Level 0 DFD (Context Diagram)
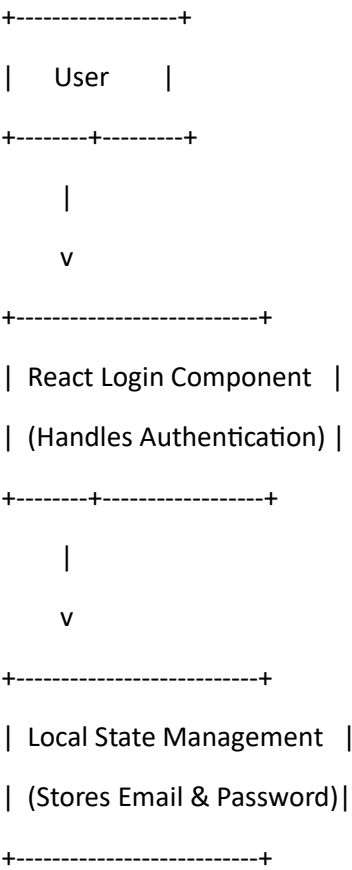
At this level, we show the interaction between the **User** and the **Login System**.

```
+------------------+
|    User       |
+--------+---------+
         |
         v
+--------------------------+
|  React Login Component   |
| (Handles Authentication) |
+--------+-----------------+
         |
         v
+--------------------------+
| Local State Management   |
| (Stores Email & Password)|
+--------------------------+
```
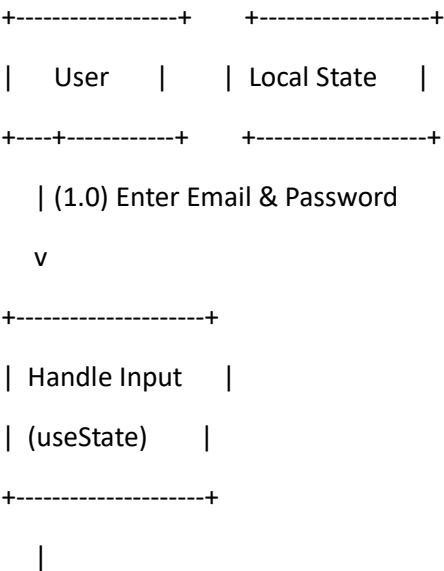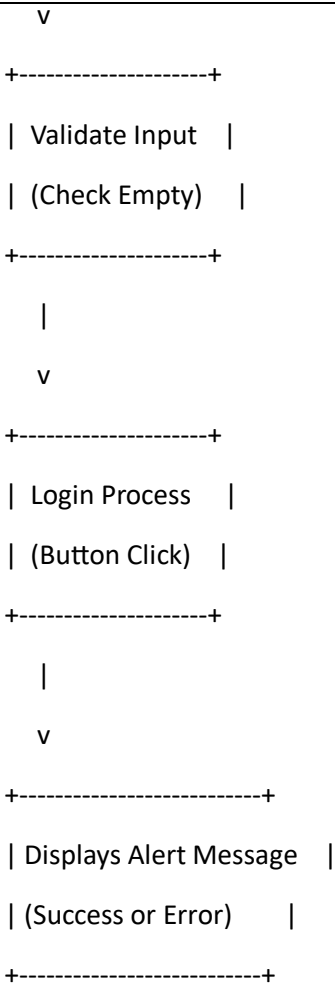
Explanation:

- **User** enters credentials (Email & Password).
- **React Login Component** processes input using useState().
- **Local State** stores the email & password dynamically.
- **Login Validation** checks if fields are empty.
- If valid → Show "Logging in with Email: xyz@example.com".If invalid → Show **error alert**.

Level 1 DFD (Detailed View)

Breaking down each step of the **Login Process**.

```
+------------------+     +-------------------+
|    User       |     | Local State     |
+----+------------+     +-------------------+
     | (1.0) Enter Email & Password
     v
+--------------------+
| Handle Input     |
| (useState)       |
+--------------------+
     |
```

```
         v
+--------------------+
| Validate Input     |
| (Check Empty)      |
+--------------------+
      |
      v
+--------------------+
| Login Process      |
| (Button Click)     |
+--------------------+
      |
      v
+--------------------------+
| Displays Alert Message   |
| (Success or Error)       |
+--------------------------+
```

Key Features in the DFD

1. **User Interaction:**

- User enters **Email & Password**.

- Clicks the **Login Button**.

2. **State Management:**

- useState dynamically updates values.

3. **Input Validation:**

- If **empty fields** → Show "Please fill in all fields." alert.

4. **Login Process Execution:**

- If **valid login**, show "Logging in with Email: xyz@example.com".