Requirement Traceability Matrix for “Book Sharing Portal”

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| Requirement ID | Requirement Description | Source | Features | Dependencies | Subsystem | Interface | Test Cases |
| R1 | User Registration | User Needs | Allow users to register for using different functionality of book sharing portal. | Database for user storage and retrieval | Client-Server | User Interface | TC-R1 |
| R2 | Dashboard Functionality | Initial Requirement | Provide an interactive dashboard for users to view book details and manage their requirements. | Database for user and book details storage | Client-Server | User Interface | TC-R2 |
| R3 | Admin Panel | Initial Requirement | Develop an admin panel to add E-books and manage donation of books to different NGO’s. | Database for admin functionality storage | Client-Server | Admin Interface | TC-R3 |
| R4 | Book Search Functionality | User Needs | Enable users to search for available Books on Portal. | Database for Book information storage | Client-Server | User Interface | TC-R4 |
| R5 | Buy books available on the Portal. | User Needs | Allow users to add their required books in cart and buy the books by placing order. | Database for storage of book details , Availability of required books on portal | Client-Server | User Interface | TC-R5 |
| R6 | Payment Processing | User Needs | Provide functionality for users to make payments for buying of books. | Payment gateway integration | Client-Server | User Interface | TC-R6 |
| R7 | Selling of books by users on the portal | User Needs | Allow users to add books on portal for the purpose of selling. | Database for storage of book details. | Client-Server | User Interface | TC-R7 |
| R8 | Exchange and renting of books by users | User Needs | Offering users the ability to exchange or rent books with other users through a request system. | Database for storage of request and book details. | Client-Server | User Interface | TC-R8 |
| R9 | Auction of books | User Needs | Send email notifications to users regarding bidding of books and other relevant updates. | Email service integration | Client-Server | Notification Interface | TC-R9 |
| R10 | Reporting and Analytics | Business Need | Generate reports on book status, availability, payment status, and other relevant analytics | Database for reporting and analytics | Client-Server | Admin Interface | TC-R10 |