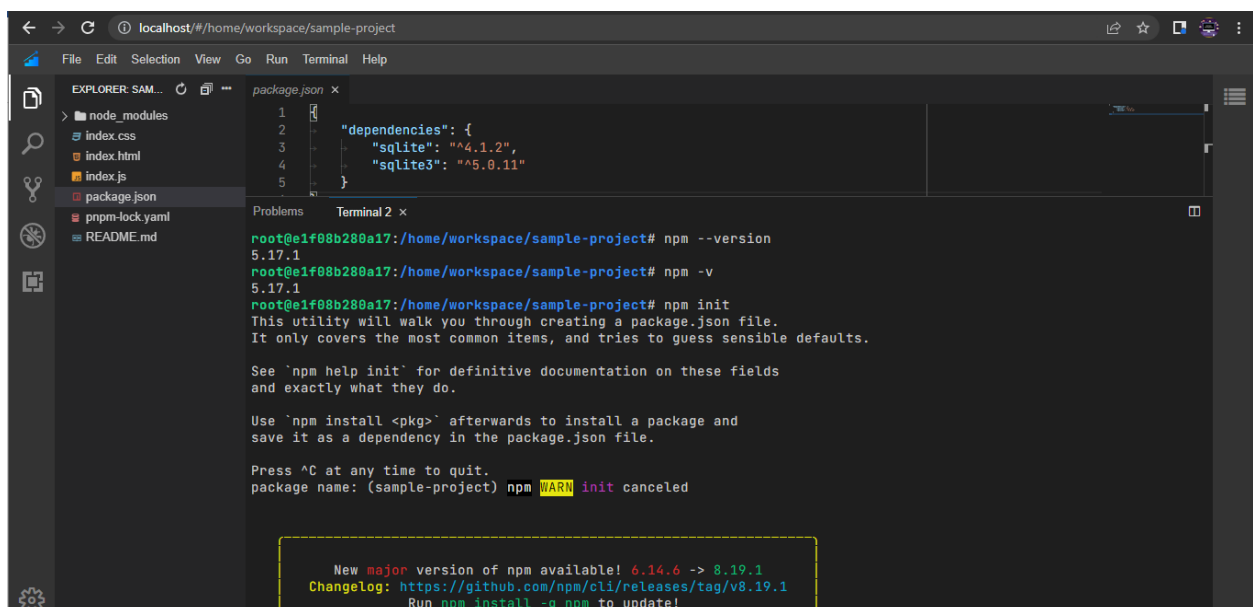
LAB-8

AIM:-   Setting up a node js project using npm

Procedure:-

- Go to the NodeJS website and download NodeJS.
- Make sure Node and NPM are installed and their PATHs defined.
- Initially check the npm version by using either npm –version or npm –v commands.
- To know the usage of npm, run npm help command in the terminal.
- Start a sample project and initialize the project by using npm init command.
- By running npm init command, it will initializes the new project and corresponding package.json file will be created in the node js folder.
- In package.json file all the required modules,packages will be automatically installed and readily available to use.
- Install the required modules for the project by using npm install <module-name>(npm install sqlite).
- After running all the above commands, the output will be as follows.

Output:-

File   Edit   Selection   View   Go   Run   Terminal   Help

EXPLORER: SAM...

> node_modules
  index.css
  index.html
  index.js
  package.json
  pnpm-lock.yaml
  README.md

package.json ×

```json
1   {
2       "dependencies": {
3           "sqlite": "^4.1.2",
4           "sqlite3": "^5.0.11"
5       }
}
```

Problems   Terminal 2 ×

```
root@e1f08b280a17:/home/workspace/sample-project# npm install sqlite
Already up-to-date
Progress: resolved 1, reused 0, downloaded 0, added 0, done
root@e1f08b280a17:/home/workspace/sample-project# npm install sqlite3
Packages: +105
+++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Progress: resolved 106, reused 1, downloaded 105, added 105, done
node_modules/.pnpm/sqlite3@5.0.11/node_modules/sqlite3: Running install script, done in 6.2s

dependencies:
+ sqlite3 5.0.11
root@e1f08b280a17:/home/workspace/sample-project# npm help
Version 5.17.1
Usage: pnpm [command] [flags]
        pnpm [ -h | --help | -v | --version ]

Manage your dependencies:
        add                     Installs a package and any packages that it depends on. By default, any new package is
                                installed as a prod dependency
        import                  Generates a pnpm-lock.yaml from an npm package-lock.json (or npm-shrinkwrap.json) file
     i, install                 Install all dependencies for a project
    it, install-test            Runs a pnpm install followed immediately by a pnpm test
```

LAB-9

AIM:- Use the different Node.js core modules to implement web pages on backend without the help of browser console.

Procedure:-

```
//path module

const path = require("path");

const filePath = path.join("manasa", "fullstackdeveloper", "notes.txt");

console.log(filePath);


//fs module

const fs = require("fs");

fs.appendFile("manasa.txt", "Hello CCBPians!", function (error) {

  if (error) throw error;

  console.log("Saved Successfully!");

});


//http module

const http = require("http");
//create a server instance:
http
 .createServer(function (request, response) {

   response.send("Hello Rguktians!"); //send the response to the client

   response.end(); //exit from the response

 })
 .listen(3000, () => {
```
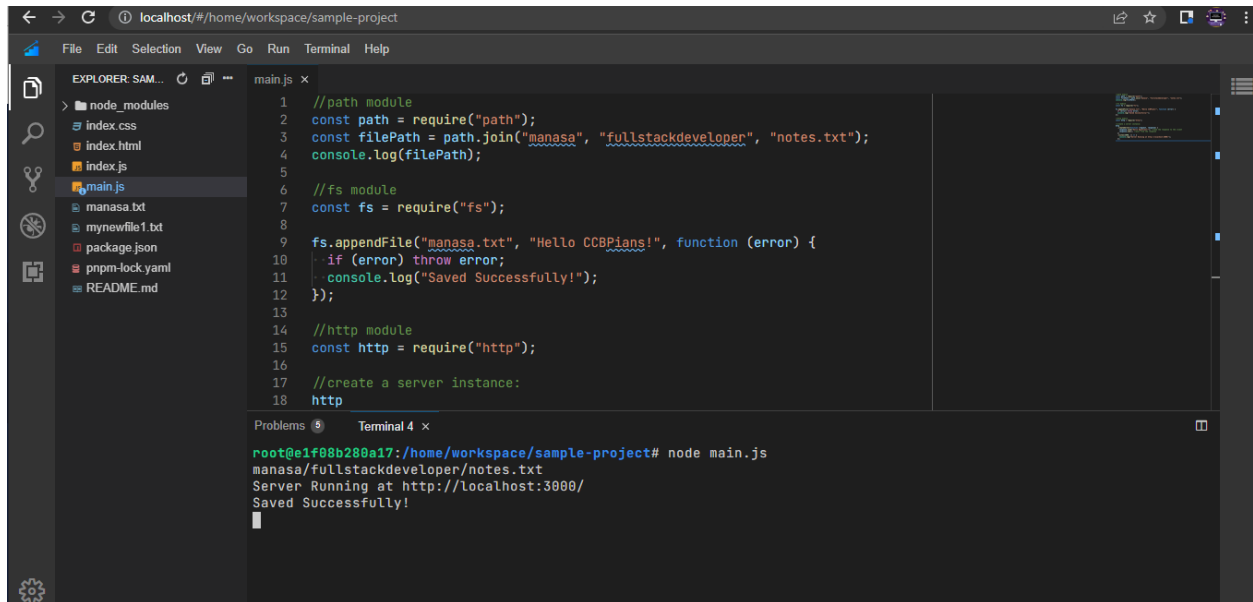
```
console.log("Server Running at http://localhost:3000/");

});
```

Output:-

J Vishnu Priyanka
Asst Prof(c),
Department of Computer Science And Engineering,
RGUKT-AP,
IIIT SRIKAKULAM.