

CompE561 Final: Brainstorming and Work

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Title: ASP.NET Core Razor Pages Yosemite Fishing Rental Web App

Ideas

- Dog Grooming Parlor or Shop
- Online Store
- Rental Service
- Game Website
- Tournament Website
- Forum Website (i.e. Reddit/game forums)
- Outdoors/Hiking Logger

We decided to go with Yosemite Fishing Rental (we like Yosemite and fishing) because while an online shop or storefront is cool, we thought it would be difficult to implement a shopping cart, nested pages for products and images, and pricing or taking customer money. A rental service website can serve as a location for both potential renters and people who work at the rental shop to organize products or inventory.

Information – Yosemite Fishing Rental

- Home Page
- About
- Contact
- Products
- Rentals
- Customers
- Users
- Discussion Board

Home Page: first thing both workers and customers see, basically an advertisement for the rental service

About: tells about the website and how to use it, also general information about the business

Contact: contact information and links

Products: a database of products where customers can go to see what they can rent, should be available to both customers and workers, but only workers can create or delete records

Rentals: basically a list of all orders or “rentals” only accessible by workers, logs all rentals and customer info. (possibly)

Customers: a customer table with things such as customer name, ID, and email/phone

Users: maybe a backend database to manage users signing up on the website (only needed if there's a forum or discussion board?)

Discussion Board: TOO HARD

After thinking about our options for different pages, we decided to obviously include a home page, about page, and contact page. As we felt the users was too hard to implement after trying to go through the ASP.NET tutorial for user authentication, we scratched the users and discussion board pages. In a production app, we most likely would have a customers table, but decided to just merge this with the rentals table to make it simpler with a better chance of us getting a working and clean application.

Also, we decided to add a "Files" page so that workers can upload files such as fliers or waivers for the business. We didn't implement actually like posting these to a page, but the idea is there.

The authentication for users is just the basic thing included in the authentication tutorial. You can sign up, login, and log out, and we implemented some password requirements and stuff, but it isn't fleshed out to actually integrate with page permissions or anything.

Final Design

- Home page
- About
- Products
- Rentals
- Files
- Contact
- *User sign up, login, and log out (see explanation above)*

Tables

Note: datatypes included, not-nullable (NN) or nullable (N), keys noted

- Products

Products Table
Product ID (int) (NN) (PK)
Product Name (string) (NN)
Product Description (string) (N)
Rent/Purchase (enum? – yes or no) (N)
Price (decimal – money) (N)
Rental Period (int) (N)
Quantity (int) (N)

- Rentals

Rentals Table

Rental ID (int) (NN) (PK)
Product ID (int) (NN) (FK)
Customer First (string) (NN)
Customer Last (string) (NN)
Customer Email (string) (N)
Customer Phone (string) (N)
Rental Date (DateTime) (N)
Rental Paid (enum? – yes or no) (NN)

Each product has a one-to-many relationship with rentals in the rentals table. In other words, a product must exist to be included as a part of a rental as it is a foreign key constraint, and one product can have multiple rentals associated with it.

The product and rental ID numbers are primary keys and are available to be seen by users as it is inventory keeping logged on paper. The ID numbers are not generated by the system in this case.

We put as much product information as we could think of and added all customer information to the rentals table for simplicities sake. It still makes sense as all rentals have a customer associated with them.

Additional Features

1. The Home page includes a carousel with different images and text.
2. The About page includes links, images, and a YouTube video.
3. All pages are color coordinated.
4. The Files page includes both uploading and deleting file functionality, along with error messages for wrong file type, file size, etc.
5. The Products page includes creation, deletion, and updating, as well as detail information for each record. You can search by product ID or name by typing and searching in the search field. You can filter by product ID or name by selecting the highlighted table headers. The list is paginated by 3 records per page (could be increased for non-test data). Test data is seeded.
6. The Rentals page includes creation, deletion and updating, as well as detail information for each record. You can search by rental ID or customer last name by typing and searching in the search field. You can filter by rental ID or customer last name by selecting the highlighted table headers. The list is paginated by 3 records per page (could be increased for non-test data). Test data is seeded.

Closing Information/Remarks

We have made a considerable effort to make the app something that we are proud to display or showcase. It is clean and presents well aesthetically and while it definitely isn't up to production standards, it includes some cool features and would make sense for a mom-and-pop rental service. Effort has been put into the tables to make them logical and the additional features added to them have been catered towards how the business would be run.

If we had more time/experience, we would want to add user authentication for different page access. This is the main feature of our website that needs to be much better to work like a normal website. As we tried to integrate this and it was breaking the app, it didn't make sense to include it as the app stands by itself as making a good impression of the exercise.