



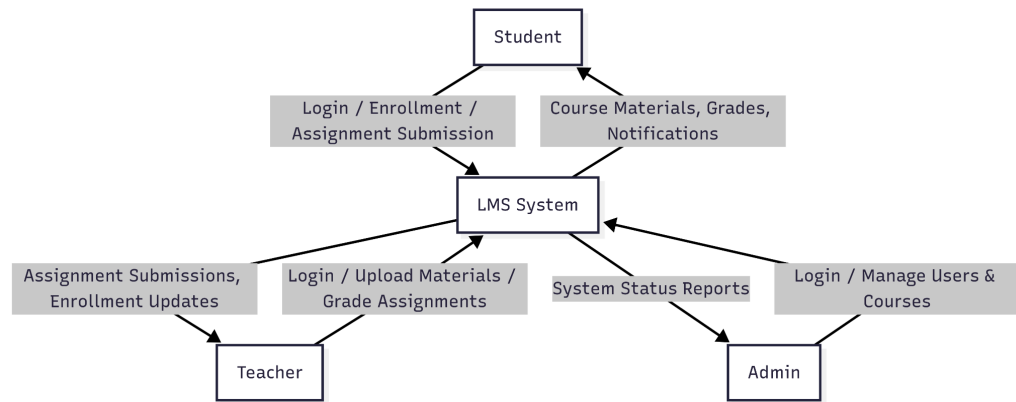
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| Class and batch | TE Computer Science and Engineering - Batch _A4 |
| Aim | To design and analyze the Data Flow Diagrams (DFDs) for a Learning Management System (LMS), illustrating the flow of data between users, processes, and data stores, and understanding the system's functional behavior. |
| objective | <p>To understand the concept and purpose of Data Flow Diagrams in system analysis.</p> <p>To create a Level 0 DFD showing high-level interactions between external entities and the LMS.</p> <p>To create a Level 1 DFD breaking down the LMS into core processes and identifying data flows and data stores.</p> <p>To visualize how students, teachers, and admins interact with the system and how information moves internally.</p> <p>To provide a clear blueprint for system design and implementation based on data flow understanding.</p> |

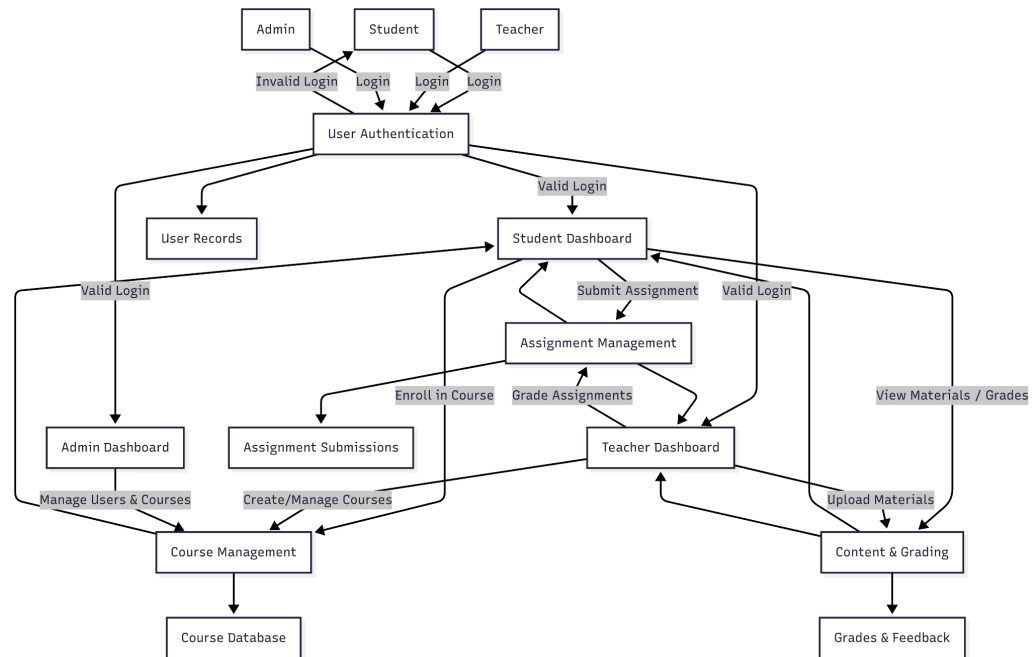
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| Data Flow Diagram: | – High-Level Overview |



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Decomposed Processes



References:

<https://plantuml.com/>

Moodle doc

<https://www.geeksforgeeks.org/software-engineering/what-is-dfddata-flow-diagram/>

CONCLUSION:

In this experiment, we designed **Level 0 and Level 1 Data Flow Diagrams**



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(DFDs) for the Learning Management System (LMS).

- The **Level 0 DFD** provided a high-level overview of the system, showing interactions between external entities (**students, teachers, and admin**) and the LMS as a single process.
- The **Level 1 DFD** decomposed the system into core processes such as **User Authentication, Course Management, Assignment Management, and Content & Grading**, and illustrated how data flows between processes, data stores, and users.

From this exercise, we conclude that **DFDs are effective for understanding system functionality and data movement**. They help in identifying system boundaries, internal processes, and storage requirements, which is essential for **system analysis, design, and documentation**. This provides a clear blueprint for developers and stakeholders to implement and manage the LMS efficiently.