

# React Application: Using body-parser Package and Code of Ethics

## Q.1) Illustrate the Need for the 'body-parser' Package - CO2 (10 Marks)

The 'body-parser' package is a middleware used in Node.js and Express.js to parse incoming request bodies. When data is sent from a frontend (like a React app) to a backend server through POST or PUT requests, it usually comes in formats like JSON or URL-encoded data. 'body-parser' helps in extracting and converting this data into a JavaScript object that can be easily accessed and used in the backend. Without 'body-parser', it would be difficult to handle form submissions and JSON payloads in Express applications.

## Q.2) Small Application Using 'body-parser' - CO1, CO2 (10 Marks)

Below is a simple Express server that uses 'body-parser' to handle POST requests from a React frontend:

```
const express = require('express');
const bodyParser = require('body-parser');

const app = express();
const port = 3000;

// Middleware to parse JSON
app.use(bodyParser.json());

app.post('/submit', (req, res) => {
  const userData = req.body;
  console.log('Received data:', userData);
  res.send('Data received successfully');
});

app.listen(port, () => {
  console.log(`Server running at http://localhost:${port}`);
});
```

Input: JSON data from React (e.g., { name: 'Om', age: 21 })

Output: Logs and confirms data receipt on server

## Q.3) Code of Ethics with Respect to React

A code of ethics in React development means writing secure, responsible, and inclusive code. This includes:

- Respecting privacy: Do not misuse data sent via forms or APIs.

- Being transparent: Inform users how their data will be used.
- Security: Validate and sanitize all inputs to prevent injection attacks.
- Inclusiveness: Design user interfaces that are accessible to everyone.
- Attribution: Credit open-source authors when using third-party packages.

By following these ethics, developers help ensure safe, fair, and user-respecting applications.