 Marwadi University	Marwadi University Faculty of Technology Department of Information and Communication Technology	
Subject: AWT (01CT1625)	Aim: Improve any React (+NodeJS) application by adding Error Handling.	
Experiment No: 3	Date:	Enrollment No: 92200133005

AIM: Improve any React (+NodeJS) application by adding Error Handling.

CODE:

```
// backend/server.js

const express = require('express');

const cors = require('cors');

const errorMiddleware = require('./errorMiddleware');

const app = express();

const PORT = process.env.PORT || 5000;

app.use(cors());

app.use(express.json());

// Sample route

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

  // Simulating an error

  const error = new Error('Data not found');

  error.status = 404;

  next(error); // Pass the error to the error middleware

});-

// Error handling middleware

app.use(errorMiddleware);

app.listen(PORT, () => {


  console.log(`Server running on port ${PORT}`);

});

// backend/errorMiddleware.js

const errorMiddleware = (err, req, res, next) => {

  console.error(err.stack);
```

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res.status(err.status || 500).json({
  message: err.message || 'Internal Server Error',
  ...(process.env.NODE_ENV === 'development' && { stack: err.stack }),
}); });


module.exports = errorMiddleware;

// frontend/src/App.js

import React, { useEffect, useState } from 'react';
import axios from 'axios';
import ErrorBoundary from './ErrorBoundary';

const App = () => {
  const [data, setData] = useState(null);
  const [error, setError] = useState(null);
  useEffect(() => {
    const fetchData = async () => {
      try {
        const response = await axios.get('http://localhost:5000/api/data');
        setData(response.data);
      } catch (error) {
        setError(error.message);
      }
    };
    fetchData();
  }, []);
  if (error) {
    return <div>Error: {error}</div>;}

```

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return (

  <div>

    <h1>Data from API</h1>

    <pre>{data ? JSON.stringify(data) : 'Loading...'}</pre>

  </div> );};

const AppWithErrorBoundary = () => (

  <ErrorBoundary>

    <App />

  </ErrorBoundary> );

export default AppWithErrorBoundary;

errorBoundary.js

// frontend/src/ErrorBoundary.js

import React from 'react';

class ErrorBoundary extends React.Component {

  constructor(props) {

    super(props);

    this.state = { hasError: false };}

  static getDerivedStateFromError(error) {

    return { hasError: true };

  }

  componentDidCatch(error, errorInfo) {


    console.error("Error caught in Error Boundary:", error, errorInfo);

  }

  render() {

    if (this.state.hasError) {

```

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    return <h1>Something went wrong.</h1>;

  }

  return this.props.children;

}}

export default ErrorBoundary;
```

OUTPUT:



```

PS C:\Users\Priyesh Vagadia\Downloads\my-app\my-app> node backend/server.js
Server running on port 5000
Error: Data not found
    at C:\Users\Priyesh Vagadia\Downloads\my-app\my-app\backend\server.js:15:19
    at Layer.handle [as handle_request] (C:\Users\Priyesh Vagadia\Downloads\my-app\my-app\backend\node_modules\express\lib\router\layer.js:95:5)
    at next (C:\Users\Priyesh Vagadia\Downloads\my-app\my-app\backend\node_modules\express\lib\router\route.js:149:13)
```

```

PS C:\Users\Priyesh Vagadia\Downloads\my-app\my-app\frontend> npm start

> frontend@0.1.0 start
> react-scripts start

Compiled successfully!

You can now view frontend in the browser.

Local:      http://localhost:3000
On Your Network:  http://10.80.9.23:3000
```