



Image Cartooning



Team 1



Content

1. Project Introduction
2. Project Implementation
3. Technical features
4. Tech Stack & Plans

Project Introduction



Image Cartooning

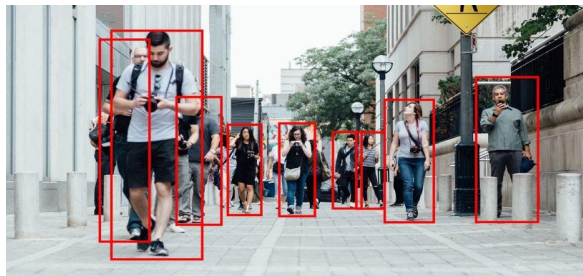
**Any More
Interesting Things?**



Project Introduction



Image Cartooning



Human Detection

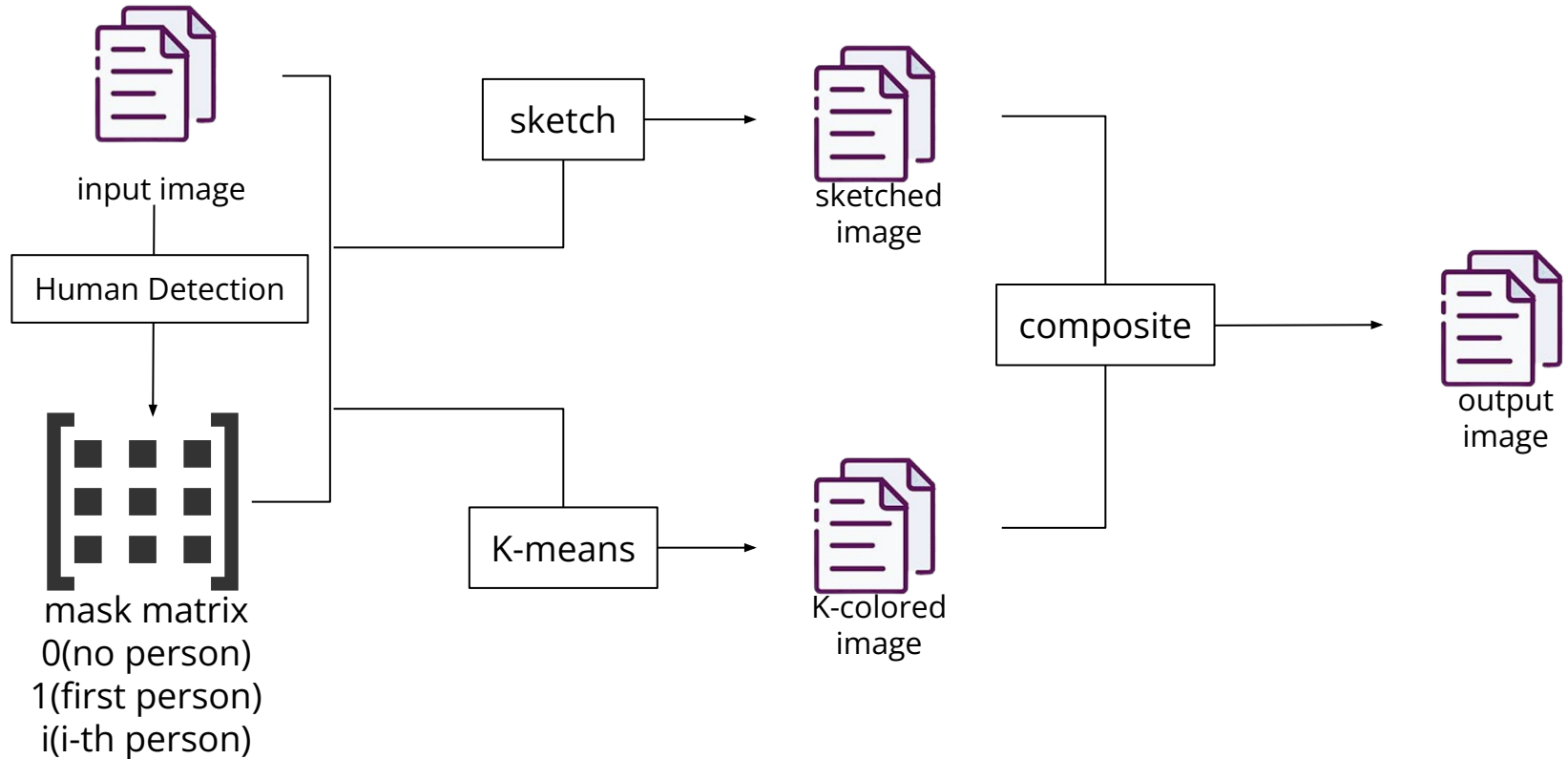




Processing Procedure



Processing Procedure



Tech. Layer

1. Human Detection Layer
2. Pencil Sketch Layer
3. K-Coloring Layer

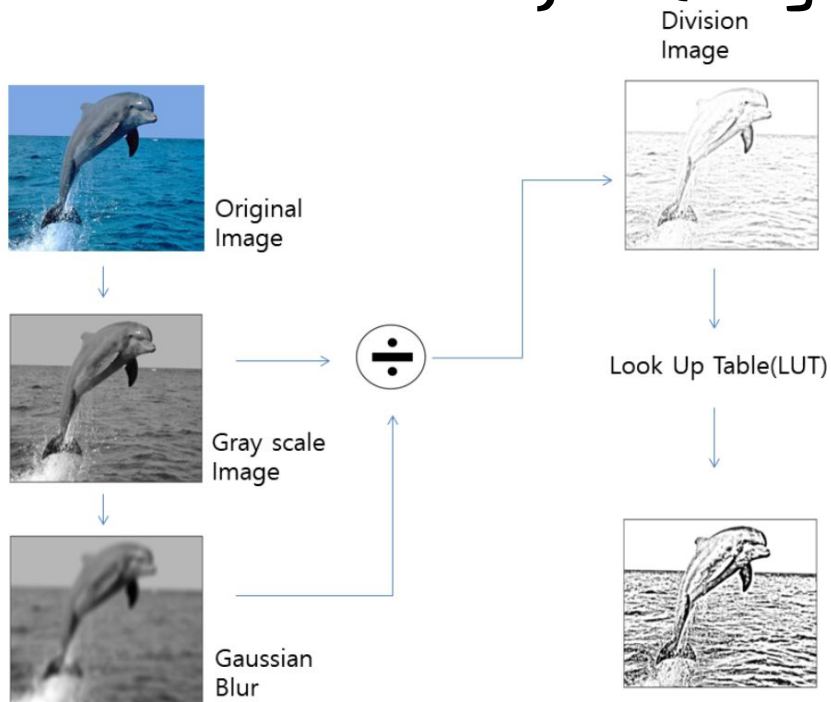
Human Detection Layer (Mask Image)



i-th person pixel has exactly i value



Pencil Sketch Layer (Edge Image)

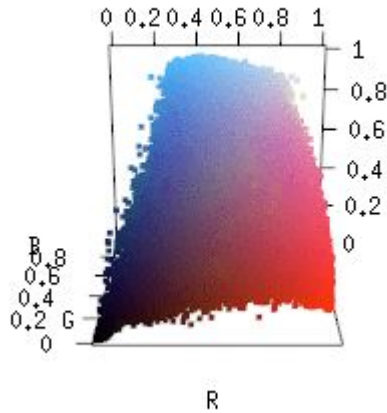


(Blurring, Stretching/Equalization)

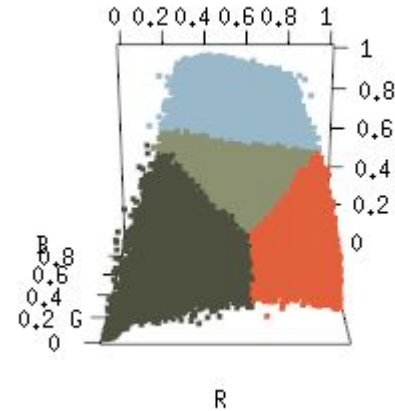
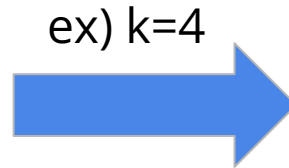
Pencil Sketch Layer (Edge Image)



K-Coloring Layer (Color Quantization)



Origin Image



k-color Based Image

K-Coloring Layer (Color Simplified Image)



Origin Image



K = 3 image



K = 7 image

K-Coloring Layer (Color Simplified Image)



Origin Image

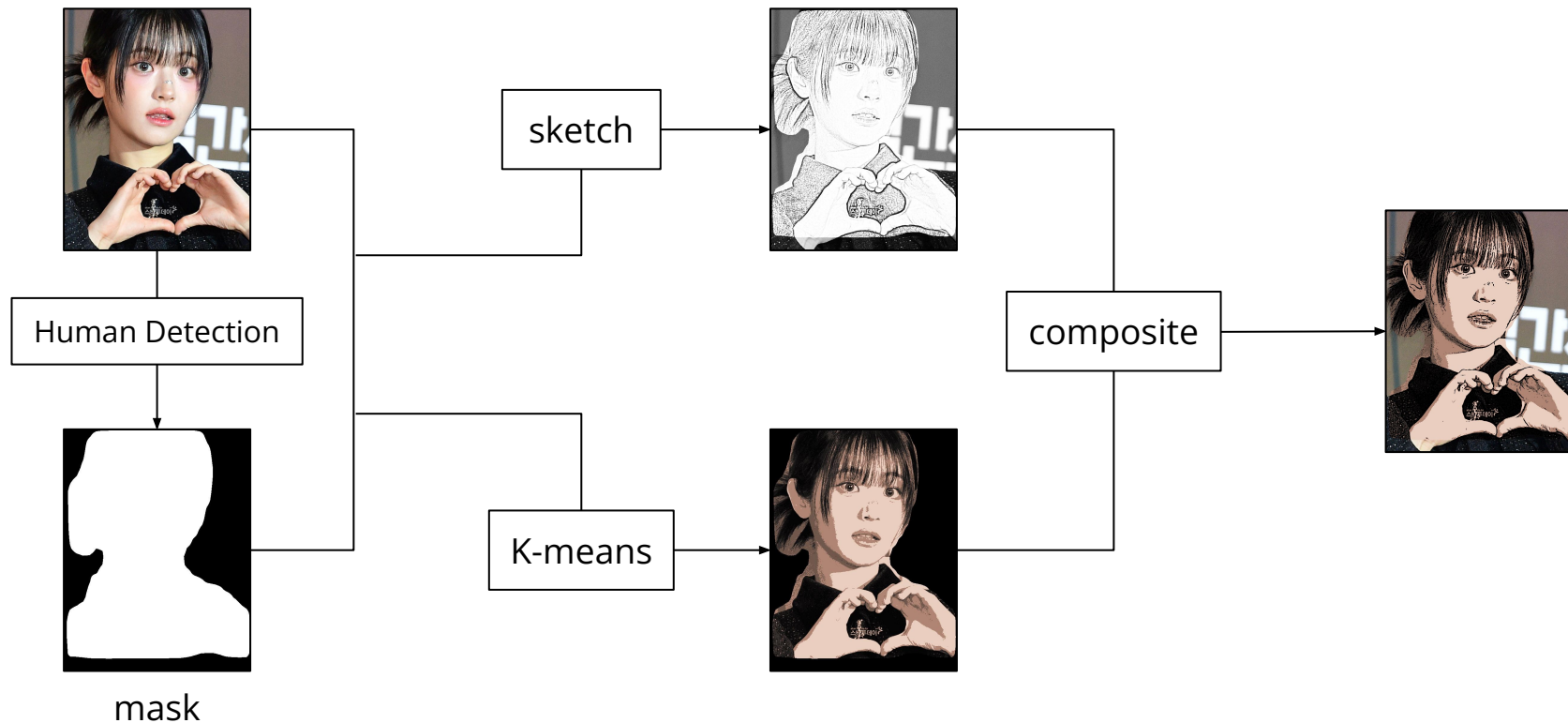


K = 3 image



K = 7 image

Processing Procedure (Example)



Output Example



Output Example



Output Example



Output Example



Tech Stack



SWOT Analysis

Strength

- What makes the program special?

It offers unique features that set it apart from traditional filter-based image conversion.

Weakness

- What could be improved?

The processing speed is slow because it handles image processing and calculation simultaneously.

Opportunity

- What are our goals?

If the Virtual youtuber market expands, usage may increase to converge with the real world.

Threat

- Where does it fall short of existing services?

Advances in AI may solve the functions of our services at once.

Business Model

Target

- B2B: Entertainment, Social Platform, etc.
- B2C: Artist & Creator, Social Media User

Persona

- B2B: Marketing Manager
- B2C: College Student Creator

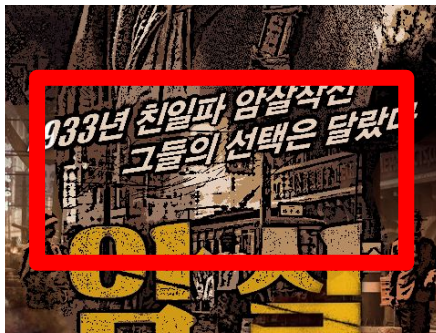
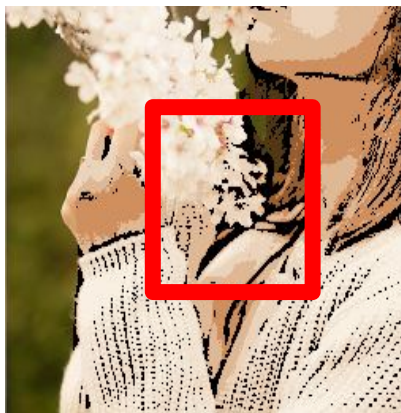
Model

- B2B: Subscription Model, API
- B2C: Freemium Model, In-App Purchase



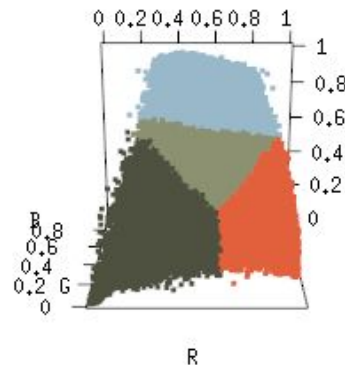
Future Plan

- Human Detection Accuracy



Don't detect non-person part
(word, flower, etc on human)

- K-means result visualization



It will tell us clustering is
done well or not

Thank you !