Maximum Ticket Capacity - The maximum number of tickets that can be held in the pool at any given time (the size of Collections.synchronizedList)

There is a limit that systems can issue tickets.

Total Tickets - Total number of tickets for that event (The number of tickets the vendor is planning to release)

Customer Retrieval Rate - How frequently vendors add tickets.

Ticket Release Rate - for an hour how many tickets are released.

Maximum Ticket Capacity < Total Tickets

Assume Each Vendor can create only one event.

For eg:

Maximum Ticket Capacity (Length of the ticket pool) - 100

Total number of Tickets – 200

Number of vendors – 5

The maximum number of tickets a vendor can release – 40

Ticket release rate – 40

Number of Customers – 10

Maximum number of tickets can be bought by a customer is – 5



The Design

1. Get the maximum ticket capacity, total tickets, ticket release rate, customer retrieval rate.
2. Get the number of vendors
3. Get the number of customers
4. Add the vendors to the list (Vendor:Event)

Map<String, List<Vendors> vendorList = new HashMap<>();

1. Add the customers to the list

Map<String, List<Customer> customerList = new HashMap<>();

1. Create a data structure to store the list of Tickets.
2. Add tickets to the list using multiple threads.