LibraryManagementSystem/

│── src/ # All source code

│ └── com/library/

│ ├── model/ # POJO classes (Entities)

│ │ ├── Book.java

│ │ ├── EBook.java

│ │ ├── PrintedBook.java

│ │ ├── User.java

│ │ ├── Member.java

│ │ ├── Librarian.java

│ │ └── Transaction.java

│ │

│ ├── dao/ # Data Access Layer (JDBC classes)

│ │ ├── BookDAO.java

│ │ ├── MemberDAO.java

│ │ ├── TransactionDAO.java

│ │ └── UserDAO.java

│ │

│ ├── service/ # Business logic

│ │ ├── BookService.java

│ │ ├── MemberService.java

│ │ ├── TransactionService.java

│ │ └── AuthService.java

│ │

│ ├── util/ # Utility classes (helpers)

│ │ ├── DBConnection.java # JDBC connection helper

│ │ ├── FileLogger.java # File handling (logs, reports)

│ │ └── ReminderTask.java # Thread class for reminders/auto-save

│ │

│ ├── exception/ # Custom exception classes

│ │ ├── BookNotFoundException.java

│ │ └── UserNotFoundException.java

│ │

│ └── main/ # Entry point

│ └── LibraryApp.java

│

├── resources/ # Config files (DB config, logs)

│ ├── db.properties

│ └── log.txt

│

├── lib/ # External JAR files (if any, e.g., MySQL connector)

│

├── docs/ # Project documentation (like your PDF)

│

├── test/ # Unit test classes (if you want JUnit)

│

└── build/ # Compiled .class files (if not using Maven/Gradle)

**Key Points:**

* **model/** → Holds entity classes (Book, User, Transaction etc.).
* **dao/** → Handles direct **JDBC queries**.
* **service/** → Business logic layer that uses DAO classes.
* **util/** → Helpers (DB connection, File handling, Threads).
* **exception/** → Custom exceptions for clean error handling.
* **main/** → Application entry point (LibraryApp.java).
* **resources/** → DB configs (db.properties), log files, etc.
* **lib/** → External JARs (e.g., MySQL Connector).