**Project Design Phase-II**

**Data Flow Diagram & User Stories**

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| Date | 16 Julyr 2025 |
| Team ID | LTVIP2025TMID59690 |
| Project Name | HouseHunt – Rental Property Recommender |
| Maximum Marks | 4 Marks |

**Data Flow Diagrams:**

A Data Flow Diagram (DFD) is a traditional visual representation of the information flows within a system. A neat and clear DFD can depict the right amount of the system requirement graphically. It shows how data enters and leaves the system, what changes the information, and where data is stored.

**Example:** [**(Simplified)**](https://developer.ibm.com/patterns/visualize-unstructured-text/)

**✅ Level 0 DFD (Context-Level Diagram)**

**This is the top-level overview showing main users and the system.**

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**| Renter | -----> | | | |**

**| Owner | -----> | HouseHunt App | -----> | MongoDB (Cloud) |**

**| Admin | <----- | (MERN Stack) | <----- | (Database) |**

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 Users interact with the system (React frontend).

 The system communicates with backend (Express/Node.js).

 Backend interacts with MongoDB for storing/retrieving data

**✅ Level 1 DFD (Detailed Modules)**

We now break the system into modules:

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| Renter | | Property Owner |

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| 1. Search Properties | 3. Add/Edit Listings

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| 2. Send Booking Request | 4. View Booking Requests

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| 5. View Lease Agreement | 6. Approve Bookings

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| | Admin Dashboard |

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| 7. Approve Listings/Leases |

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| React Frontend (UI Layer) |<---> | Express.js Backend (API Layer) |

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| MongoDB Database |

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**🗂️ Key Modules in DFD**

| **Module** | **Functions Involved** |
| --- | --- |
| User Auth | Register, Login (JWT), Role Identification |
| Property Management | Add, Edit, Delete, View Listings |
| Booking System | Request, Approve, Track Bookings |
| Lease Agreement | Generate Lease Docs, Signatures, Admin Approval |
| Admin Module | User Mgmt, Listing Approvals, Lease Verification |

**🧰 Tools to Draw This**

If you want to create a visual version of this DFD:

* Draw.io (diagrams.net)
* Lucidchart
* Canva (flowchart mode)
* Microsoft Visio