**EXPERIMENT-1**

Create an application to setup node JS environment and display “Hello World”.

**Step 1: Install Node.js**

1. Download and install Node.js from the official website: <https://nodejs.org/>
2. Verify installation by running the following command in the terminal:

node -v

This should display the installed Node.js version.

**Step 2: Create a Project Directory**

1. Open a terminal or command prompt.
2. Navigate to the desired location and create a new folder:

mkdir node-hello-world

cd node-hello-world

**Step 3: Initialize a Node.js Project**

1. Run the following command to initialize a Node.js project:

npm init -y

This will create a package.json file with default values.

**Step 4: Create the Application File**

1. Create a new file named app.js in the project directory.
2. Open app.js and add the following code:

// Import the HTTP module

const http = require('http');

// Create an HTTP server

const server = http.createServer((req, res) => {

res.writeHead(200, { 'Content-Type': 'text/plain' });

res.end('Hello World\n');

});

// Define a port and start the server

const PORT = 3000;

server.listen(PORT, () => {

console.log(`Server running at http://localhost:${PORT}/`);

});

**Step 5: Run the Application**

node app.js

Open a web browser and visit:

You should see **"Hello World"** displayed on the scree

**EXPERIMENT-2**

a simple Node.js application for a user login system using Express.js and MongoDB. It includes user registration and login with password hashing using bcrypt.js.

**Step 1: Install Node.js**

**Install Node.js** from <https://nodejs.org/>.

**Step 2: Setup the Project**

Open a terminal and create a project folder:

mkdir node-login-system

cd node-login-system

Initialize the project

npm init -y

Install dependencies

Npm I express nodemon ejs express-session body-parser uuid

**Step 3: Create the Application Files**

server.js (Main server file)

views folder(default folder for template engine)

base.ejs(It creates dynamic html pge/ejs template engine)

create file header.ejs

create file footer.ejs

crerae public folder

create style.css file

**Step 4: Setup the Express Server**

Create server.js:

const express=require('express');

const path=require('path')

const app=express();

const port=process.env.PORT||3000;

app.set('view engine','ejs');

//load static assets

app.use('/static',express.static(path.join(\_\_dirname,'public')))

app.use('/assets',express.static(path.join(\_\_dirname,'public/assets')))

//home route

app.get('/',(req,res)=>{

    res.render('base',{title:"Login System"});

})

app.listen(port,()=>{console.log("Listening to the server on [http://localhost:3000")}](http://localhost:3000%22)%7d));

**Execute this code using terminal: npm start**

**Nodemon server.js**

**It displays local server**

**Step 5: Run the Application**

node server.js

**base.ejs**

<%-include('header')-%>

<div class="text-center center-div" id="login">

    <div class="container w-25 border py-5">

        <div class="title pb-5">

            <h2 class="font-weight-bold">loginsystem</h2>

            <span>Log in for the existing user</span>

        </div>

        <form action="#">

            <div class="forn-group">

                <input type="email" class="form-control" placeholder="email" name="email">

                <small class="form-text text-muted-text-left">Register email address</small>

            </div>

<div class="form-group">

                <input type="password" class="form-control" name="password" placeholder="password">

            </div>

            <button type="submit" class="btn btn-success rounded-pill">Submit</button>

        </form>

    </div>

</div>

  <%-include('footer')-%>

**Footer.ejs**

</body>

</html>

**Header.ejs**

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title><%title%></title>

    <link rel="stylesheet" href="https://cdn.jsdelivr.net/npm/bootstrap@4.5.3/dist/css/bootstrap.min.css" integrity="sha384-TX8t27EcRE3e/ihU7zmQxVncDAy5uIKz4rEkgIXeMed4M0jlfIDPvg6uqKI2xXr2" crossorigin="anonymous">

    <link rel="stylesheet"href="/static/style.css">

</head>

<body>

**Style.css**

@import url('https://fonts.googleapis.com/css2?family=Open+Sans:ital,wght@0,300..800;1,300..800&display=swap');

body{

    font-family: "Open Sans", serif;

    background-image:url('/assets/background\_png.png');

    background-size: cover;

    background-repeat: no-repeat;

}

.center-div{

    padding-top:10%;

}

.btn.btn-success{

    padding:.4em 2em;

}

form{

    padding: 0 1em;

}

#login.title>span

font-size:.8em

**getbootstrap.com**

**copy CDN library and paste into header.ejs file**

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