

Informatics Institute of Technology

Object Oriented Programming

Real-time Event Ticketing System

Test Case Report

Module : 5COSC019C.1 Object Oriented Programming (2024)

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Tutorial group : Group 17

Declaration

"I confirm that I understand what plagiarism / collusion / contract cheating is and have read and understood the section on Assessment Offences in the Essential Information for Students. The work that I have submitted is entirely my own. Any work from other authors is duly referenced and acknowledged."

Name : Manazir Ali

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Test Cases

Test Case ID	Test Case Description	Input Data	Expected Result	Actual Result	Status	Issue Found	Resolution
TC001	Loading Configuration	Choice: 2	Display Configuration values from the json file, And control options to start simulation	Display Configuration values, And control options to start simulation	Pass	N/A	N/A
TC002	Creating New Configurations	Choice: 1	Display Configuration values from the json file, Ask For Values and validate, And display control options to start simulation	Display Configuration values, Ask For Values and validate, And display control options to start simulation	Pass	N/A	N/A

TC003	Quit System from Main Menu	Choice: 3	Exit Message, QUIT.	Exit Message, QUIT.	Pass	N/A	N/A
TC004	Start Simulation	Command: start	Start threads for customers and vendors, begin ticket sales, display "Simulation running."	Start threads for customers and vendors, begin ticket sales, display "Simulation running."	Pass	N/A	N/A
TC005	Stop Simulation	Command: stop	Stop all threads, display "Simulation stopped."	Stop all threads, display "Simulation stopped."	Pass	N/A	N/A
TC006	Invalid Main Menu Input	Enter invalid choice (e.g., abc, 5)	Display error message: "Please enter a valid number."	Display error message: "Please enter a valid number."	Pass	N/A	N/A
TC007	Invalid Command in Simulation	Command: Enter invalid input (e.g., xyz, begin)	Display error message: "Invalid command. Try 'start', 'stop', 'menu', or 'quit'."	Display error message: "Invalid command. Try 'start', 'stop', 'menu', or 'quit'."	Pass	N/A	N/A

TC008	Exit from Simulation	Command: quit	Exit message: "Exiting the system..." and terminate the program.	Exit message: "Exiting the system..." and terminate the program.	Pass	N/A	N/A
TC009	TicketPool Synchronization. Multiple threads for vendors and customers accessing the ticket pool simultaneously	N/A	TicketPool maintains correct ticket count, synchronized updates, and prevents data inconsistency.	TicketPool maintains correct ticket count, synchronized updates, and prevents data inconsistency.	Pass	N/A	N/A
TC010	Thread Safety in TicketPool. [Ticket Queue, buy(), add()] Stress test with high concurrent ticket release and purchase operations.	N/A	No race conditions or inconsistent states observed in ticket pool.	No race conditions or inconsistent states observed in ticket pool.	Pass	N/A	N/A

TC011	Logging System Consistency. Run simulation for an extended period with high concurrency.	N/A	Logs show consistent, timestamped entries with no missing or duplicated entries for vendors, customers, and ticket updates.	Logs show consistent, timestamped entries with no missing or duplicated entries for vendors, customers, and ticket updates.	Pass	N/A	N/A
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Table 1 CLI Test Cases

Class Diagram

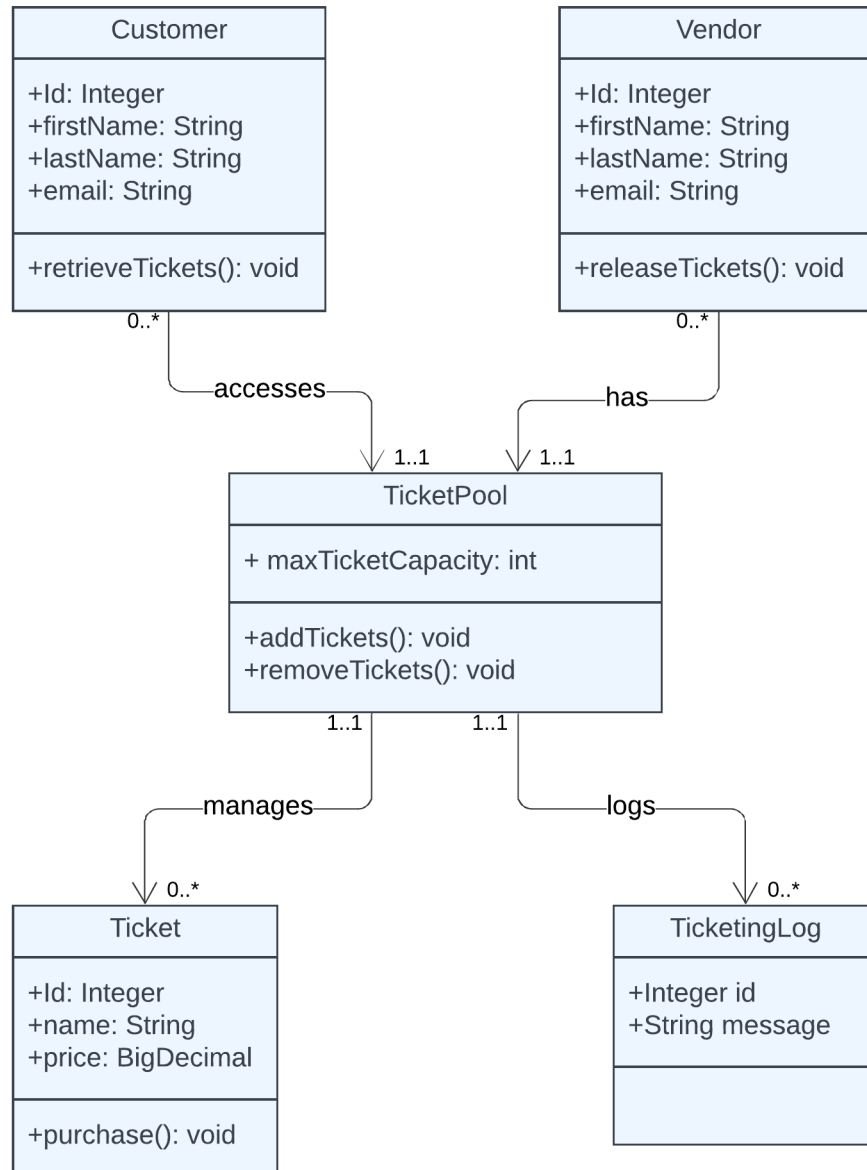


Figure 1 UML Class Diagram

Sequence Diagram - Illustrates the interaction flow

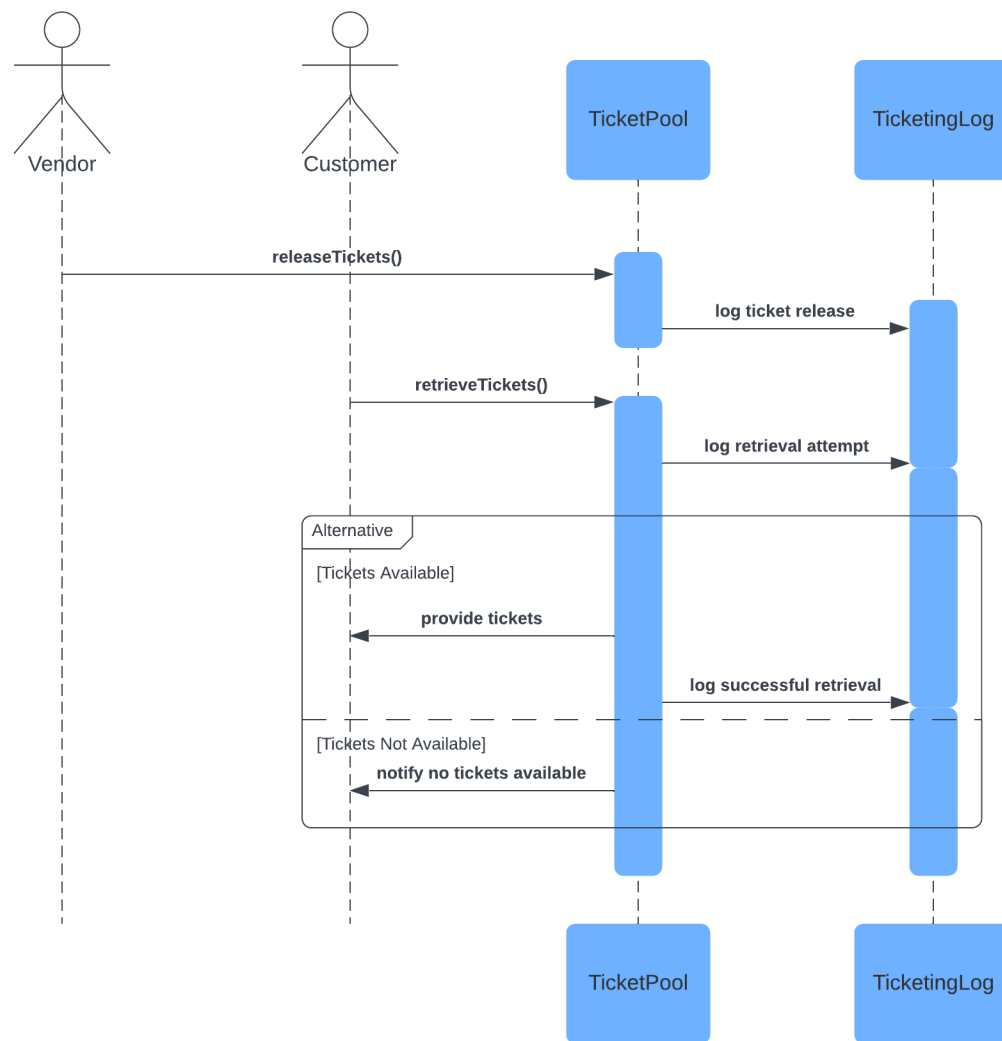


Figure 2 Sequence Diagram