**Project Description:**

The **Login System** processes user authentication by verifying credentials against stored data. Users enter their login details, which are validated, granting access if correct or displaying an error if incorrect.

### **Level 0 (Context Diagram)**

At the highest level, we have just one process, which represents the system as a whole.

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| External Entities |

| - User |

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| Login System |

| (Process: 1.0) |

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| User local storage |

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**Explanation**:

* **External Entity (User):** The user interacts with the Login System.
* **Process (Login System):** The system processes user authentication requests.
* **Data Store (Local Storage):** Stores registered user credentials for validation.

### **Level 1 DFD (Decomposition of Process)**

Now, let's break down the **Login System** process (Process 1.0) into more detailed steps.

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| External Entity | | External Entity |

| (User) | | User Database |

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|Process: 1.1 - Input | | Process:1.2- Validate | | Credentials | | Credentials ||

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| Uses local storage |

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| Process: 1.3 - Login | | Success/Failure|

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**Explanation**:

* **Process 1.1 (Input Credentials):** The user enters a username and password.
* **Process 1.2 (Validate Credentials):** The system checks the credentials against the User Database.
* **Process 1.3 (Login Success/Failure):** If valid, the user logs in; otherwise, an error message is displayed.

### **Data Flow**

* The user enters their username and password.
* The system checks the credentials against the User Database.
* If valid, the user is granted access.
* If invalid, an error message is shown.

### **Notes:**

* The login system ensures user authentication before granting access.
* The Local Storage securely stores credentials for validation.
* Future enhancements could include password encryption, multi-factor authentication, and account recovery features.