Project: Toy store E-commerce application

* Guest Browsing:
  + When users open the application, they can freely browse the available toys without needing to create an account or log in.
  + They can view product details, images, descriptions, prices.
* Login Prompt on Cart Addition:
  + When a user tries to add an item to their cart, prompt them to log in if they haven't already done so.
  + Redirect them to the login page where they can log in or register as a new user.

**Login Page:**

* Login Form:
  + Username/Email: Input field where users can enter their username or email address.
  + Password: Input field for users to enter their password.
  + Login Button: Button to submit the login credentials.
  + "Forgot Password?" Link: Link to initiate the password reset process. When clicked, users should be prompted to enter their email address. After submitting their email address, a password reset link will be sent to their email.
* User Login:
  + Additional options for "First Time User" and "Already Existing User" should be included. You can implement this using radio buttons or a dropdown menu.
  + If a user selects "First Time User," provide instructions or a link to register for a new account.
  + If a user selects "Already Existing User," they proceed with regular login.
* Administrators Login:
  + Provide separate fields for administrators to enter their credentials (e.g., username and password).
  + Include options for "Owner" and "Employee" login types using radio buttons or a dropdown menu.
  + Depending on the selected login type, validate the credentials and redirect users to the appropriate dashboard or control panel after successful login.
* Error Handling:
  + Display appropriate error messages if the user enters incorrect credentials or encounters any other issues during the login process.
* Navigation Links:
  + Include links to the home page, registration page (for new users), and any other relevant pages.

**Home Page(user side):**

* A page will be created and that is the same in all pages when we navigate to other pages, the ui will be the same as the home page, just we change links on that page.
* Header Section:
  + Company Logo: Positioned on the upper left side, linking back to the home page.
  + Navigation Bar:
    - Home: Direct link to the home page.
    - Shop: Link to the main shop page where users can browse all available toys.
    - Cart: Link to the cart page, displaying the total number of items in the cart.
    - Account: Icon or name, allowing users to access account-related options such as Profile, Purchase History, Wishlist, and Sign Out.
* Categories Section:
  + Positioned directly below the header section.
  + Display categories arranged in four columns.
  + Each category is represented by a circular image with the name of the category below it.
  + Clicking on a category image redirects the user to the same page, displaying toys of that category.
  + Include an additional option "View All" to allow users to browse all available toys.
    - Categories: Action Figures, Dolls, Stuffed Animals, Building Blocks and Construction, Sets, Puzzles, Board Games, Card Games, Educational Toys, Arts and Crafts, Outdoor Toys
* Footer Section:
  + Include footer content such as contact information

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**Account page**

1. Profile Page:

- User Information: Display the user's profile details such as name, email, multiple shipping address, and contact information.

- Edit Profile: Allow users to update their personal information, including changing their password and updating their contact details.

- Order Preferences: Provide options for users to manage their communication preferences, such as opting in or out of newsletters and promotional emails.

- Security Settings: Allow users to manage security-related settings, such as enabling two-factor authentication or changing security questions.

2. Purchase History Page:

- Order History: Display a list of the user's past orders, including order date, order ID, purchased items, total cost, and current status (e.g., processing, shipped, delivered).

- Order Details: Allow users to view detailed information about each order, including individual product details, quantities, prices, and shipping information.

- Order Tracking: Provide links to track orders through shipping carriers' websites, if applicable.

- Reorder Option: Enable users to quickly reorder items from their purchase history with a single click.

3. Wishlist Page:

- Saved Items: Show a list of products that the user has added to their wishlist for future reference or purchase.

- Product Details: Display detailed information about each item in the wishlist, including images, descriptions, prices, and availability.

- Wishlist Management: Allow users to add or remove items from their wishlist, as well as organize items into categories or tags for easier browsing.

- Share Wishlist: Provide options for users to share their wishlist with friends or family via email or social media.

**Cart Page**

1. Cart Items: Display a list of products added to the cart, including images, names, quantities, prices, and subtotal for each item.
2. Item Options: Provide options to adjust quantities, remove items from the cart, or continue shopping.
3. Cart Summary: Show the total number of items in the cart, the subtotal (before taxes and shipping), any applicable discounts or promotions, and the total order amount.
4. Checkout Button: Include a prominent button to proceed to the checkout process.
5. Continue Shopping: Offer a link or button to allow users to return to the home page or continue browsing products.
6. Shipping Information: If applicable, provide fields for users to enter shipping information such as address, contact details, and preferred shipping method. Or else he can select from available shipping addresses from a drop down which are mentioned in the profile page.
7. Coupon Code: Allow users to apply coupon codes for discounts if you offer this feature.
8. Estimate Shipping and Taxes: Provide an option for users to estimate shipping costs and taxes before proceeding to checkout.
9. Promotional Messages: Use this space to display any relevant promotional messages, such as free shipping thresholds or special offers for increasing cart value.

**Check Out page:**

* Order Summary Section:
  + Display a summary of the items in the user's cart, including product names, quantities, prices, and subtotal.
  + Show the total order amount, including any taxes or shipping fees.
  + Provide an option to edit the cart or return to the previous page if needed.
* Shipping Information Form:
  + Input fields for users to enter their shipping details, including:
    - Full Name
    - Shipping Address (Street Address, City, State/Province, ZIP/Postal Code, Country)
    - Contact Number
    - Shipping Method (e.g., Standard Shipping, Expedited Shipping)
* Payment Information Section:
  + Depending on your payment processing setup, you can either:
    - Provide input fields for users to enter their payment details (e.g., credit card number, expiration date, CVV).
    - Redirect users to a third-party payment gateway for secure payment processing.
  + Include checkboxes or radio buttons for users to select payment options (e.g., credit/debit card, PayPal, etc.).
  + Ensure that the payment form is secure and complies with PCI-DSS standards if handling sensitive payment information.
* Order Review Section:
  + Allow users to review their order details, including items, shipping address, and total amount.
  + Provide a summary of any applicable taxes, shipping costs, and discounts.
  + Include a checkbox for users to agree to the terms and conditions before proceeding.
* Proceed to Payment Button:
  + Once users have reviewed their order and entered their shipping and payment information, provide a prominent button to proceed to payment.
  + Ensure that clicking this button triggers the necessary actions to securely process the payment and complete the order.
* Order Confirmation:
  + After successful payment processing, display a confirmation message to the user, including order details such as order number, estimated delivery date, and any relevant instructions.
  + Provide options for users to print or save a copy of their order confirmation for their records.
  + Include links or buttons to return to the home page or view their order history.

**Product Details page**

* Product Detail Page:
  + Each product on your website will have its own unique URL in the format /product-name, where product-name is a slug representing the product.
  + When a user clicks on a product, they are directed to the corresponding product detail page.
  + On this page, display detailed information about the product, including:
    - Product name
    - Description
    - Images
    - Price
    - Availability
    - Add to Cart button
    - Add to Wishlist button
  + Include any additional information or specifications about the product.
  + Provide options for users to add the product to their cart or wishlist directly from the product detail page.
* Routing:
  + Implement routing logic in your application to handle requests to /product-name.
  + Retrieve the corresponding product data from your database or backend server based on the product name in the URL.
  + Render the product detail page dynamically with the fetched product data.
* Add to Cart/Wishlist Functionality:
  + When a user clicks the "Add to Cart" button, add the selected product to their cart.
  + If the user is not logged in, prompt them to log in or register before adding the product to their cart.
  + Similarly, when a user clicks the "Add to Wishlist" button, add the product to their wishlist.
  + Provide visual feedback to the user confirming that the product has been added to their cart or wishlist.
* Responsive Design:
  + Ensure that the product detail page is responsive and displays properly on various devices, including desktops, tablets, and smartphones.
  + Optimize images and content layout for better readability and user experience across different screen sizes.

**Admin Page**

* Flask Backend:
  + Implement authentication for admin users and regular users separately. Admin authentication might involve an additional step, such as verifying admin credentials and assigning appropriate roles.
  + Define routes and endpoints for admin functionalities such as managing employees, assigning roles, and accessing employee data.
  + Implement RBAC middleware to restrict access to certain admin functionalities based on the role of the logged-in admin user.
  + Create endpoints for CRUD operations on employees, roles, and permissions.
  + Ensure that only admin users with the appropriate permissions can access and modify employee data and roles.
* React Frontend:
  + Design and implement UI components for the admin page, including features such as managing employees, roles, and permissions.
  + Use React Router to create routes for different admin functionalities and pages.
  + Implement forms and input fields for adding, editing, and deleting employees, roles, and permissions.
  + Fetch employee data from the backend using API requests and display it in tables or lists.
  + Implement role-based access control in the frontend to hide or disable certain features based on the logged-in admin user's role and permissions.
  + Provide feedback to admin users on successful or failed operations, such as adding a new employee or updating a role.
* RBAC Implementation:
  + Define roles and permissions for admin users and regular users. For example, admin roles might include "Owner" and "Employee," with corresponding permissions such as "Manage Employees," "Manage Roles," and "View Reports."
  + Ensure that only users with the appropriate roles and permissions can access certain functionalities. For example, only admins with the "Owner" role may have access to all admin functionalities, while admins with the "Employee" role may have limited access.
  + Implement RBAC middleware in your Flask backend to enforce access control rules based on the logged-in user's role and permissions.
  + Use RBAC logic in your React frontend to conditionally render UI elements and restrict access to certain pages or features based on the logged-in user's role and permissions.

**URLS**

* Home Page: https://www.yourtoystore.com/
* Login Page: https://www.yourtoystore.com/login
* Cart Page: https://www.yourtoystore.com/cart
* Checkout Page: https://www.yourtoystore.com/checkout
* Product Details Page: https://www.yourtoystore.com/product/product-name
* Admin Page: https://www.yourtoystore.com/admin
* User Account Pages:
  + Profile Page: https://www.yourtoystore.com/account/profile
  + Purchase History Page: https://www.yourtoystore.com/account/purchase-history
  + Wishlist Page: https://www.yourtoystore.com/account/wishlist