

<b>Test Case no.</b>	TC-001		<b>Test Case Name:</b>	Browse Available Books
<b>System:</b>	Library Management System		<b>SubSystem:</b>	Book Catalogue
<b>Designed By:</b>			<b>Design Date:</b>	20.04.2025
<b>Executed By:</b>			<b>Execution Date:</b>	23.04.2025
<b>Short Description:</b>	Verify that users (student/teacher) can browse available books with basic search filters.			
<b>Pre-Conditions:</b>				
<b>Step</b>	<b>Action</b>	<b>Expected System Response</b>	<b>Pass/Comment/Fail</b>	
1	Navigate to "Browse Books"	Book catalogue is displayed	pass	
2	Enter search keyword ("History")	Filtered list of history books is shown	pass	
3	Apply filter (e.g., by author)	Books by that author are displayed	pass	

<b>Test Case no.</b>	TC-002		<b>Test Case Name:</b>	Reserve a Book
<b>System:</b>	Library Management System		<b>SubSystem:</b>	Reservation
<b>Designed By:</b>			<b>Design Date:</b>	20.04.2025
<b>Executed By:</b>			<b>Execution Date:</b>	23.04.2025
<b>Short Description:</b>	Ensure users can reserve available books from the library system.			
<b>Pre-Conditions:</b>				
<b>Step</b>	<b>Action</b>	<b>Expected System Response</b>	<b>Pass/Comment/Fail</b>	
1	Search and select a book	Book details are displayed	pass	
2	Click "Reserve" button	Book is marked as reserved	pass	
3	View reservation confirmation	Confirmation message and expiry date are shown	pass	

<b>Test Case no.</b>	TC-003		<b>Test Case Name:</b>	Extend a Book Reservation
<b>System:</b>	Library Management System		<b>SubSystem:</b>	Reservation Extension

<b>Designed By:</b>		<b>Design Date:</b>	20.04.2025
<b>Executed By:</b>		<b>Execution Date:</b>	23.04.2025
<b>Short Description:</b>	Extend a book reservation when the due date is near		
<b>Pre-Conditions:</b>			
<b>Step</b>	<b>Action</b>	<b>Expected System Response</b>	<b>Pass/Comment/Fail</b>
1	Navigate to reserved books	Reserved books list is displayed	pass
2	Click "Extend"	New expiry date is generated and updated	pass
3	Confirmation message shown	Reservation extension date shown in the reservation box	pass

<b>Test Case no.</b>	TC-004	<b>Test Case Name:</b>	Notification on Book Reservation
<b>System:</b>	Library Management System	<b>SubSystem:</b>	Notifications
<b>Designed By:</b>		<b>Design Date:</b>	20.04.2025
<b>Executed By:</b>		<b>Execution Date:</b>	23.04.2025
<b>Short Description:</b>	Check that a notification is generated when a book is reserved.		
<b>Pre-Conditions:</b>			
<b>Step</b>	<b>Action</b>	<b>Expected System Response</b>	<b>Pass/Comment/Fail</b>
1	Reserve a book	System processes reservation	pass
2	Wait for notification	In App Notification message is sent confirming action	pass

<b>Test Case no.</b>	TC-005	<b>Test Case Name:</b>	Reminder Notification Before Expiry
<b>System:</b>	Library Management System	<b>SubSystem:</b>	Notifications
<b>Designed By:</b>		<b>Design Date:</b>	20.04.2025
<b>Executed By:</b>		<b>Execution Date:</b>	23.04.2025
<b>Short Description:</b>	Ensure system sends reminder notification before the due date.		
<b>Pre-Conditions:</b>			

Step	Action	Expected System Response	Pass/Comment/Fail
1	Wait until 1 days remain	Notification system monitors expiry dates	pass (one day before due date)
2	View notifications	Reminder message is received	pass

<b>Test Case no.</b>	TC-006	<b>Test Case Name:</b>	Language Switch to Urdu
<b>System:</b>	Library Management System	<b>SubSystem:</b>	Localization
<b>Designed By:</b>		<b>Design Date:</b>	20.04.2025
<b>Executed By:</b>		<b>Execution Date:</b>	23.04.2025
<b>Short Description:</b>	User can switch between available languages based on the preference.		
<b>Pre-Conditions:</b>			
Step	Action	Expected System Response	Pass/Comment/Fail
1	Navigate to language settings	Options for languages displayed	pass (Urdu, Russian, English)
2	Select Urdu	UI reloads in Urdu	pass
3	View notification in Urdu	Notification text appears in Urdu	pass

<b>Test Case no.</b>	TC-007	<b>Test Case Name:</b>	Unauthorized User Cannot Reserve Book
<b>System:</b>	Library Management System	<b>SubSystem:</b>	Authentication
<b>Designed By:</b>		<b>Design Date:</b>	20.04.2025
<b>Executed By:</b>		<b>Execution Date:</b>	23.04.2025
<b>Short Description:</b>	Ensure guests (not logged in) cannot reserve books.		
<b>Pre-Conditions:</b>			
Step	Action	Expected System Response	Pass/Comment/Fail
1	Browse books	Book details are visible	pass
2	Click "Reserve"	"Reserve" button disabled	pass

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<b>Test Case no.</b>	TC-008		<b>Test Case Name:</b>	Book Not Reservable if Already Reserved
<b>System:</b>	Library Management System		<b>SubSystem:</b>	Reservation Logic
<b>Designed By:</b>			<b>Design Date:</b>	20.04.2025
<b>Executed By:</b>			<b>Execution Date:</b>	23.04.2025
<b>Short Description:</b>	Book is already reserved by someone else.			
<b>Pre-Conditions:</b>				
<b>Step</b>	<b>Action</b>	<b>Expected System Response</b>		<b>Pass/Comment/Fail</b>
1	Search for reserved book	Book appears in listing		pass
2	View details	Reserve button is disabled or hidden		pass
3	Attempt direct reservation	System shows error or prevents action		pending

<b>Test Case no.</b>	TC-009		<b>Test Case Name:</b>	Multi-Role Compatibility (Student/Teacher)
<b>System:</b>	Library Management System		<b>SubSystem:</b>	Role Management
<b>Designed By:</b>			<b>Design Date:</b>	20.04.2025
<b>Executed By:</b>			<b>Execution Date:</b>	23.04.2025
<b>Short Description:</b>	Ensure both student and teacher roles can use key features.			
<b>Pre-Conditions:</b>				
<b>Step</b>	<b>Action</b>	<b>Expected System Response</b>		<b>Pass/Comment/Fail</b>
1	Log in as teacher	Features like browse, reserve, extend available		pass
2	Log out, log in as student	Same features available, with any role-based limits		pass
3	Reserve book as both roles	Functionality works identically		pass (Teacher is not limited to 5 books)

<b>Test Case no.</b>	TC-010		<b>Test Case Name:</b>	Reservation limit for student users
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<b>System:</b>	Library Management System		<b>SubSystem:</b>	Book reservation limit
<b>Designed By:</b>			<b>Design Date:</b>	20.04.2025
<b>Executed By:</b>			<b>Execution Date:</b>	23.04.2025
<b>Short Description:</b>	Ensure that the student cannot reserve more than 5 books.			
<b>Pre-Conditions:</b>				
<b>Step</b>	<b>Action</b>	<b>Expected System Response</b>		<b>Pass/Comment/Fail</b>
1	Log in as a student	Browse available books		pass
2	Reserve available books	Reserve books that are available		pass
3	Try to reserve more than 5 books	Reserve button should be disabled		pass

<b>Test Case no.</b>	<b>TC-011</b>		<b>Test Case Name:</b>	Multiple reservations for the same book
<b>System:</b>	Library Management System		<b>SubSystem:</b>	Book reservation
<b>Designed By:</b>			<b>Design Date:</b>	20.04.2025
<b>Executed By:</b>			<b>Execution Date:</b>	23.04.2025
<b>Short Description:</b>	2 users reserve the same book at the same time			
<b>Pre-Conditions:</b>				
<b>Step</b>	<b>Action</b>	<b>Expected System Response</b>		<b>Pass/Comment/Fail</b>
1	2 users log in to the system	System redirect users to home page		pass
2	2 users try to reserve same book	System throws Error exception		fail
3	Book is reserved only by one user	Reserve button should be disabled for second user		fail (both will be able to book it)

<b>Test Case no.</b>	<b>TC-012</b>		<b>Test Case Name:</b>	Session Timeout
<b>System:</b>	Library Management System		<b>SubSystem:</b>	Authentication
<b>Designed By:</b>			<b>Design Date:</b>	20.04.2025
<b>Executed By:</b>			<b>Execution Date:</b>	23.04.2025
<b>Short Description:</b>	Session Timeout Does Not Redirect to Login Page After Inactivity			

<b>Pre-Conditions:</b>			
<b>Step</b>	<b>Action</b>	<b>Expected System Response</b>	<b>Pass/Comment/Fail</b>
1	Log in as a student	User redirected to home page	pass
2	Inactive for a while	System informs user of expired token	fail (system do not inform)
3	Redirect to home page	Redirect user to log in page	fail (user remains on the current page)