
CS651 - Web Systems Vintage Vision

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Overview

Web Application hosted on Google to analyze user-selected photographs from their google photos account. The analysis will include:

- Era or time when it was in fashion
 - Type of fashion
 - Explanation of the style
 - Clickable search queries and
 - Shopping tips
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Technology

The app was built using the following technology:

- HTML, CSS, Javascript, React, [Node.Js](#), Express
 - Google OAuth 2.0
 - Google APIs including photopicker, Vision, Gemini, Firestore/Datastore, Axios,
 - Hosted on **Google App Engine Standard Environment**
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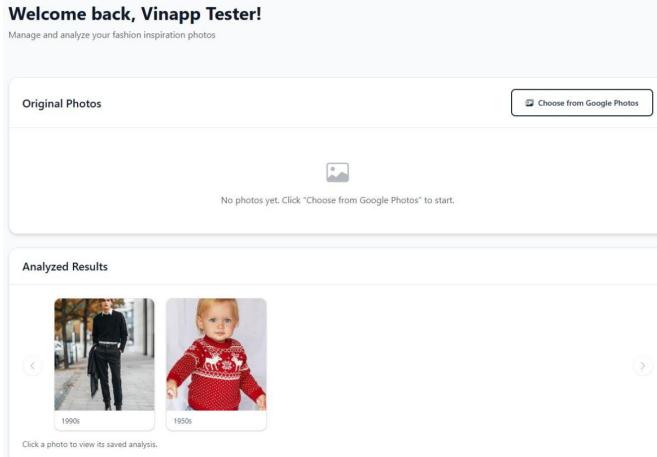
Authentication Flow

Steps:

1. User signs in to their google account
 2. Google OAuth end-point gets confirmation for access to user profile and photos
 3. Http only cookies are stored and front end loads dashboard
 4. User can view previous results or pick new photos
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Dashboard

After authentication, user lands on the dashboard



Sample Analysis

VintageVision

Vintage insights

Primary era: 1990s

Style tags: Minimalist, Smart Casual, Refined Grunge, Preppy-inspired

Top-3 candidates

- 1990s — Minimalist / Refined Grunge 80%
Monochromatic palette, layering, combat boots, and the hairstyle align with a polished 90s aesthetic.
- 1980s — New Wave / Preppy 65%
Darker palettes, utilitarian boots, and sweater-over-shirt layering have some overlap with this era.
- 1950s — Ivy League / Preppy 50%
The classic sweater-over-shirt and tailored trousers fit, but the sleek combat boots are a departure.

Why
Monochromatic palette, layered sweater, and sleek combat boots reflect refined 1990s minimalist style. The hairstyle also fits this era.

Search queries

- Vintage 90s men's minimalist sweater
- 90s refined grunge menswear
- Black crewneck sweater white shirt men
- Slim tailored black trousers cuffed
- Sleek black combat boots men's vintage style
- Monochromatic 90s menswear inspiration
- Vintage 90s preppy grunge men
- High-waisted slim trousers men

Your photo



Analyze another image

Analysis Pipeline

Vision API does image detection, prominent colors, and extracts:

- Patterns, Colors, Objects

Gemini uses this information, along with image and prompt to produce:

- JSON formatted results
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Firestore / Datastore

There are three JSON object collections in Firestore for this app:

1. User - authenticated users
2. Userphotos - userid, photo url, timestamp
3. Results - contains Vision and Gemini results

Caveats and Enhancements

- Caveat - Google photo urls stored in results expire after a certain amount of time leaving the dashboard with blank photo spaces for analyzed images.
- Enhancement - When user logs in, delete documents from results and userPhotos to eliminate stale urls.