PinBerry: A Lightweight and Personalized System for Photo Navigation

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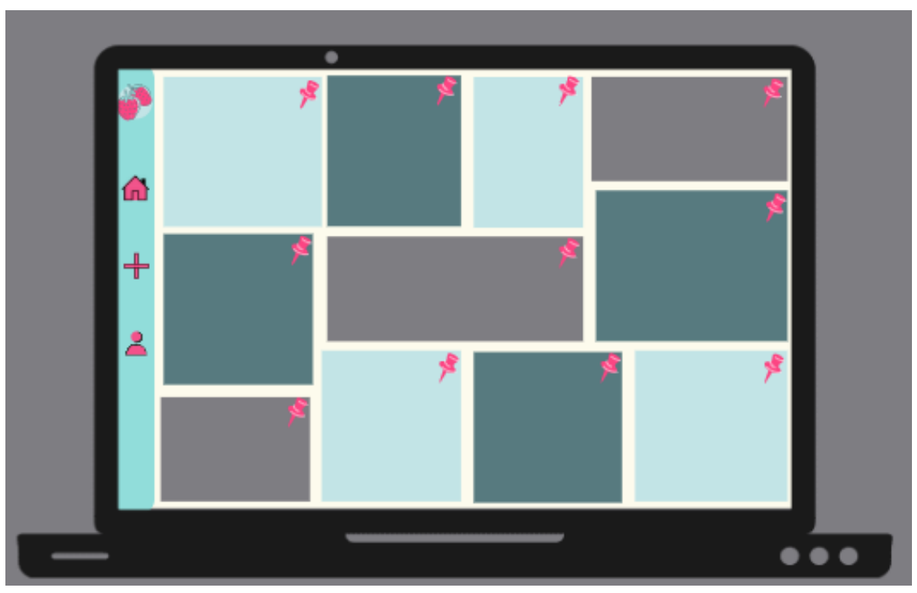
Introduction

PinBerry is a simple and user-friendly photo management platform inspired by Pinterest. It focuses on core features like uploading, viewing, deleting, and downloading images. Its minimalist design eliminates distractions, while the use of object-oriented programming provides a clean, flexible, and maintainable codebase.

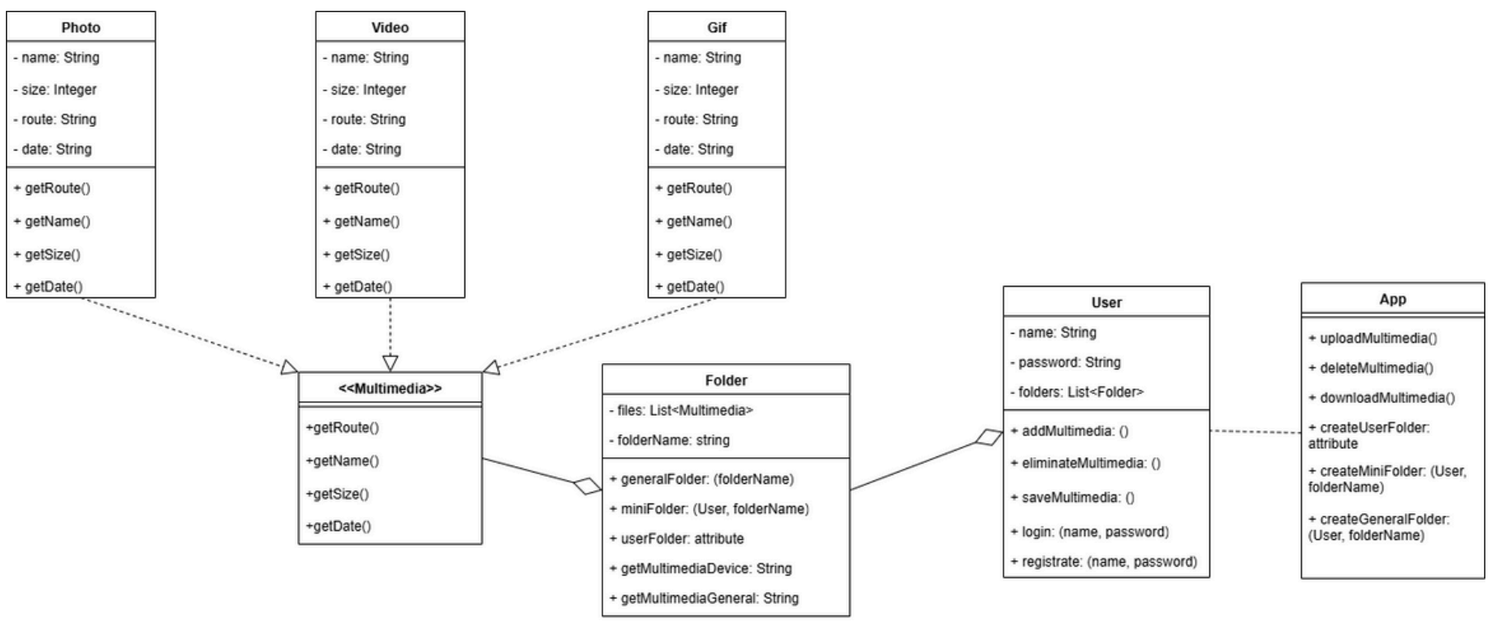
Proposed solution

A software architecture based on solid object-oriented principles is proposed, with classes like User, Photo, and Folder having clear responsibilities and strong encapsulation. Interfaces such as Multimedia enable uniform handling of various media types, supporting future scalability. A well-defined interface and modular design allow efficient operation management and enhance security and data integrity.



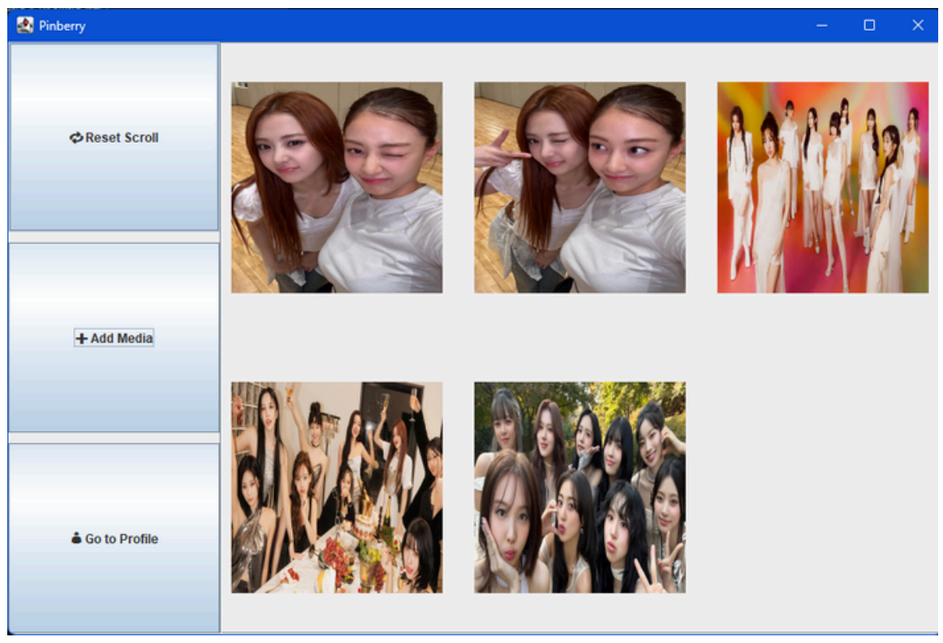
Methodolgy

Development followed object-oriented principles, starting with composition and later integrating inheritance through interfaces. UML diagrams (class, sequence, activity) modeled system operations. Applying SOLID principles guaranteed flexibility, clarity of responsibilities, and long-term maintainability.

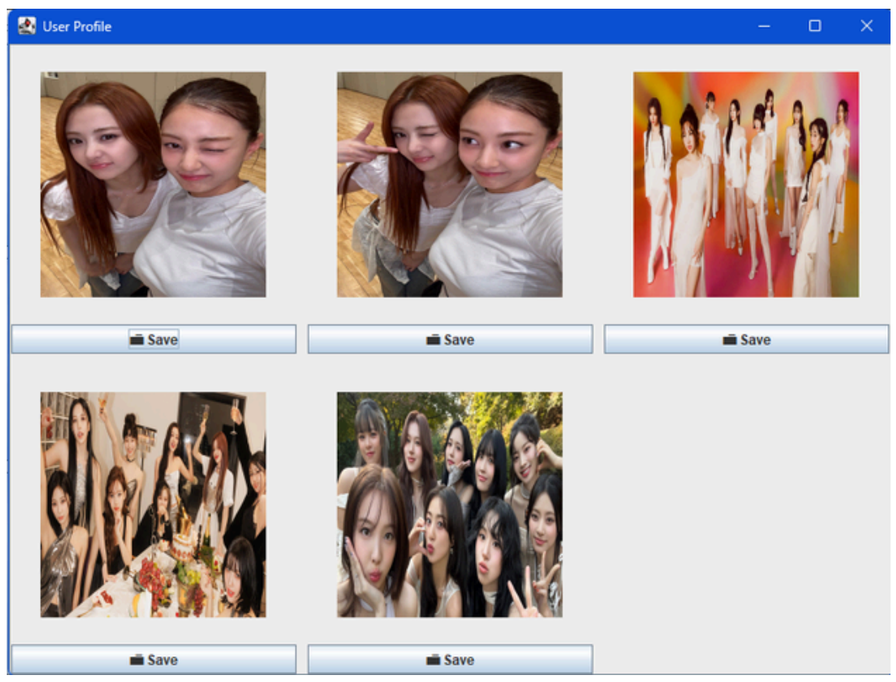


Results

The system lets users manage multimedia files effectively, offering upload, delete, and viewing features across folders.



Thanks to interfaces and modular design, it can be extended to support more media types. Diagrams helped align the development with initial functional goals



Conclusions

PinBerry shows how minimalism and solid design simplify app development and upkeep. Object-oriented programming, interfaces, and UML diagrams helped build a secure, scalable, and easy-to-use system. The project underscores the value of best practices in sustainable tech development.

Bibliography

- Hazari, S., Sethna, B. N., & Brown, C. O. (2017). Determinants of Pinterest affinity for marketers using antecedents of user-platform fit, design, technology, and media content. International Journal of Technology Marketing, 12(3), 230–251.
- B. Meyer, Object-Oriented Software Construction, 2nd ed. Prentice Hall, 1997.