**Data Flow Diagram (DFD) for To-Do App**

**To-Do App** allows users to **add** and **delete** tasks dynamically using React state (useState). Below is the **DFD representation**:

**Level 0 (Context Diagram)**

At the highest level, the system consists of:

1. **External Entity: User** → Adds or deletes tasks from the to-do list.
2. **Process: To-Do List System** → Manages task input, storage, and deletion.
3. **Data Store: React State (useState Hook)** → Stores the list of tasks dynamically.

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| External Entity: |

| User |

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| To-Do List System | (Process 1.0)

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| useState Hook | (Stores task list)

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**Level 1 DFD (Decomposed Processes)**

Breaking down **Process 1.0 (To-Do List System)** into detailed steps:

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| External Entity: | | Process 1.1 - Input |

| User | -----> | (Enter Task) |

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| Process 1.2 - | | Process 1.3 - Add Task|

| Capture Input | -----> | (Update useState) |

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| Process 1.4 - | | Process 1.5 - Delete |

| Store Task | -----> | (Remove from useState)|

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| Process 1.6 - |

| Display Task List|

| (Render UI) |

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**Explanation of Level 1 DFD Processes**

1. **Process 1.1 - User Inputs Task**
   * The user types a new task in the input field.
2. **Process 1.2 - Capture Input**
   * The system listens for input changes (onChange event).
3. **Process 1.3 - Add Task (useState)**
   * The user clicks "Add Task," which updates the task list in state.
4. **Process 1.4 - Store Task**
   * The new task is stored in the tasks array using React state.
5. **Process 1.5 - Delete Task**
   * The user clicks the "Delete" button, and the task is removed from the list (useState).
6. **Process 1.6 - Display Task List**
   * The updated list of tasks is displayed dynamically in the UI.

**Data Flow Summary**

✔ **User adds/deletes tasks → System captures input → Updates state → Displays task list**  
✔ Uses **React state (useState Hook)** for real-time updates.  
✔ **No backend or database**—only front-end state management.