

Informatics Institute of Technology

Module Name: 5COSC019C.1 Object Oriented Programming

Class and Sequence Diagram, Test Plan

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1. Class Diagram

The diagram shows the main classes and their relationships in the system.

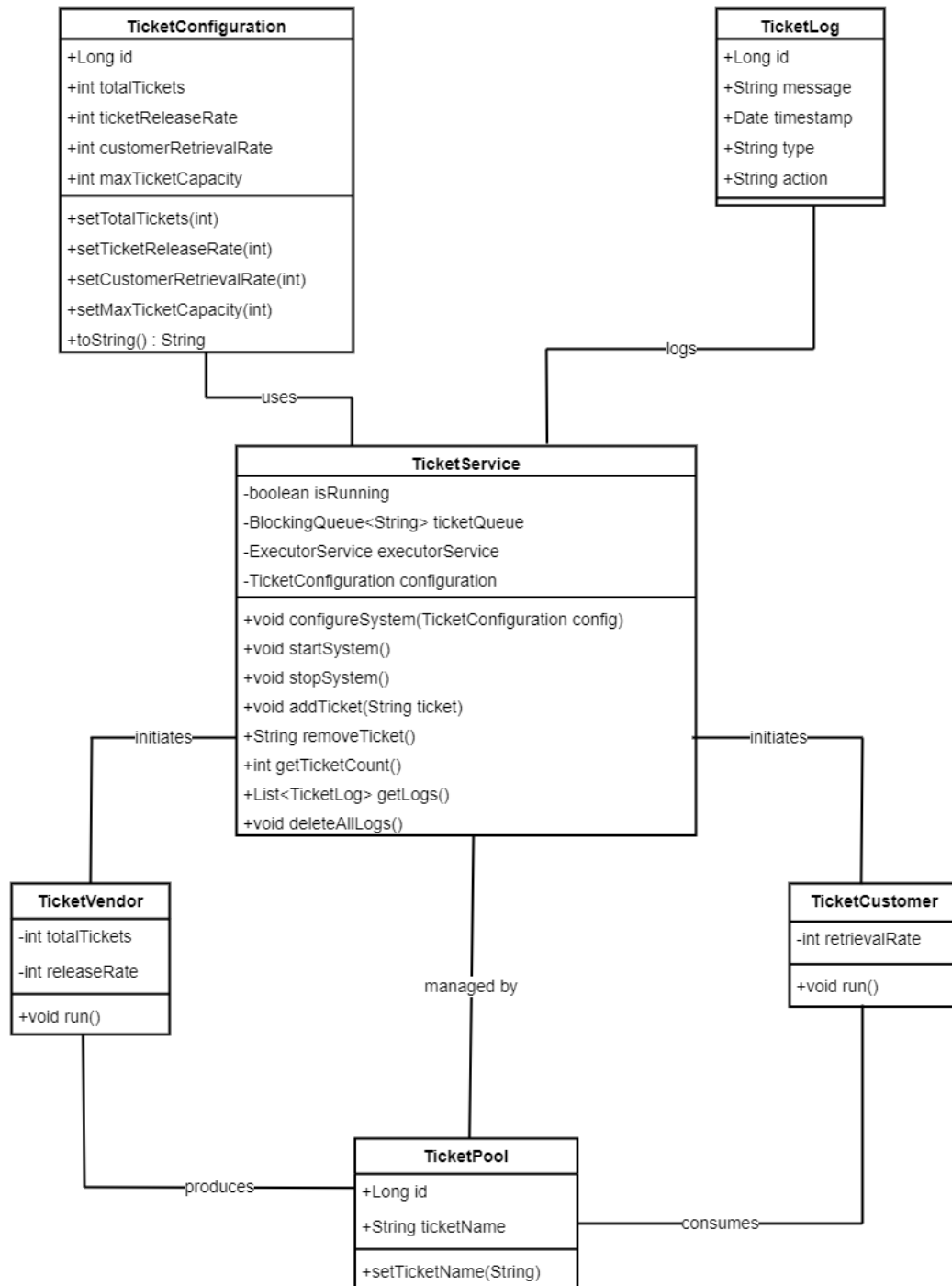


Figure 1: Class Diagram

2. Sequence Diagram

This diagram shows the interactions for a ticket purchase scenario.

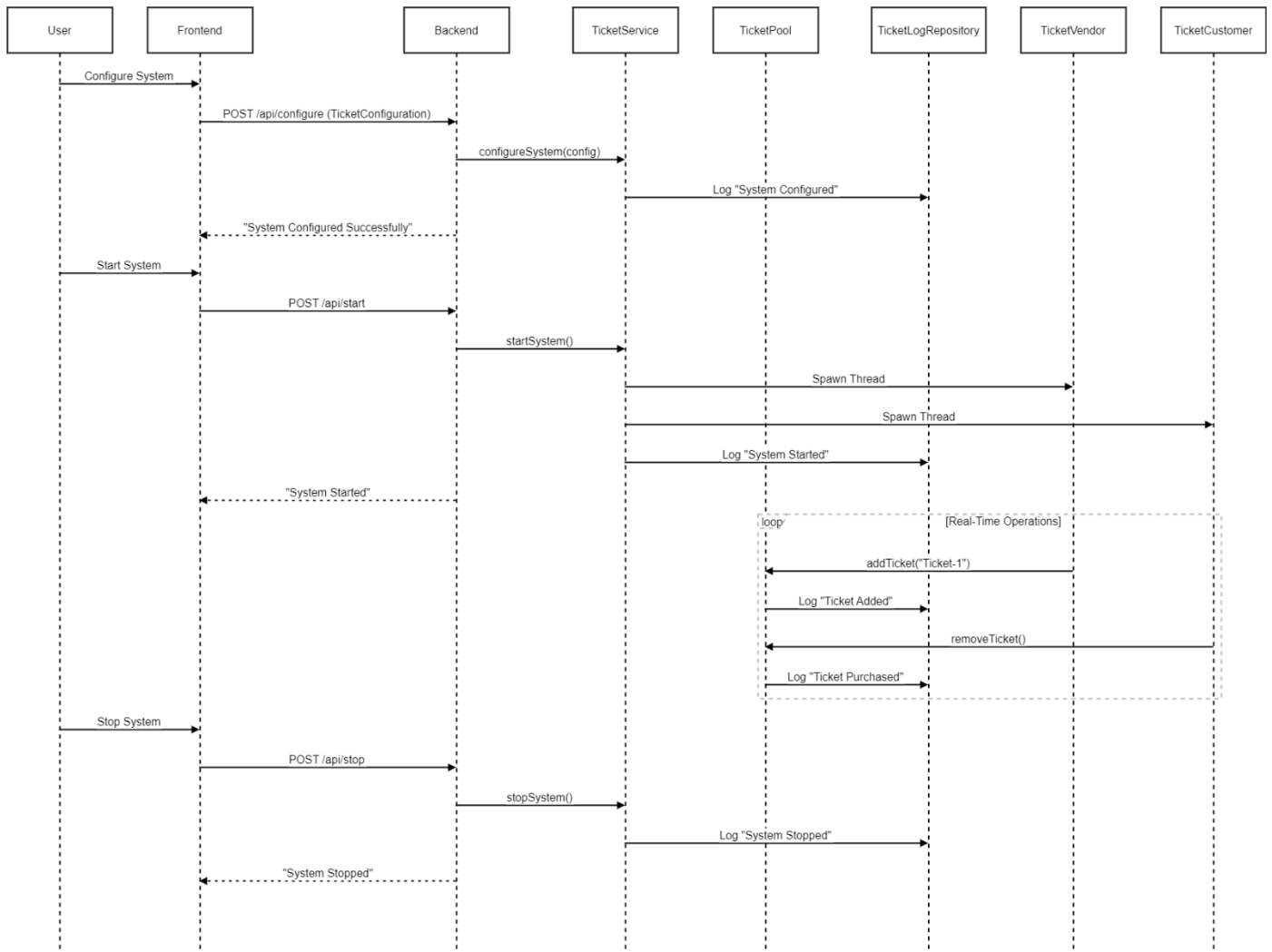


Figure 2: Sequence Diagram

3. Test Cases

3.1 Test Plan For CLI

Test case/scenario	Input	Expected Output	Output	Pass/Fail
Menu option 1 (Configure the system)	1	Displays the prompt to user to enter	Enter the total number of tickets: Enter the ticket release rate per second: Enter the customer retrieval rate per second: Enter the maximum ticket capacity: Configuration saved successfully!	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail
Menu option 2 (Start the system)	2	Customer and Vendor threads starts	TicketPool Added: Ticket-1 Customer Purchased: Ticket-1 TicketPool Added: Ticket-2 Customer Purchased: Ticket-2 TicketPool Added: Ticket-3 Customer Purchased: Ticket-3	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail
Menu option 3 (Stop the system)	3	System stoped	System stopped	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail
Menu option 4 (Display the logs)	4	Displaying System logs with System started and Stopped including it's date and time	Displaying System logs with System started and Stopped including it's date and time	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail
Menu option 5 (Load the previous configuration)	5	Loading the previously user entered ticket configuration inputs	Configuration loaded	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail
Menu option 6 (Save the current configuration)	6	Configurations save to text file	Configuration saved to config.txt	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail
Menu option 7(Exit the system)	7	Exists the system	Exists the system	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail

Test case/scenario	Input	Expected Output	Output	Pass/Fail
Entering an negative number for total No tickets	-150	Invalid input. Please enter a positive integer.	Invalid input. Please enter a positive integer.	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail
Entering a letter for total No tickets	a	Invalid input. Please enter a positive integer.	Invalid input. Please enter a positive integer.	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail
Entering number less than total number of tickets for max ticket capacity	Enter the total number of tickets: 100 Enter the maximum ticket capacity: 80	Maximum ticket capacity cannot be less than total number of tickets.	Maximum ticket capacity cannot be less than total number of tickets.	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail

3.2 Test Plan For GUI

Test case/scenario	Input	Expected Output	Output	Pass/Fail
Configure ticket system	Prompt user to input required fields to configure ticket system according to the place holders	System configured successfully!	System configured successfully! (Displays as a alert)	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail
Starting the ticket system	Clicks the Start system button	Customer and Vendor threads starts	Only vendor thread starts and adding ticket to the pool	<input type="checkbox"/> Pass <input checked="" type="checkbox"/> Fail
Stopping the ticket system	Clicks the Stop system button	System stopeed	System stopped	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail
Delete All Logs	Clicks the Delete All Logs button	Deleting the all the previously saved logs in the system logs	Deleting the all the previously saved logs in the system logs	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail

[Demonstration Video Google Drive Link](#) (Use IIT Email to access this video)