

Informatics Institute of Technology
University of Westminster

Object Oriented Programming

Course Work - Report

5COSC019C

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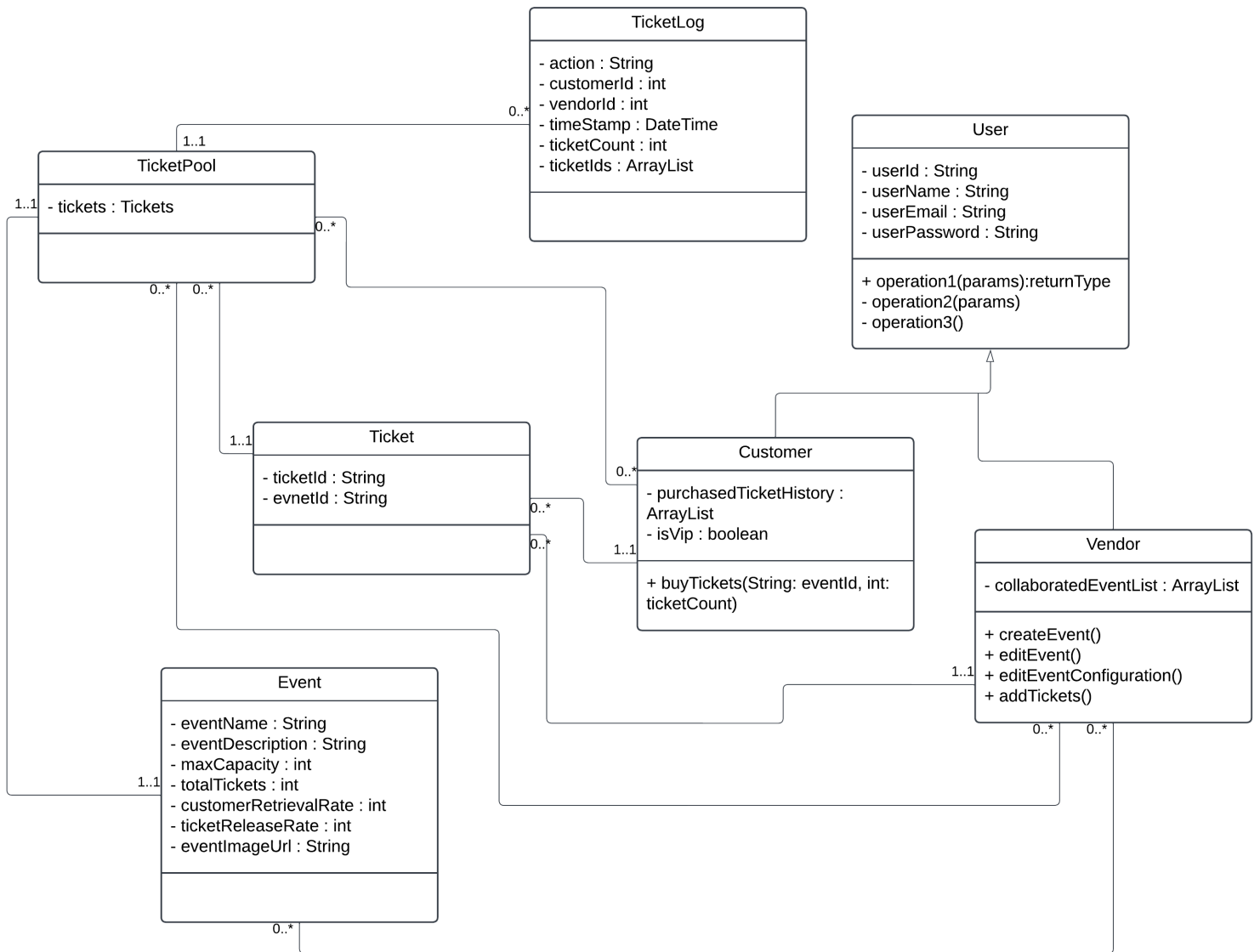
Uow Number – w2051715

IIT Number – 20230548

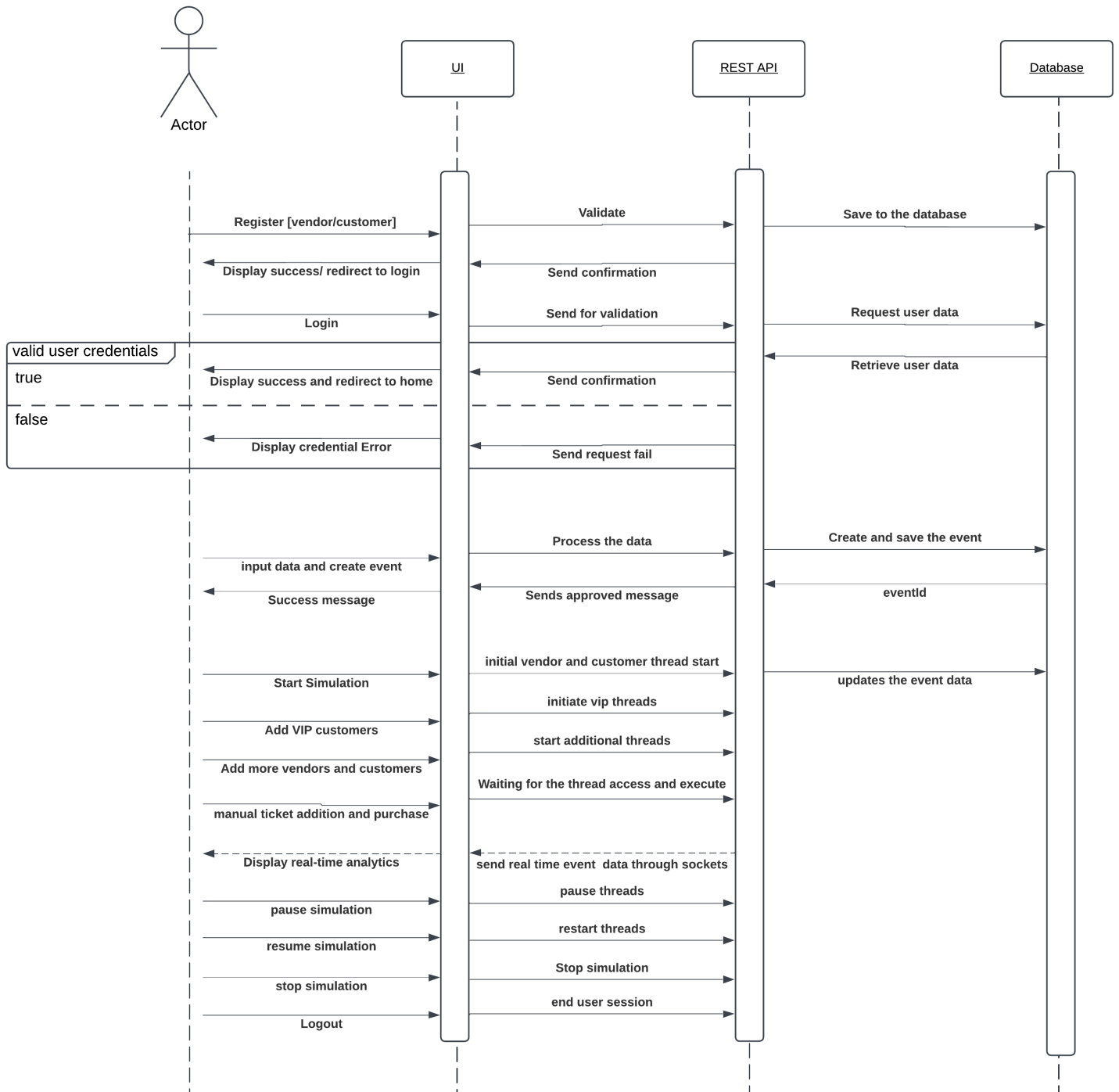
Programme - SE

Tutorial Group - Group 9

Class Diagram:



Sequence Diagram :



CLI Part:

Test Cases:

```
TS TicketSystemCLI Version control TicketSystem
TicketSystem.java x config.json Vendor.java User.java Customer.java Configuration.java
TicketSystem x
"\"C:\\Program Files\\Java\\jdk-21\\bin\\java.exe\" \"-javaagent:C:\\Program Files\\JetBrains\\IntelliJ IDEA 2024.2.3\\lib\\idea_rt.jar=60383:C:\\Progr
Welcome to the Real-Time Ticketing System!

Configure the system...
Enter total ticket sales: test
Invalid Input. Please enter a valid value:
-092
Value must be positive, please enter a valid value:
1000
Enter ticket release rate (s): kj
Invalid Input. Please enter a valid value:
5
Enter customer retrieval rate (s): 5
Enter maximum ticket capacity: wfn
Invalid Input. Please enter a valid value:
-34
Value must be positive, please enter a valid value:
100

start - Start the system
stop - Stop the system
stats - Display stats
help - System Controllers
mv - Manual Vendor
mc - Manual Customer

Command:
```

```
TS TicketSystemCLI Version control TicketSystem
TicketSystem.java x config.json Vendor.java User.java Customer.java Configuration.java
Run TicketSystem x
"\"C:\\Program Files\\Java\\jdk-21\\bin\\java.exe\" \"-javaagent:C:\\Program Files\\JetB
Welcome to the Real-Time Ticketing System!

Configure the system...
Enter total ticket sales: 1000
Enter ticket release rate (s): 5
Enter customer retrieval rate (s): 5
Enter maximum ticket capacity: 100

start - Start the system
stop - Stop the system
stats - Display stats
help - System Controllers
mv - Manual Vendor
mc - Manual Customer

Command:
start
Initialized log file: log.json
Starting system operations...

Command:
```

```
Real-Time Console
Vendor 71 added 2 tickets (T-538 T-539)
Customer 27 purchased 10 tickets (T-404 T-405 T-406 T-407 T-408 T-409 T-410 T-411 T-412 T-413)
Customer 76 purchased 10 tickets (T-414 T-415 T-416 T-417 T-418 T-419 T-420 T-421 T-422 T-423)
Customer 47 purchased 10 tickets (T-424 T-425 T-426 T-427 T-428 T-429 T-430 T-431 T-432 T-433)
Customer 32 purchased 9 tickets (T-434 T-435 T-436 T-437 T-438 T-439 T-440 T-441 T-442)
Customer 77 purchased 6 tickets (T-443 T-444 T-445 T-446 T-447 T-448)
Customer 80 purchased 4 tickets (T-449 T-450 T-451 T-452)
Customer 79 purchased 10 tickets (T-453 T-454 T-455 T-456 T-457 T-458 T-459 T-460 T-461 T-462)
Customer 97 purchased 9 tickets (T-463 T-464 T-465 T-466 T-467 T-468 T-469 T-470 T-471)
Customer 98 purchased 10 tickets (T-472 T-473 T-474 T-475 T-476 T-477 T-478 T-479 T-480 T-481)
Customer 56 purchased 7 tickets (T-482 T-483 T-484 T-485 T-486 T-487 T-488)
Customer 96 purchased 10 tickets (T-489 T-490 T-491 T-492 T-493 T-494 T-495 T-496 T-497 T-498)
Customer 99 purchased 8 tickets (T-499 T-500 T-501 T-502 T-503 T-504 T-505 T-506)
Customer 88 purchased 10 tickets (T-507 T-508 T-509 T-510 T-511 T-512 T-513 T-514 T-515 T-516)
Customer 95 purchased 5 tickets (T-517 T-518 T-519 T-520 T-521)
Customer 94 purchased 3 tickets (T-522 T-523 T-524)
Customer 91 purchased 7 tickets (T-525 T-526 T-527 T-528 T-529 T-530 T-531)
Customer 90 purchased 6 tickets (T-532 T-533 T-534 T-535 T-536 T-537)
Not enough tickets available! Customer 52 waiting...
Not enough tickets available! Customer 89 waiting...
Not enough tickets available! Customer 87 waiting...
Customer 84 purchased 2 tickets (T-538 T-539)
Not enough tickets available! Customer 26 waiting...
Not enough tickets available! Customer 82 waiting...
Not enough tickets available! Customer 81 waiting...
Not enough tickets available! Customer 87 waiting...
Not enough tickets available! Customer 89 waiting...
Not enough tickets available! Customer 52 waiting...
```

```
TS TicketSystemCLI Version control
TicketSystem TicketPool Console Vendor
Run TicketSystem
"C:\Program Files\Java\jdk-21\bin\java.exe" "-javaagent:C:\Program Files\JetB
Welcome to the Real-Time Ticketing System!

Configure the system...
Enter total ticket sales: 1000
Enter ticket release rate (s): 5
Enter customer retrieval rate (s): 5
Enter maximum ticket capacity: 100

start - Start the system
stop - Stop the system
stats - Display stats
help - System Controllers
mv - Manual Vendor
mc - Manual Customer

Command:
start
Initialized log file: log.json
Starting system operations...

Command:
Final Ticket was sold now!
System operations stopped.
Would you like to save the ticket logs? y/n

Real-Time Console
Vendor 28 added 4 tickets (T-979 T-980 T-981 T-982)
Vendor 10 added 1 tickets (T-983)
Vendor 6 added 3 tickets (T-984 T-985 T-986)
Vendor 2 added 1 tickets (T-987)
Vendor 7 added 6 tickets (T-988 T-989 T-990 T-991 T-992 T-993)
Vendor-3 Total ticket limit reached! No further tickets can be added.
Customer 79 purchased 5 tickets (T-962 T-963 T-964 T-965 T-966)
Customer 38 purchased 1 tickets (T-967)
Customer 82 purchased 4 tickets (T-968 T-969 T-970 T-971)
Customer 67 purchased 6 tickets (T-972 T-973 T-974 T-975 T-976 T-977)
Customer 26 purchased 9 tickets (T-978 T-979 T-980 T-981 T-982 T-983 T-984 T-985 T-986)
Customer 47 purchased 1 tickets (T-987)
Vendor-32 Total ticket limit reached! No further tickets can be added.
Customer 61 purchased 6 tickets (T-988 T-989 T-990 T-991 T-992 T-993)
Vendor 27 added 5 tickets (T-994 T-995 T-996 T-997 T-998)
Vendor-29 Total ticket limit reached! No further tickets can be added.
Vendor-26 Total ticket limit reached! No further tickets can be added.
Vendor 25 added 1 tickets (T-999)
Vendor-23 Total ticket limit reached! No further tickets can be added.
Vendor 22 added 1 tickets (T-1000)
Vendor-21 Total ticket limit reached! No further tickets can be added.
Vendor-14 Total ticket limit reached! No further tickets can be added.
Vendor-13 Total ticket limit reached! No further tickets can be added.
Vendor-15 Total ticket limit reached! No further tickets can be added.
Vendor-17 Total ticket limit reached! No further tickets can be added.
Vendor-18 Total ticket limit reached! No further tickets can be added.
Vendor-19 Total ticket limit reached! No further tickets can be added.
Customer 17 purchased 7 tickets (T-994 T-995 T-996 T-997 T-998 T-999 T-1000)
```

```
TS TicketSystemCLI Version control
TicketSystem TicketPool Console Vendor
Run TicketSystem
Enter maximum ticket capacity: 100

start - Start the system
stop - Stop the system
stats - Display stats
help - System Controllers
mv - Manual Vendor
mc - Manual Customer

Command:
start
Initialized log file: log.json
Starting system operations...

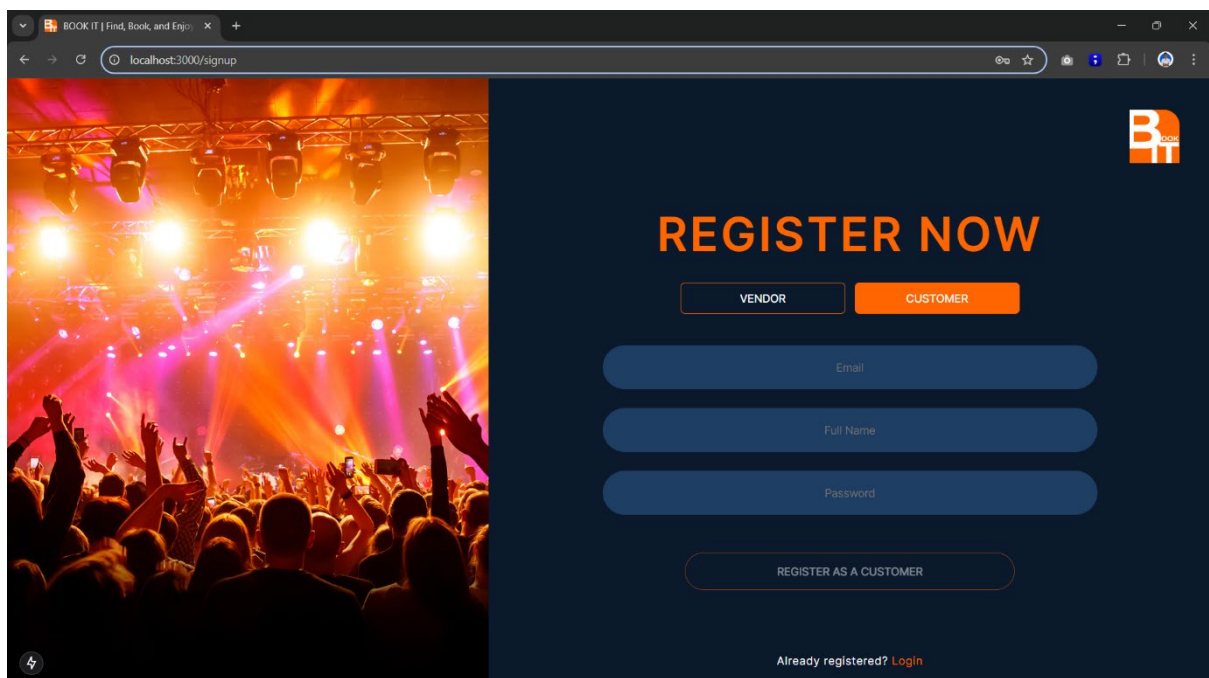
Command:
Final Ticket was sold now!
System operations stopped.
Would you like to save the ticket logs? y/n
skm
Invalid Command! Try again!
pow
Invalid command! Please enter 'y' or 'n' :
Would you like to save the ticket logs? y/n
y
Enter a name for the log file:
test-file

Process finished with exit code 0
```

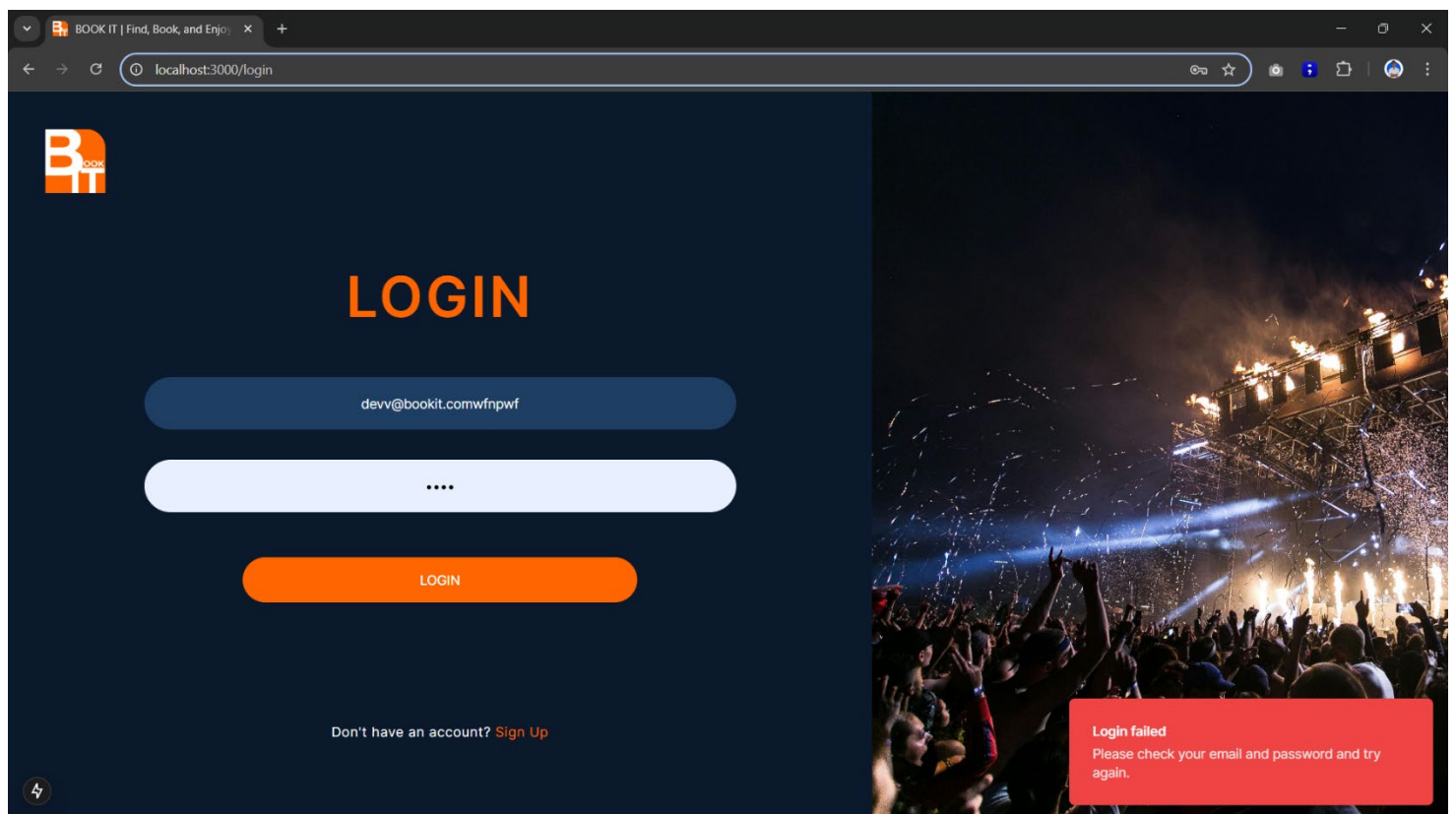
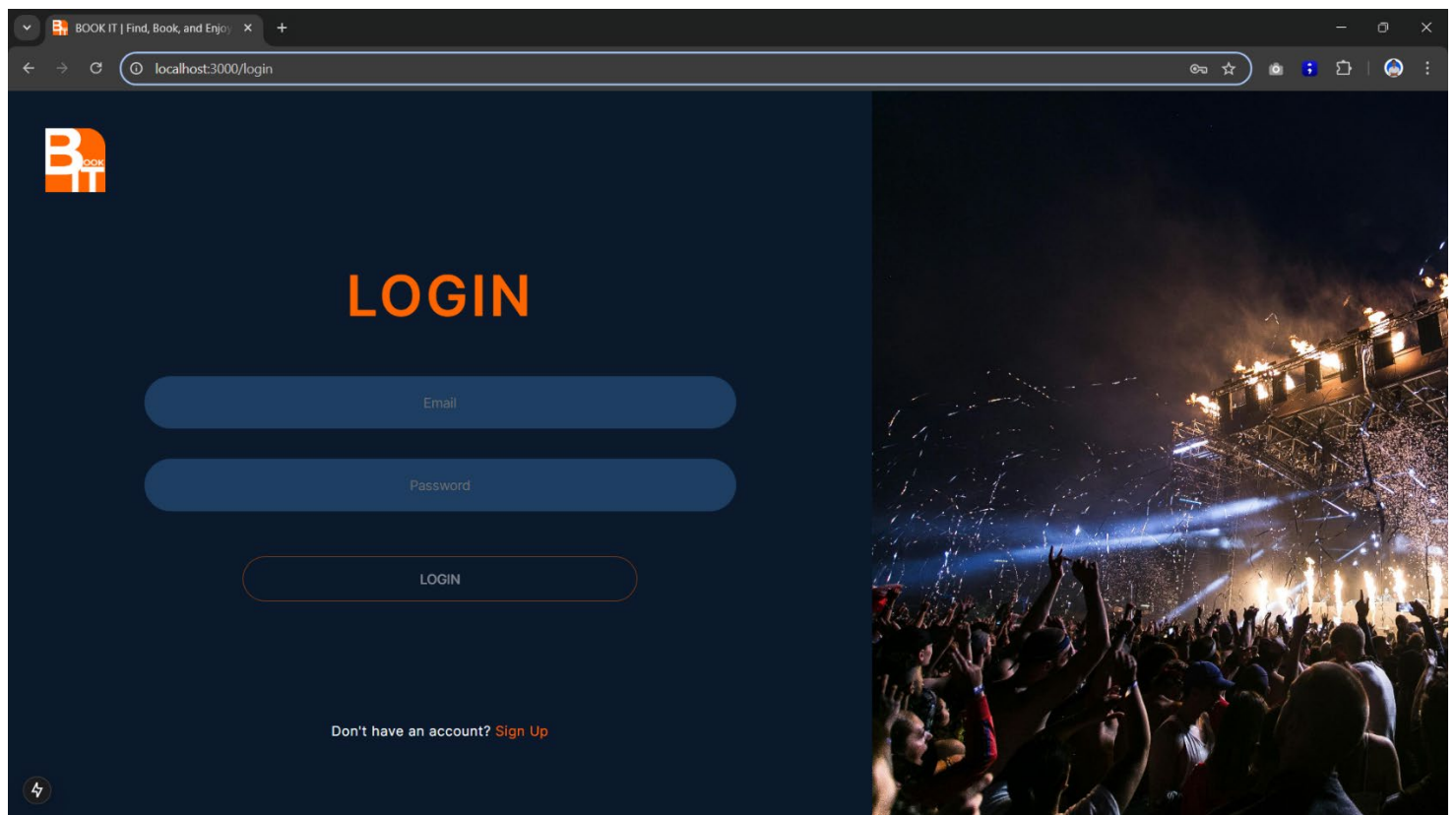
```
1  === TICKET LOG ==={"Type": "Add", "Id": "5", "Ticket Count": "10", "No of Tickets": "T-1 T-2 T-3 T-4 T-5 T-6 T-7 T-8 T-9 T-10"},
2  {"Type": "Purchase", "Id": "0", "Ticket Count": "5", "No of Tickets": "T-1 T-2 T-3 T-4 T-5"},
3  {"Type": "Purchase", "Id": "6", "Ticket Count": "2", "No of Tickets": "T-6 T-7"},
4  {"Type": "Purchase", "Id": "2", "Ticket Count": "2", "No of Tickets": "T-8 T-9"},
5  {"Type": "Purchase", "Id": "25", "Ticket Count": "1", "No of Tickets": "T-10"},
6  {"Type": "Add", "Id": "54", "Ticket Count": "6", "No of Tickets": "T-11 T-12 T-13 T-14 T-15 T-16"},
7  {"Type": "Add", "Id": "67", "Ticket Count": "7", "No of Tickets": "T-17 T-18 T-19 T-20 T-21 T-22 T-23"},
8  {"Type": "Add", "Id": "63", "Ticket Count": "1", "No of Tickets": "T-24"},
9  {"Type": "Add", "Id": "62", "Ticket Count": "4", "No of Tickets": "T-25 T-26 T-27 T-28"},
10 {"Type": "Add", "Id": "65", "Ticket Count": "6", "No of Tickets": "T-29 T-30 T-31 T-32 T-33 T-34"},
11 {"Type": "Add", "Id": "57", "Ticket Count": "8", "No of Tickets": "T-35 T-36 T-37 T-38 T-39 T-40 T-41 T-42"},
12 {"Type": "Add", "Id": "66", "Ticket Count": "1", "No of Tickets": "T-43"},
13 {"Type": "Add", "Id": "74", "Ticket Count": "3", "No of Tickets": "T-44 T-45 T-46"},
14 {"Type": "Add", "Id": "70", "Ticket Count": "5", "No of Tickets": "T-47 T-48 T-49 T-50 T-51"},
15 {"Type": "Add", "Id": "71", "Ticket Count": "6", "No of Tickets": "T-52 T-53 T-54 T-55 T-56 T-57"},
16 {"Type": "Add", "Id": "73", "Ticket Count": "6", "No of Tickets": "T-58 T-59 T-60 T-61 T-62 T-63"},
17 {"Type": "Add", "Id": "75", "Ticket Count": "2", "No of Tickets": "T-64 T-65"},
18 {"Type": "Add", "Id": "69", "Ticket Count": "8", "No of Tickets": "T-66 T-67 T-68 T-69 T-70 T-71 T-72 T-73"},
19 {"Type": "Add", "Id": "77", "Ticket Count": "4", "No of Tickets": "T-74 T-75 T-76 T-77"},
20 {"Type": "Purchase", "Id": "9", "Ticket Count": "9", "No of Tickets": "T-11 T-12 T-13 T-14 T-15 T-16 T-17 T-18 T-19"},
21 {"Type": "Add", "Id": "85", "Ticket Count": "4", "No of Tickets": "T-78 T-79 T-80 T-81"},
22 {"Type": "Add", "Id": "78", "Ticket Count": "5", "No of Tickets": "T-82 T-83 T-84 T-85 T-86"},
23 {"Type": "Add", "Id": "79", "Ticket Count": "8", "No of Tickets": "T-87 T-88 T-89 T-90 T-91 T-92 T-93 T-94"},
24 {"Type": "Add", "Id": "81", "Ticket Count": "7", "No of Tickets": "T-95 T-96 T-97 T-98 T-99 T-100 T-101"},
25 {"Type": "Add", "Id": "82", "Ticket Count": "9", "No of Tickets": "T-102 T-103 T-104 T-105 T-106 T-107 T-108 T-109 T-110"},
26 {"Type": "Add", "Id": "94", "Ticket Count": "4", "No of Tickets": "T-111 T-112 T-113 T-114"},
27 {"Type": "Add", "Id": "83", "Ticket Count": "2", "No of Tickets": "T-115 T-116"},
28 {"Type": "Add", "Id": "87", "Ticket Count": "1", "No of Tickets": "T-117"},
29 {"Type": "Add", "Id": "90", "Ticket Count": "1", "No of Tickets": "T-118"},
30 {"Type": "Purchase", "Id": "7", "Ticket Count": "10", "No of Tickets": "T-20 T-21 T-22 T-23 T-24 T-25 T-26 T-27 T-28 T-29"},
31 {"Type": "Purchase", "Id": "5", "Ticket Count": "5", "No of Tickets": "T-30 T-31 T-32 T-33 T-34"},
32 {"Type": "Add", "Id": "97", "Ticket Count": "8", "No of Tickets": "T-119 T-120 T-121 T-122 T-123 T-124 T-125 T-126"},
33 {"Type": "Add", "Id": "41", "Ticket Count": "7", "No of Tickets": "T-127 T-128 T-129 T-130 T-131 T-132 T-133"}
Run TicketSystem x
TicketSystemCLI > test-file.json 1:1 LF UTF-8 2 spaces No JSON schema
```

FullStack Part:

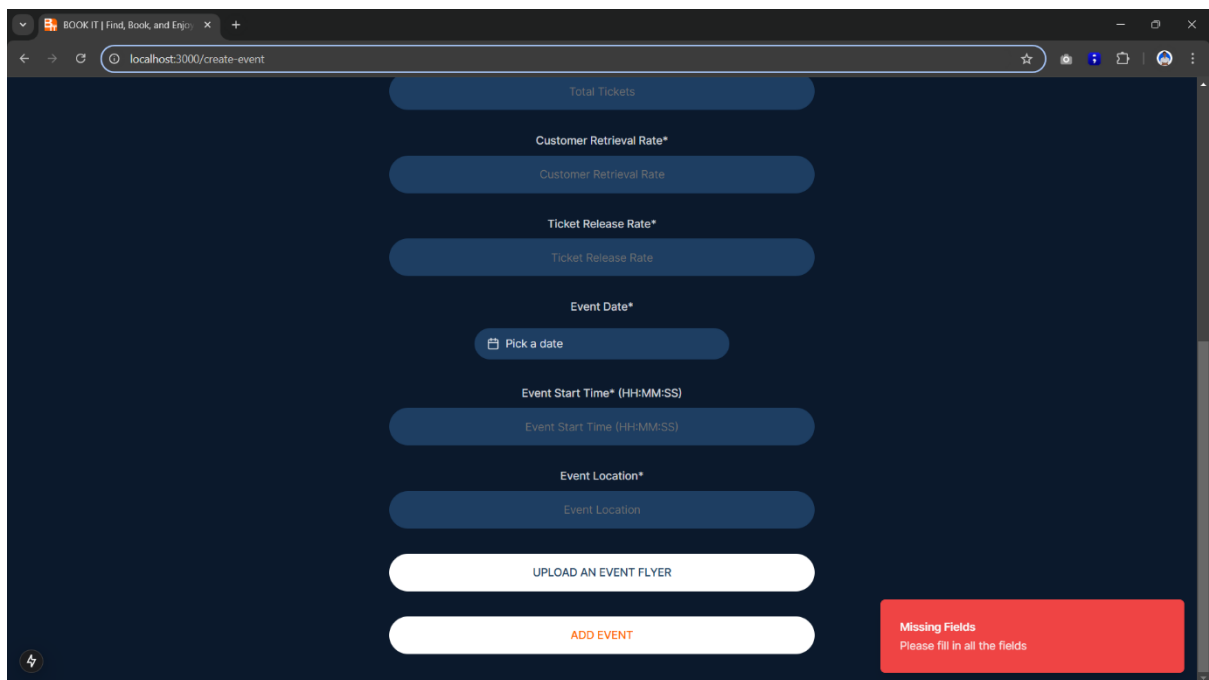
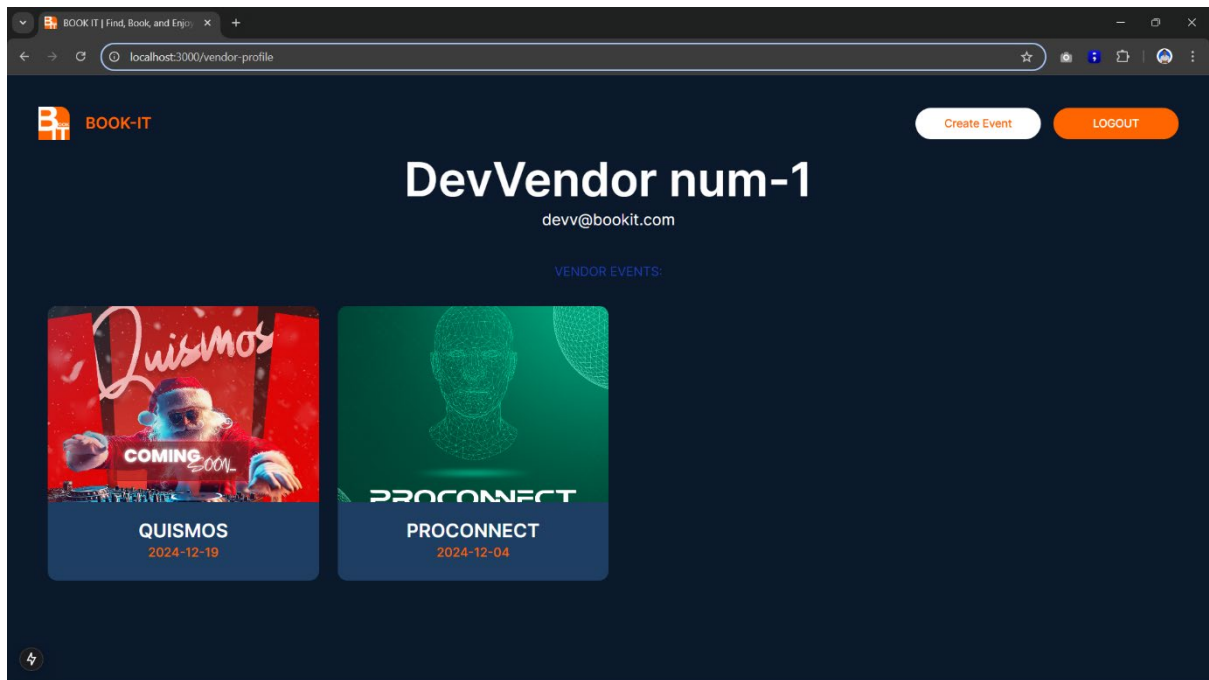
Test Cases:



Button is disabled if no value is entered!



Invalid credentials



BOOK IT | Find, Book, and Enjoy

localhost:3000/create-event

998

Customer Retrieval Rate*

5

Ticket Release Rate*

-6

Event Date*

December 19th, 2024

Event Start Time* (HH:MM:SS)

16:00:00

Event Location*

Havelock

UPLOAD AN EVENT FLYER

ADD EVENT

Value Error!
Only positive values are allowed

BOOK IT | Find, Book, and Enjoy

localhost:3000/create-event

999

Customer Retrieval Rate*

5

Ticket Release Rate*

3

Event Date*

December 5th, 2024

Event Start Time* (HH:MM:SS)

16:00:00

Event Location*

Havelock

UPLOAD AN EVENT FLYER

ADD EVENT

Invalid Date
Event date cannot be in the past.

