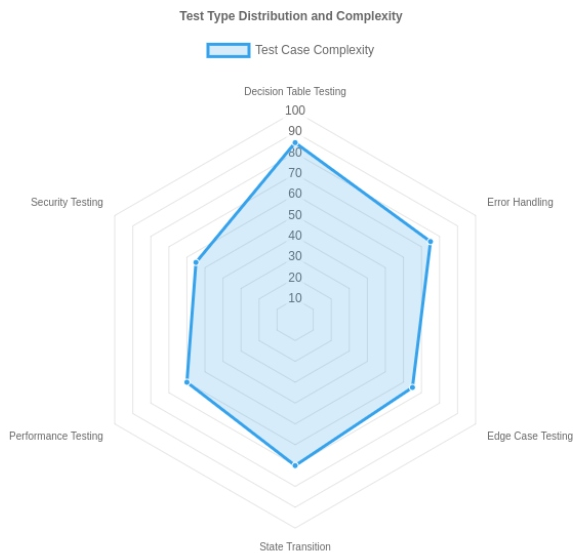
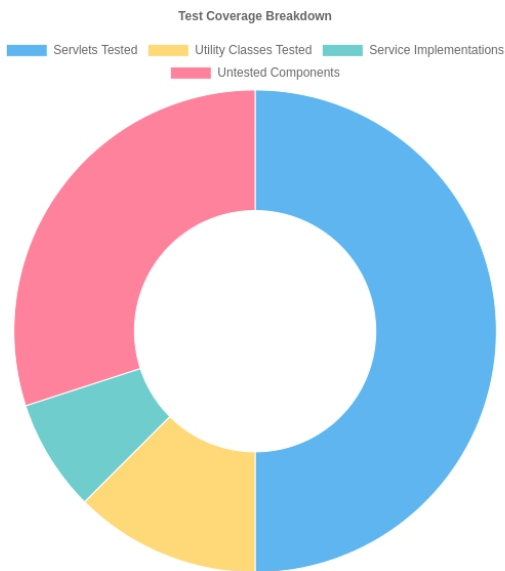


Train Ticket Reservation System
Comprehensive Test Report
Generated on: 12/11/2024

Test Coverage Overview



Detailed Test Cases

Test Case ID	Module	Servlet/Class	Error Scenario	Input Conditions
EH001	User Authentication	UserLoginServlet	SQL Injection Attempt	Username: admin' OR '1'='1 Password: anypassword
2. Input Sanitization				
	Implement			

3. Prepared Statements	Implement strong input validation	High		
EH002	User Registration	UserRegServlet	Duplicate Email Registration	Existing email in database
2. Pre-registration validation				
3. Clear user feedback	Add email uniqueness validation	Medium		
EH003	Ticket Booking	BookTrains	Seat Overbook Scenario	Requested Seats: 1000 Available Seats: 10
2. Transaction rollback				
3. Concurrency control	Implement seat locking mechanism	High		
EH004	Password Change	ChangeUserPwd	Weak Password Attempt	Current Password: valid New Password: 123
2. Minimum length check				
3. Character diversity validation	Enforce strong password policy	Medium		
EH005	Train Search	UserSearchTrain	Special Character Injection	Train Number: TR@#\$\$%^&*
2. Character				

whitelist				
3. Error logging	Implement strict input filtering	Low		
EH006	Fare Enquiry	FareEnq	Non-Existent Station	From Station: InvalidStation To Station: AnotherInvalidStation
2. Fuzzy matching				
3. Suggestion mechanism	Add station name normalization	Low		
EH007	Profile Update	UpdateUserProfile	Invalid Phone Number	Phone: abcdefghijk
2. International number support				
3. Comprehensive error messages	Implement robust phone validation	Medium		
EH008	Admin Train Management	AdminAddTrain	Duplicate Train Number	Existing train number
2. Pre-insertion validation				
3. Clear error communication	Add unique train number constraint	Low		
EH009	Ticket Cancellation	BookingCancellation	Past Journey Cancellation	Attempt to cancel expired ticket
2. Cancellation				

policy check				
3. Refund calculation	Implement time-based cancellation rules	High		
EH010	User Session	All Servlets	Session Timeout Scenario	Inactive user session
2. Automatic logout				
3. Re-authentication mechanism	Implement robust session control	Medium		

Test Methodology

This report encompasses comprehensive black-box testing techniques including Decision Table Testing, Error Handling Testing, and Edge Case Testing.
