

# Media Rental Software



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# Description of the Problem

# The Problem

- Poor media service rental market that needed to be filled
  - Options are usually either movies or video games or one specific media type
  - Multi-solution platform with lack of consolidation of medias



# Explanation of the Application

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- Create your own account secured by a username and password
- Browse a diverse marketplace comprised of both films and video games for rent
- Create your own cart and checkout media within an instant
- View your previous transactions and return media to be available again
- Employees get their own types of accounts to where they can add or remove media from the marketplace

# Functionality & Architecture of Application

## Functionality

- Sign up/Sign in
- Home Page
- Navigation Bar
- Search
- Cart
- Edit Profile
- Checkout
- Returns
- Employee List/Editor
- Manage Inventory
- Update Employees

## Tech Stack

TypeScript & React  
Framework | MaterialUI -  
Front End

Python | PyMySQL |  
FastAPI | Pydantic - Back  
End

MySQL - Database

# Major Design Decisions

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- Authentication via tokens with Auth table
- Hashed passwords
- Each media is unique
- Different abilities and features based on role
- Usernames are unique
- Search by Title



**Demo Time!**

# Challenges/Future Outlooks

# Challenges

- **Learning a new tech-stack**
- Being able to handle many tables that depend on each other
- Design aspects of front-end/back-end
- Type-Checking our API calls

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# Future Outlooks

## Quality of Life Changes

- Improve searching function
  - Filtering searches by genre
  - More searching options
- Support team/Support tickets
- Dark Mode Theme

## Major Design Changes

- Deployment on World Wide Web
  - CloudFlare, AWS, Google Cloud
- Implementation of Unit Testing
- Add further media types, music
- Mobile Application
- Machine Learning Algorithm for recommendations
- AI implementation
- More Triggers