**Data Flow Diagram (DFD) for Simple React App**

**Simple** **React App** allows users to enter text in an input field, and the text is displayed live as a preview. Below is the **DFD representation**:

**Level 0 (Context Diagram)**

At the highest level, the system consists of:

1. **External Entity: User** → Inputs text in the input field.
2. **Process: Live Text Preview System** → Captures user input and updates the preview dynamically.
3. **Data Store: React State (useState Hook)** → Stores user input in real-time.

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| External Entity: |

| User |

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| Live Text Preview| (Process 1.0)

| System |

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| useState Hook | (Stores entered text)

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**Level 1 DFD (Decomposed Processes)**

Breaking down **Process 1.0 (Live Text Preview System)** into detailed steps:

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| External Entity: | | Process 1.1 - Input |

| User | -----> | (Enter Text) |

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| Process 1.2 - | | Process 1.3 - Update |

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

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| Process 1.4 - | | Process 1.5 - Display |

| Store Data | -----> | (Show Live Preview) |

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**Explanation of Level 1 DFD Processes**

1. **Process 1.1 - User Enters Text**
   * The user types text into the input field.
2. **Process 1.2 - Capture Input**
   * The system listens for user input changes (onChange event).
3. **Process 1.3 - Update useState**
   * The text is updated and stored in React state (useState).
4. **Process 1.4 - Store Data**
   * The latest user input is stored in the component state.
5. **Process 1.5 - Display Live Preview**
   * The entered text is displayed live as a preview below the input field.

**Data Flow Summary**

✔ **User enters text → System captures input → Updates state → Displays preview live**  
✔ Uses **React state (useState Hook)** for real-time updates.  
✔ **No backend or database**—only front-end state management.