

MINDFUL *Market*

SA
Storyboard presentation
1000406
A Jeyaditya

Introduction

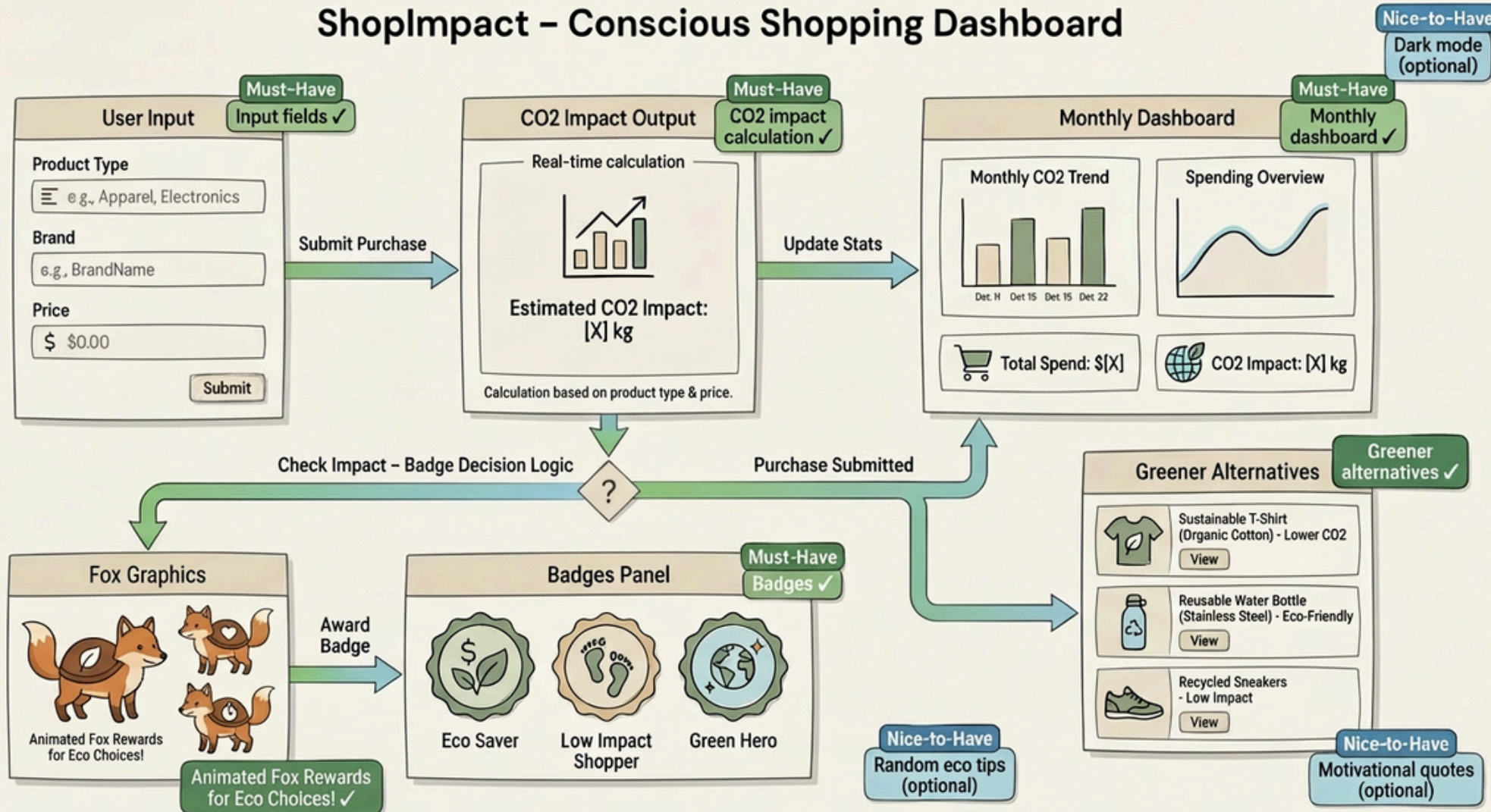
- When I started working on the Mindful Market dashboard, my main intention was to design an app that would genuinely help everyday users understand the environmental footprint of what they buy.
- I want the app to feel friendly, educational, and interactive rather than judgmental.
- This storyboard captures the full user journey exactly as I envisioned it, from the moment the user lands on the app to the final deployed version.

My research

- Before designing the Mindful Market dashboard, I researched common shopping behaviors and why many sustainability tools fail.
- I found that users mainly prioritize price and convenience, and often abandon apps that rely on guilt-based messaging.
- To address this I:
 - Focused on positive reinforcement through badges
 - Eco tips, and
 - simple visuals.
- I also studied eco-impact calculators and learned that many use category-based multipliers to estimate CO₂ impact in a simplified way.
- Dashboard design research showed that charts and monthly summaries help users understand trends better than raw data tables.
- These insights shaped my design decisions and user experience approach.

Flow diagram of the app

ShopImpact – Conscious Shopping Dashboard



Opening screen

- When the user first opens the Streamlit app, I wanted them to immediately understand what Mindful market does, so I designed the homepage to greet them with:
- “Track your shopping impact and make greener choices today!”
- On this screen, I placed clear navigation buttons:
 - Add Purchase
 - View Dashboard
 - Eco Tips
 - About ShopImpact.
- Behind the scenes, this is where the app initializes all default data structures and loads any previously saved purchases.

Welcome Screen

- On the welcome screen, I designed a simple and clean homepage that introduces the purpose of Mindful Market.
- The screen contains three main buttons:
 - Add Purchase
 - Dashboard
 - Eco Tips and
 - About
- This helps users immediately understand what actions they can take.
- I wanted the first impression to feel calm and welcoming, so I planned the use of green and beige colors to reflect sustainability.

Add Purchase Form

- In this section, the user is shown a form where they can enter the details of their purchase.
- The form includes three compulsory input fields:
 - Product type
 - Brand and
 - Price.
- For example, a user might enter Shoes, Brand X, and ₹1500. I kept this form minimal so users can log purchases quickly without confusion.

Submit Purchase

- When the user submits the purchase, the data is saved into a structured format such as a list of dictionaries.
- Each purchase also includes a timestamp like: XY-XY-20XX, XX:XX.
- This allows the app to group purchases by month later.
- I wanted the submission process to feel instant, so the app immediately moves on to impact calculation.

CO₂ Impact

- After submission, the app calculates the estimated CO₂ impact using predefined multipliers.
- For example, shoes might have a multiplier of 1.8, so a ₹1500 purchase results in a CO₂ impact score of 2700 units.
- This calculation helps users understand the environmental cost of their purchase in a simple numeric way, without overwhelming technical detail.

Ethical Alternatives

- Once the impact is shown, the app displays a list of greener alternatives based on the product type.
- For example, if the user enters shoes, the app may suggest brands that use recycled materials or ethical manufacturing.
- This feature is important because it not only shows impact but also guides users toward better future choices.

Monthly Dashboard

- The dashboard gives users a complete monthly overview of their shopping habits.
- It shows the total amount spent, total CO₂ impact, and number of eco-friendly purchases.
- I also planned bar charts that compare CO₂ impact by product category and line charts that show how impact changes over time.
- This helps users visually track improvement or areas that need attention.

Badge Award

- To keep users motivated, I designed a badge system.
- If the user keeps their monthly CO₂ impact below a certain threshold, they earn badges like:
 - “Eco Saver of the Month”
 - “Low Impact Shopper.”
- These badges act as rewards and make the app feel more engaging and game-like.

Turtle Graphics

- Instead of turtle graphics, I have added images for the mascot and emojis for the badges due to the time constraints.

Eco Tips

- The Eco Tips section displays random sustainability tips after each purchase or when the user clicks the Eco Tips button.
- Examples include facts like “Did you know bamboo products have a much lower carbon footprint?” These small tips educate users gradually without overwhelming them.

Dark Mode

- I included a dark mode option to improve accessibility and user comfort.
- When toggled, the interface switches to darker green and black tones.
- This feature helps users who prefer low-light screens and also fits well with the eco-friendly theme of the app.

Testing

- To test my design, I simulated multiple purchases using different price ranges and product types.
- For example, I tested low-cost eco products and high-cost non-eco products to ensure calculations, charts, and badges updated correctly.
- This helped me identify logical errors and improve clarity before deployment.

Citations

- Why gamification and positive reinforcement improve user engagement
 - <https://www.interaction-design.org/literature/topics/gamification>
- The role of gamification in encouraging sustainable consumer behavior
 - <https://www.mdpi.com/2071-1050>
- Why guilt-based design fails and positive UX works better
 - <https://uxdesign.cc>
- Using simplified models and multipliers for data-driven applications
 - <https://www.analyticsvidhya.com>
- Best practices for dashboard and data visualization design
 - <https://www.pencilandpaper.io/articles/ux-pattern-analysis-data-dashboards>
- Designing interactive dashboards and accessible interfaces
 - <https://docs.streamlit.io>