**EXPRESS**

1. **Simple Express program:**

const express = require('express'); //import express

const app = express(); //create an express application object

const port = 5000;

app.get('/',function(req,res) //middleware function that can handle GET HTTP request

{

res.status(200);

res.send("<h1>Handling HTTP GET request</h1>");

res.end();

});

app.post('/',function(req,res) //middleware function that can handle POST HTTP request

{

res.status(200);

res.send("<h1>Handling HTTP POST request</h1>");

res.end();

});

app.listen(port,function()

{

console.log("Server is listening on Port No:"+port);

});

1. **JSON Web Tokens:**

* **Example 1: Creating a JWT Token:**

const express = require('express');

const jwt = require('jsonwebtoken');

const app = express();

const key = "mysecret";

const port = 5000;

app.post('/login',function(req,res)

{

const user = {

id : 101,

name : "CSIT",

email : "csitcvr@gmail.com"

};

jwt.sign({user},key,function(err,token)

{

res.json({token});

});

});

app.listen(port, function()

{

console.log("Server is listening on Port no:"+port);

});

**Example 2: Creating and Verifying JWT Token**

const express = require('express');

const jwt = require('jsonwebtoken');

const app = express();

const fs = require('fs');

const key = "mysecretkey@123";

const port = 5000;

app.post('/login',function(req,res)

{

//authenticate user using credentials

const runame = req.body.username;

const rpwd = req.body.password;

const dbuser =

{

duname : "csit",

dpwd : "csit@123"

};

if(runame == dbuser.duname && rpwd == dbuser.dpwd)

{

jwt.sign({dbuser},key,function(err,token)

{

res.json({token});

});

}

else

{

res.send("Invalid Credentials");

}

});

function validatetoken(req,res,next)

{

const authheader = req.headers.authorization;

if(authheader)

{

const harray = authheader.split(' ');

const token = harray[1];

jwt.verify(token, key, function(err,data)

{

if(err)

{

res.send("INVALID TOKEN");

}

else

{

next();

}

});

}

else

{

res.sendStatus(403);

}

}

app.get("/studentsdata",validatetoken,function(req,res)

{

fs.readFile("student.json",function(err,data)

{

res.send(data);

});

});

app.listen(port, function()

{

console.log("Server is listening on Port no:"+port);

});

**Student.json:**

[

{

"rollno" : 301,

"name" : "CVR1",

"dept" : "CSIT",

"year" : 3,

"cgpa" : 8.5

},

{

"rollno" : 302,

"name" : "CVR2",

"dept" : "CSE",

"year" : 3,

"cgpa" : 9

}

]