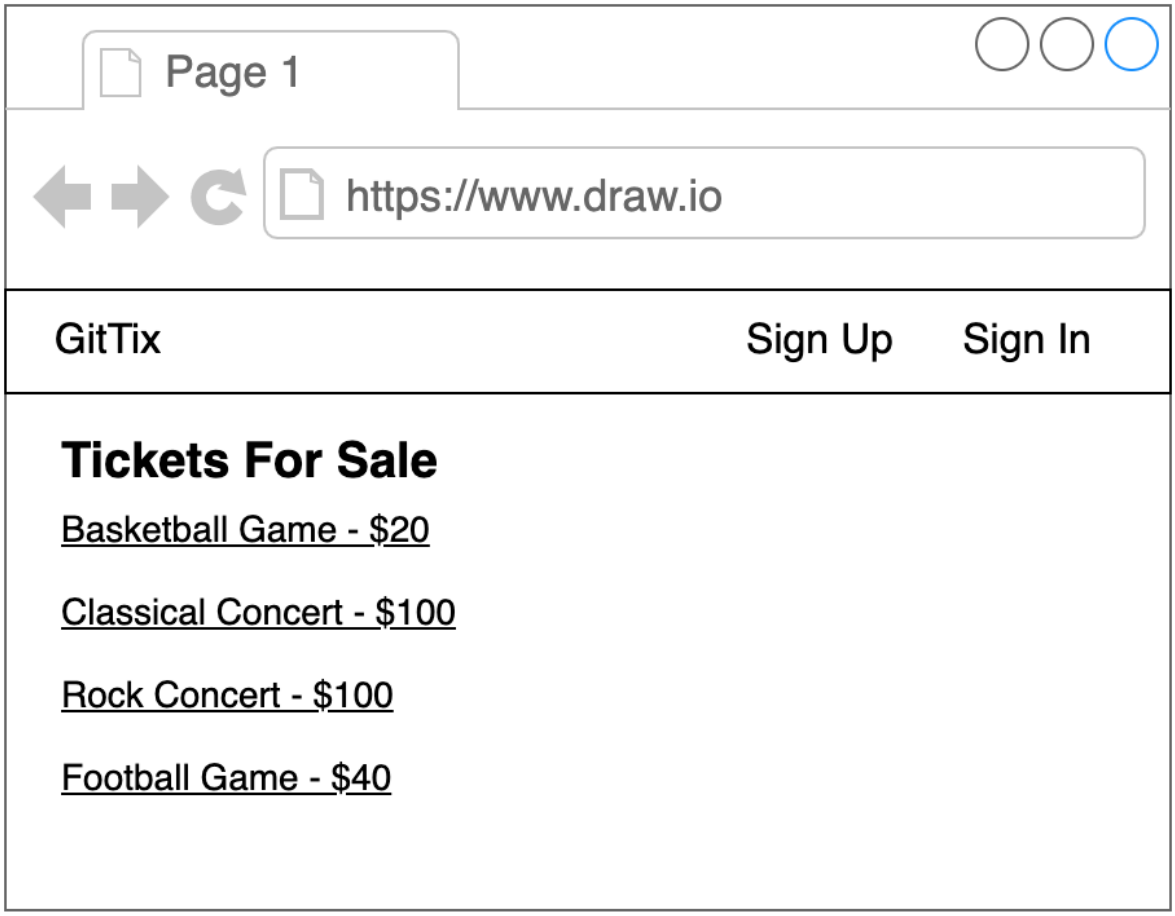
Ticketing App

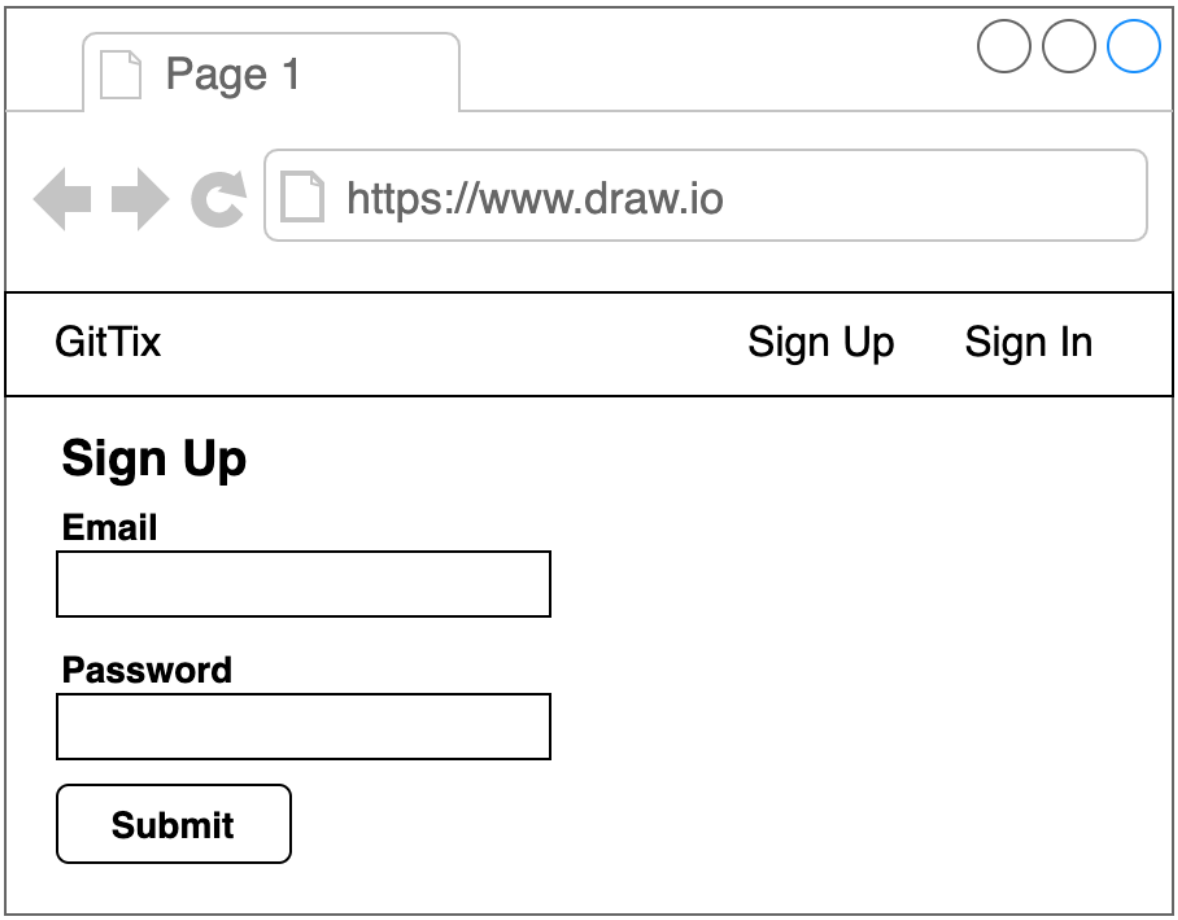
Reference : https://www.stubhub.com/

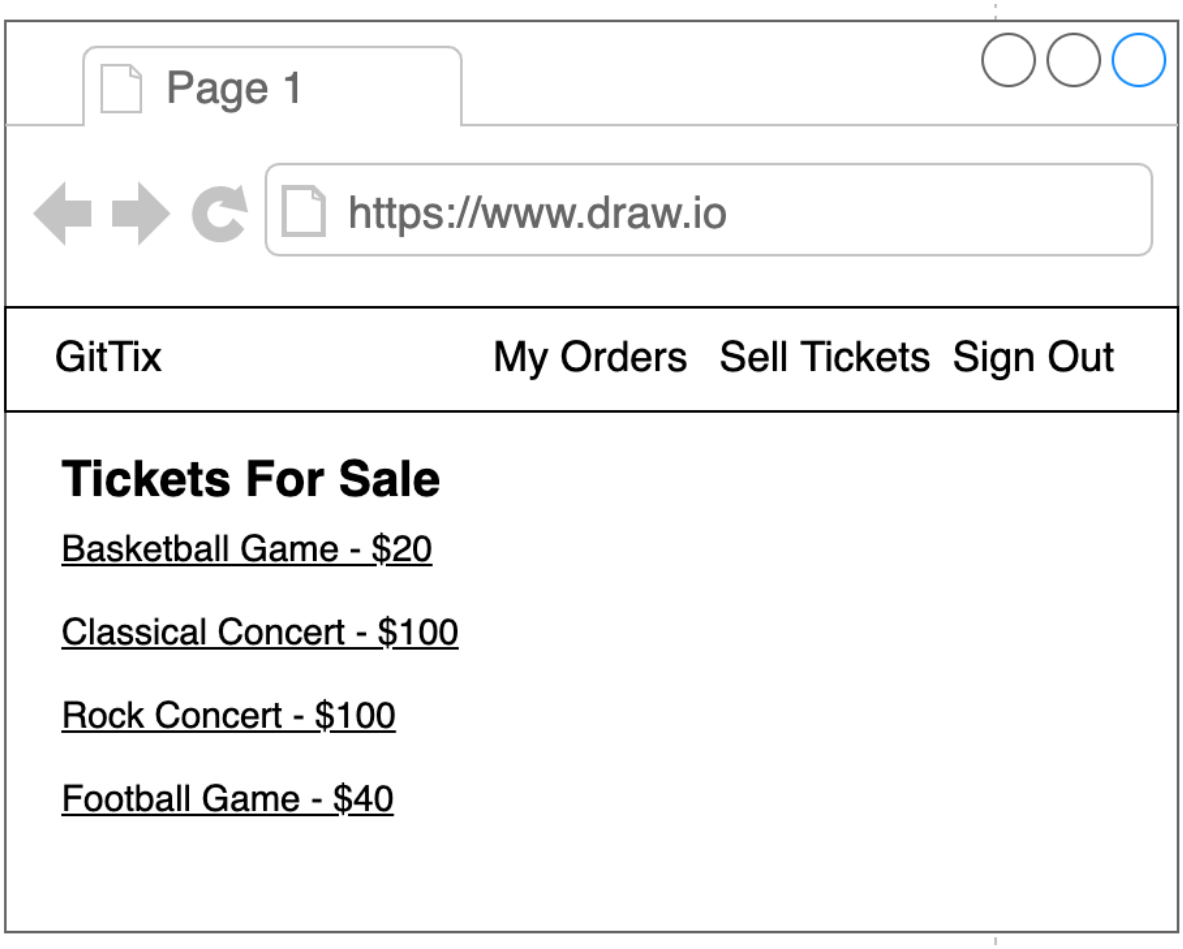
Objective

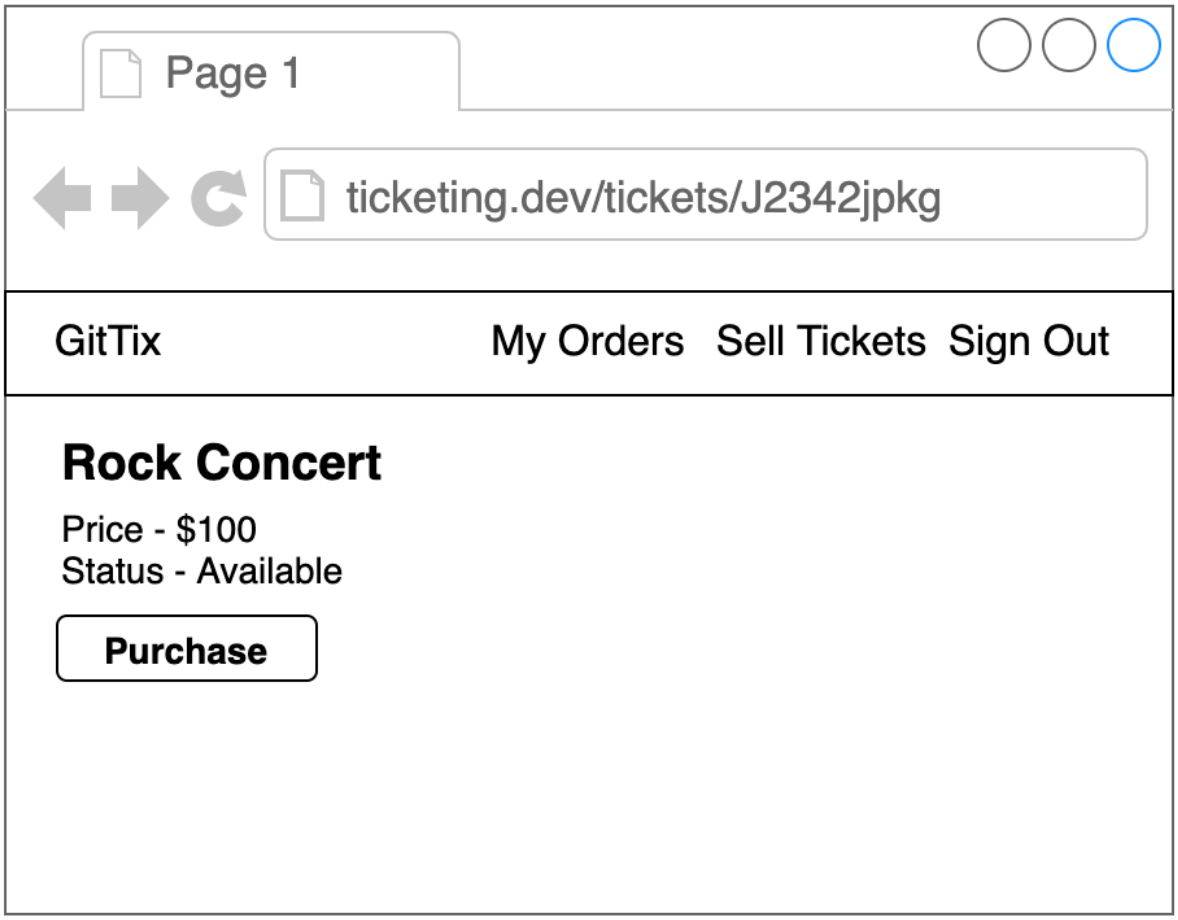
- Users can list a ticket for an event (concert, sports) for sale
- Other users can purchase this ticket
- Any user can list tickets for sale and purchase tickets
- When a user attempts to purchase a ticket, the ticket is 'locked' for 10 minutes. The user has 10 minutes to enter their payment info.
- While locked, no other user can purchase the ticket. After 15 minutes, the ticket should 'unlock'
- Ticket prices can be edited if they are not locked

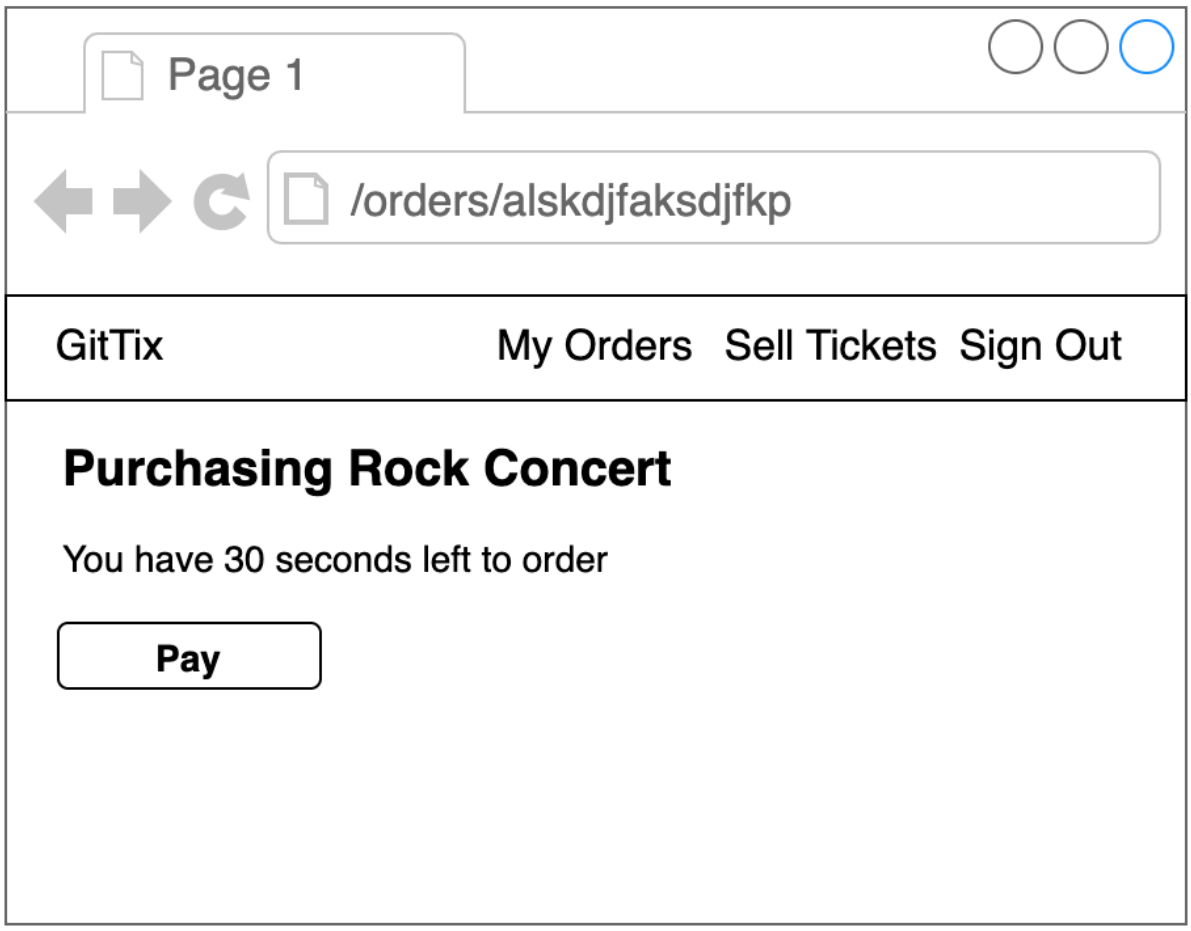
UI and UX screens

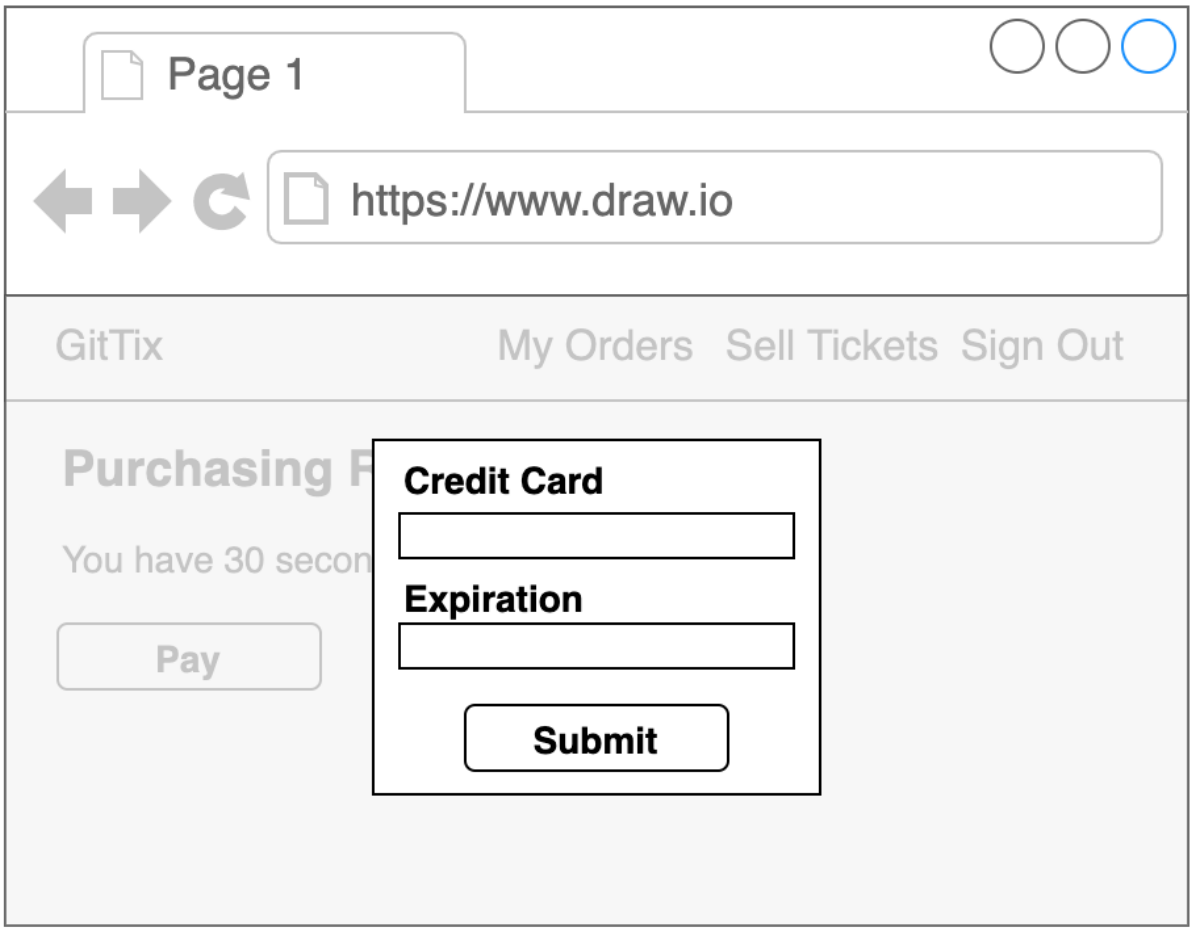

Page 1
https://www.draw.io
GitTix
Sign Up
Sign In
Tickets For Sale
Basketball Game - $20
Classical Concert - $100
Rock Concert - $100
Football Game - $40

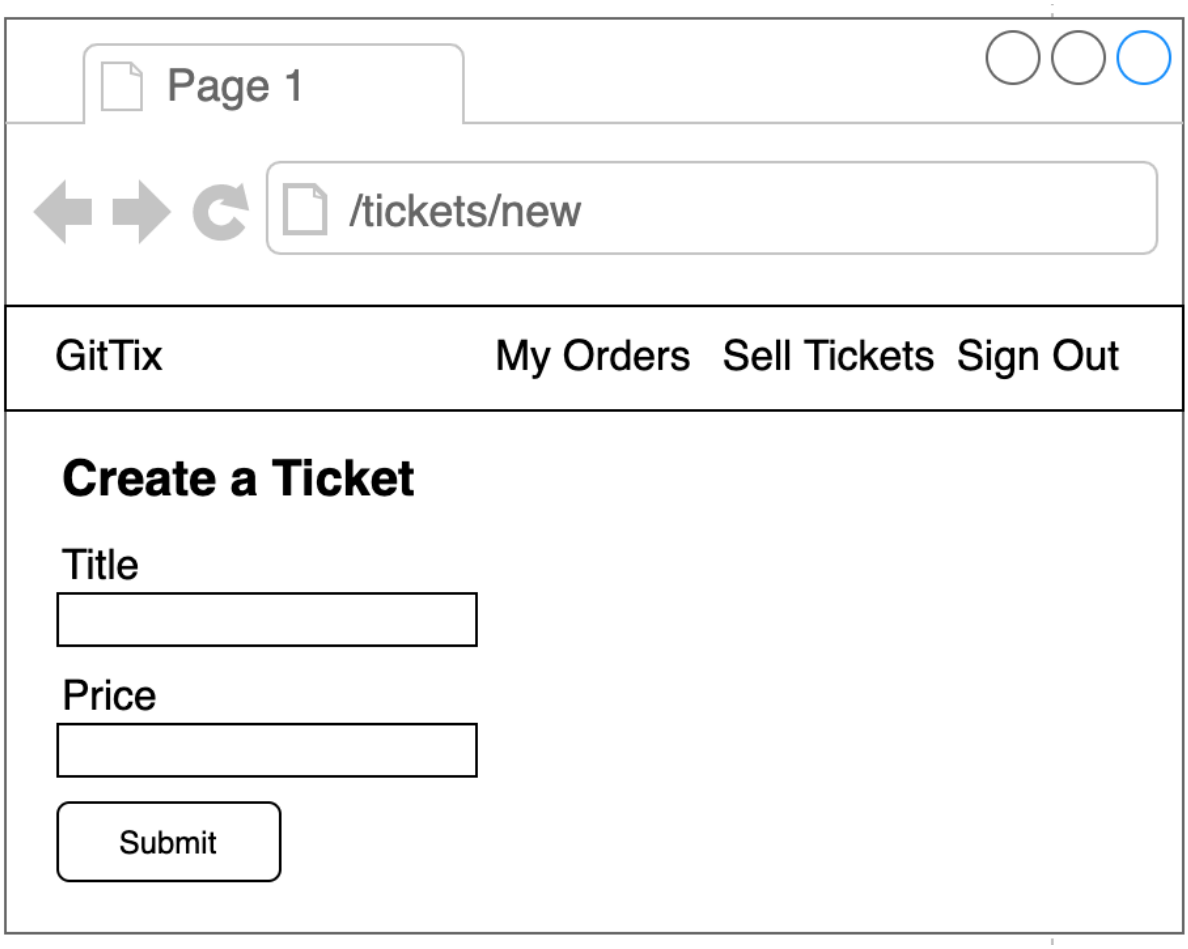

Page 1
https://www.draw.io
GitTix
Sign Up
Sign In
Sign Up
Email
Password
Submit


Page 1
https://www.draw.io
GitTix
My Orders
Sell Tickets
Sign Out
Tickets For Sale
Basketball Game - $20
Classical Concert - $100
Rock Concert - $100
Football Game - $40


Page 1
ticketing.dev/tickets/J2342jpkg
GitTix
My Orders
Sell Tickets
Sign Out
Rock Concert
Price - $100
Status - Available
Purchase


Page 1
/orders/alskdjfaksdjfkp
GitTix
My Orders
Sell Tickets
Sign Out
Purchasing Rock Concert
You have 30 seconds left to order
Pay


Page 1
https://www.draw.io
GitTix
My Orders
Sell Tickets
Sign Out
Purchasing F
You have 30 secon
Pay
Credit Card
Expiration
Submit


Page 1
/tickets/new
GitTix
My Orders
Sell Tickets
Sign Out
Create a Ticket
Title
Price
Submit

Resources

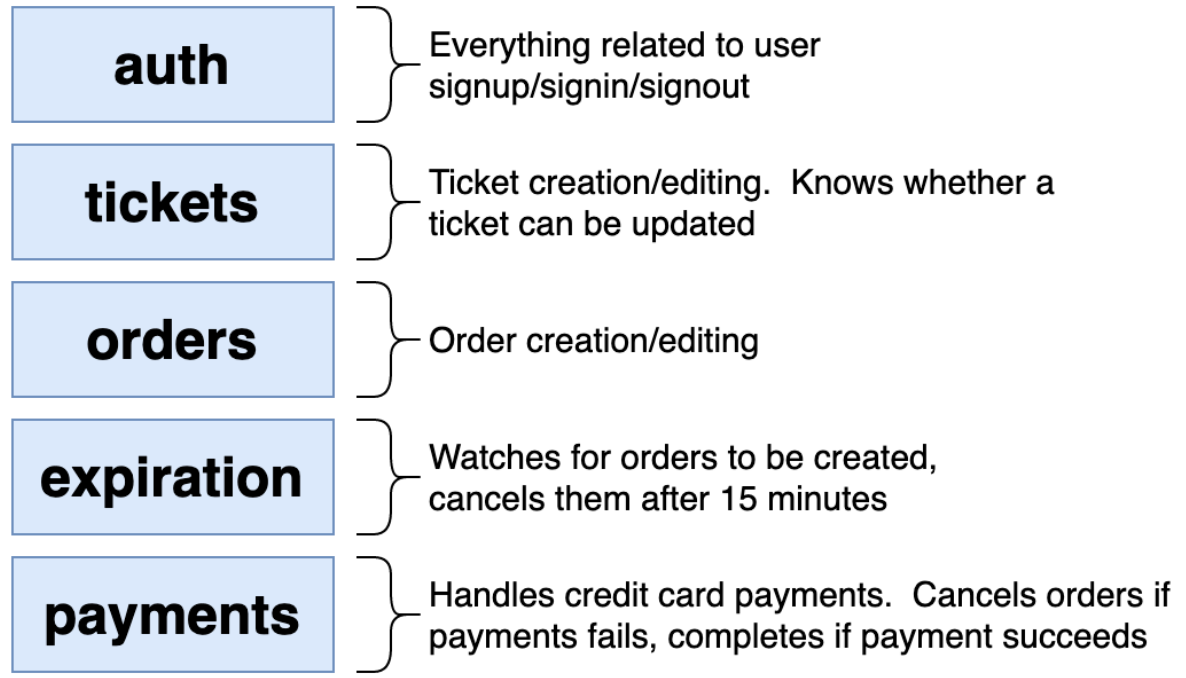
User	
Name	*Type*
email	string
password	string

Ticket	
Name	*Type*
title	string
price	number
userId	Ref to User
orderId	Ref to Order

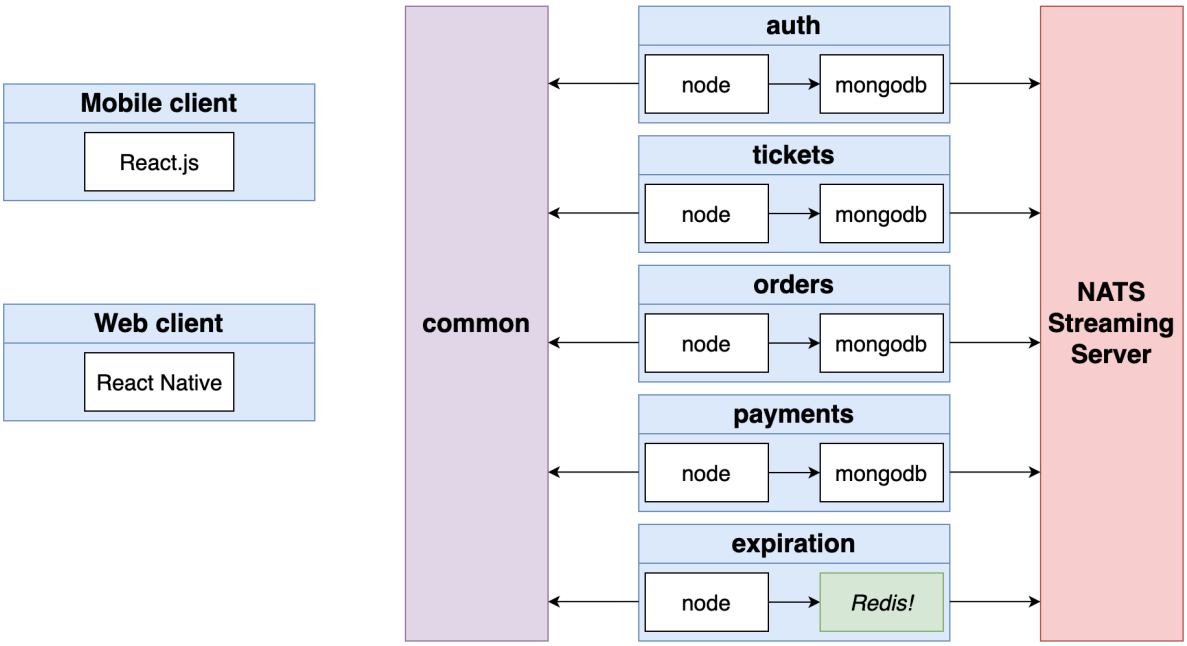
Order	
Name	*Type*
userId	Ref to User
status	Created I Cancelled I AwaitingPayment I Completed
ticketId	Ref to Ticket
expiresAt	Date

Charge	
Name	*Type*
orderId	Ref to Order
status	Created I Failed I Completed
amount	number
stripeId	string
stripeRefundId	string

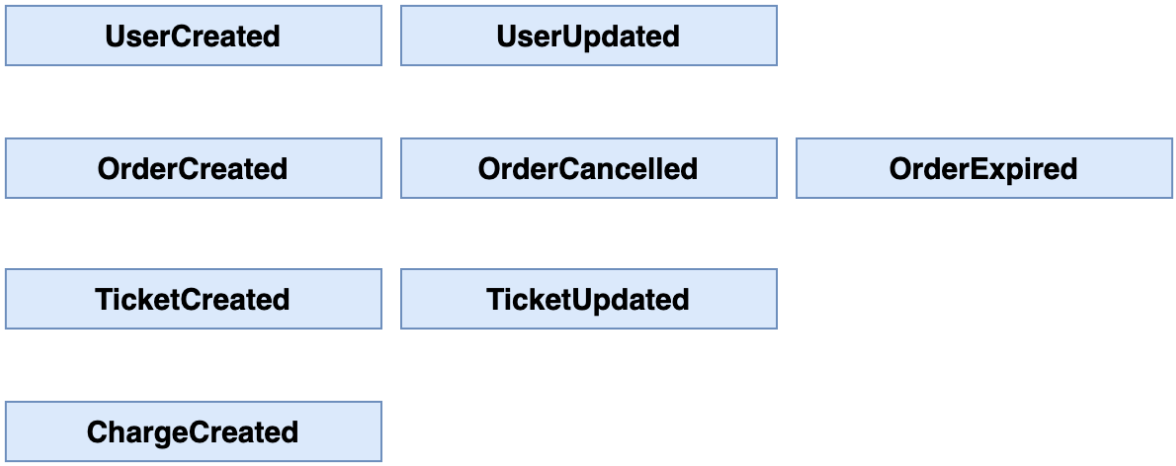
Micro Services



Flow diagram

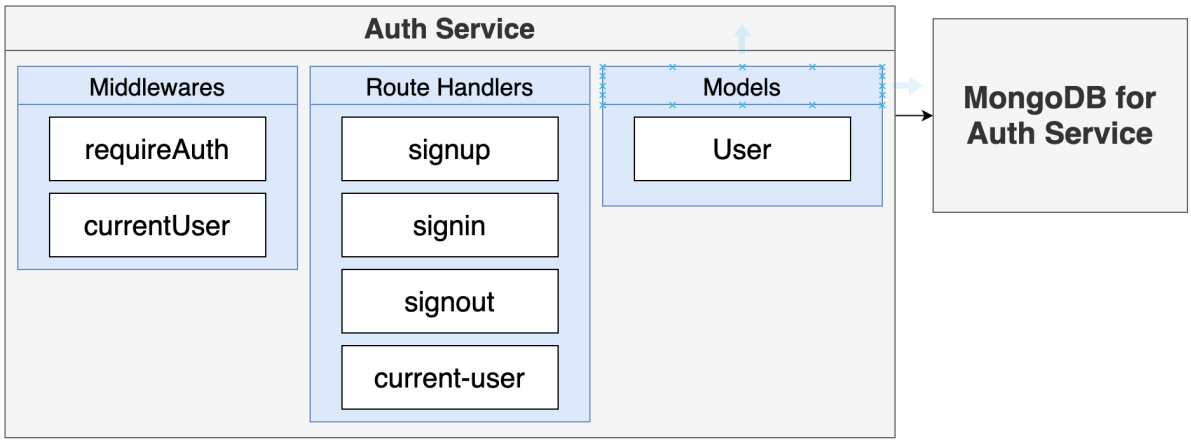


Application Events



a. Auth Service

auth			
Route	Method	Body	Purpose
/api/users/signup	POST	{ email: string, password: string }	Sign up for an account
/api/users/signin	POST	{ email: string, password: string }	Sign in to an existing account
/api/users/signout	POST	{}	Sign out
/api/users/currentuser	GET	-	Return info about the user



b. Ticketing Service

Tickets Service			
Route	Method	Body	Goal
/api/tickets	GET	-	Retrieve all tickets
/api/tickets/:id	GET	-	Retrieve ticket with specific ID
/api/tickets	POST	{ title: string, price: string }	Create a ticket
/api/tickets/:id	PUT	{ title: string, price: string }	Update a ticket

c. Order Service

orders			
Route	Method	Body	Purpose
/api/orders	GET	-	Retrieve all active orders for the given user making the request
/api/orders/:id	GET	-	Get details about a specific order
/api/orders	POST	{ ticketId: string }	Create an order to purchase the specified ticket
/api/orders/:id	DELETE	-	Cancel the order

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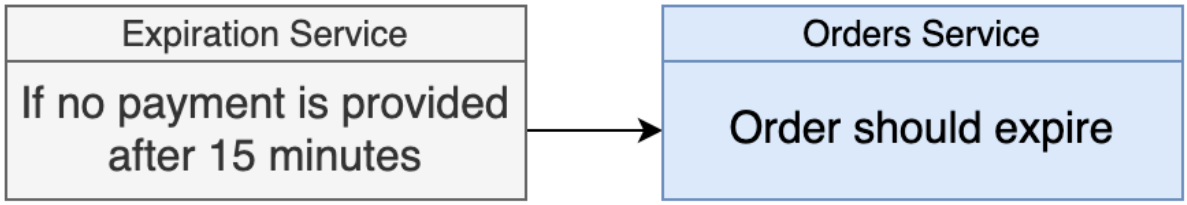
d. Expiration Service



Things to consider and implement in this Ticketing App

- Keep complete code on github repository with branches
- Implement CI & CD pipeline
- Build as docker images and deploy on k8s platform using Local cluster
- For payment gateway, use either **stripe** or **razorpay,** for dummy payments

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