PROJECT: - E-COMMERCE APP USING FLUTTER

(TRENDIFY)

Website Report of

Submitted in fulfillment of the requirements for

Mitt ARV

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<u>INTRODUCTION TO THE TOPIC</u>

<u>Purpose</u>

Trendify is a fully functional e-commerce app created using the Flutter framework. It has been tested thoroughly on mobile devices (Android and iOS) and web browsers to guarantee top performance, responsiveness, and ease of use. The app allows users to browse products, manage their shopping cart, and securely complete purchases without any hassle.

Trendify delivers a smooth and user-friendly experience, providing personalized features for logged-in users and making it easy to handle user data efficiently. The app is designed to be scalable, meaning it can grow and handle more users over time, while also being responsive and working perfectly across different devices and platforms.

<u>Scope:</u>

This report focuses on the following important points:

1. **Testing on Android Emulator:**
- Made sure the app runs smoothly on an Android emulator.
- Checked that key features like browsing products, managing the shopping cart, and logging in/out are working correctly.
- Ensured the app's design adjusts well, especially when switching between screens like home, profile, and checkout.
2. **Testing on Chrome Browser:**
- Tested the app on the Chrome browser for desktop users.
- Confirmed that the app looks good and works well on different screen sizes.
- Made sure users can move easily between sections and that product images, descriptions, and buttons are displayed properly
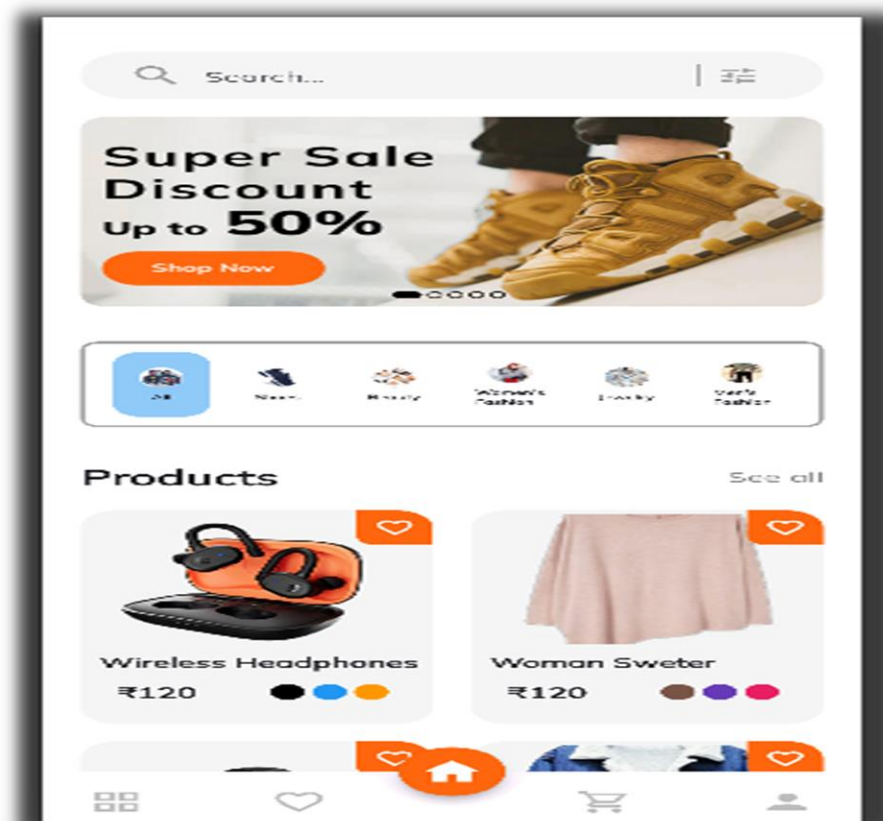
ANDROID EMULATOR TESTING

Objective

To verify that the home screen of the Trendify app loads correctly and presents all necessary elements in an organized and user-friendly manner.

Test Scenarios

1. Home Screen

Description: The home screen should load quickly and display all elements properly. Users should be able to see the product listings, categories, search bar, cart button, promotional banners, and recommended products clearly, without any layout or performance issues.
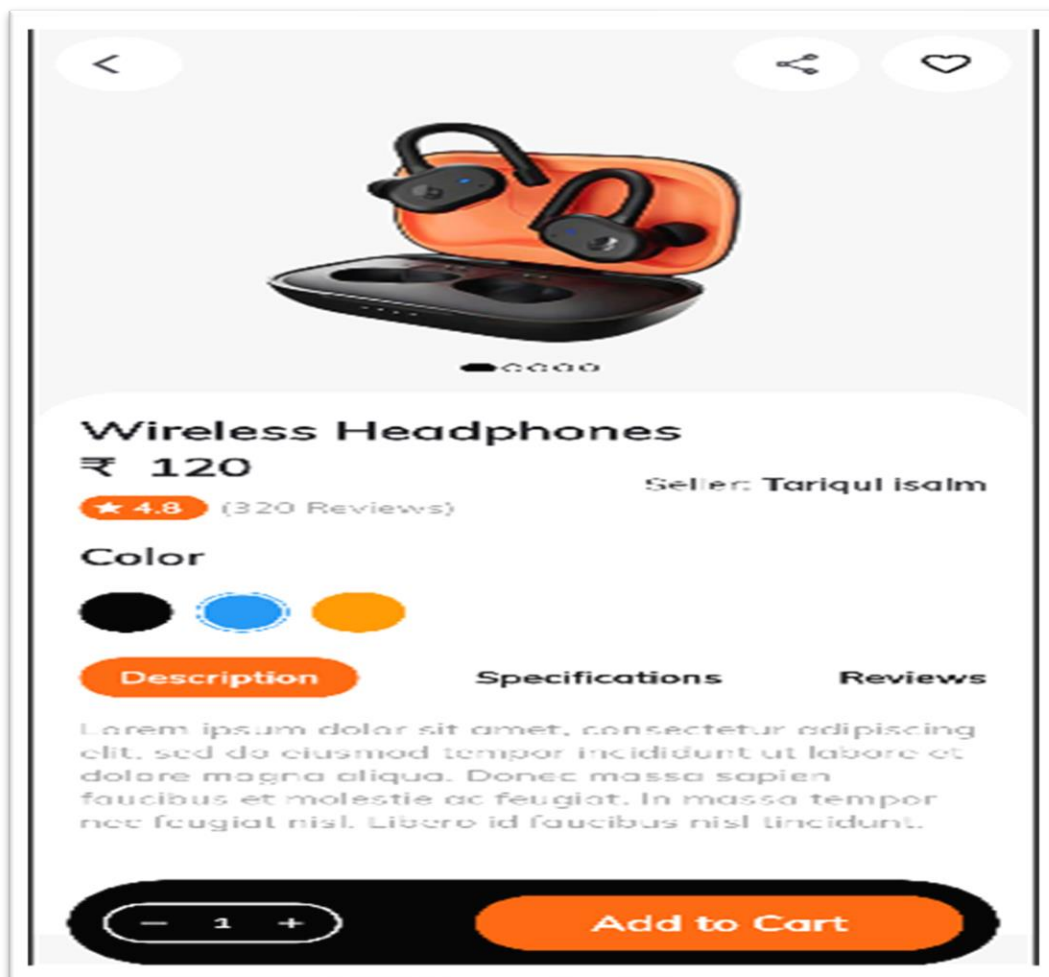
2.Product details View

Description: -

To verify that the product details page displays all necessary information accurately and functions properly, ensuring a smooth shopping experience for users.

- **Steps:**

1. Select a product from the home screen to view its details page.
2. Check that the product images, price, description, and availability are displayed correctly.
3. Ensure the "Add to Cart" button is visible and functions as expected when clicked.
4. Verify that the cart updates dynamically once the product is added, without needing to refresh the page.
5. The product details page should present all product-related information (images, price, availability) accurately. The "Add to Cart" button should work properly, and the cart should update immediately and display the added product without errors any or delays.
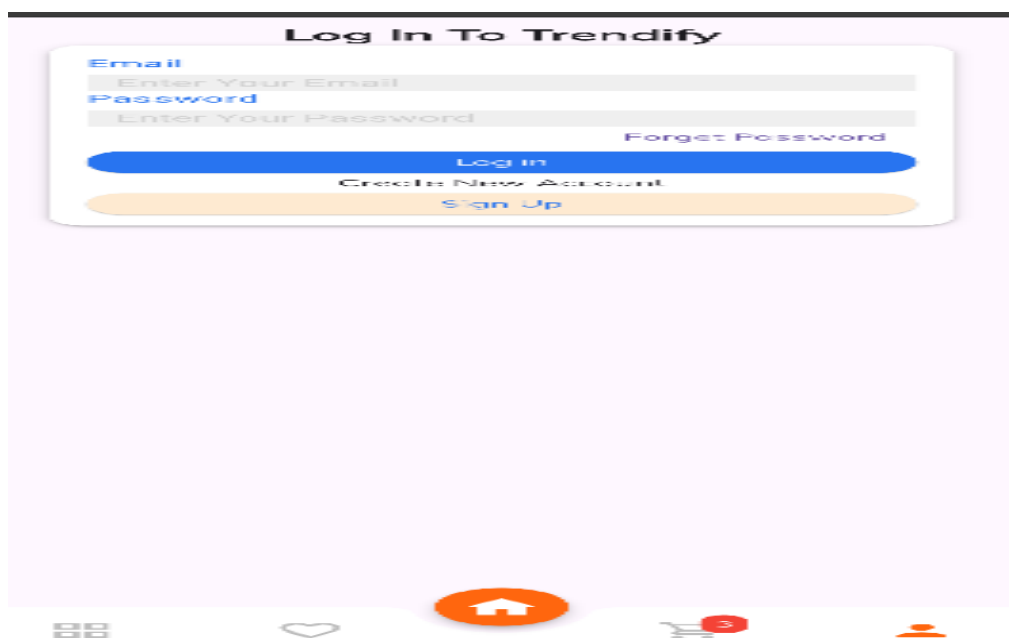
3.Login and Signup Flows

Description: -

To ensure the login and signup processes work smoothly, validate JWT authentication, and verify proper session management, ensuring users can securely access their accounts.

- **Steps:**

1. Open the app and navigate to the login or signup page.
2. Enter valid credentials for both login and signup:
   a. For signup, fill in the required details (e.g., email, password, username) and submit.
   b. For login, enter registered credentials and submit.
   c. **Demo email: -admin@gmail.com, Password: -admin**
3. Verify the authentication token (JWT) is generated and stored properly on successful login/signup.
4. Ensure that users are redirected to the correct page (e.g., home or profile) after login/signup.
5. Test session persistence by refreshing the app or closing and reopening it. The user should remain logged in if the session is still active.
6. Check the logout functionality to ensure the session is cleared, and the JWT token is removed.

- **Error Handling Validation:**
1. Enter incorrect credentials for both login and signup and verify that appropriate error messages are displayed (e.g., invalid password or email).

4.Cart Management

Description: -

To verify that users can effectively add, update, or remove items from the shopping cart, ensure accurate calculation of the total price, and check the correct display of item count badges.
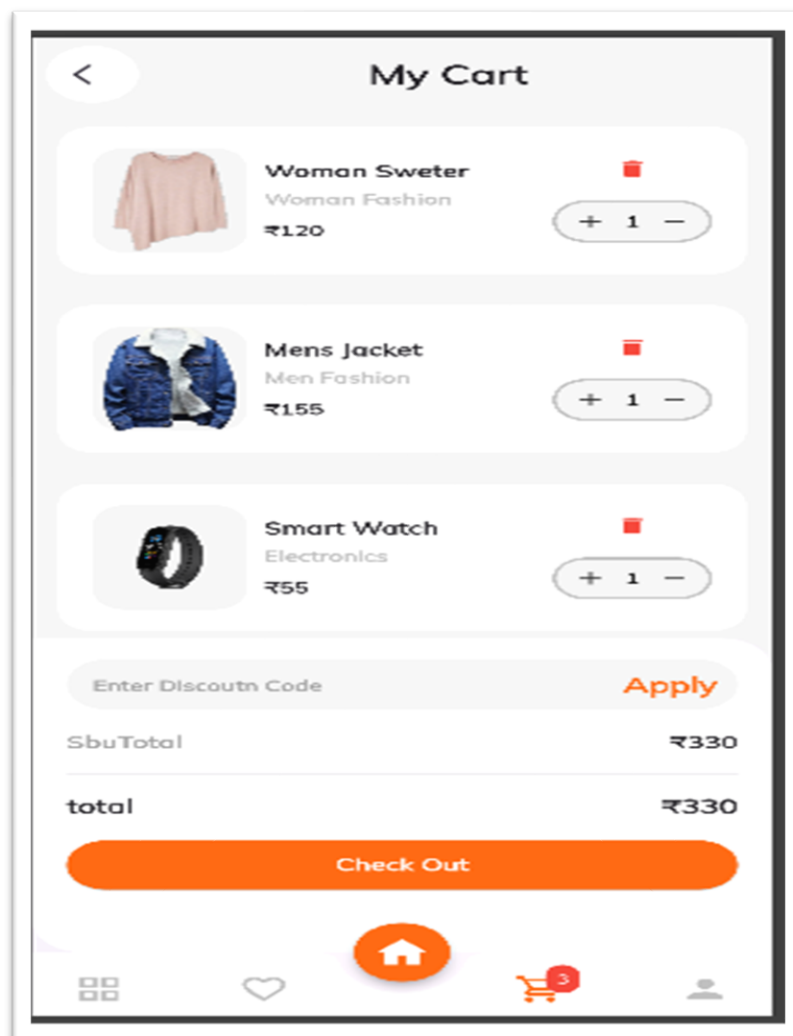
- **Steps:**

1. **Adding Items to Cart:**
o Select a product and click on the "Add to Cart" button.
o Confirm that the item is added to the cart and reflected in the item count badge on the cart icon.
2. **Updating Item Quantity:**
o Open the cart and modify the quantity of an item (e.g., increase or decrease).
o Ensure the item quantity is updated, and the total price is recalculated correctly in real-time.
3. **Removing Items from Cart:**
o Remove an item from the cart.
o Confirm that the item is successfully removed, the total price is updated, and the item count badge reflects the new number of items in the cart.

CHROME BROWSER TESTING

Objective: -

To verify the app's performance, functionality, and responsiveness in a desktop environment using the Chrome browser.
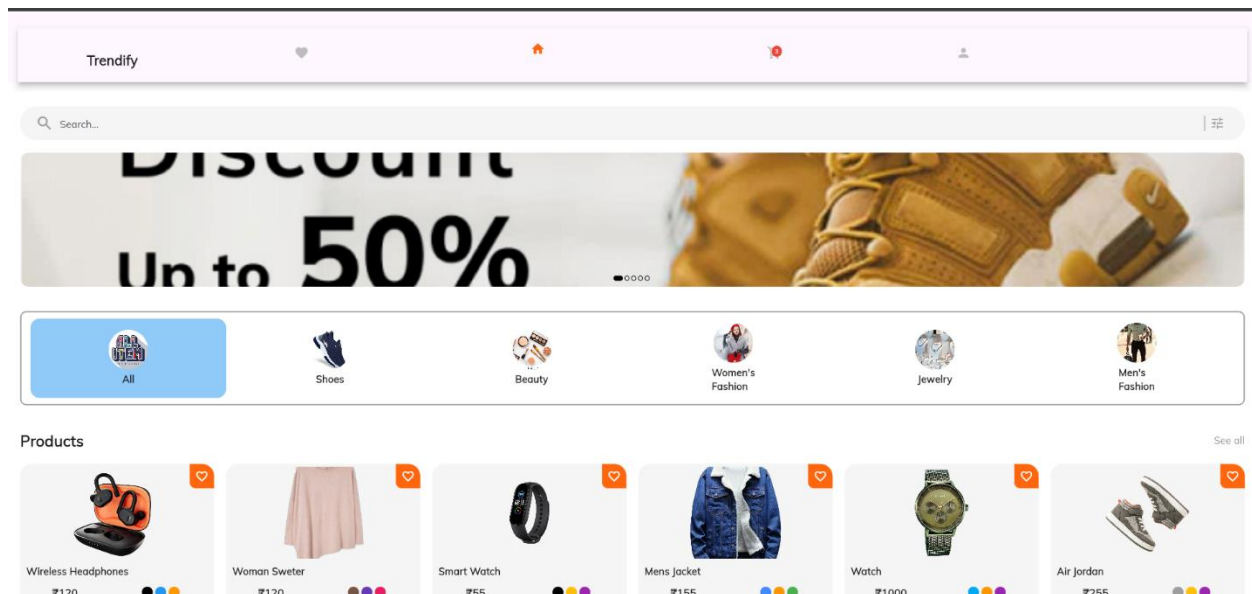
Test Scenarios

1. **Home Screen on Chrome**

   Description:
   To ensure that the home screen of the Trendify app is displayed correctly on a desktop, with all elements arranged appropriately for a seamless user experience.

   - **Steps:**
   1. Open the Trendify app in the Chrome browser on a desktop.
   2. Observe if the home screen loads without any delays or errors.
   3. Check that all elements, including product listings, categories, the search bar, and the cart button, are visible and properly aligned.
   4. Verify that promotional banners and recommended products are displayed clearly and are visually appealing.
   5. Test the responsiveness by resizing the browser window to see if the layout adjusts correctly to different screen sizes.

2.Profile Management

Description:

To verify that users can view and update their personal information, including their name, contact details, and profile picture, while ensuring smooth navigation and proper handling of data within the profile section.

● **Steps:**

1. **Accessing the Profile Section:**
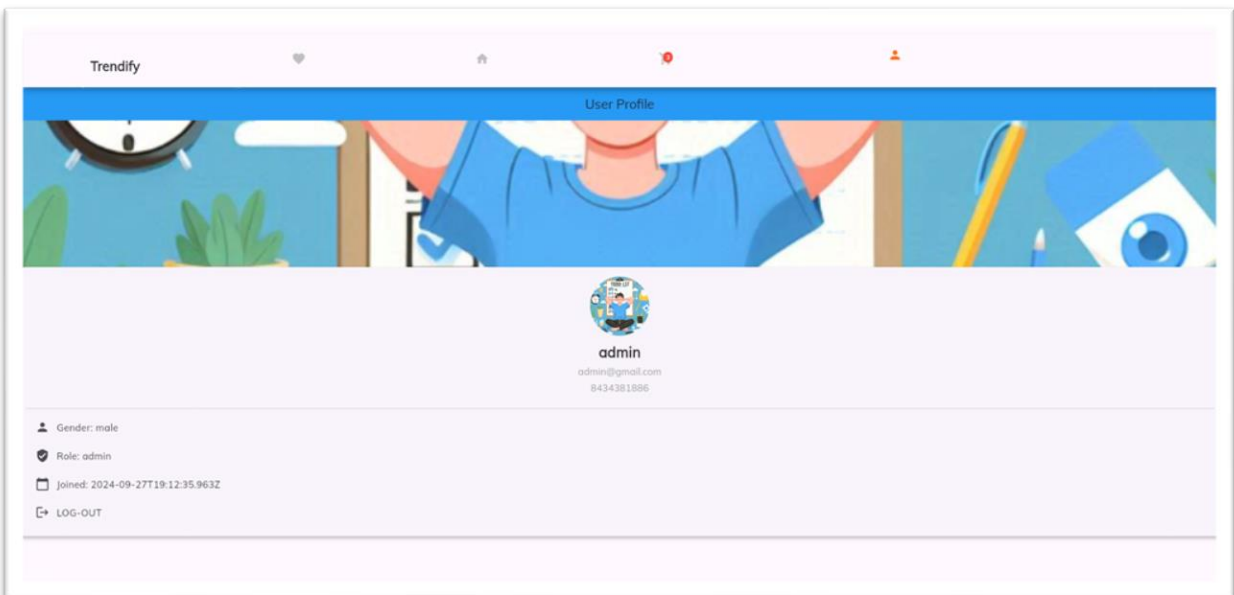o Log in to the Trendify app and navigate to the profile section from the home screen or menu.
2. **Viewing Personal Information:**
o Check that the current personal information (name, contact details, and profile picture) is displayed correctly.
3. **Updating Information:**
o Update the name and contact details (e.g., phone number and email).
o Upload a new profile picture.
o Save the changes and verify that a success message is displayed.

Users should be able to view and update their personal information smoothly. Changes made to the name, contact details, and profile picture should be saved accurately and displayed correctly upon re-login. The app should handle data properly, providing validation messages where necessary. Navigation within the profile section should be seamless, allowing users to easily access and update their information without any delays or issues.

3. Adding a New Task

Description: -

To verify that the search feature works effectively, displaying the correct product names, categories, and handling errors or misspellings in user queries.

- Steps**:**

1. **Initiating a Search:**
o Open the Trendify app and navigate to the home screen.
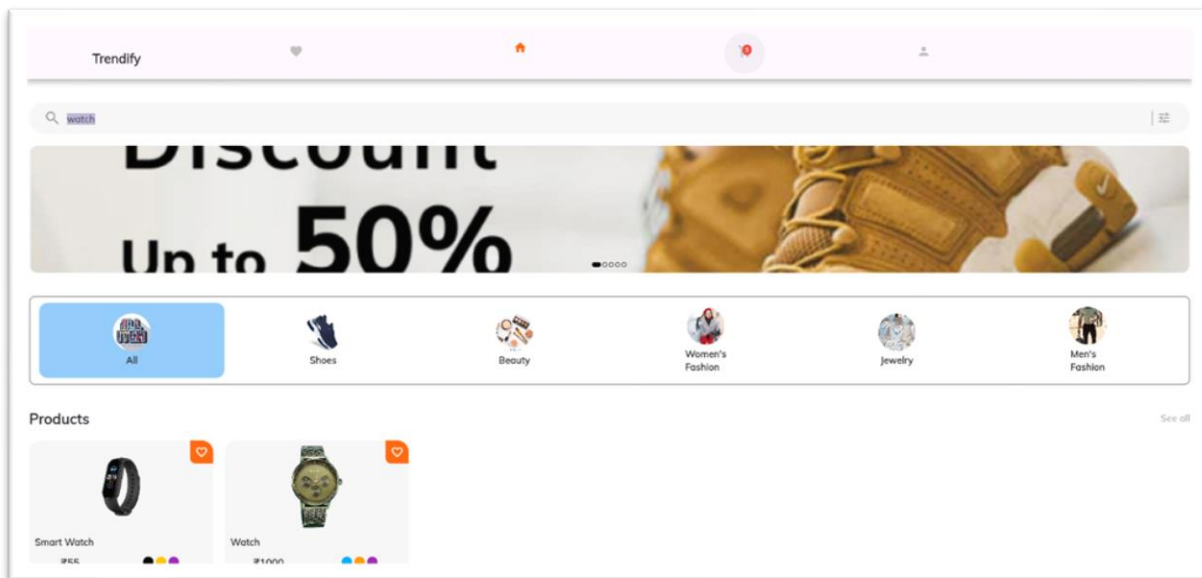o Enter a valid product name or keyword into the search bar.
2. **Checking Search Results:**
o Observe the search results displayed in real-time.
o Verify that the results include relevant product names, images, and categories.
3. **Testing for Correctness:**
o Click on one of the search results to ensure it directs to the correct product details page.
o Check that the product information matches what was displayed in the search results.
o Ensure the search results remain consistent and relevant for different inputs.

Users should be able to search for products accurately, with relevant results displayed in real-time. The search results should show correct product names and categories, directing users to the appropriate product pages. The app should handle misspelled queries gracefully, providing suggestions or relevant alternatives to help users find what they're looking for. Overall, the search functionality should be efficient and user-friendly.

Conclusion

In conclusion, the comprehensive testing of the Trendify app on both mobile (using the Android emulator) and web platforms has affirmed its ability to provide a smooth, efficient, and user-friendly experience.

This rigorous evaluation focused on several key objectives, including functionality, responsiveness, and usability across various devices and environments, and the results clearly demonstrate that Trendify meets these standards effectively.

The testing process highlighted the app's essential functionalities, such as user authentication, profile management, cart operations, and search capabilities. Each of these features was meticulously examined on the Android emulator.

During this evaluation, it was confirmed that the app not only displays screens accurately but also manages error feedback effectively, ensuring that users receive timely and helpful notifications when issues arise. This feedback mechanism is crucial for enhancing the overall user experience, as it guides users through any potential problems they may encounter.

Moreover, the navigation within the app was found to be intuitive and straightforward, allowing users to move seamlessly from one section to another. This fluid navigation is vital in an e-commerce context, where users expect to browse products, manage their carts, and complete transactions with minimal hassle. The testing results indicate that Trendify provides a cohesive shopping experience that encourages user engagement and satisfaction.

On the web platform, the app's responsiveness was a key focus. Testing confirmed that Trendify adapts effectively to various screen sizes and browser environments.

This adaptability is particularly important as users may access the app from different devices, including desktops, laptops, and tablets. The dynamic screen rendering capabilities ensure that users have a consistent and visually appealing experience, regardless of the device they are using.

Overall, Trendify not only meets but exceeds expectations in delivering a robust e-commerce solution. Its strong performance on both mobile and web platforms highlights its versatility and commitment to providing a seamless shopping experience

. By focusing on user-centric design and functionality, Trendify is well-equipped to meet the diverse needs of its users, facilitating effortless and enjoyable online shopping experiences.

This positions Trendify as a competitive player in the e-commerce market, ready to engage and retain customers with its superior functionality and user experience.