

Year 2023-2024

Capstone Project

Table of Contents

- Introduction
- Our Learning Objective
- Icebreaker
- Rapha
- Rapha's Key Components
- How Rapha Will Work
- Rapha's Advantages And Limitations
- Other Fields Where Rapha Can Be Used
- Ethical Considerations
- Prototype
- Storyboard
- Website
- Conclusion
- Q and A
- Bibliography



Our Learning Objective

1. Understand the concept of photo restoration using AI.
2. Introduction of Rapha
3. Learn about the key components of Rapha.
4. How Rapha will work.
5. Rapha's advantages and limitations
6. Other fields where Rapha can be used.
7. Explore the ethical considerations of Rapha.



Icebreaker

Do you have any pictures
capturing your most
cherished childhood
moments?



Rapha

Welcoming "Rapha", a Hebrew word that means "to restore". AI image restoration uses advanced technology, like deep learning, to improve damaged or old photos. AI Restore brings new life to your cherished memories by fixing blur, noise, and color issues. We use cutting-edge AI to expertly enhance and rejuvenate your photos, ensuring they stay beautiful for generations to come.

Let's preserve your past together.

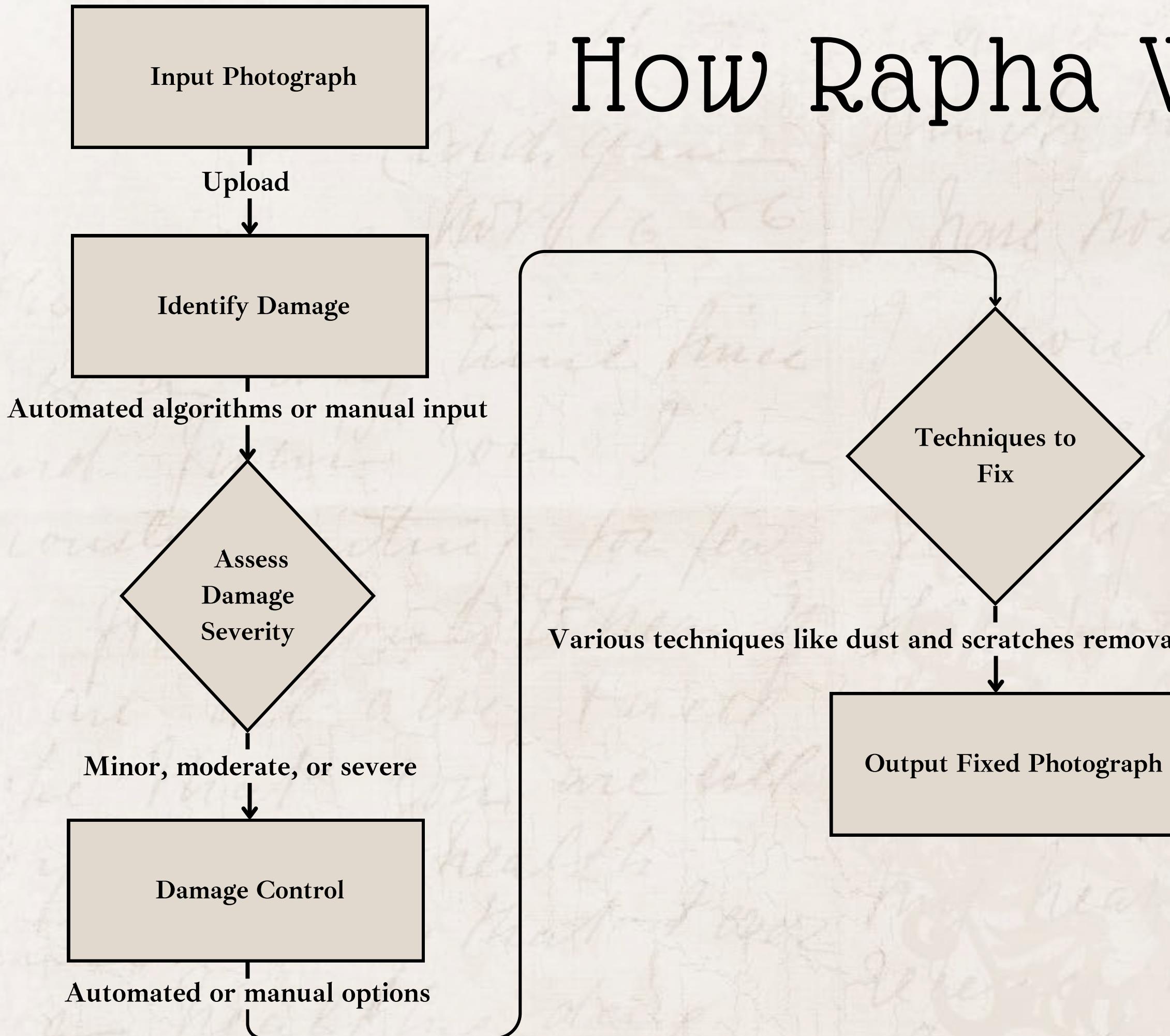


Rapha's Key Components

- 
- 1. Image Colorization
 - 2. Noise Reduction
 - 3. Scratch and Stain Removal
 - 4. Contrast Enhancement
 - 5. Detail Restoration
- 

- 1. Blur Reduction
- 2. Automatic Image Cropping
- 3. Dynamic Range Adjustment
- 4. Texture Enhancement
- 5. Content-Aware Fill

How Rapha Will Work



Rapha's Advantages And Limitations

Advantages

1. Efficiency
2. Accuracy
3. Scalability
4. Accessibility
5. Learning and Adaptation

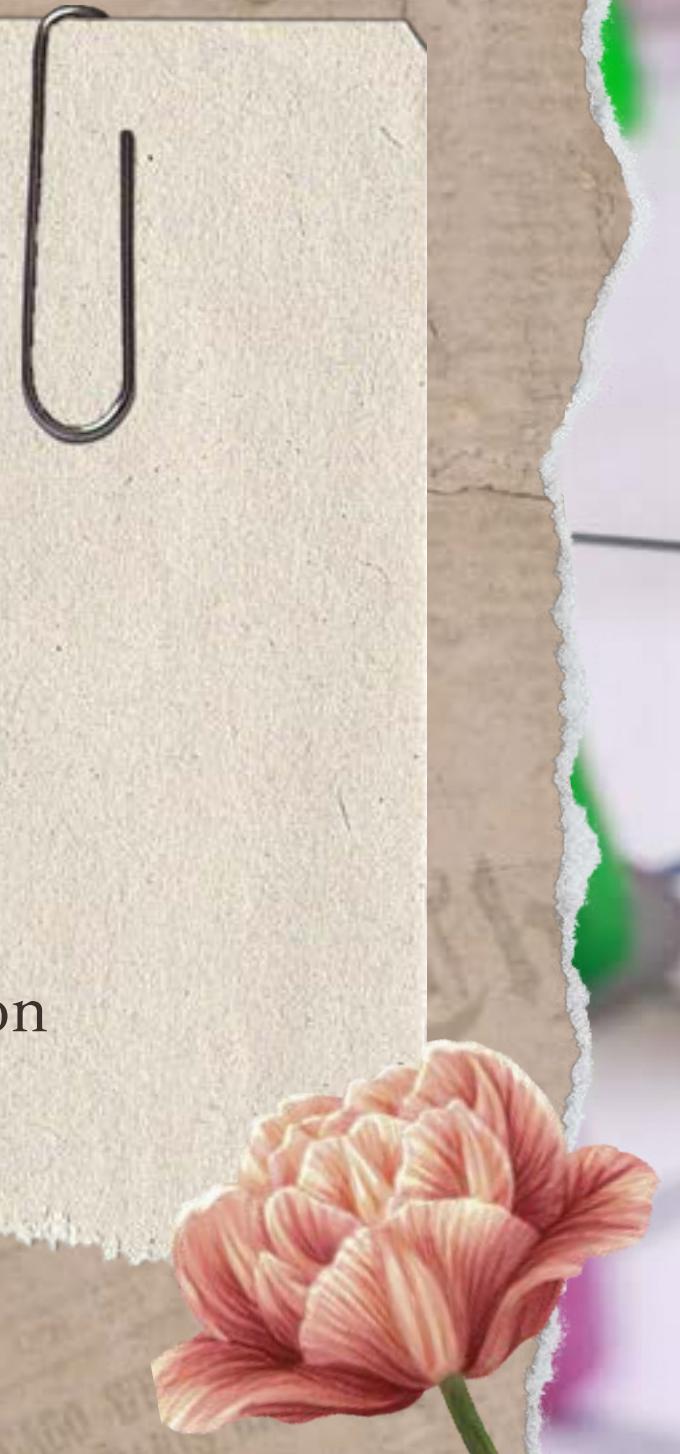
Limitations

1. Interpretation and Artistic Judgment
2. Complexity and Variability
3. Ethical Considerations
4. Data Dependence and Bias
5. Technical Expertise and Resources



Other fields Where Rapha Can Be Used

- Historical Preservation
- Genealogy and Family History
- Art Conservation
- Crime Investigative
- Media and Journalism
- Advertising and Marketing
- Academic Research
- Personal Memories
- Digital Archives
- Insurance and Legal Documentation
- Healthcare



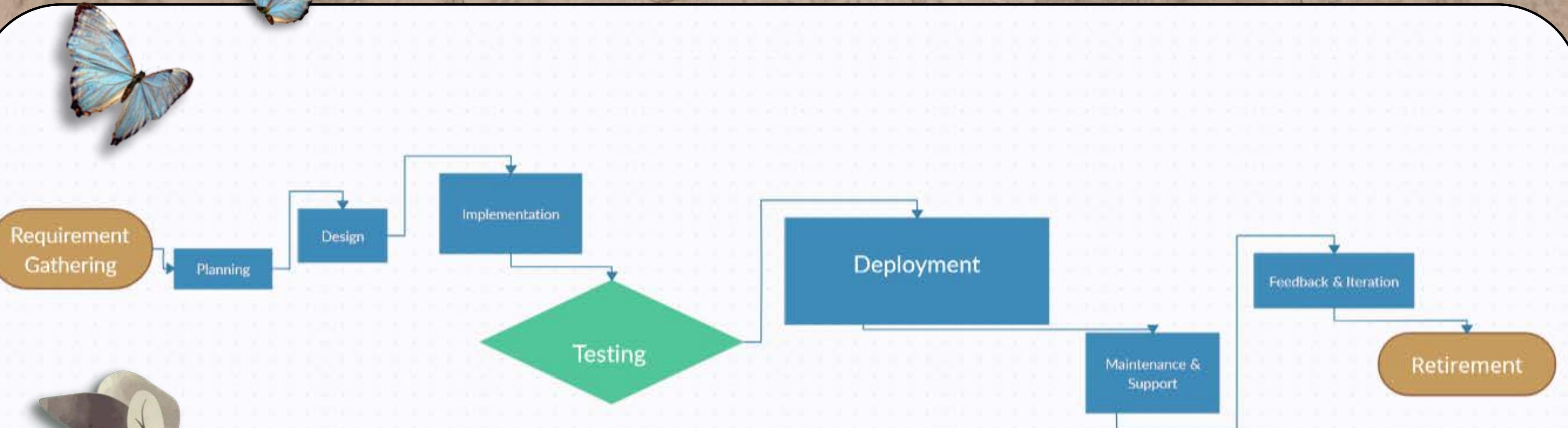
Ethical Considerations

- Consent
- Authenticity and integrity of historical or culturally significant images
- Bias and Stereotypes
- Privacy
- Transparency
- Data Security
- Accessibility to diverse communities
- Accountability

Prototype



SDLC Model



Storyboard



Rapha's Photo Restore Process



Meet Emily. She cherishes this old family photograph, but time has taken its toll."



Emily seeks help from Rapha.



We'll assess the damage and discuss the restoration options available.



Every detail is enhanced to bring back the clarity lost over time.

Rapha's Photo Restore Process



After several rounds of adjustments, the restoration is complete.



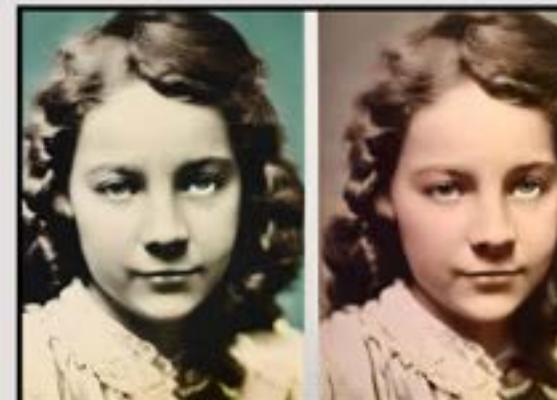
Emily receives the fully restored photograph, preserving her cherished memories for generations to come



The photograph is delicately scanned to create a digital copy.



Using advanced software, Rapha's software meticulously repairs the damage.



Careful color correction ensures the photograph looks true to its original form.

Thanks to the expertise of Rapha's restoration service, Emily's treasured memories have been brought back to life.



Website

<https://rapha.bl2sites.com/index>



Conclusion

In summary, AI has shown great promise in restoring old photos and preserving memories and heritage, although there is always room for improvement, this product has proven quite efficient. This capstone project has helped us all grow in many ways, refining technical skills, and nurturing creativity, problem-solving, and teamwork. Looking back, we'd focus on refining AI algorithms, making our software more user-friendly, and collaborating more with experts in photography and restoration to gain more insights.

U

Q And A



Bibliography

Whimsical - The iterative workspace for product teams. (n.d.). Whimsical.

<https://whimsical.com/>

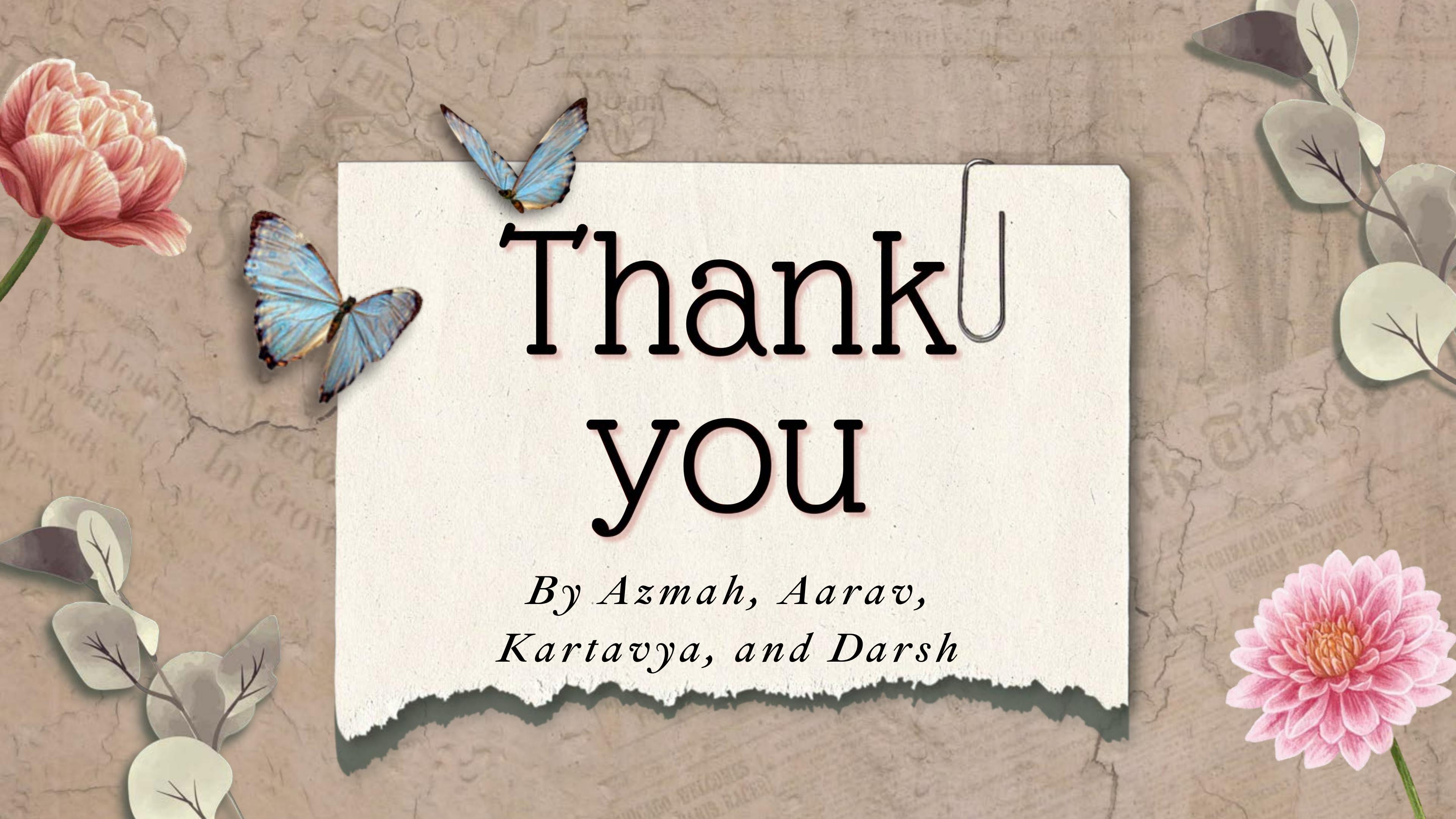
ChatGPT - Google Search. (n.d.). https://www.google.com/search?q=chatGPT&rlz=1C1JZAP_enIN1103IN1103&oq=chatGPT&gs_lcrp=EgZjaHJvbWUyBggAEUYOTIGCAEQRRhBMgYIAhBFGD0yBggDEEUYPdIBCDQzMzFqMGo3qAIAsAIA&sourc eid=chrome&ie=UTF-8

Creately. (n.d.). <http://app.creately.com/>

The easiest AI website builder. (n.d.). Bl2. https://www.bl2.io/ai-web-design/?utm_source=client&utm_medium=footer&utm_campaign=ai-web-design

CorelDRAW Graphics Suite | Free Trial. (n.d.). <https://www.coreldraw.com/en/tips/photo-restoration/#:~:text=Photo%20restoration%20is%20the%20process,damage%20that%20may%20have%20occurred.>

VanceAI.com. (n.d.). VanceAI Photo Restorer | AI Old Photo Restoration Online Solution. VanceAI. <https://vanceai.com/old-photo-restoration/>



Thank
you

*By Azmah, Aarav,
Kartavya, and Darsh*