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# Anxiety Clothing– Smart Fashion Retail App

**Asst. Prof. Rachana Borole[1] and Gurmeet Singh Kalha[2]**
Assistant Professor, Department of Information Technology[1]
Bachelor of Engineering in Information Technology[2]
K. C. College of Engineering and Management Studies and Research, Thane, Maharashtra, INDIA

**Abstract:** *Anxiety Clothing – Smart Fashion Retail App offers a revolutionary approach to E-Commerce shopping. Providing features like Customisation with 0 MOQ, Carbon Footprint Tracker and Immersive Scroll-View Feature, thereby eliminating the need of AR.*
*This platform stands out by providing sustainability features like carbon footprint tracker, where based on the carbon footprint left, User gets discount. Lower the carbon footprint, Higher the discount. Additionally, the app provides a scroll-view feature where 3D-rendered Tops and Bottoms are shown. User can glide through various options; select a pair they like and add them to the cart with a single click*
*Anxiety clothing aims to redefine online fashion retail by offering a good seamless blend of personalization and eco-consciousness, catering to both fashion enthusiasts and environmentally aware consumers.*

**Keywords:** Customisation, 0 MOQ, Sustainability, Scroll-View, Carbon Footprint Tracker

## I. INTRODUCTION

Anxiety Clothing is a cutting-edge E-Commerce fashion application which focuses on personalisation, and sustainability. It addresses key issues like High MOQ, Limited-No personalisation and lack of focus on eco-conscious shopping. The App integrates a carbon footprint tracker. This tracker tracks the approximate carbon footprint left by the user while purchasing in a single go. Based on the emissions the user can avail discount on their purchase. Lower the carbon footprint left, Higher the discount user avails, thus promoting eco-friendly shopping. At the core of Anxiety clothing's user experience is its unique scroll-view features. This feature allows user to scroll through tops and bottoms simultaneously thereby allowing them to select various combinations. This allows users to shop stress-free and eliminate the need of augmented reality (AR). The main focus of Anxiety Clothing is to offer customisation for users. The app allows user to select the type of apparel they want to customise. Once selected, user can upload media from the gallery in the application. Based on the media, User gets a customised print on their apparel. Anxiety clothing provides all these features without any Minimum Order Quantity (MOQ). A user can print as low as one apparel. This differentiates anxiety clothing from online as well as offline market. Overall, Anxiety clothing is a perfect blend of both customisation and eco-friendly shopping lifestyle.

## II. LITERATURE SURVEY

### 2.1 Lack of customer support and social interactions, ["Hass and Kennig"], 2014

Online fashion lacks the personalised guidance offered in physical stores. Where sales people or stylists provide perfect fir for the user. Shoppers misses the real time human interaction thereby reducing the confidence in decision makings. While online platform offers helplines like chat, FAQ they lack human touch. This gap can make it harder for the user to feel confident while purchasing anything.

### 2.2 Enhanced media for realistic product understanding ["Enhanced Product content"]. 2022

Enhanced media like video, 3d assets, HD images often offer detailed description of the product allowing user to fully understand the quality of fabric and product. This enhanced images and 3D references helps the user to understand the sizing, depth, quality etc making it in favour of the user's decision making. These features will enhance user satisfaction and informed decision making, with studies showing relevant media content makes consumers significantly more likely to purchase.


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**2.3 Size recommendation tools,["Which size recommendation tool is the best"], 2023**

This research proposes the integration of advanced size recommendation tools within the app to enhance the user experience by providing personalised size recommendations. This gives user a perfect understanding of the sizing of the product thereby allowing users to collect perfect product of their perfect size and shop more confidently. This also helps in reducing return rates in e=Commerce sector.

**2.4 Modern approaches to Outfit recommender System in Fashion (2022)**

This research presents a virtual try-on system where users can customise apparel using descriptive text and fabric textures. It supports intuitive customization without needing a large labelled dataset, enhancing user experience

**2.5 Exploring AI for Eco-Friendly Fashion from 2010 to 2022 (2023).**

This research surveys the role of artificial intelligence in making fashion more sustainable. It emphasize how technologies like deep learning and computer vision are used to promote eco-conscious clothing design and personalised shopping.

**2.6 Data-Driven Studies on Generating and Recommending Fashion Outfits(2022)**

This experimental study investigates how algorithms perform in suggesting coordinated outfits. It compares user-personalised and general methods using real user data to understand how effectively different systems recommend compatible tops and bottoms.

**2.7 Personalised Digital Clothing Design for Sustainability using 3D and AI (2023)**

This work shows how 3D generated modelling and AI-driven tools can be used to design custom clothing. It focuses on enhancing human product interaction to support more sustainable and individual fashion choices

## III. PROPOSED METHODOLGY

The development of Anxiety clothing app follows a structured and iterative design process that blends outfit customization, sustainability awareness and seamless user interaction. Key focus areas include user personalisation, real-time carbon footprint tracking and Outfit Builder integration.

**Requirement gathering**

- **Methods**: Online Surveys, User interviews and focus group targeting Gen-Z and Millennials
- **Objective**: Identify user needs, common shopping pain points (e.g., decision fatigue), and attitudes towards sustainable fashion

**System Design**

The system architecture is structured into modular components:

- **Outfit Customization Engine**: Users can mix and match clothing interactive PNG assets, enabling visual outfit simulation.
- **Carbon Footprint Tracker**: Real-time feedback is shown based on selected garment materials and manufacturing methods; eco-friendly choices unlock reward-based incentives like discounts
- **Customisation**: User can select the type of apparel the want, User can then upload media from gallery and get their hands on their own custom apparel without any minimum order quantity (MOQ).

**Technology Stack:**

**Frontend & UI Development:**

- Built Using Flutter Flow, enabling rapid visual development with minimal code.

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- Ensure cross-platform compatibility for Android and IOS.
- Custom widgets and animations integrated using Dart when needed.

**Backend Integration:**

- Connected via Firebase for authentication, database (Firestore) and cloud functions.
- APIs used to integrate carbon tracking data and outfit pairing logic.

**Testing Phases**

- **Unit Testing:** Isolated module validation
- **Integration Testing:** Ensures proper functioning across modules like Outfit Builder + Carbon Tracker.
- **User Acceptance Testing (UAT):** Conducted with target users to assess usability, emotional impact, and perceived stress relief.

**Deployment**

- Hosted on cloud platforms (e.g., AWS or Firebase Hosting) for scalability and data integrity.
- Supports regular updates via CI/CD pipelines.

## IV. IMPLEMENTATION

The Anxiety clothing app id developed using FlutterFlow for rapid, cross-platform development. The UI includes features for outfit customisation, Immersive scroll-view feature and real-time carbon footprint tracking. Users select clothing using interactive 3D PNG assets, while the app tracks the environmental impact and rewards sustainable choices with discounts. The Outfit Builder intelligently pairs tops and bottoms, reducing decision fatigue. Backend services are powered by Firebase, and the system is test through unit, integration and user acceptance phases before cloud deployment.

Below are the system images:

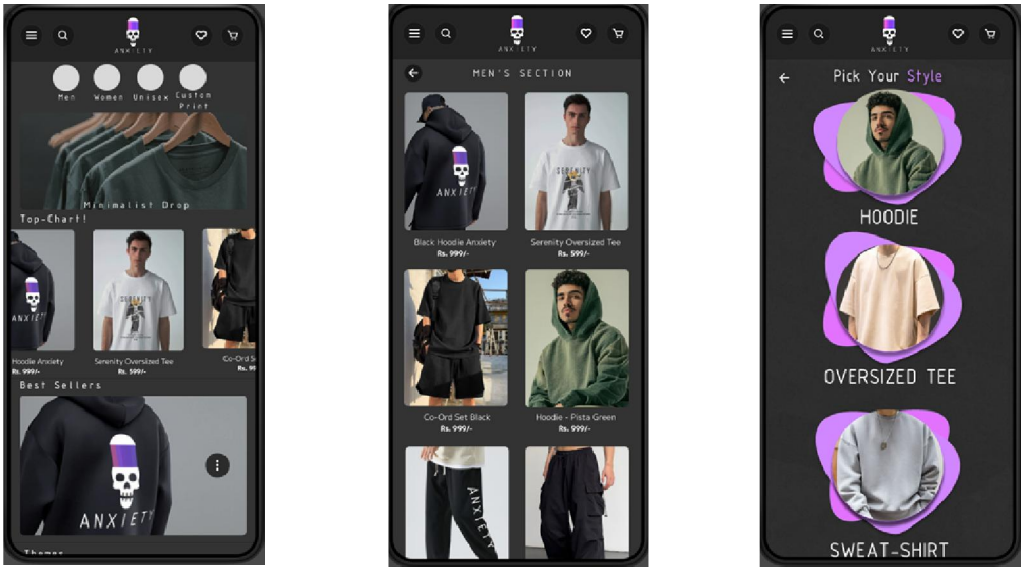


**Figure 1: Home Page, Men's Section, Custom Section**

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**Home Page:**

The Home page serves as the central hub of the app It features a clean, calming UI with navigation to all major sections like men, women, unisex and a custom print section. The Home page consists of a button that will directly guide you to the intuitive scroll-view feature

**Men's Section:**

The Men's section displays a curated selection of ready-to-pair tops and bottoms specifically for men. Users can swipe through outfits or mix and match items manually. Each item includes details like price, carbon footprint left etc.

**Women's Section:**

The Women's section displays a curated selection of ready-to-pair tops and bottoms specifically for women. Users can swipe through outfits or mix and match items manually. Each item includes details like price, carbon footprint left etc.

**Custom Section:**

The custom section allows user to select the type of material they want, the type of apparel they want and the print they want to select from their media. Users can:

- Choose tops separately
- Adjust colours, materials and styles.
- View real-time carbon footprint based on choices
- Purchase their custom look, tells user about

**Scroll-View Feature:**

A scroll view feature that allows user to scroll both tops and bottoms simultaneously. This allows user to mix-match tops and bottoms and curate a collection of their own. This allows user to shop stress-free and it gives a sense of real-time shopping.

## V. RESULT ANALYSIS

| Test Case | Test Steps | Expected Result | Status |
|---|---|---|---|
| User Login/Signup | Enter valid credentials or complete signup form | Redirected to homepage/dashboard | Pass |
| Homepage Navigation | Launch app and browse through homepage sections | All sections load with outfit suggestions and audio | Pass |
| Access Men's Section | Click on "Men" in the navigation menu | Displays curated tops and bottoms with pairing options | Pass |
| Use Outfit Builder | Select tops and bottoms manually or with AI pairing | Outfit is generated and displayed visually | Pass |
| Customize Outfit | Go to Custom section and select 3D PNG assets | Customized outfit preview is shown | Pass |
| View Carbon Footprint | Select a clothing item or outfit | Real-time environmental impact score is displayed | Pass |
| Reward for Sustainable Choices | Choose eco-friendly materials and complete selection | Discount or reward points are applied | Pass |
| Outfit Builder – Browse Tops and Bottoms | Open the Outfit Builder and scroll through tops and bottoms simultaneously | Tops and bottoms are displayed side by side for pairing | Pass |
| Upload and Save Custom Outfit | Finalize a customized outfit and click Save | Outfit is saved to user profile or wishlist | Pass |
| Invalid File Upload | Attempt to upload unsupported file in | Error message: "Unsupported file | Pass |

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| Test Case | Test Steps | Expected Result | Status |
|---|---|---|---|
| (Edge Case) | customization (e.g., .exe) | format" | |
| Large File Upload in Custom Section | Upload a file exceeding size limit | Error message: "File size too large" | Pass |
| Accessibility Test | Use app with screen reader or voice navigation (if implemented) | Interface remains readable and accessible | Pass |

## VI. FUTURE SCOPE

- **AR- Try on:** Introducing Augmented Reality virtual try on where users can use their camera to get a sense of the outfit styling.
- **Size Recommendation tool:** A tool where user can give their physical measurements in my profile page. This will be a one-time input. With the help of the measurements, A size recommendation tool will recommend user the perfect size of the specific clothing based on their chest, height, torso length, arm length etc.
- **Partnership with Mental Health Organisations:** Collaboration with licensed therapists or NGOs could open up pathways for real-time therapy chat, discounted collaborations and mental health awareness campaigns integrated directly to the app.
- **Dynamic Audio Sensory Experience:** In future updates, A mood-adaptive system that changes based on time of day or interaction patterns. User can even select the mood they want to be in, be it a 3D-surrounded audio mimicking real time shopping experience and ambience.

## VII. CONCLUSION

The Anxiety Clothing application successfully addresses the growing demand for personalised sustainable fashion by offering an innovative platform that combines outfit customization with real-time carbon footprint tracking and an immersive sensory shopping experience by eliminating the need for AR and implementing a streamlined scroll-view system with 3D PNGs, the app provides users with a simple, yet engaging way to create and purchase outfits in real-time. The app also promotes sustainability by tracking the environmental impact of user's choices and offering discounts based on eco-friendly decisions. Through the development of the application, Anxiety Clothing demonstrates a forward-thinking approach to fashion e-commerce by blending customization, sustainability and sensory engagement, setting a new standard for user-centric and environmentally conscious shopping platforms.

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