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

**Project Description**

The To-Do List App is a React-based web application that allows users to manage their daily tasks. Users can add tasks, delete them, and view their task list. The system processes user input, manages the state dynamically, and updates the UI accordingly.

**Level 0 DFD (Context Diagram)**

The Level 0 DFD provides a high-level overview of the system, illustrating how users interact with the To-Do List App and how data flows between various components.

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| External Entities |  
| |  
| - User |  
+-----------------------+  
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+---------------------------+  
| To-Do List App |  
| (Process: 1.0) |  
+---------------------------+  
 |  
 v  
+---------------------------+  
| Data Store: Application |  
| State (Tasks List) |  
+---------------------------+

**Explanation:**

**• External Entity (User):** The user interacts with the To-Do List App by adding and deleting tasks.

**• Process (To-Do List App):** The system processes user input, updates the task list, and manages state.

• **Data Store (Application State - Tasks List):**Stores and manages the list of tasks.

**Level 1 DFD (Detailed Breakdown)**

The Level 1 DFD further decomposes the To-Do List App process into sub-processes, showing how user interactions trigger different functionalities.

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| External Entity |  
| (User) |  
+-----------------------+  
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+----------------------------+  
| Process: 1.1 - Add Task |  
| (Input & Click Add) |  
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| Process: 1.2 - Update List |  
| (Modify Application State)|  
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 |  
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| Process: 1.3 - Delete Task |  
| (Remove Task from List) |  
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| Data Store: Application |  
| State (Tasks List) |  
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**Explanation:**

1. **Process 1.1 (Add Task - Input & Click Add):**The user enters a task and clicks the 'Add Task' button.

2. **Process 1.2 (Update List - Modify Application State):** The new task is stored in the application state and displayed in the UI.

3**. Process 1.3 (Delete Task - Remove Task from List):** The user clicks the 'Delete' button, and the task is removed from the list.

**Data Flow**

• The User enters a task and clicks 'Add Task'.

• The System updates the task list in the application state.

• The User can delete a task, and the system removes it from the list.

**Additional Notes**

• This system currently operates as a simple React To-Do List with local state management.

• Future enhancements could include backend integration for persistent storage.