



# Vidyavardhini's College of Engineering and Technology

## Department of Artificial Intelligence & Data Science

AY: 2025-26

Class:	TE	Semester:	V
Course Code:	CSC 502	Course Name:	WC

Name of Student:	Dhanashree Gawali
Roll No. :	21
Assignment No.:	05
Title of Assignment:	Construct web based Node.js applications using Express.
Date of Submission:	06/10/2025
Date of Correction:	06/10/2025

### Evaluation

Performance Indicator	Max. Marks	Marks Obtained
Completeness	5	3
Demonstrated Knowledge	3	3
Legibility	2	2
Total	10	8

Performance Indicator	Exceed Expectations (EE)	Meet Expectations (ME)	Below Expectations (BE)
Completeness	5	3-4	1-2
Demonstrated Knowledge	3	2	1
Legibility	2	1	0

Checked by

Name of Faculty :

Signature :

Date :

Dhanashree  
6/10/25

Q1)

-

⇒ React frontend (App.js):

```
import React, { useEffect, useState } from "react";  
function App()
```

```
}
```

```
const [items, setItems] = useState([]);
```

```
useEffect(() => {
```

```
fetch("http://localhost:5000/items")
```

```
.then((res) => res.json())
```

```
.then((data) => setItems(data));
```

```
}, []);
```

```
return (
```

```
<div style={{ padding: "20px", fontFamily: "Arial" }}>
```

```
<h1> Item List </h1>
```

```
<ul>
```

```
{items.map((item) => (
```

```
<li key={item.id}> item.name </li>
```

```
))}
```

```
</ul>
```

```
</div>
```

```
);
```

```
}
```

~~export default App;~~

Express Backend (server.js):

```
import express from "express";
```

```
import cors from "cors";
```

```
const app = express();
app.use(cors());
```

```
const items = [
  {id: 1, name: "Apple"},  

  {id: 2, name: "Banana"},  

  {id: 3, name: "Orange"}];
```

```
app.get("/items", (req, res) => {
  res.json(items);
});

app.listen(5000, () => {
  console.log("Server running on http://localhost:5000");
});
```

Output :

Item List  
• Apple  
• Banana  
• Orange.

Express Server (server.js):

```
import express from "express";
import cors from "cors";
import itemsRouter from "./routers/items.js";
```

```
const app = express();
app.use(cors());
app.use(express.json());
app.use("/api/items", itemsRouter);
app.get("/", (req, res) => {
  res.send("Welcome to the express Router Example!");
});
app.listen(5000, () => {
  console.log("Server running on http://localhost:5000");
});
```

\* Router Module (counterItems.js):

```
import express from "express";
const counter = Express.Router();
const items = [
  {id:1, name: "laptop"}, 
  {id:2, name: "phone"}, 
  {id:3, name: "Tablet"}];
counter.get("/:id", (req, res) => {
  const item = items.find(i => i.id === parseInt(req.params.id));
  if (!item) return res.status(404).json({message: "Item not found"});
  res.json(item);
});
export default counter;
```

output :

Welcome to the express Router Example:

JSON response:

[

```
{ "id": 1, "name": "Laptop" },  
{"id": 2, "name": "Phone"},  
{"id": 3, "name": "Tablet"},
```

]

```
{"id": 2, "name": "Phone"}
```

Q37 -

↗ Express App(server.js):

```
import express from "express";
```

```
import cookieParser from "cookie-parser";
```

```
const app = express();
```

```
app.use(express.json());
```

```
app.use(cookieParser());
```

```
app.post("/login", (req, res) => {
```

```
const {username} = req.body;
```

```
if (!username) {
```

```
return res.status(400).send("username required");
```

```
}.
```

```
res.cookie("username", username, {  
    httpOnly: true,  
    maxAge: 60 * 1000  
});  
res.send(`welcome, ${username}.! Cookie has been  
set: `);  
app.get("/profile", (req, res) => {  
    const username = req.cookie.username;  
    if (!username)  
    {  
        return res.status(401).send("No active session. please  
login");  
    }  
    res.send(`Hello ${username}, welcome back ! `);  
});  
app.listen(5000, () => {  
    console.log(`server running on http://localhost:  
5000`);  
});
```

Output:

Login request:  
{ "username": "Dhanashree" }

Request

Response

welcome, Dhanashree: cookie  
has been set.

If cookie exists:

Hello Dhanashree, welcome  
back!

If cookie expired

No active session: please  
log in.

Q4)

-

Code Snippet:

```
import express from "express";
const app = express();
const products = [
  {id: 1, name: "Laptop", price: 55000},
  {id: 2, name: "Smartphone", price: 30000},
  {id: 3, name: "Headphones", price: 2000}
];
app.get("/products", (req, res) => {
  res.json(products);
});
app.listen(5000, () => {
  console.log("Server running on http://localhost:5000");
});
example(Request):
GET http://localhost:5000/products.
```

Example (Response):

[

```
{ "id": 1, "name": "Laptop", "price": 55000 },
{ "id": 2, "name": "Smartphone", "price": 30000 },
{ "id": 3, "name": "Headphones", "price": 2000 }.
```

].