

```
1 // Student bio data object
2
3 const studentBioData = {
4
5     name: "Thapa Technical",
6
7     age: 25,
8
9     gender: "male",
10
11     education: "B.Tech",
12
13     address: {
14
15         city: "Mumbai",
16
17         state: "Maharashtra",
18
19         country: "India"
20     }
21 };
22
23 // Output container
24
25 const output = document.getElementById("output");
26
27 // Helper: Print styled message to output
28
29 const showMessage = (message, type = "info") => {
30
31     const emojis = {
32
33         success: "✅",
34
35         error: "⚠️",
36
37         info: "ℹ️"
```

```
38     };
39
40     output.textContent = `${emojis[type] || "🔍"} ${message}`;
41 };
42
43 // Add data to localStorage
44
45 const addData = () => {
46
47     // Use JSON.stringify() to convert object to string and store in localStorage
48
49     localStorage.setItem("student", JSON.stringify(studentBioData));
50
51     // Show success message
52
53     showMessage("Student data has been added successfully!", "success");
54 };
55
56 // Get data from localStorage
57
58 const getData = () => {
59
60     // Use getItem() to get data from localStorage
61
62     const data = localStorage.getItem("student");
63
64     // If no data found, show error message
65
66     if (!data) {
67
68         showMessage("No student data found in local storage.", "error");
69
70         return;
71     }
72
73     // Use JSON.parse() to convert string to object
74
75     const student = JSON.parse(data);
```

```
76
77 // Show student data
78
79 const formatted = `Name: ${student.name}\nAge: ${student.age}\nGender: ${student.gender}\nEducation:
${student.education}\nAddress: ${student.address.city}, ${student.address.state}, ${student.address.country}`;
80
81 // Show formatted student data
82
83 output.textContent = formatted;
84 };
85
86 // Delete data from localStorage
87
88 const deleteData = () => {
89
90 // Use getItem() to get data from localStorage
91
92 if (!localStorage.getItem("student")) {
93
94     showMessage("No data to delete.", "error");
95
96     return;
97 }
98
99 // Use removeItem() to delete data from localStorage
100
101 localStorage.removeItem("student");
102
103 showMessage("Student data has been deleted.", "success");
104 };
105
106 // Event listeners
107
108 document.getElementById("add-data").addEventListener("click", addData);
109
110 document.getElementById("get-data").addEventListener("click", getData);
111
112 document.getElementById("delete-data").addEventListener("click", deleteData);
```