

# **Object Oriented Programming**

## **5COSC019C.1**

**(IIT Sri Lanka)**

### **Real Time Event Ticketing System**

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# Sequence Diagram

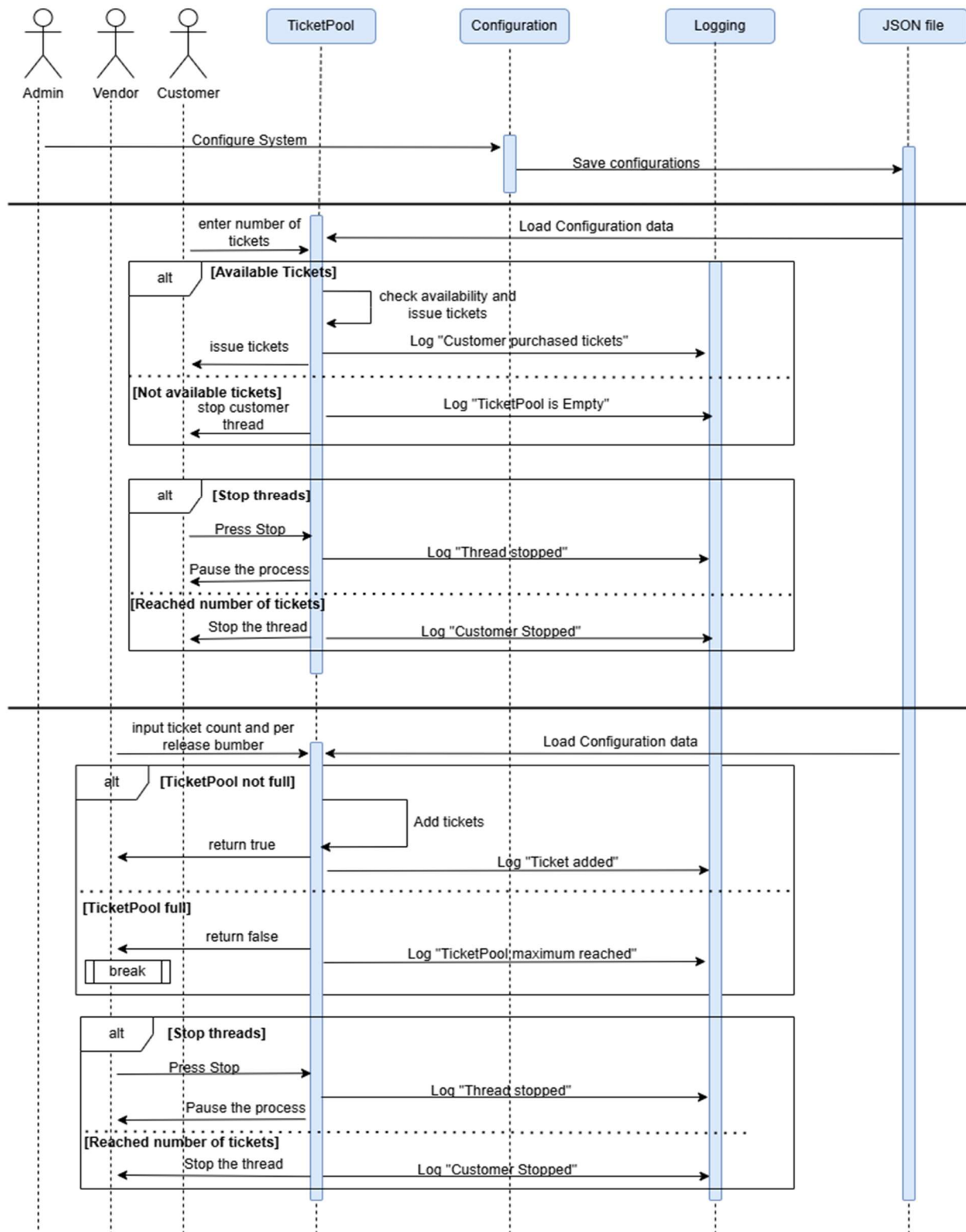


Figure 1Sequence Diagram

# Class Diagram

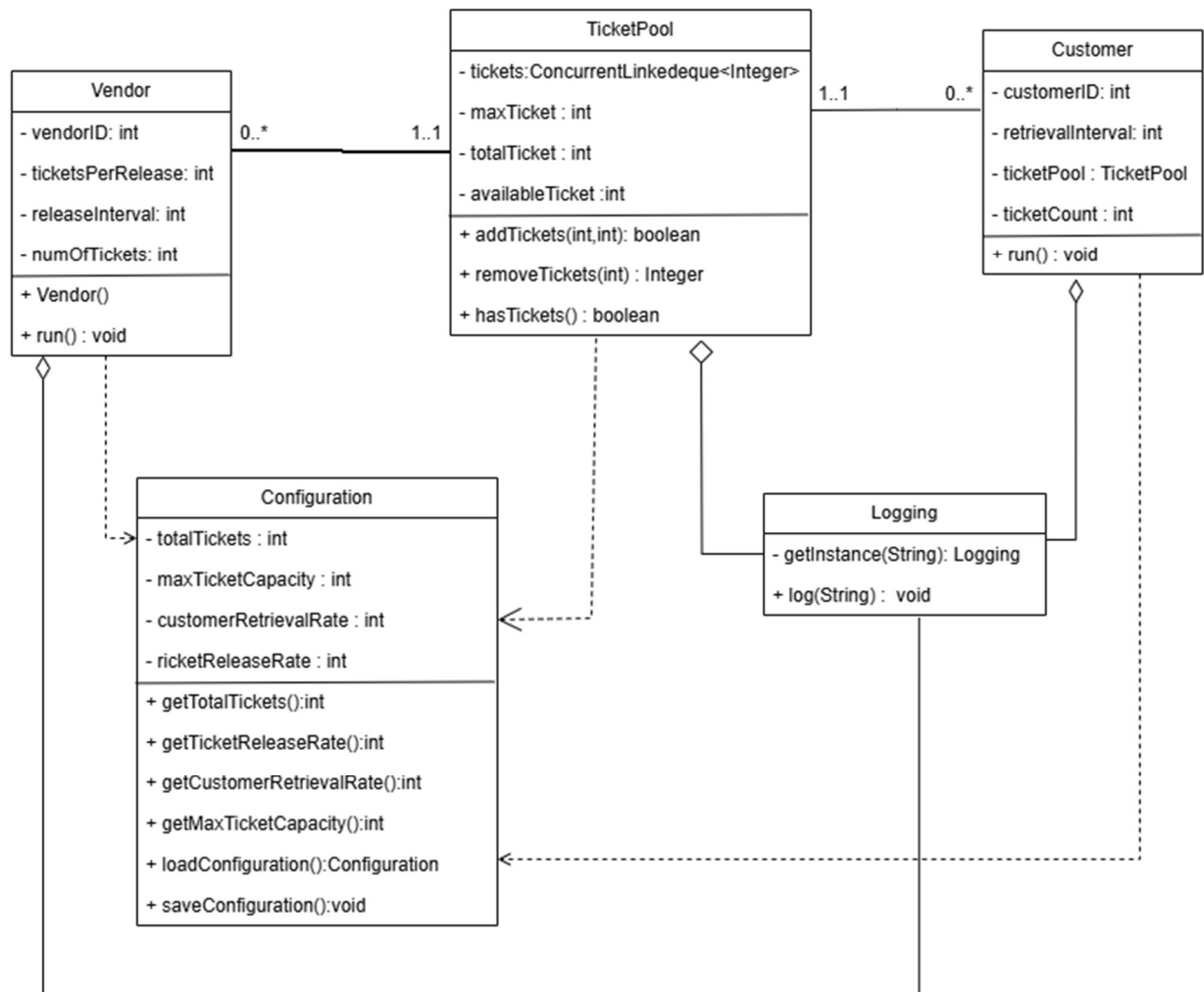


Figure 2 Class Diagram

## CLI Test Cases

Test Case Number	Test Case	Expected Result	Actual Result	Pass/Fail
01	Input Configuration Parameters	Asking for Configuration parameters (totalTickets, maxTicketCapacity, ticketReleaseRate, customerRetrievalRate) and get inputs.	As expected	Pass
02	Validate Configuration Parameters	If inputs lower than 0 asking to enter again.	As expected	Pass
03	Save Configuration Parameters	Save entered Configuration parameters to a JSON file. And display "Configuration Saved!" on terminal.	As expected	Pass
04	Identify the character	Asks "Are you a vendor or a customer (V/C) ?"	As expected	Pass
05	Create Vendors	Asks inputs for ticketsPerRelease And numOfTickets	As expected	Pass
06	Create Customers	Asks inputs for ticketCount	As expected	Pass
07	Start the threads	Asks for start the threads "Do you want to Start the System? (Y/N) :"	As expected	Pass
08	Threads running	Displays " Vendor 1 added ticket : 1 Vendor 1 added ticket : 2 Vendor 1 added ticket : 3 The number of available tickets : 3  Customer 1 purchased ticket : 1"	As expected	Pass
09	Check pool capacity	Ticket adding stops when reached to the maxTicketCapacity	As expected	Pass
10	Wait for customers	When pool capacity is reached vendor threads wait until customer buys tickets.	As expected	Pass

## Backend and Frontend Test Cases

Test Case Number	Test Case	Expected Result	Actual Result	Pass/Fail
11	Validate Configuration Parameters	System checks inputs are equal or greater than the 0, then saves to a JSON file.  Inputs: <b>Total Tickets for the event : 100</b> <b>TicketPool's Capacity : 50</b> <b>Vendor ticket Release rate : 1000</b> <b>Customer ticket Retrieval rate : 900</b>	As expected	Pass
12	Load Configuration	System Loads the configuration and displays on front end and send an alert  Inputs: <b>Total Tickets for the event: 100</b> <b>TicketPool's Capacity : 50</b> <b>Vendor ticket Release rate : 1000</b> <b>Customer ticket Retrieval rate : 900</b>	As expected	Pass
13	Create Vendor 1	Asks inputs for ticketsPerRelease And numOfTickets. And Display Vendor's details  Inputs: <b>Tickets Per Release: 12</b> <b>Number of Tickets: 80</b>	As expected	Pass
14	Create Customer 1	Asks inputs for Name and ticketCount And display customer's details  Inputs: <b>Number of Tickets: 76</b>	As expected	Pass
15	Try to add more tickets than free slots	Display an error, "Number of tickets cannot exceed 20"  Inputs: <b>Tickets Per Release: 12</b> <b>Number of Tickets: 25</b>	As expected	Pass
16	Try to purchase more than available tickets.	Display an error, "Number of tickets cannot exceed 4"  Inputs: <b>Number of Tickets: 16</b>	As expected	Pass
17	Run vendor 1	Add tickets toticketPool	As expected	Pass
18	Run customer 1	Remove tickets from ticket pool	As expected	Pass

19	Add multiple customers and vendors	Displays all the thread details on frontend	As expected	Pass
20	Run all threads together	All vendors add tickets to the pool and customers purchase tickets.	As expected	Pass
21	Stop threads	Stops all the running threads	As expected	Pass
22	Gather logs	All the logs save to a text file.	As expected	Pass
23	Display ticket adding and removing on frontend	Display all ticket adding and removing statements in real time.	As expected	Pass
24	Live progress bar	Display ticket availability according to the ticket adding and removing data.	As expected	Pass