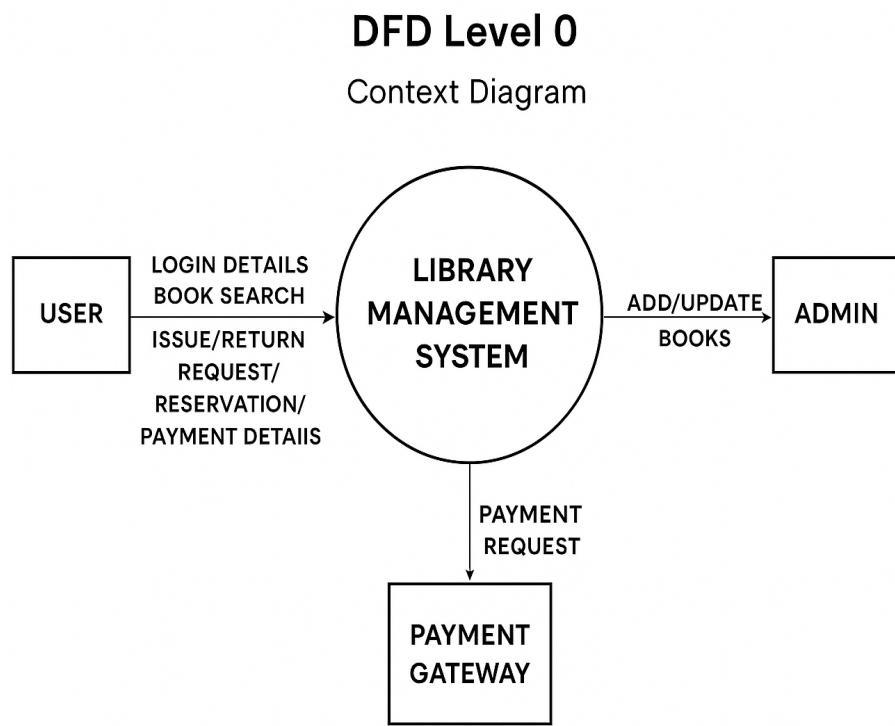


Library Management System - Complete Diagrams

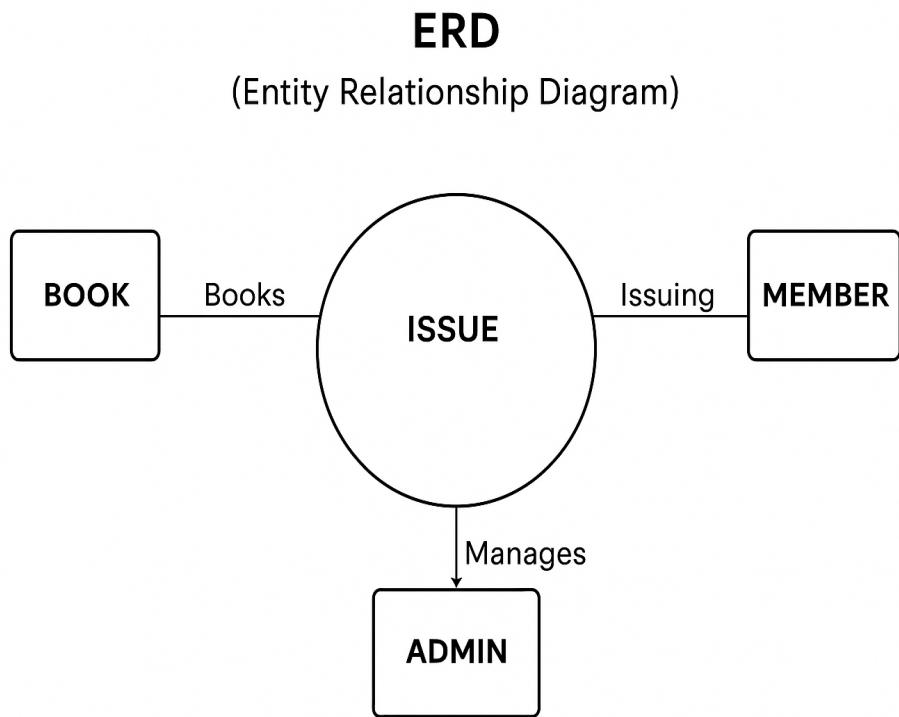
This document contains Data Flow Diagrams, Entity Relationship Diagram, and UML diagrams for the Library Management System. Each diagram is accompanied by a short explanation.

Figure 1: DFD Level 0 (Context Diagram)



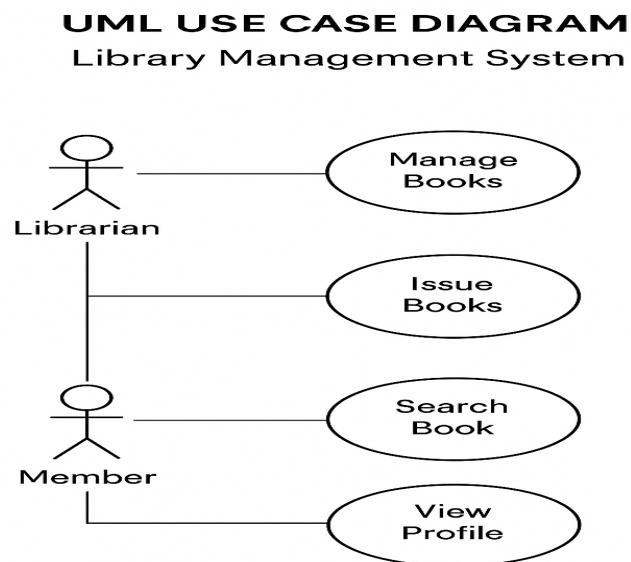
DFD Level 0 shows the overall flow of information between users, admin, payment gateway, and the Library Management System, emphasizing the main interactions.

Figure 2: Entity Relationship Diagram (ERD)



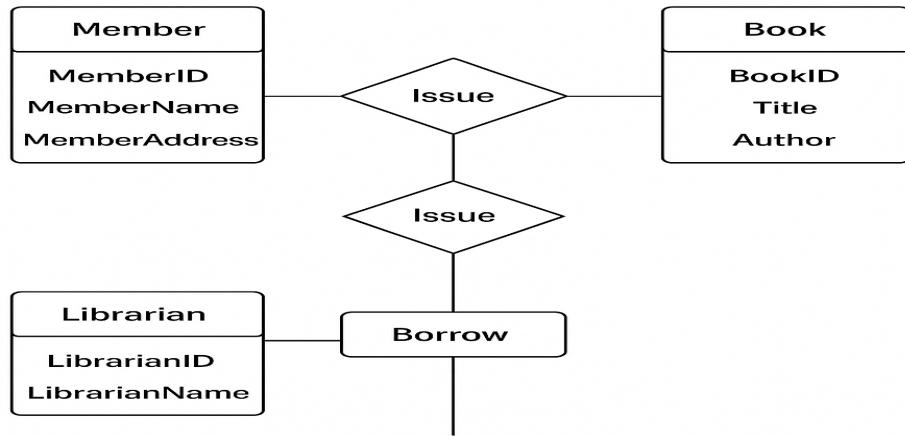
The ERD illustrates entities such as Member, Book, Issue, and Admin, along with their relationships, providing the database structure for the system.

Figure 3: UML Use Case Diagram



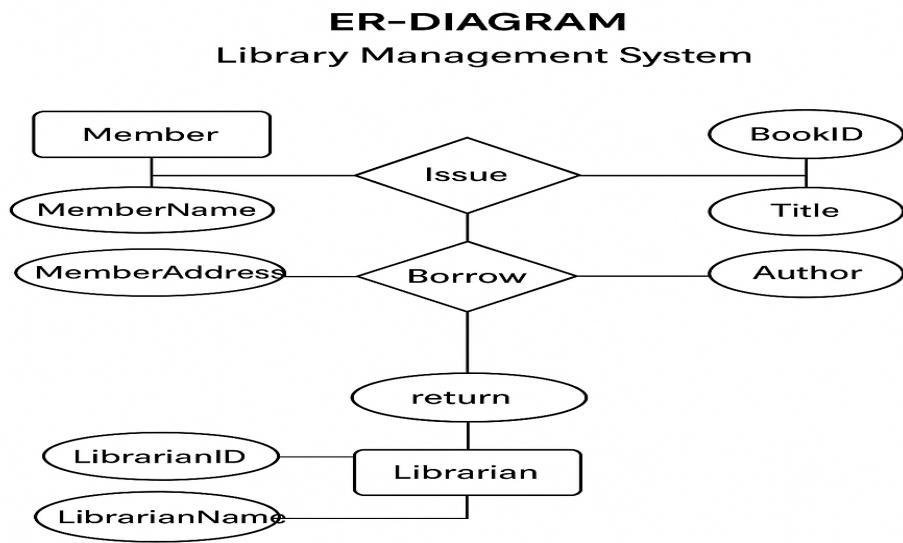
The UML Use Case diagram captures the functionality of the system from the perspective of actors like Librarian and Member, showing possible interactions with the system.

Figure 4: UML Class Diagram



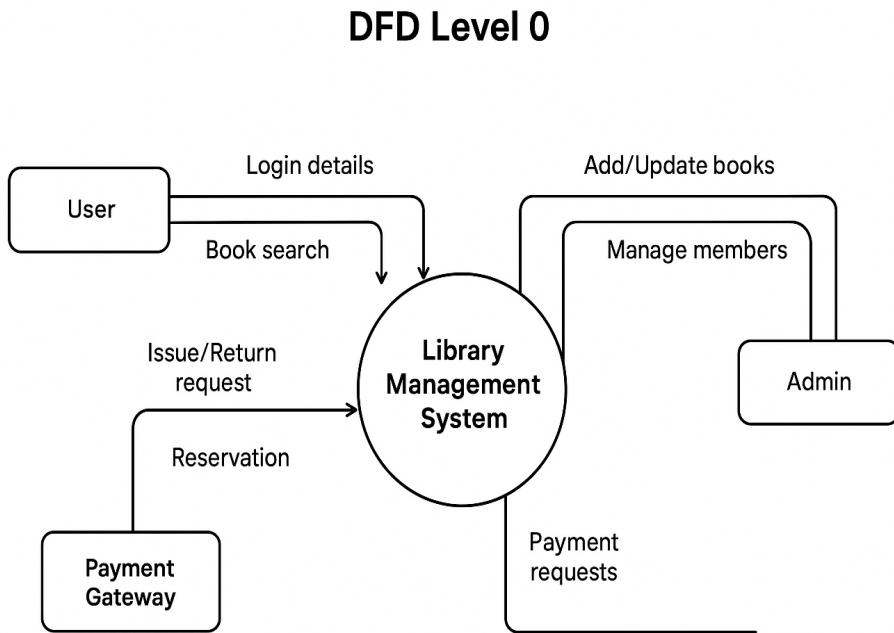
The UML Class Diagram describes the static structure of the system, showing classes like Member, Book, Librarian, and their attributes, as well as relationships between them.

Figure 5: ER Diagram with Attributes



This enhanced ER diagram includes attributes for entities, providing details about fields such as MemberName, BookID, LibrarianID, and their associations.

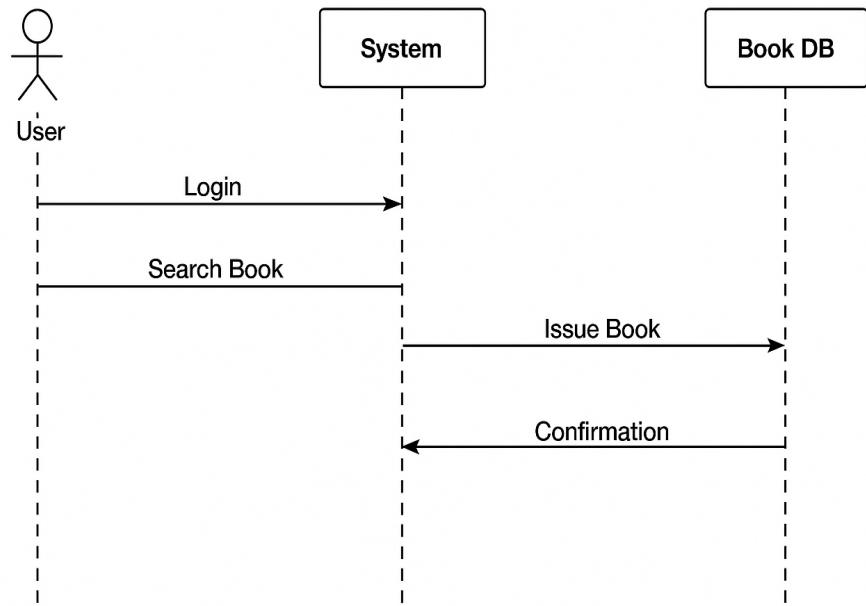
Figure 6: Alternate DFD Level 0



This alternate view of the DFD Level 0 further emphasizes processes like searching, issuing, returning, and managing members, along with payment interactions.

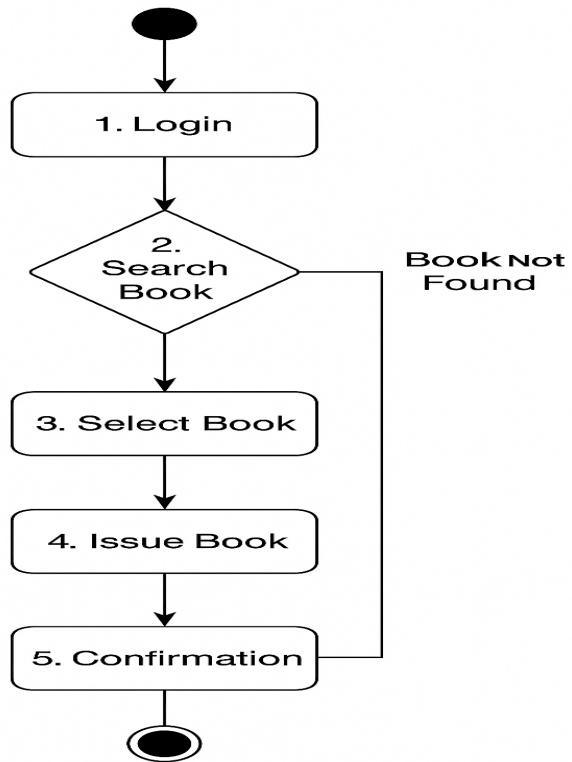
Figure 7: UML Sequence Diagram (Issue Book)

UML Sequence Diagram - Issue Book



The UML Sequence Diagram illustrates the step-by-step interaction among User, System, and Book Database while issuing a book, showing login, search, issue, and confirmation flow.

Figure 8: UML Activity Diagram (Book Issue Process)



The UML Activity Diagram describes the workflow of issuing a book: login, search, select book, issue, and confirmation, with decision points for availability.