

PROJECT REPORT

DALLAS AMUSEMENT PARK

Submitted By:

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Document overview

This document describes the architecture of Amusement Park Web Application.

(Users: Admin, Visitors)

- A general description of the system
- Software used to develop the system
- System Architecture
- Design & Assumptions
- Database Structures
- Screenshots

Description of the system

System contains a GUI to interact with it, where a visitor can view the different rides available at our Dallas Amusement Park and book their tickets online. We also provide login options for returning visitors and store all their details along with their previous transactions. It is a multi-page web application designed to provide the best user experience. Each page has fixed header so that it is easier to navigate to search, view all pages. The Filter and Search Options are also provided for a quick lookup. The pagination has been taken into consideration so that application is fast and responsive.

Software Required

The below applications are required to run the application successfully

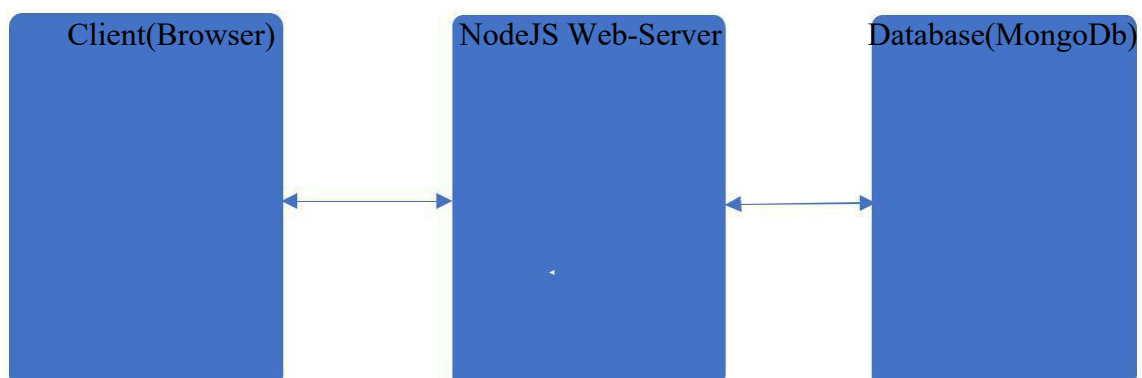
- MongoDB Community Server.
- NodeJS Server
- Browser

Technologies used

The below skills/technologies were required to make the application

- MongoDB.
- NodeJS, ExpressJS, PassportJS.
- HTML, CSS
- JQuery and Ajax

System Architecture



Design & Assumptions



VISITOR REGISTER/LOGIN:

- The landing page of the website is the Login Page.
- For a new visitor to register, he/she needs to fill a form with Username and Password details.
- A user cannot register if the username already exists in the database. So a new username is required for the visitor to register.
- The password must be a good password – i.e minimum of 8 characters is required. The password stored in the database are double hashed.
- If the visitor is a returning visitor and has an account previously, he/she can directly use his/her credentials to login and enter the website.
- We also have a set of pictures of our Amusement Park with CSS Transition property for better view of the page.



VIEW ALL RIDES:

- Once a visitor registers and logs into the website he/she can see the list of all available rides in the Dallas Amusement Park.
- Pagination is implemented and all the rides are displayed in the form of pages. The visitor can easily navigate between the pages.
- The rides are categorized into four types – Water Rides, Land Rides, High Thrill Rides, Kids Rides.
- Visitor can also search by the ride name or filter by the ride type through the search bar present in the header of every page. Results will be displayed based on both search text and category.
- The search results are also paginated, and the visitor can navigate easily to any page possible. A user cannot register if the username already exists in the database. So a new username is required for the visitor to register.



RIDE DETAILS:

- The visitor can click on a specific ride which redirects the visitor to a ride specific page that includes all the needed description.
- The description includes some details about the ride along with the ride type and price per ticket for the ride in USD (which is 10 USD).
- There is an “Add to Cart” button and “Remove 1 Item” button which allows the user to add and remove a ticket to the ride.
- When visitor clicks on add/remove option the Quantity along with price gets updated accordingly.
- The visitor can add any number of tickets to a specific ride.
- All the rides (along with each of their quantity) selected by the visitor and are saved to the cart.

**CART AND CHECKOUT:**

- The Cart button is present in the top right part in the header section.
- Once the visitor finishes selecting the rides , he/she can use this option to finally verify his/her selected rides and proceed to checkout.
- In the Cart page add subtract quantity buttons are present for each ride. Using these buttons the visitor can change (add or subtract) the quantity to be ordered.
- This page also includes the total price costed to him for his/her visit to the Dallas Amusement Park.
- After final verification the visitor can proceed to checkout. On clicking the checkout button he is redirected to a page which shows that the purchase is successful.

**PURCHASE HISTORY:**

- This option is present in the header section when expanded by his Username.
- The visitor can view all the tickets purchased till now.
- This will include the OrderID of the purchase along with the complete details to the purchase.

**ADMIN PRIVILEGES:**

- The admin can add, delete, update a ride details.
- In the view All Rides Page along with rides “Add A New Ride” option is present to the admin which can be used to add a new ride to the Dallas Amusement Park.
- In the Ride Details Page admin is provided with two more options to Edit and Delete the ride. The delete functionality is implemented as soft-delete.
- The search and filter by category with pagination is same as the visitor flow.
- The admin can also buy tickets and have other functionalities like Cart and Purchase History same like the visitor.

Database Structures

1. Account :

This table contains details of the visitors along with the admin.

```
var Account = new Schema({  
    username: String,  
    password: String,  
    type: String  
});
```

2. Items :

This table contains details of the rides.

```
var Item = new Schema({  
    image: String,  
    title: String,  
    description: String,  
    is_delete: String,  
    ridetype: String,  
    price:{  
        value: Number,  
        currency: String  
    }  
});
```

3. Order :

This table contains details of the order.

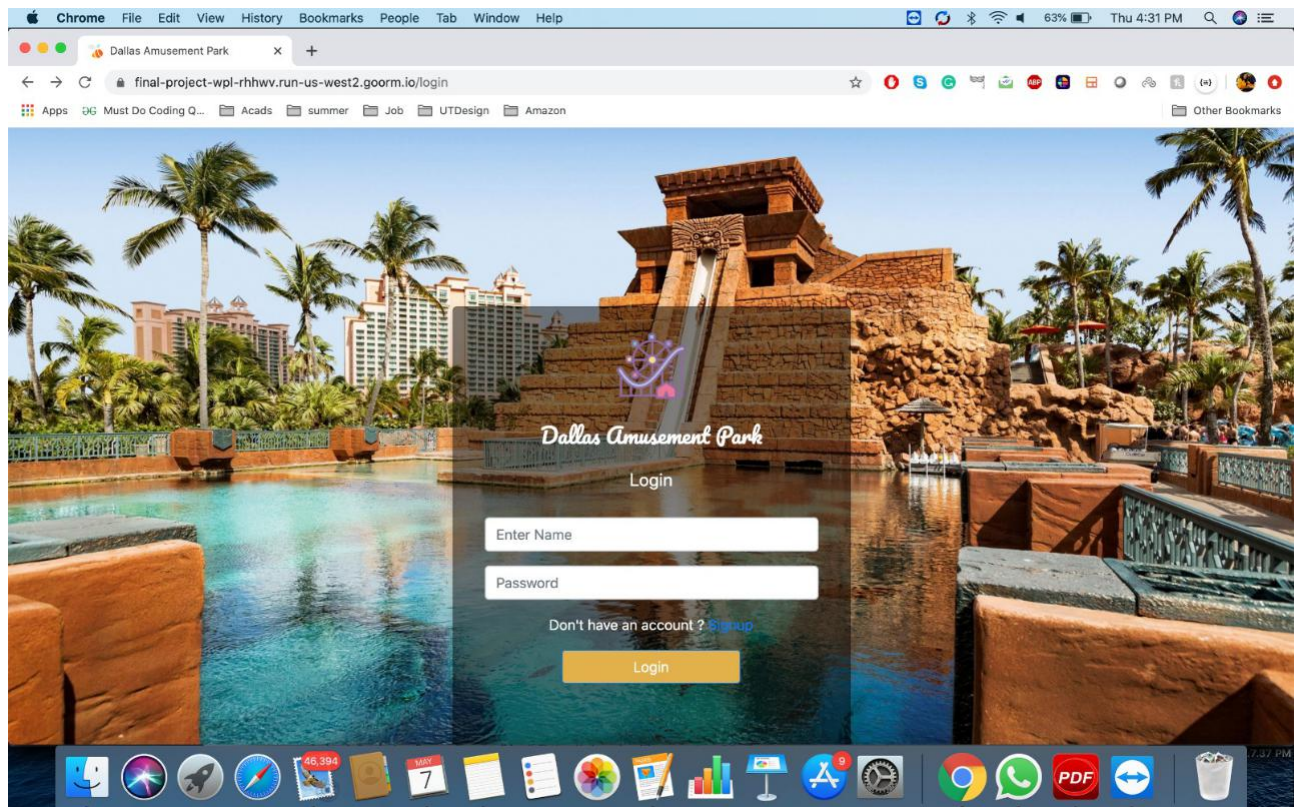
```
var Order = new Schema({  
    user_id: String,  
    total_price: String,  
    currency: String,  
    cart_list: [ String ]  
});
```

4. Cart :

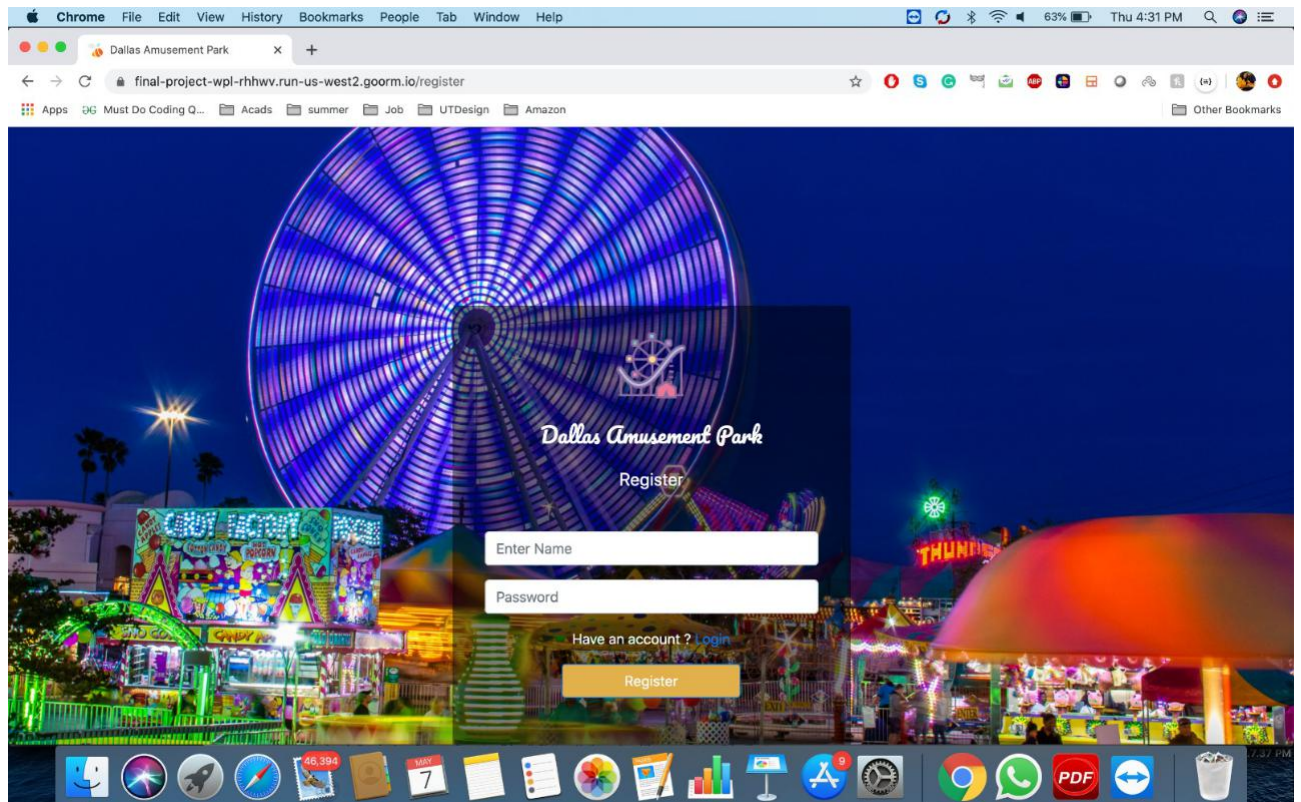
This table contains details of the cart.

```
var Cart = new Schema({  
    user_id: String,  
    item_id: String,  
    is_deleted: String,  
    quantity: String  
});
```

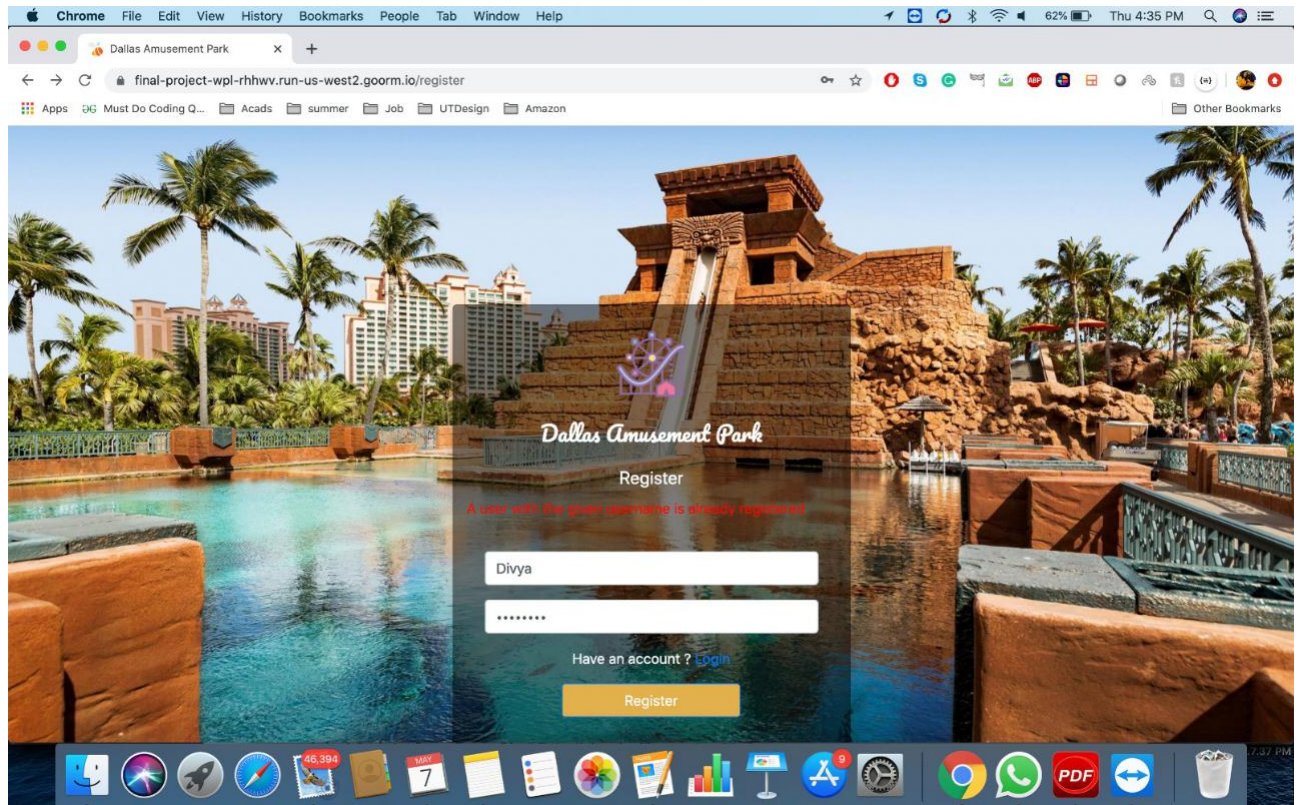

Home Page/Login Page



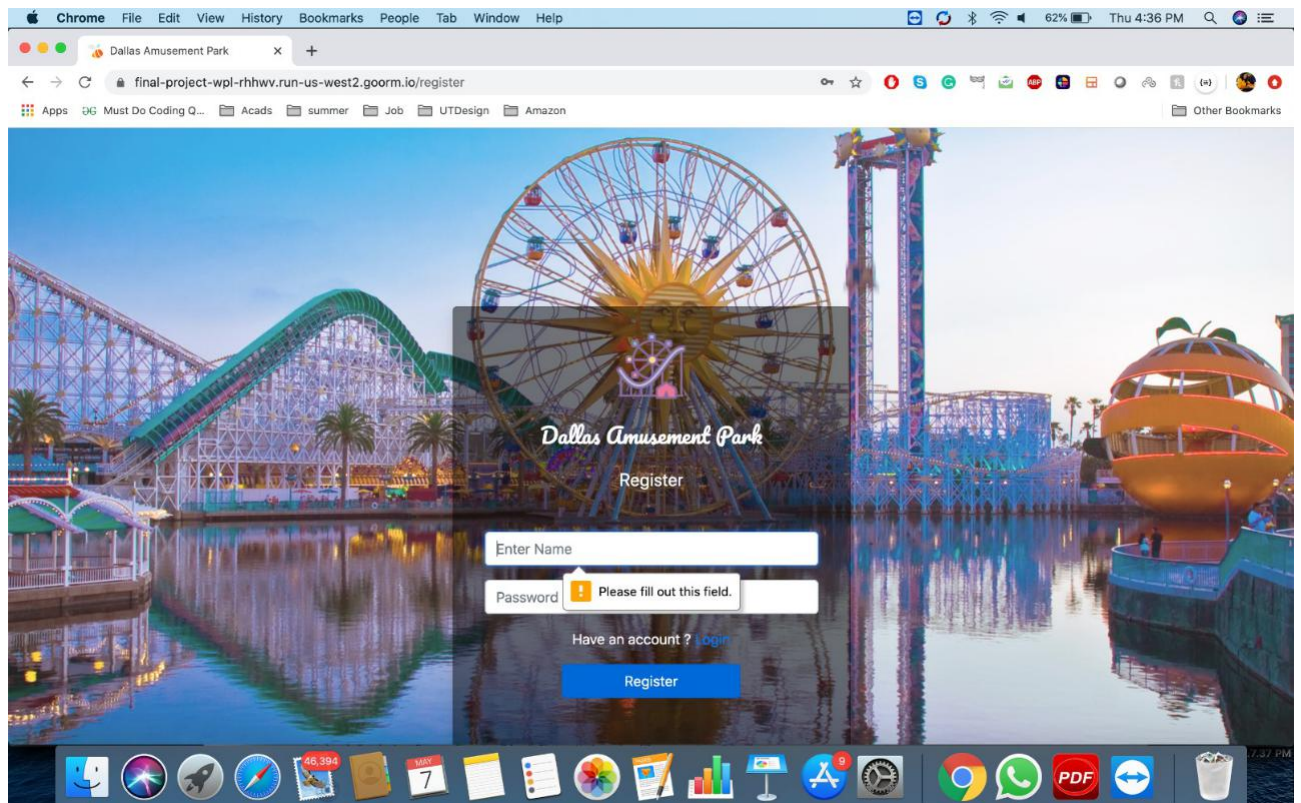
Register Page



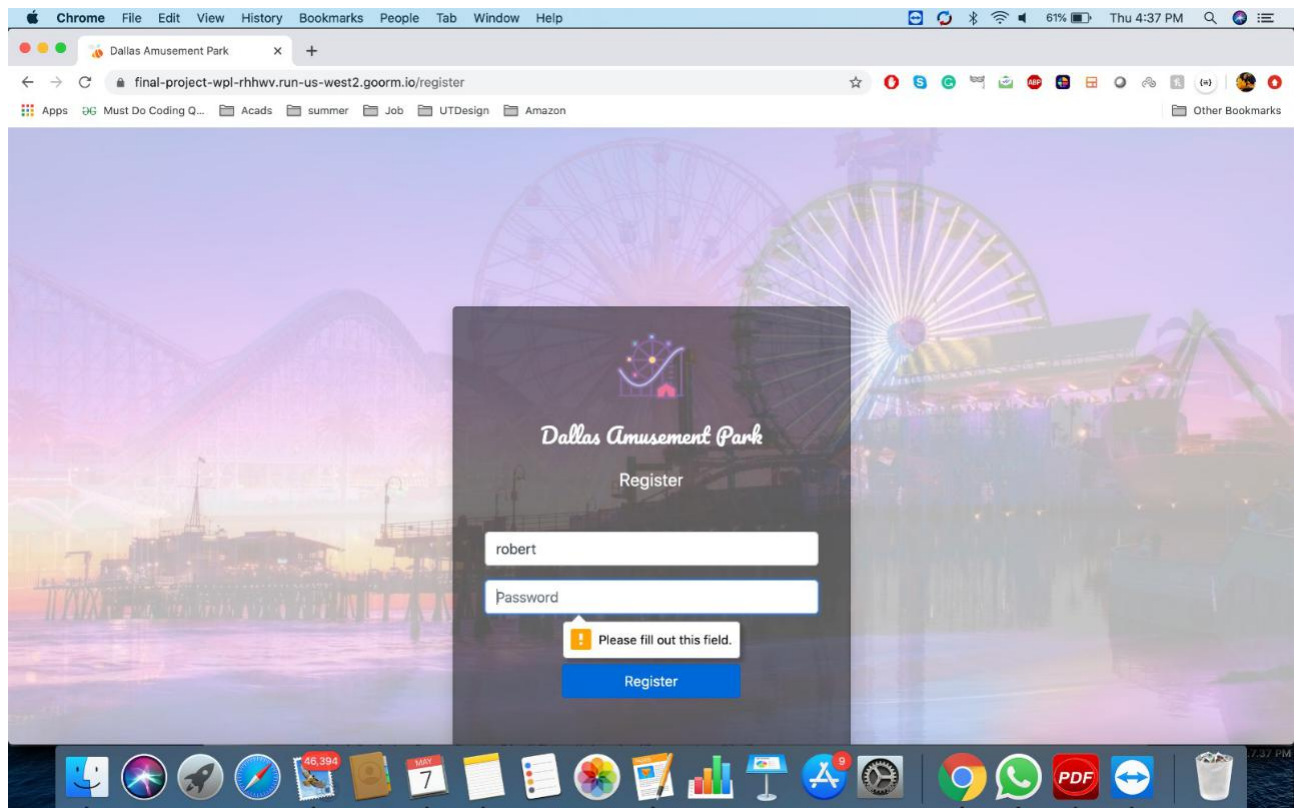
Register with Existing Username



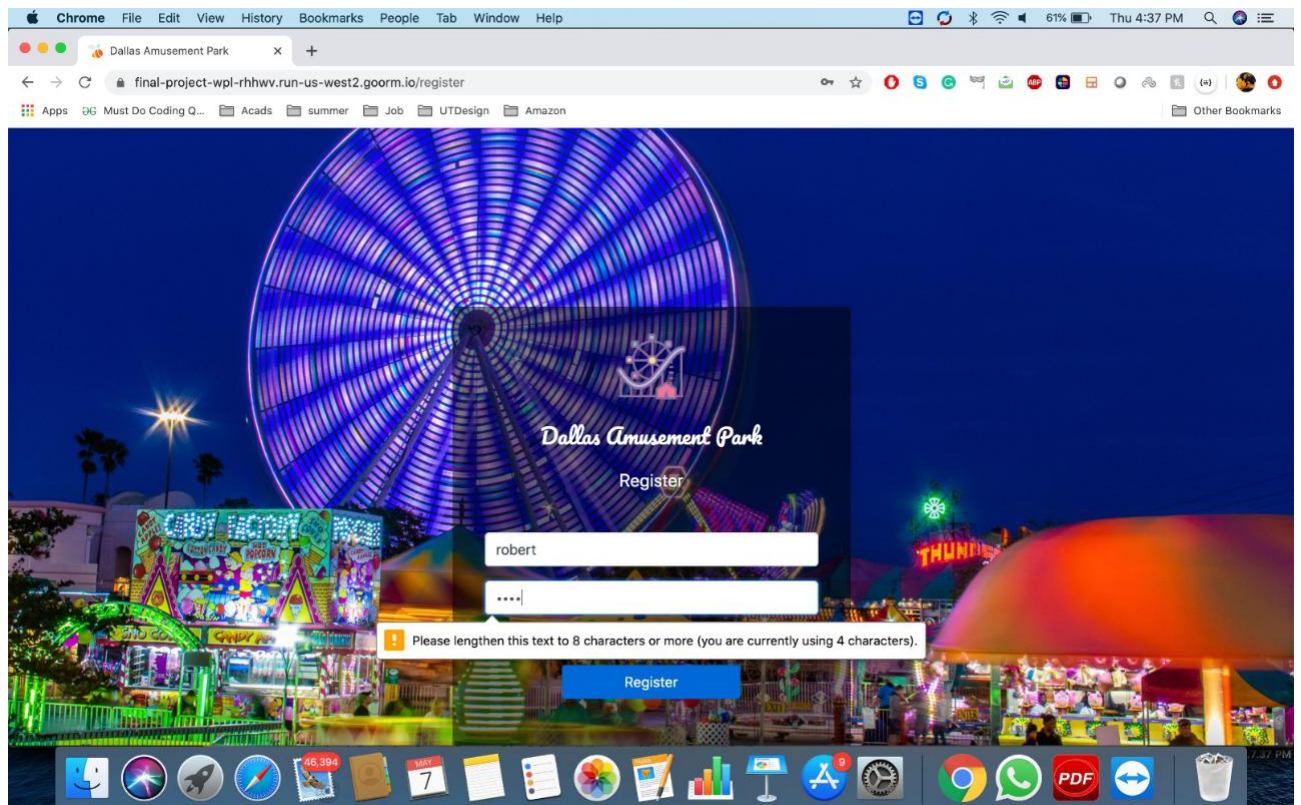
Validation for Empty Username



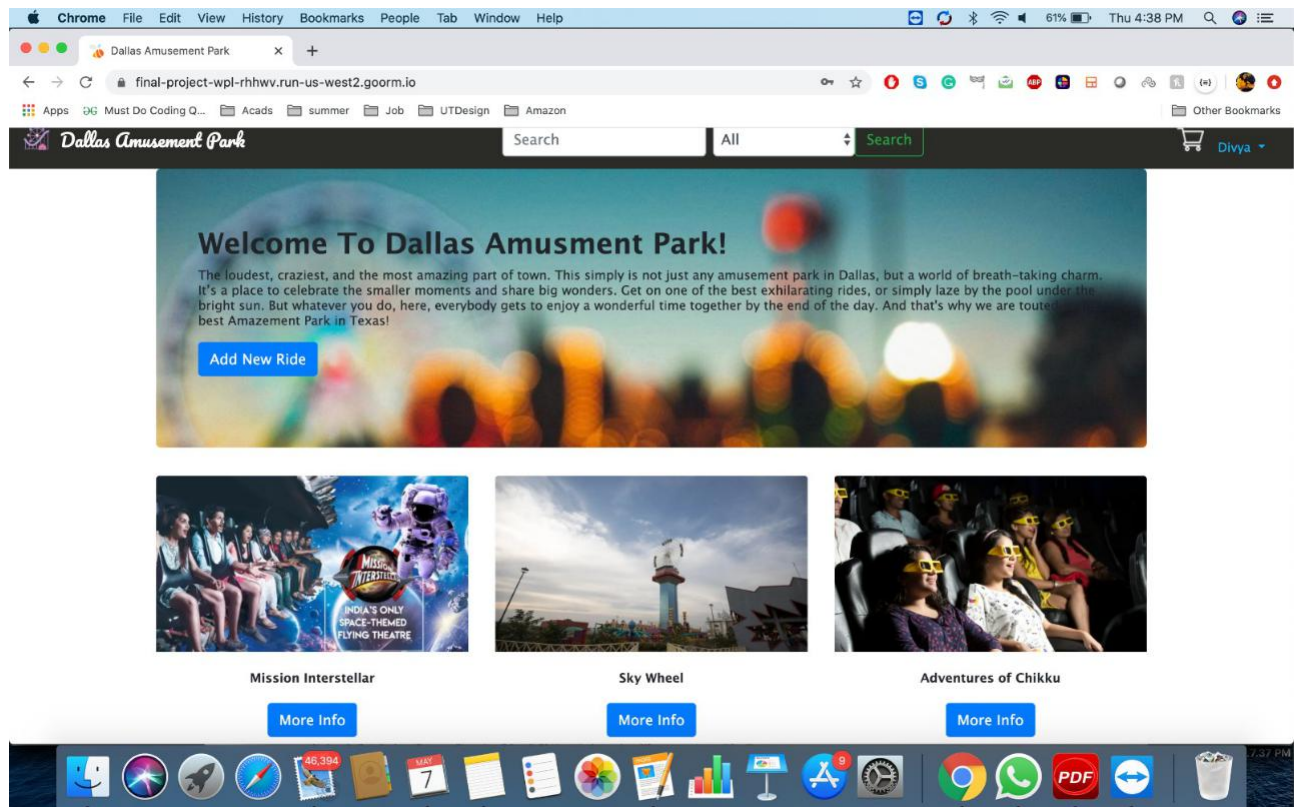
Validation for Empty Password



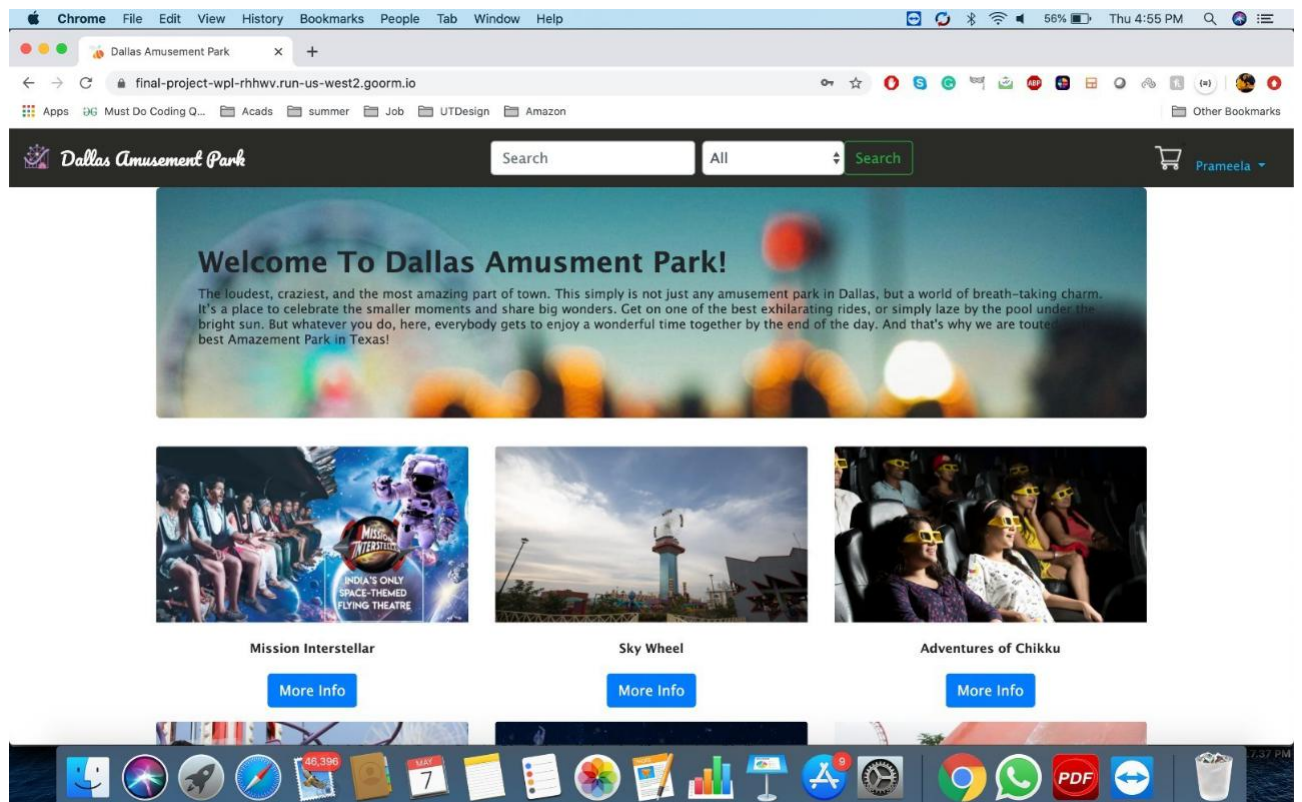
Validation for Password Length



Index Page For Admin



Index Page for Visitors



Admin Functionality - Add New Ride

The screenshot shows a web browser window with the URL `final-project-wpl-rhww.run-us-west2.goorm.io/items/new`. The page header includes the 'Dallas Amusement Park' logo, a search bar, and a user profile 'Divya'. The main heading is 'Create a New Ride'. The form contains the following fields:

- Title
- Image
- Description
- Select Ride Type (dropdown menu)
- Price Currency (USD)
- Price Value
- Submit! (blue button)
- Go Back (link)

The macOS dock at the bottom shows various application icons, including Safari, Photos, Mail, and Google Chrome.

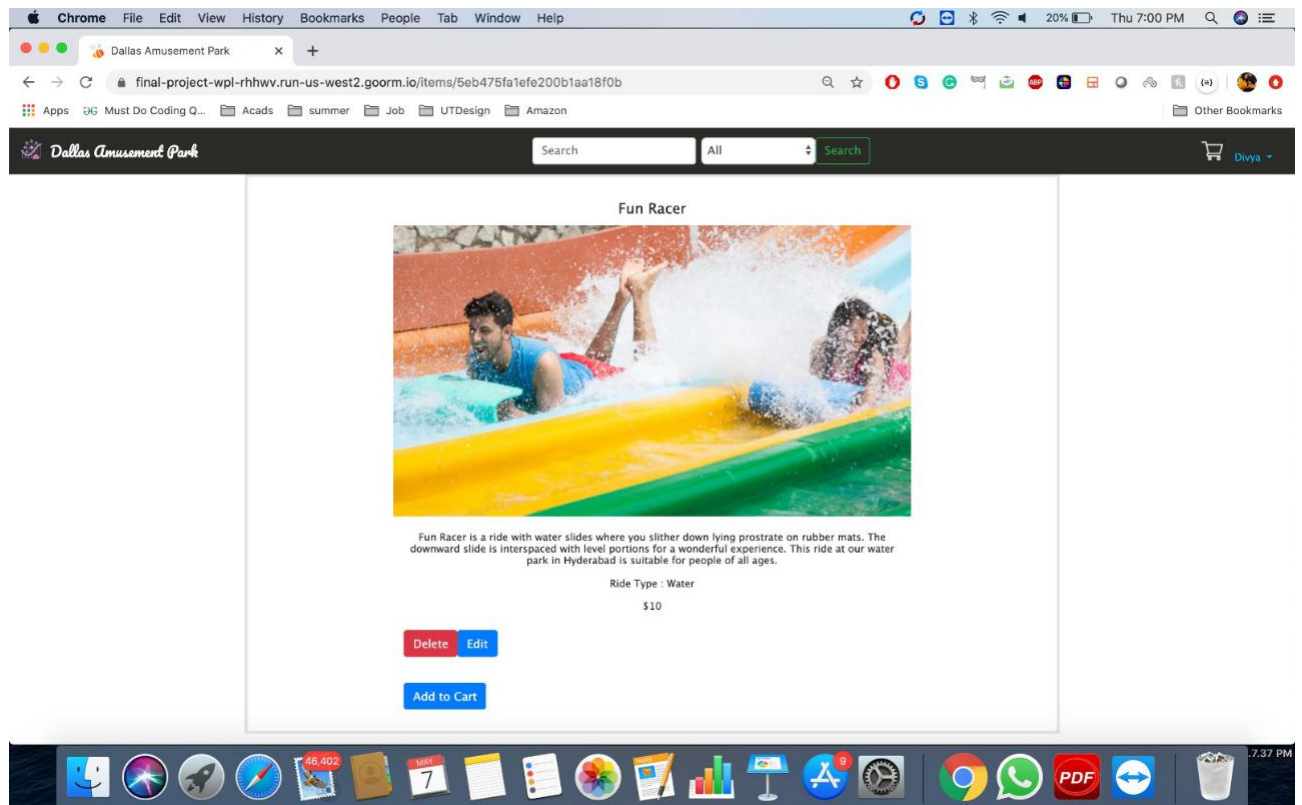
Admin Functionality - Edit New Ride

The screenshot shows a web browser window with the URL `final-project-wpl-rhww.run-us-west2.goorm.io/items/edit/5eb475fa1efe200b1aa18f0b`. The page header is identical to the previous screenshot. The main heading is 'Edit Item'. The form contains the following fields:

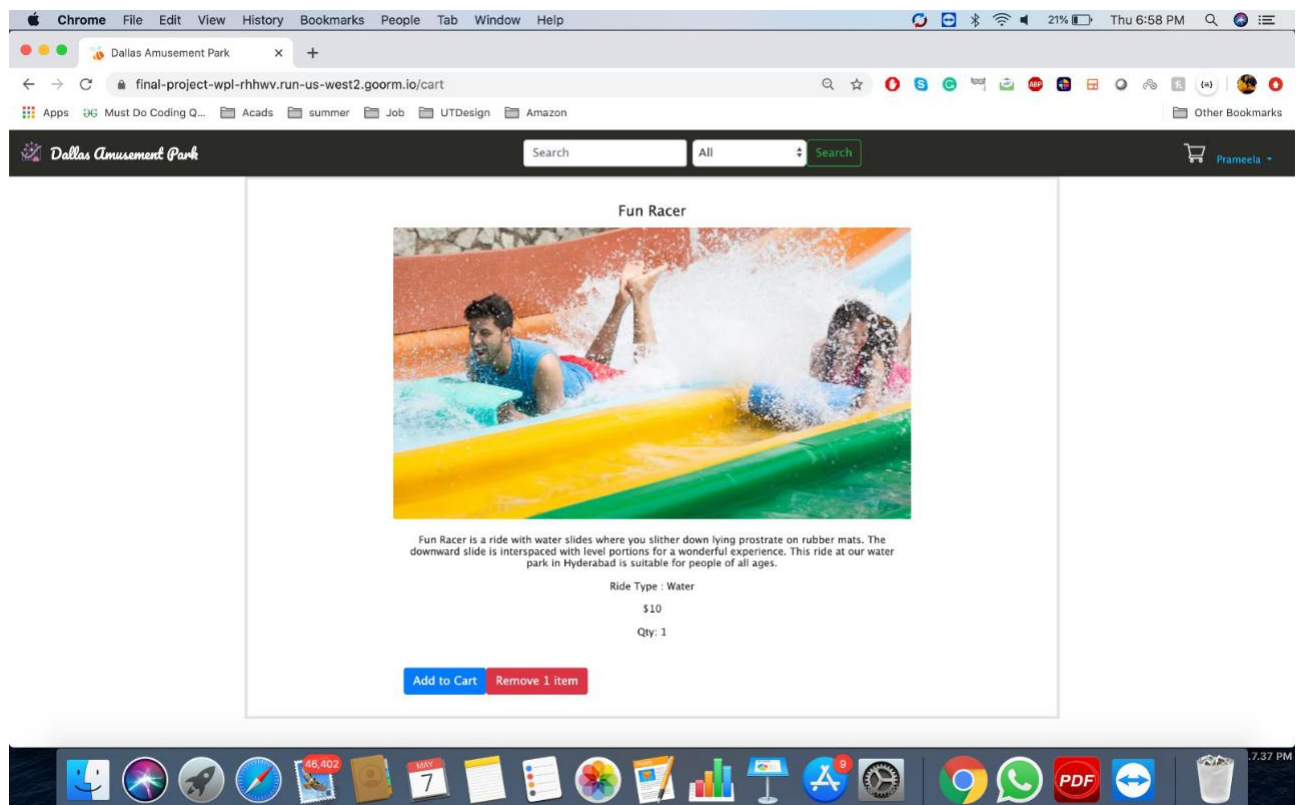
- Image URL: `https://res.cloudinary.com/simplotel/imag`
- Fun Racer
- Description: Fun Racer is a ride with water slides where you slither down lying prostrate
- Water Rides (dropdown menu)
- USD
- 10
- Submit! (blue button)
- Cancel (link)

The macOS dock at the bottom shows various application icons, including Safari, Photos, Mail, and Google Chrome.

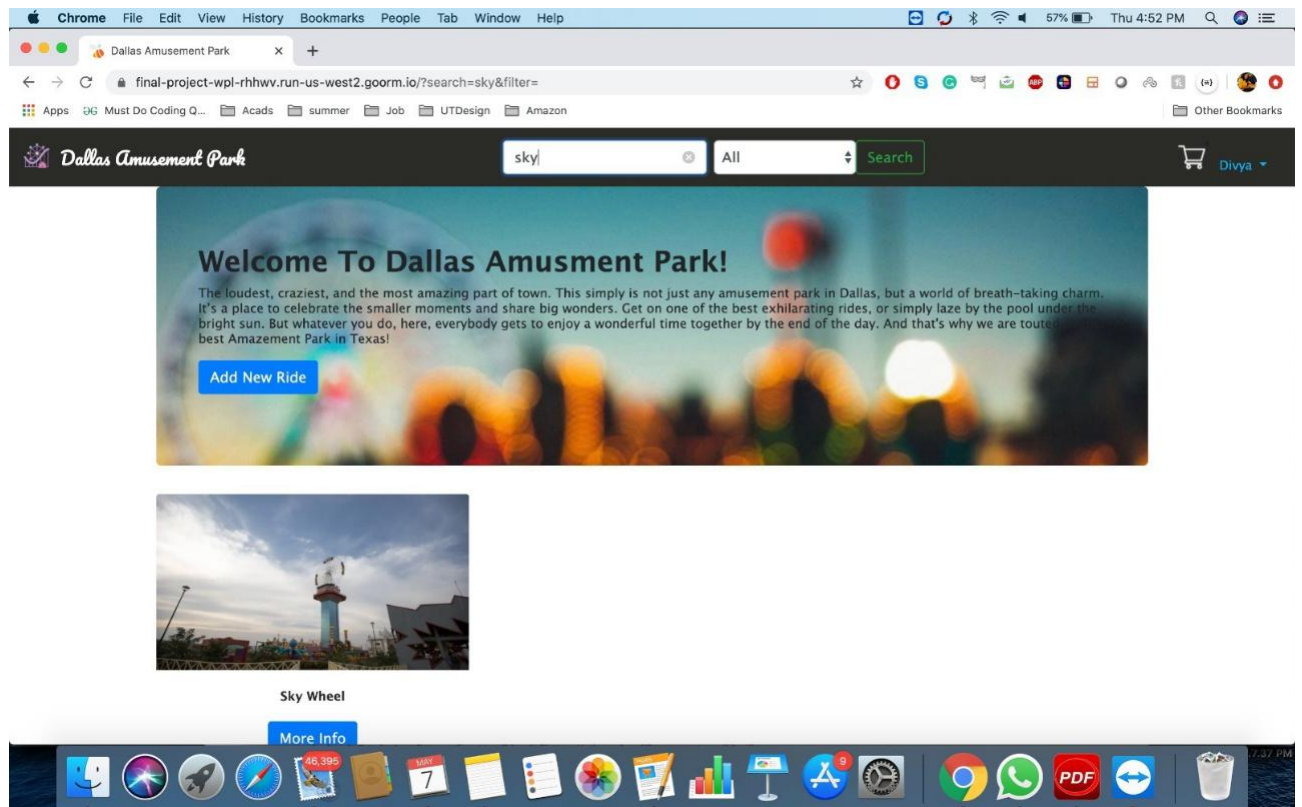
More Info Page For Admin



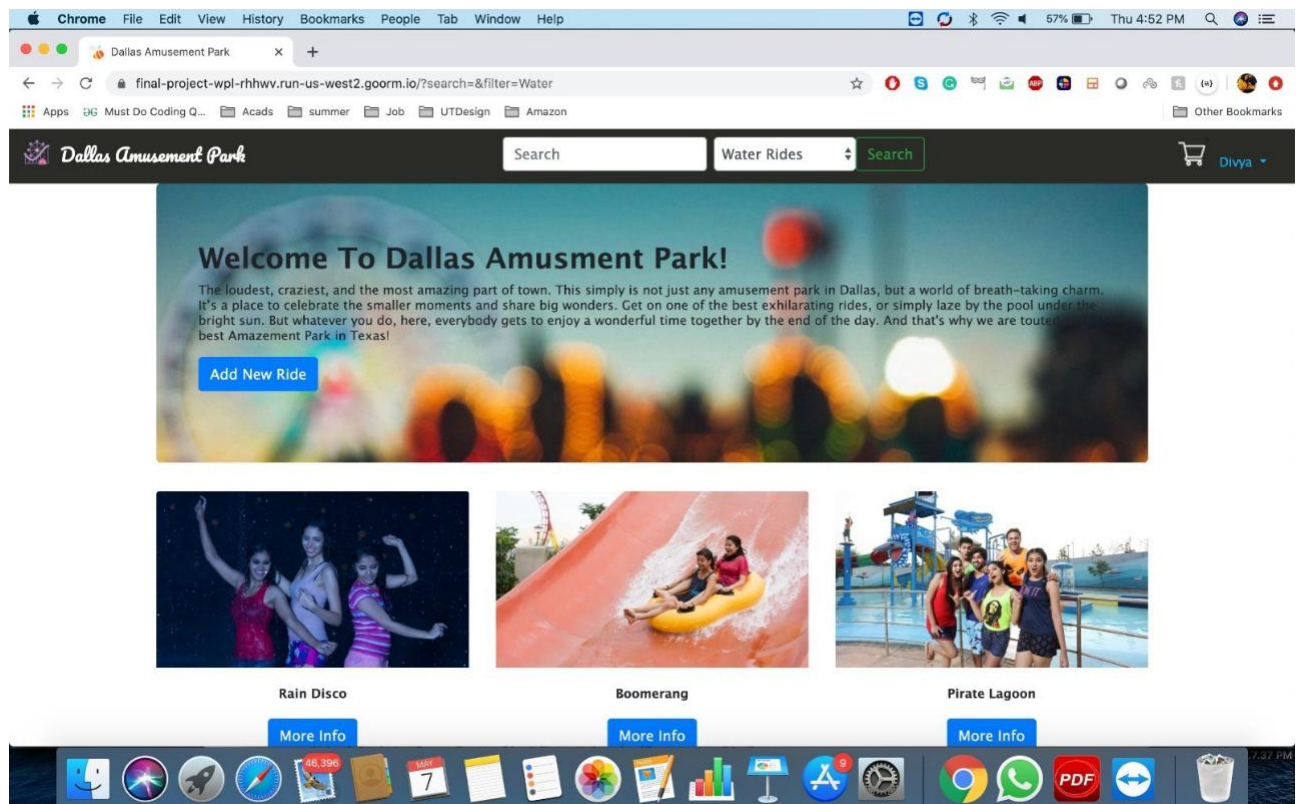
More Info Page for Visitors



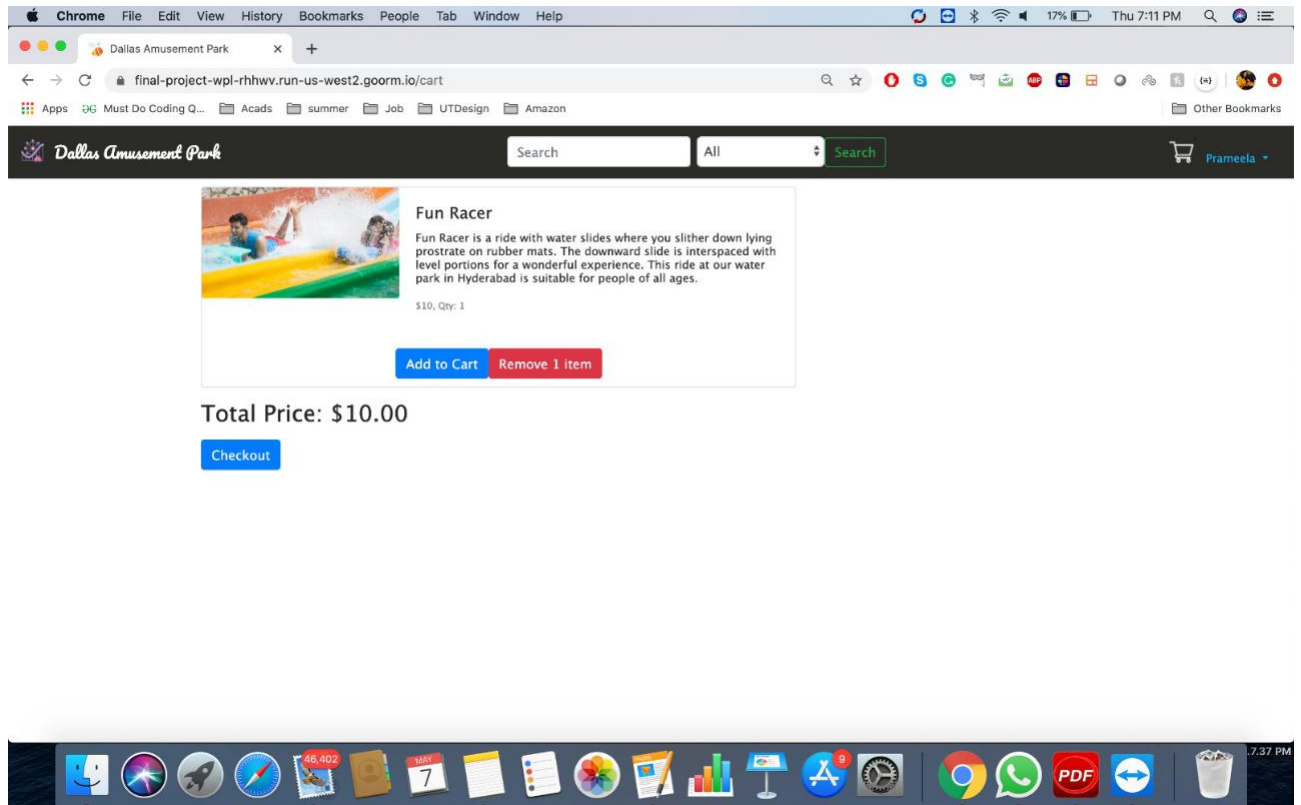
Search Results



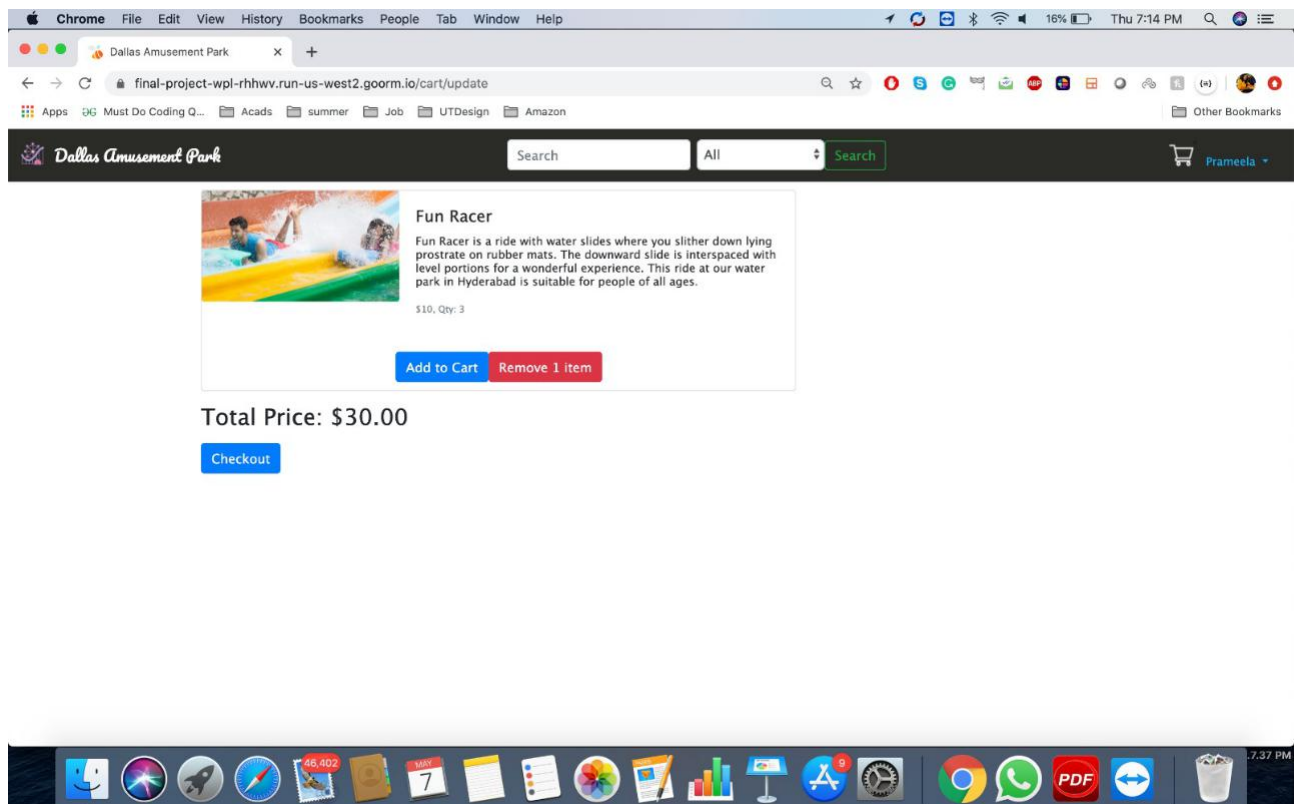
Filter Results



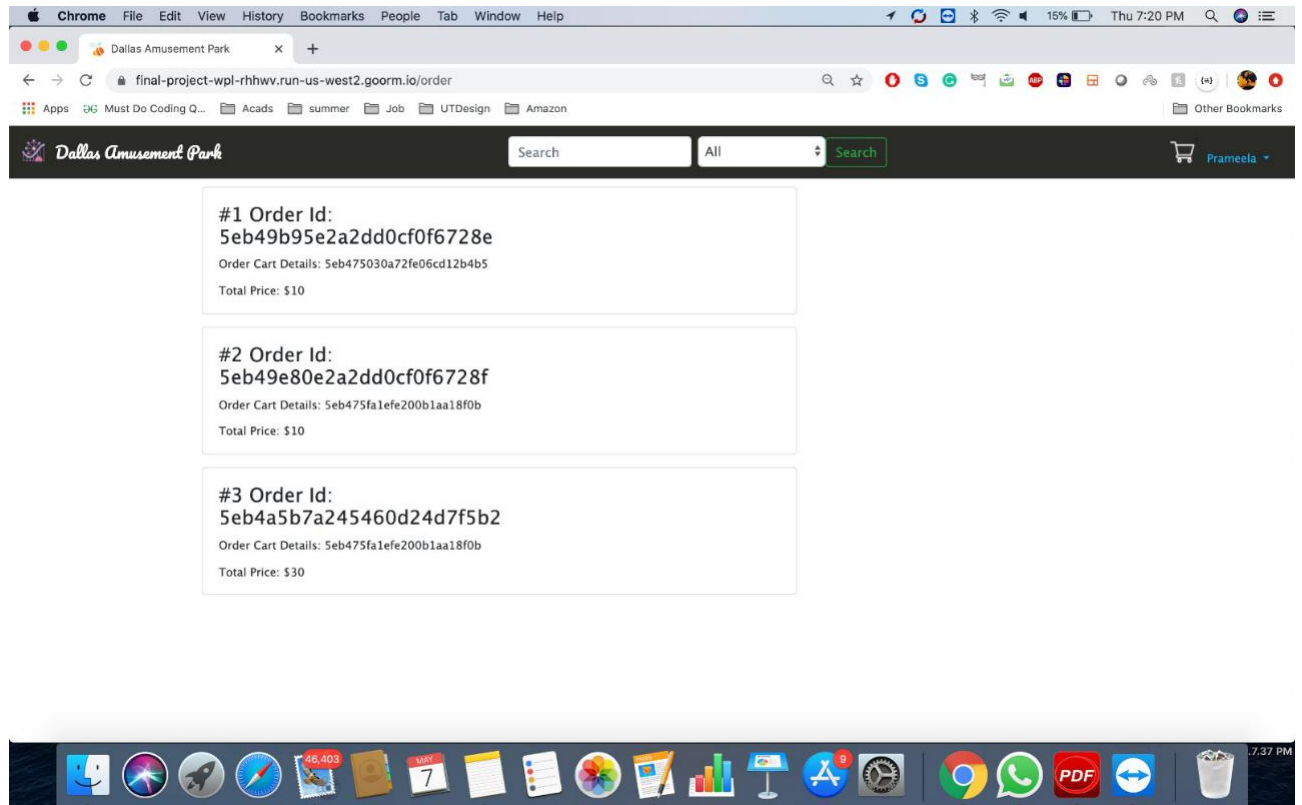
Cart Page



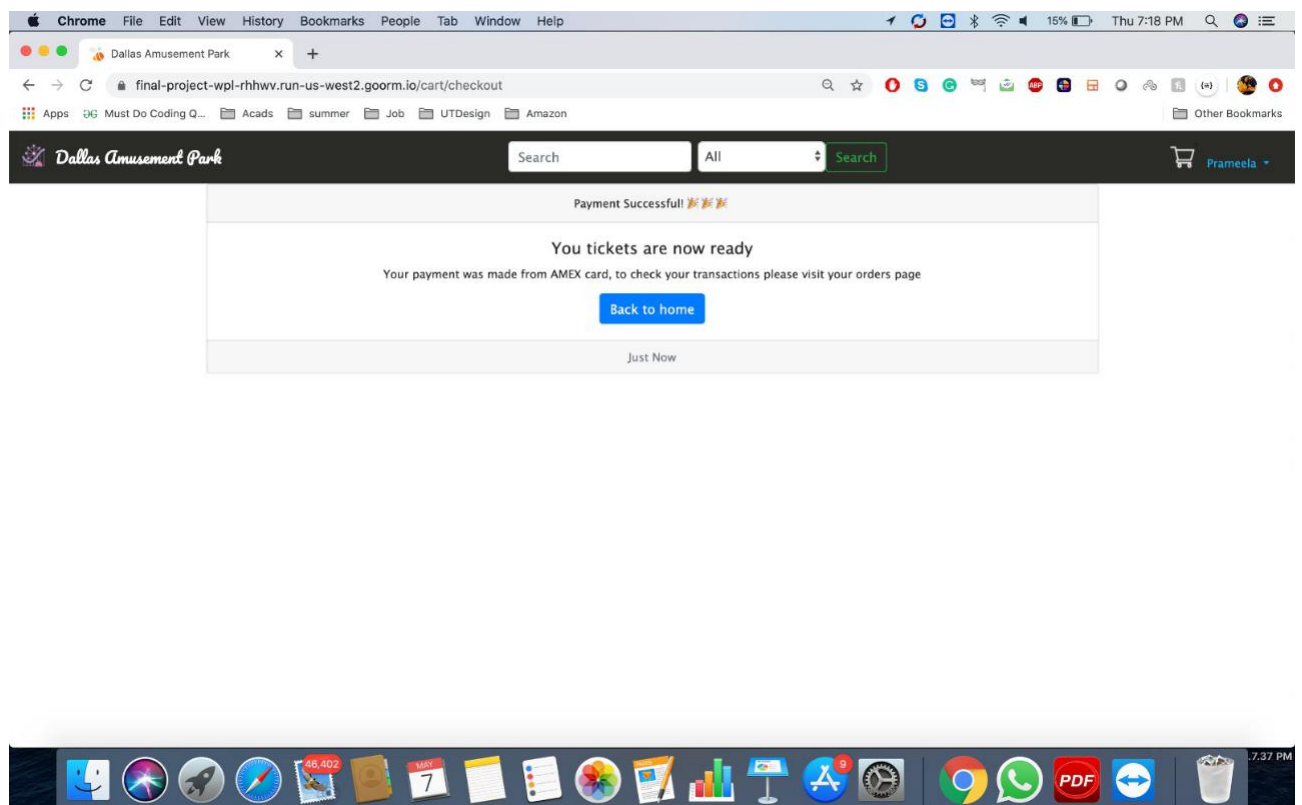
Modify Options in Cart Page



Order History Page



Checkout Page



Work Division and Contribution

All the members of our team are involved in design and architecture of each page and Database of the project. In particular,

- Divya Eluri – Index Page, Admin Functionalities, Purchase History, Cart
- Prameela Parasa – Login/Register Page, Index Page, Ride Details Page, Purchase History.
- Siddhartha Kasturi – Login/Register Page, Admin Functionalities, Ride Details Page, Cart