**1. Project Requirements**

**Core Functionality:**

* + **Product Catalog:**
    - Ability to add, edit, and delete products (skateboards, trucks, wheels, bearings, accessories)
    - Detailed product descriptions with high-quality images and videos
    - Product categorization and filtering (e.g., by brand, type, price, size)
    - Inventory management (track stock levels, restocking alerts)
  + **Shopping Cart:**
    - Add products to the cart, view and modify cart contents
    - Calculate and display shipping costs (potentially with real-time shipping quotes)
    - Apply discounts and coupons
  + **Checkout Process:**
    - Secure payment gateway integration (e.g., Stripe, PayPal)
    - Order confirmation and order history for customers
    - Order fulfillment and shipping management
  + **User Accounts:**
    - User registration and login
    - Account management (profile, order history, saved addresses)
    - Guest checkout option
  + **Search Functionality:**
    - Search for products by name, keywords, or attributes
  + **Admin Panel:**
    - Manage products, orders, customers, and inventory
    - View sales reports and analytics
    - Content management system (CMS) for website pages and blog posts

**Non-Functional Requirements:**

* + **Security:**
    - Secure user authentication and data encryption
    - Prevent fraud and protect customer data
  + **Performance:**
    - Fast loading times and responsiveness
    - Scalability to handle increasing traffic and orders
  + **Usability:**
    - User-friendly interface with clear navigation
    - Mobile-responsive design for optimal viewing on all devices
  + **Accessibility:**
    - Ensure website is accessible to users with disabilities

**Technical Requirements:**

* + **Programming Languages:**
    - **Front-end:** HTML, CSS, JavaScript (with a framework like React, Vue, or Angular)
    - **Back-end:** Node.js, Python (with frameworks like Django or Flask), Ruby on Rails, PHP
  + **Database:**
    - Relational database (MySQL, PostgreSQL) or NoSQL database (MongoDB)
  + **Hosting:**
    - Cloud hosting platform (AWS, Google Cloud, Azure) or dedicated server
  + **E-commerce Platform:**
    - Consider using an existing e-commerce platform (Shopify, WooCommerce) if it meets your needs and offers flexibility

**2. Project Structure Overview**

**Front-end:**

* **Components:**
  + ProductCard
  + ProductDetails
  + ShoppingCart
  + Checkout
  + UserAccount
  + Navigation
  + Footer
* **Styles:**
  + CSS files or CSS-in-JS solutions
* **Assets:**
  + Images, videos

**Back-end:**

* **API Endpoints:**
  + Product API (create, read, update, delete)
  + Order API
  + User API
  + Cart API
* **Models:**
  + Product
  + Order
  + User
  + Cart
* **Services:**
  + Authentication
  + Payment processing
  + Shipping
* **Database:**
  + Database schema and migrations

**Admin Panel:**

* **Dashboard:**
  + Overview of key metrics (sales, orders, customers)
* **Product Management:**
  + Add, edit, and delete products
  + Manage inventory
* **Order Management:**
  + View and fulfill orders
* **Customer Management:**
  + View customer information
* **Content Management:**
  + Manage website pages and blog posts

**3. Development Process**

* **Planning and Design:**
  + Define detailed requirements and user stories
  + Create wireframes and mockups for the user interface
  + Choose technology stack and development methodology (Agile, Waterfall)
* **Development:**
  + Front-end development
  + Back-end development
  + Database design and implementation
  + API development and integration
* **Testing:**
  + Unit testing, integration testing, and end-to-end testing
  + User acceptance testing (UAT)
* **Deployment:**
  + Deploy to production server
  + Configure server and database
* **Maintenance and Support:**
  + Monitor website performance and uptime
  + Address bugs and security issues
  + Add new features and enhancements

**4. Key Considerations**

* **Choose the right e-commerce platform or build from scratch:**
  + Evaluate the pros and cons of each approach based on your budget, technical expertise, and project requirements.
* **Prioritize user experience:**
  + Create a user-friendly and intuitive website that is easy to navigate and shop on.
* **Focus on security:**
  + Implement robust security measures to protect customer data and prevent fraud.
* **Optimize for search engines (SEO):**
  + Ensure your website is easily found by potential customers through search engines.
* **Provide excellent customer support:**
  + Be responsive to customer inquiries and provide helpful assistance.

This outline provides a high-level overview of the requirements and structure for your skateboard online shop. The specific details will vary depending on your individual needs and priorities.