UNIVERSITY OF WESTMINSTER

INFORMATICS INSTITUTE OF TECHNOLOGY

Informatics Institute of Technology

Module Name: 5COSC019C.1 Object Oriented Programming

Class and Sequence Diagram, Test Plan

Name – Ojitha Rajapaksha

UOW Student ID - w2053165

IIT Student ID - 20230522

Tutorial Group Number - G6 (CS

Table of Contents

Table of Figures

1. Class Diagram

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

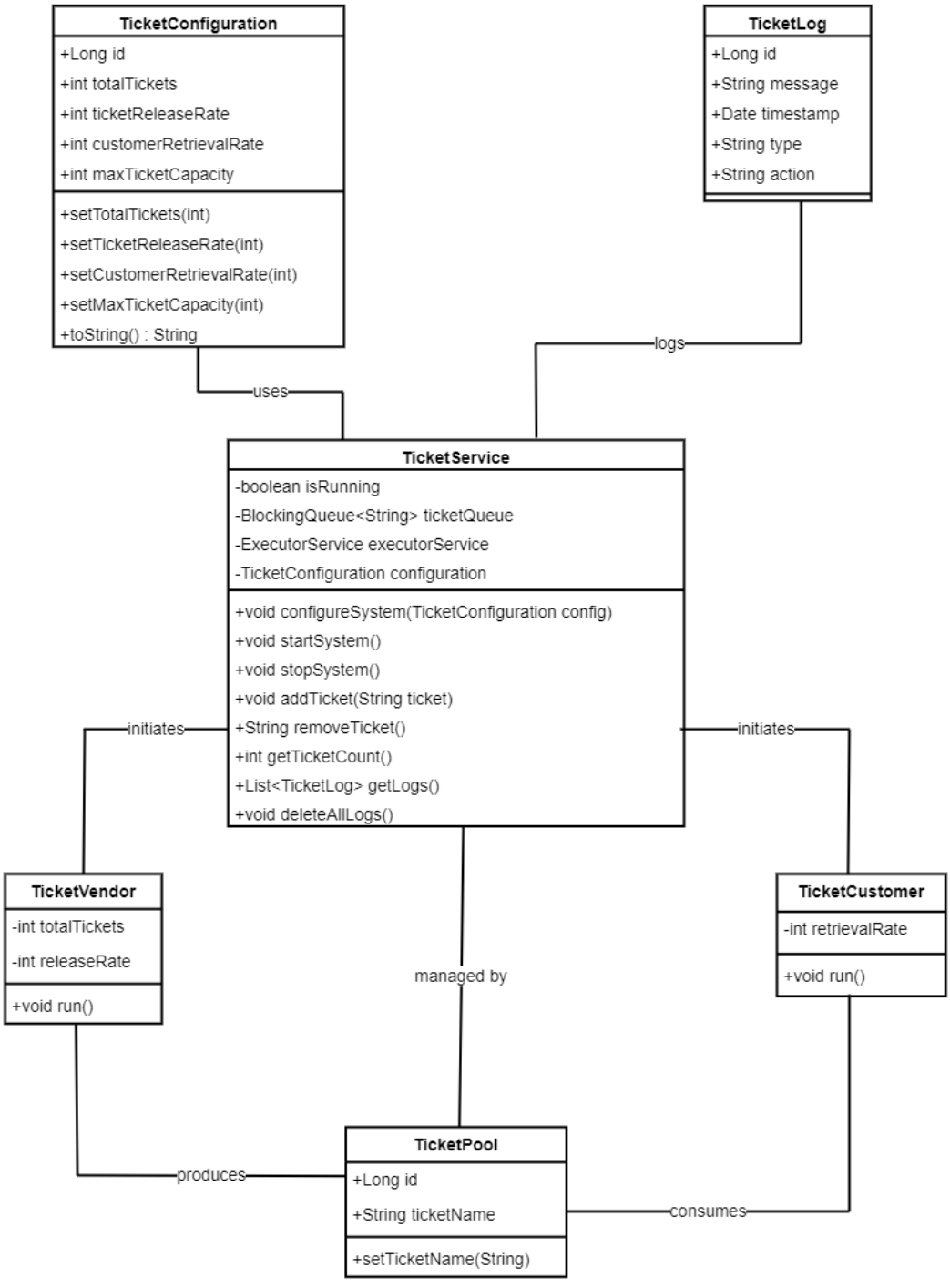

Figure 1: Class Diagram

2. Sequence Diagram

This diagram shows the interactions for a ticket purchase scenario.

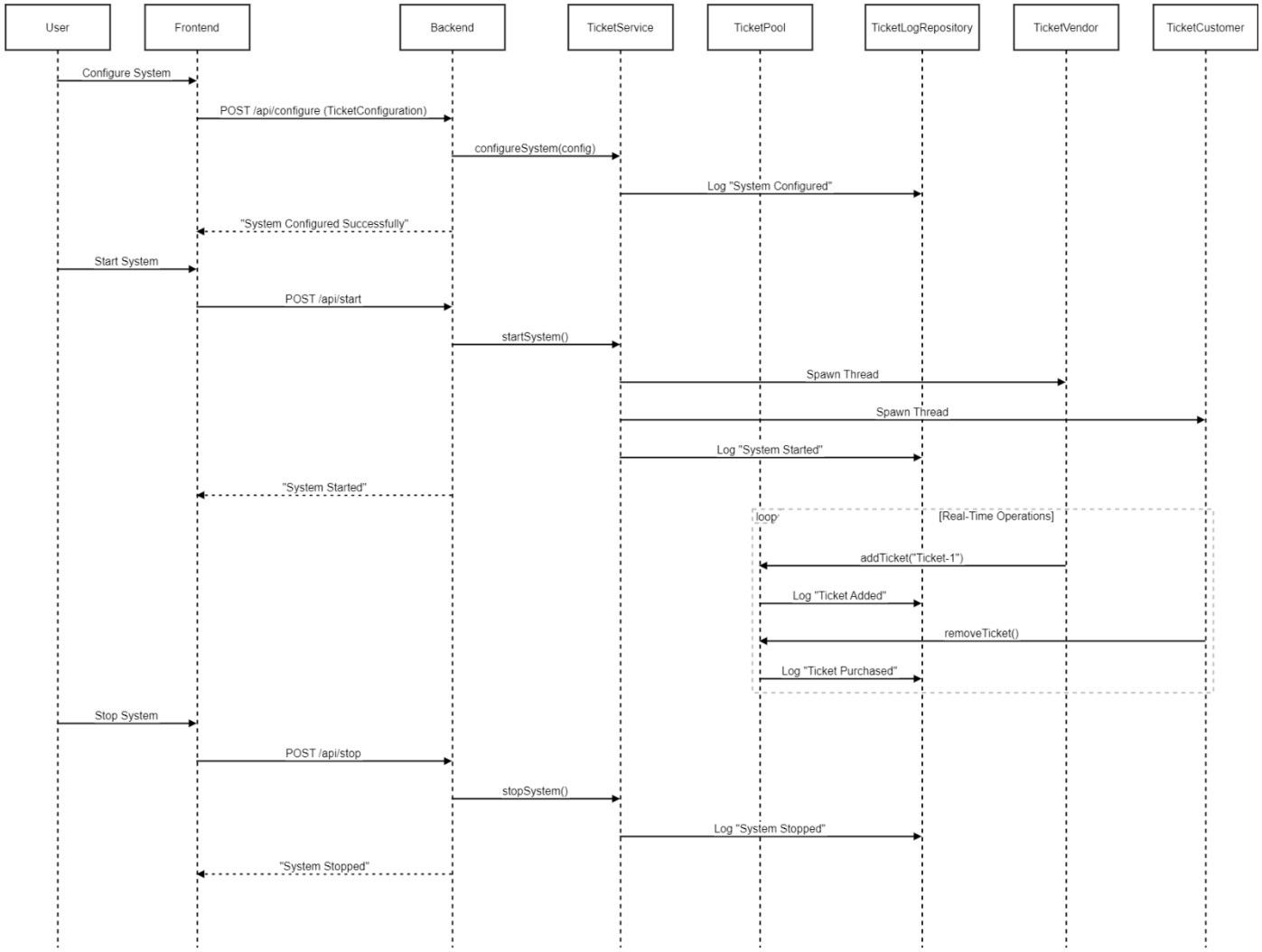

Figure 2: Sequence Diagram

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!	☒Pass ☐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	☒Pass ☐Fail
Menu option 3 (Stop the system)	3	System stopeed	System stopped	☒Pass ☐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	☒Pass ☐Fail
Menu option 5 (Load the previous configuration)	5	Loading the previously user entered ticket configuration inputs	Configuration loaded	☒Pass ☐Fail
Menu option 6 (Save the current configuration)	6	Configurations save to text file	Configuration saved to config.txt	☒Pass ☐Fail
Menu option 7(Exit the system)	7	Exists the system	Exists the system	☒Pass ☐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.	☒Pass ☐Fail
Entering a letter for total No tickets	a	Invalid input. Please enter a positive integer.	Invalid input. Please enter a positive integer.	☒Pass ☐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.	☒Pass ☐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)	☒Pass ☐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	☐Pass ☒Fail
Stopping the ticket system	Clicks the Stop system button	System stopeed	System stopped	☒Pass ☐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	☒Pass ☐Fail