**Test Execution Report**

**Project Name:** IRCTC Manual Testing Project  
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**Execution Date:** 30-July-2025

**1. Introduction**

This report summarizes the results of the manual testing activities performed on the IRCTC train booking system. The tests covered critical functional areas such as login, search, booking, payment, and administrative features.

**2. Test Summary**

| **Test Case ID** | **Test Case Title** | **Status** | **Remarks** |
| --- | --- | --- | --- |
| TC-SourceDestinationEntry-001 | Valid Source and Destination Entry Accepted | Pass | System behaved as expected |
| TC-SourceDestinationEntry-002 | Error When Source and Destination Are the Same | Pass | Error message displayed correctly |
| TC-DisplayTrainResults-001 | Display Matching Trains for Valid Search | Pass | Train list displayed |
| TC-DisplayTrainResults-002 | No Trains Found Message When No Results | Pass | “No trains found” message displayed |
| TC-InvalidSearchHandling-001 | Error Message for Invalid Source/Destination Inputs | Pass | Validation messages shown |
| TC-InvalidSearchHandling-002 | Reject Special Characters or Numbers in Station Inputs | Pass | Input rejected with appropriate error |
| TC-SelectTrain-001 | Select Train from Search Results | Pass | Train details displayed correctly |
| TC-SelectTrain-002 | Train Details Accuracy Before Booking | Pass | Details matched the selected train |
| TC-BookTicket-001 | Book Ticket with Valid Passenger Details | Pass | Booking successful |
| TC-BookTicket-002 | Booking Prevention on Missing or Invalid Mandatory Fields | Pass | Booking prevented with error messages |
| TC-ViewBookings-001 | View Bookings List After Login | Pass | Bookings listed |
| TC-ViewBookings-002 | No Bookings Message When No Reservations Exist | Pass | “No bookings found” message displayed |
| TC-PaymentGateway-001 | Payment Gateway Loads and Processes Payment | Pass | Payment successful |
| TC-PaymentGateway-002 | Payment Rejected with Invalid Payment Details | Pass | Payment failure error shown |
| TC-PaymentFailure-001 | Show Error Message on Payment Failure | Pass | Clear error message displayed |
| TC-PaymentFailure-002 | Retry Payment After Failure Without Losing Data | Pass | Booking data retained on retry |
| TC-GenerateTicket-001 | Generate Ticket After Successful Payment | Pass | Ticket generated and displayed |
| TC-GenerateTicket-002 | Download or Print Generated Ticket | Pass | Download and print worked correctly |
| TC-AdminLogin-001 | Successful Admin Login | Pass | Admin dashboard loaded |
| TC-AdminLogin-002 | Error Message on Invalid Admin Login | Pass | Invalid login message shown |
| TC-AddTrains-001 | Add New Train with Valid Details | Pass | Train added successfully |
| TC-AddTrains-002 | Prevent Adding Train with Invalid or Missing Info | Pass | Validation errors shown, train not added |
| TC-RemoveUsers-001 | Remove Registered User Successfully | Pass | User removed successfully |
| TC-RemoveUsers-002 | Error When Removing Non-existent User | Pass | Appropriate error displayed |
| TC-LoginBug-001 | Prevent Login with Incorrect Credentials | Pass | Access denied with error |
| TC-LoginBug-002 | Session Expiry After Logout or Inactivity | Pass | Session expired and login required |
| TC-SearchIssue-001 | Correct Search Results for Valid Inputs | Pass | Search results displayed correctly |
| TC-SearchIssue-002 | Handle Empty or Malformed Inputs Gracefully | Pass | Validation error message shown |
| TC-PaymentError-001 | Show Error Message on Payment Gateway Error | Pass | Error displayed on payment failure |
| TC-PaymentError-002 | Prevent Double Booking on Payment Error | Pass | No duplicate bookings found |

**3. Summary of Results**

* **Total Test Cases Executed:** 30
* **Passed:** 30
* **Failed:** 0
* **Blocked:** 0

All test cases passed successfully with expected results. This indicates that the key functionalities of the IRCTC train booking system are working as intended.

**4. Observations & Recommendations**

* The system handles input validations and error messages effectively.
* Booking and payment flows are smooth and reliable.
* Admin functionalities (login, add/remove trains and users) work correctly.
* UI is responsive and user-friendly across tested devices.
* Recommend adding automated regression tests for frequent build validation.
* Consider performance/load testing in future phases for scalability analysis.

**5. Tools & Environment Used**

* Manual testing using Google Chrome browser.
* JIRA for test case management and bug tracking.
* MS Excel for test case documentation.
* Windows 10 OS.

**6. Conclusion**

The manual testing executed confirms that the IRCTC system meets the functional requirements specified. No critical defects were identified during testing. The project is ready for the next stage, including user acceptance testing (UAT) or deployment.