

# Design documentation

## Project summery:

"Hi, I'm Krishaang and this is **Shotify**.

Music wouldn't be the same without **Spotify**, and e-shopping wouldn't exist without **Shopify**. Now, it's time for **Shotify** — an app that makes taking passport photos simple.

Using **AI and voice guidance**, Shotify tells you how to pose, fixes your background, and even takes the photo for you — no clicks needed. It checks everything with **official government standards**, so your photo's ready to go in seconds.

**Shotify — the smart way to take your perfect shot."**

## Overview

Product	According to the survey the app had received a 4.5 out of 5 so this proves that the app is unique and will be used by many people.
Specifications	<ul style="list-style-type: none"> <li>● People Said that the photo session was easy to run about 85%</li> <li>● The layout did not have a sever lag</li> <li>● The app was really beneficial and would be shared to others</li> </ul>
Key features and benefits	<ul style="list-style-type: none"> <li>● AI Guidance &amp; Government Verification</li> <li>● Easy to Use &amp; Simple Navigation</li> <li>● Convenience &amp; Accessibility</li> </ul>
Price point	Shotify is designed to be <b>easy, smart, and affordable</b> for everyone. The first <b>two photos are completely free</b> , so users can try the app with no cost. After that, it's just <b>\$1 per month</b> for unlimited verified, high-quality passport photos — a fraction of what traditional photo studios charge.

# Customer feedback

## Sources

List channels through which feedback is collected.

- Online surveys (pro's)
  - "Easy to use and simple to understand."
  - "Clean, sleek, and professional design."
  - "Very accurate and convenient — saves time and money."
- Online surveys (con's)
  - "Could use more features and customization."
  - "Some buttons and loading times need improvement."
  - "Would be better as a mobile app instead of a website."

## Analysis

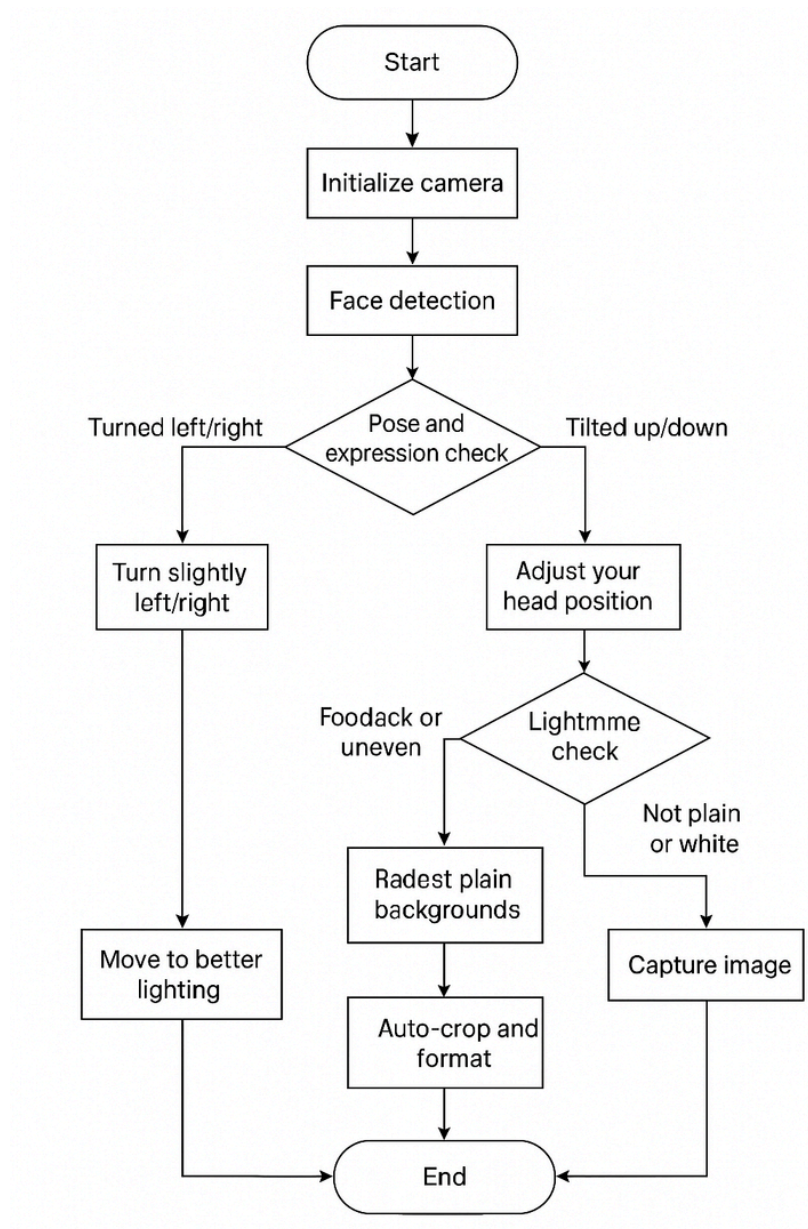
Interpret feedback as a team by identifying major themes and providing insights and interpretations.

Comment	Comment	Comment
<ul style="list-style-type: none"><li>● "Could use more features and customization."</li></ul>	<ul style="list-style-type: none"><li>● "Some buttons and loading times need improvement."</li></ul>	<ul style="list-style-type: none"><li>● "Would be better as a mobile app instead of a website."</li></ul>
Solution:	Solution:	Solution:
<ul style="list-style-type: none"><li>● A background option of your choice</li><li>● An auto navigating feature where you don't press any-buttons during your photo section</li></ul>	<ul style="list-style-type: none"><li>● We can add a speed monitoring system the makes changes according to the speed of the internet.</li><li>● I can add a reload button when a lag is occurred.</li></ul>	<ul style="list-style-type: none"><li>● We can make a app version for this website</li><li>● It will be avalable in both options.</li></ul>

## Algorithm

Action	explanation
Step 1: Start	Launch the app and open the "Start Photo Session" screen.
Step 2: Initialize Camera	Display a face outline or oval guide on screen.
Step 3: Face Detection	Locate the user's face in real time. Detect key facial points (eyes, nose, mouth, chin).
Step 4: Pose and Expression Check	Calculate face angle using eye and nose coordinates.
Step 5: Lighting Check	If lighting is too dark or uneven, show "Move to better lighting."
Step 6: Background Check	If background is not plain or white, show "Use a plain light background."
Step 7: Capture Image	When all checks pass (pose, light, background, expression):
Step 8: Auto-Crop and Format	Crop image to standard passport dimensions (e.g., 2x2 inch ratio).
Step 9: End	Save or allow user to retake.

# Flow-chart



Time-line

Month	Milestone	Description
Month 1 – Planning & Research	<b>Project Scope Defined</b>	Outline the app idea, define user needs, study passport photo standards, and decide core features (AI guidance, auto-capture, background removal).
Month 2 – Design	<b>UI/UX Wireframes Completed</b>	Create home screen, photo session screen, help/support screens, and interactive prototype for testing flow.
Month 3 – Core AI Module	<b>Face Detection &amp; Angle Tracking Ready</b>	Integrate Mediapipe/FaceMesh for real-time head angle detection, facial landmark tracking, and pose feedback.
Month 4 – Auto-Capture & Voice Guidance	<b>AI Voice Assistant Implemented</b>	Develop text-to-speech guidance; set auto-capture triggers when face alignment and lighting are correct.
Month 5 – Background & Cropping	<b>Background Removal &amp; Formatting</b>	Implement white background replacement, automatic cropping, resizing to passport standards, and preview/save feature.
Month 6 – App Integration	<b>Prototype Integration Complete</b>	Combine camera, AI guidance, auto-capture, background processing, and UI into a working prototype.
Month 7 – Testing & Debugging	<b>Internal QA &amp; Bug Fixing</b>	Test all features, refine AI instructions, correct edge cases (bad lighting, different angles, multiple devices).
Month 8 – Beta Testing	<b>User Feedback Collected</b>	Share prototype with small group of users; gather feedback on usability, clarity, speed, and satisfaction.

Month 9 – Iteration	<b>Enhancements Implemented</b>	Improve UI/UX, optimize AI guidance, adjust thresholds for auto-capture, fix reported bugs from beta.
Month 10 – Launch Preparation	<b>Final App &amp; Presentation Ready</b>	Polish prototype for final presentation or limited release, prepare documentation, marketing plan, and proposal visuals.