

Step1: Project and Folder

```
C:\demo\jsmarch24\L14>mkdir p1_eo_project
C:\demo\jsmarch24\L14>cd p1_eo_project
C:\demo\jsmarch24\L14\p1_eo_project>mkdir server
C:\demo\jsmarch24\L14\p1_eo_project>mkdir client
```

Step2: React

S1:

```
C:\demo\jsmarch24\L14\p1_eo_project>cd client
C:\demo\jsmarch24\L14\p1_eo_project\client>npx create-react-app eo_app
C:\demo\jsmarch24\L14\p1_eo_project\client> cd eo_app
C:\demo\jsmarch24\L14\p1_eo_project\client\eo_app>npm install axios
C:\demo\jsmarch24\L14\p1_eo_project\client\eo_app>cd src
C:\demo\jsmarch24\L14\p1_eo_project\client\eo_app\src>notepad EvenOdd.js
C:\demo\jsmarch24\L14\p1_eo_project\client\eo_app\src>cd..
C:\demo\jsmarch24\L14\p1_eo_project\client\eo_app>npm start
```

S2:

EvenOdd.js

```
import { useState, useRef } from "react";
import axios from "axios";
```

```
function EvenOdd()
{
    const rNum = useRef();
    const [num, setNum] = useState("");
    const [msg, setMsg] = useState("");

    const hNum = (event) => { setNum(event.target.value); }

    const find = (event) => {
        event.preventDefault();
        if (num == "")
        {
            alert("u did not enter integer ");
            setMsg("");
            rNum.current.focus();
            return;
        }

        let n = parseInt(num);
        let url = "http://localhost:9000/find";
        let data = { params : { number : num } };
        axios.get(url, data)
        .then(res => setMsg(res.data))
        .catch(err => setMsg("issue " + err));
    }
}
```



```

return(
  <>
  <center>
    <h1> Even Odd Finder </h1>
    <form onSubmit={ find }>
      <input type="number" placeholder="enter integer"
        onChange={hNum} ref={rNum} />
      <br/><br/>
      <input type="submit" value="Find Even/Odd" />
    </form>
    <h2> { msg } </h2>
  </center>
</>
);
}
export default EvenOdd;

```

App.js

```

import logo from './logo.svg';
import './App.css';
import EvenOdd from './EvenOdd';

```

```

function App() {
  return (
    <EvenOdd/>
  );
}
export default App;

```

App.css

```

*
{
  font-size: 3vw;
  font-family: Century;
}

body
{
  background-color:lightblue;
}

h1
{
  background-color: black;
  color:white;
  width:50%;
  border-radius:40px;
}

```


Step3: NodeJs

S1:

```
C:\demo\jsmarch24\L14\p1_eo_project\server>npm install http url
C:\demo\jsmarch24\L14\p1_eo_project\server>npm install -g nodemon
C:\demo\jsmarch24\L14\p1_eo_project\server>notepad index.js
C:\demo\jsmarch24\L14\p1_eo_project\server>nodemon index.js
```

S2:

index.js

```
const http = require("http");
const url = require("url");
```

```
const server = http.createServer( (req, res)=> {
  res.setHeader("Access-Control-Allow-Origin", "*");
  let path = url.parse(req.url, true);
```

```
  if (path.pathname == "/find")
  {
    let num = path.query.number;
    let n = parseInt(num);
    let r = n % 2 == 0 ? "even" : "odd";
    res.write(r);
    res.end();
  }
```

```
});
```

```
server.listen(9000, () => { console.log("server ready @ 9000"); });
```