SE/ComS319 Construction to User Interfaces

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Final Project Proposal

LiveTix

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1. Final Project Description

Introduction

LiveTix is designed to revolutionize the way concert tickets are sold and managed. Motivated by the cumbersome and often confusing ticket purchasing experiences currently prevalent, our project aims to simplify and enhance the user's journey from ticket discovery to purchase, using modern web technologies. Our platform addresses issues such as slow loading times, poor mobile experiences, and unclear user interfaces that are common with existing ticketing solutions.

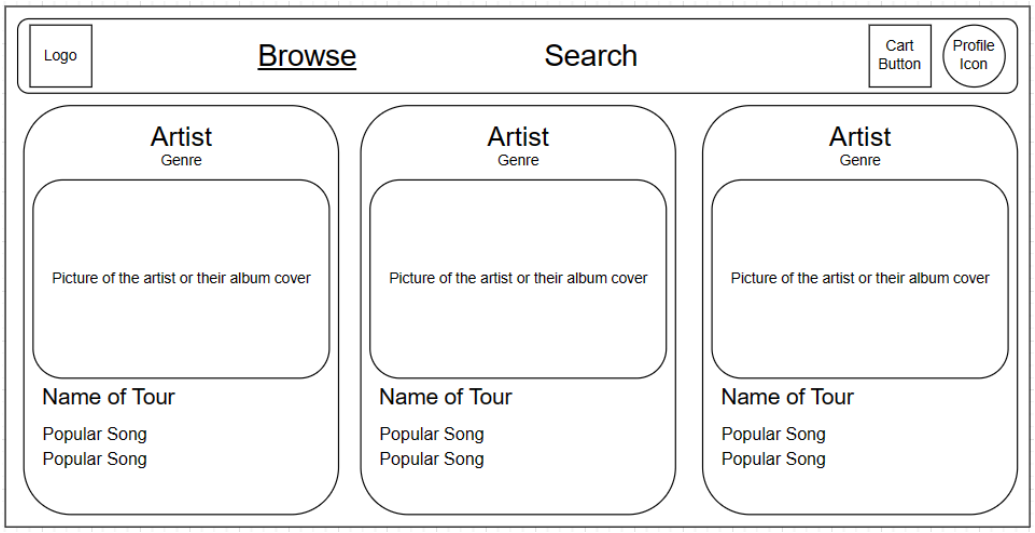
Objectives

- **Enhance User Experience:** Create a user-friendly, intuitive, and responsive web interface.
- **Streamline Ticket Purchasing:** Simplify the process of finding, selecting, and purchasing tickets.
- **Improve Data Management:** Utilize MongoDB for efficient data handling and transactions.
- **Provide Real-Time Updates:** Ensure ticket availability and event information are up-to-date.

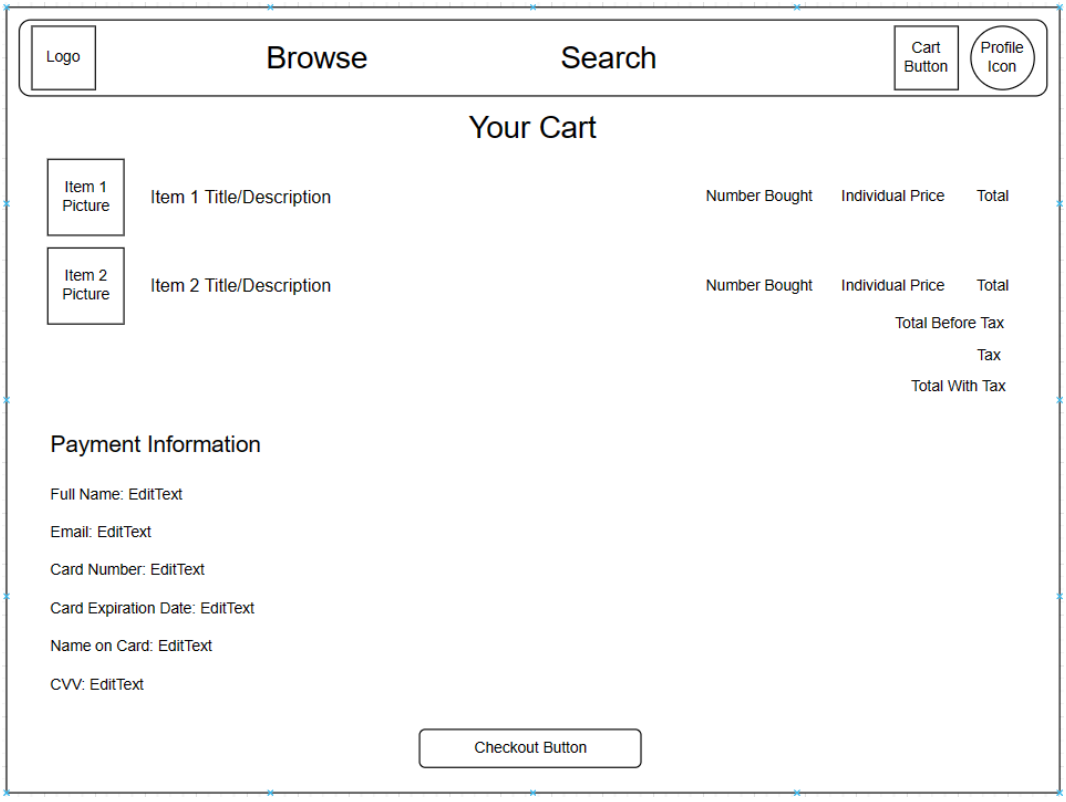
2. User Experience Views

Visual Representations

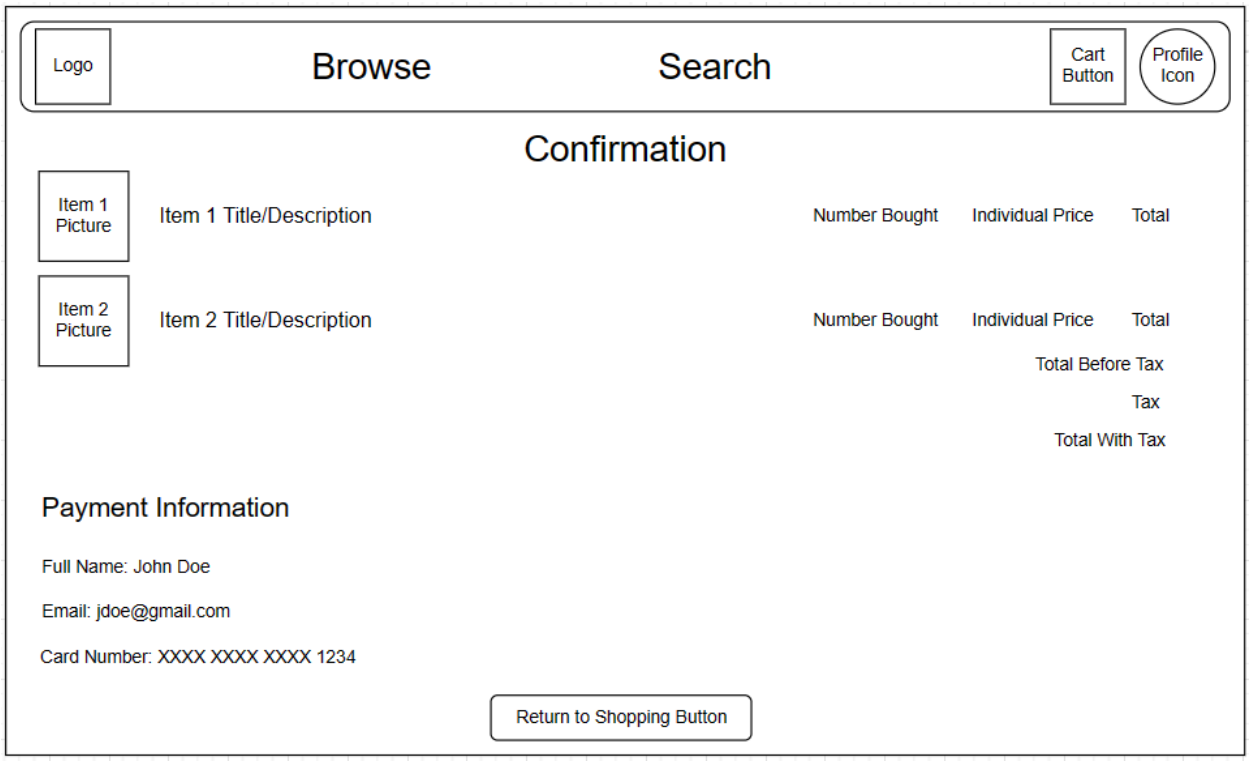
Browse View:



Cart View:



Confirmation View:



Profile View:

Diagrams and wireframes will be created using Figma to visually represent the user interface and interaction flow. These will include detailed views of the Browse, Cart, and Confirmation interfaces, along with navigational flows and interactions.

View Descriptions

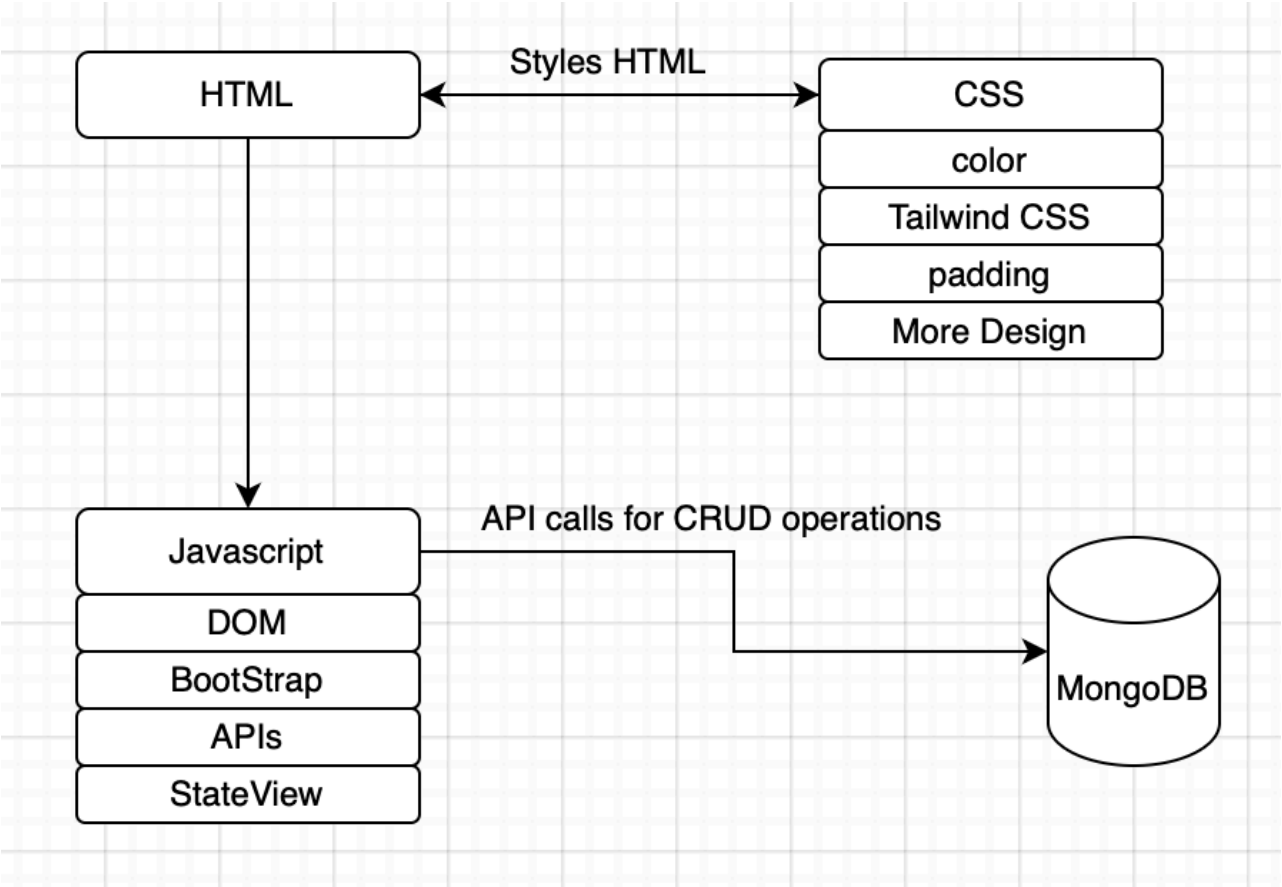
- **Browse View:** Users will see a list of upcoming concerts. Each listing will include essential details and an option to purchase tickets. This view simplifies the search and selection process.
- **Cart View:** After selecting tickets, users will enter their details and review their order. This view ensures data is entered correctly and displays a summary for confirmation.
- **Confirmation View:** Post-purchase, users receive a confirmation screen with their order summary and ticket details. This view also allows users to save or print their tickets.
- **Profile and History:** Users can view and edit their profiles and review past purchases, facilitating easy updates and reorders.

3. File Structure and Management

File Description

- **HTML Files:** Structure the content and layout of the web pages.
- **CSS Files:** Style the presentation of the web pages using Tailwind CSS for utility-first classes and Bootstrap for responsive design.
- **JavaScript Files:** Handle the logic and interactivity of the website, including API calls for CRUD operations.

Data Flow and Structure



4. Data Sources and Management

Data Sources

Data will primarily be user-generated and stored in MongoDB. External APIs may be used for additional concert details and social media integration.

Data Format and Processing

Data will be stored in JSON format, which is native to MongoDB and easily handled by JavaScript.

User Object includes userId, name, email, address, phone

Example: "User": {


```
  "userId": "U123456",
  "name": "Jane Doe",
  "email": "jane.doe@example.com",
  "address": {
    "street": "123 Main St",
    "city": "Ames",
    "state": "Iowa",
    "zipCode": "12345"
  },
  "phone": "123-456-7890"
```

Ticket Object includes ticketId, eventId, eventName, eventDate, venue, price, purchaseDate.

Example: "Ticket": {

"ticketId": "T123456",

"eventId": "E123456",

"eventName": "The Big Concert",

"eventDate": "2024-06-15T20:00:00Z",

"venue": {

"name": "Concert Hall",

"seat": "Row A, Seat 12"

},

"price": 59.99,

"purchaseDate": "2024-05-20T14:00:00Z"

}

Data Flow and Transformation