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The mobile app I designed is called SmartScan which is a healthy food barcode scanner that allows users to receive an immediate health rating for food items. The app uses a simple color-coded system of green, yellow, and red to indicate whether a food is healthy, neutral, or less desirable. The goal is to help users make quick, informed food decisions while shopping or browsing at home. SmartScan emphasizes clarity and ease of use for all users, regardless of their experience with mobile apps.

The user personas that informed my design include:

* Busy parents who want fast, no-hassle nutrition checks on packaged foods.
* Fitness-minded individuals who monitor ingredients and macros.
* People with health conditions or dietary restrictions who need ingredient awareness.
* A vegan user who noted that many plant-based foods are misleadingly marketed as healthy.

Screen 1: Welcome/Home

The home screen includes a search bar, app branding, a “Tap to Scan” button, and optional login/register buttons. A user icon in the top-right allows for account access but is not required to use the app. This screen is designed for immediate scanning or searching without overwhelming the user. The color scheme is neutral and calm to create a non-intimidating first impression.

Screen 2: Barcode Scanning/Search

Users can search for food by name or activate the camera to scan a barcode. A central camera icon and navigation arrows make the interface self-explanatory. The screen maintains the top navigation and layout consistency, making the transition from screen to screen seamless and familiar.

Screen 3: Scan Results

This screen displays the health results for a scanned item, including the food’s name, source (if specified or available), and a color-coded pie chart breakdown. This visual representation lets users quickly interpret the data and understand the rating. A clear “Ingredient Breakdown” button leads to a deeper dive into product details, while a second button returns to the barcode scanner.

Screen 4: Ingredient Breakdown

This screen lists ingredients with dropdown toggles for more information. For example, selecting “Cane Sugar” could reveal notes about its nutritional impact. The screen keeps the top search bar and navigation consistent with previous screens. It’s designed for users who want more than just a color coded score and can offer deeper insight without cluttering the initial experience.

Each screen maintains consistent fonts, spacing, and navigation logic. Clickable elements are clearly indicated, and the layout adheres to both Apple and Android UI guidelines by keeping the layout intuitive, reducing cognitive load, and designing for thumb reach and accessibility. I used high-contrast text and large tap targets to improve usability for a wide range of users. Key actions are always positioned in visible and familiar spots, like primary buttons centered or bottom-aligned.

If SmartScan were adapted for a digital watch, the app would need to reduce visual complexity significantly. Only core functions like scanning and viewing the top-level health rating or the pie chart would be available. The interface could use a single-button interaction (e.g., “Scan Now”) and swipe navigation for viewing a summary result. Ingredient details and registration would be removed to preserve simplicity. Health scores could be shown with colored dots or progress rings.

For a kiosk display in a store, the layout would expand to a landscape orientation with larger fonts and touch zones. A welcome screen would include a QR code to let users scan on their phones if preferred. Scanning could be done via an external camera, and search could be accessed through a touchscreen keyboard. Visual breakdowns would use more prominent charts, and ingredient info could pop up in modals or side panels for better kiosk flow. This format would benefit from larger back and home buttons for public use and quick resets between sessions.

Overall, SmartScan was designed with user empathy, simplicity, and clear functionality in mind. The wireframe reflects real user concerns and feedback, especially around trust in food labeling and timesaving in everyday tasks. The layout is easy to navigate, even for users who are not tech savvy, and can adapt well across platforms like wearables and kiosks.