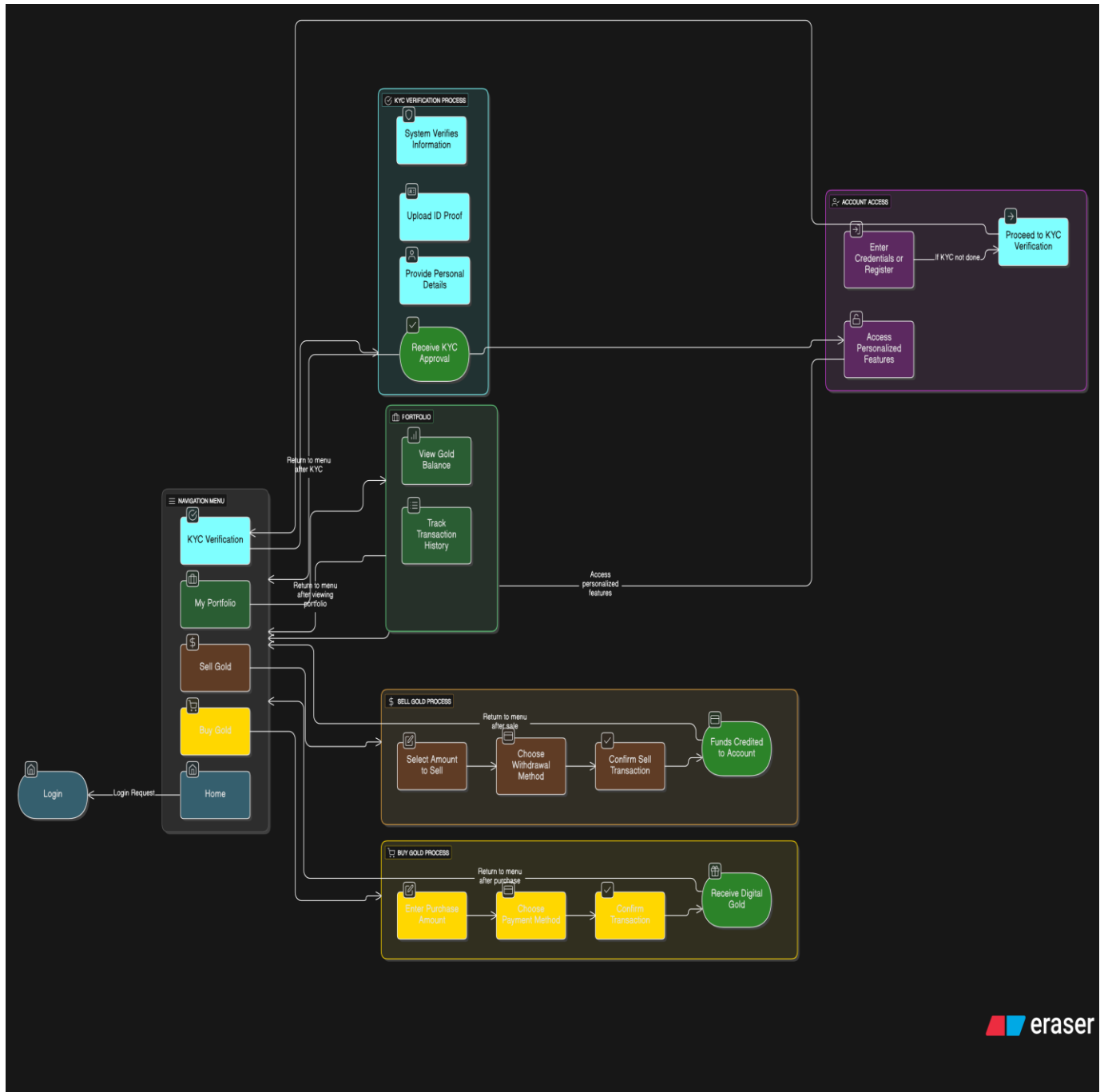


Digital Gold Platform



Objectives:

1. Secure Digital Gold Management:

- Provide a robust platform for users to buy, sell and hold digital gold securely.
- Ensure all transactions and holdings are transparently recorded and auditable.

2. User-Friendly Experience:

- Deliver an intuitive frontend for seamless user onboarding, KYC verification, and gold transactions.
- Enable real-time notifications and easy access to transaction history and account management.

3. Scalable and Modular Architecture:

- Design the backend and frontend to support growth in user base and transaction volume.
- Use modular code and APIs for maintainability and future feature expansion.

4. Compliance and Security:

- Implement KYC/AML processes, secure authentication, and role-based access control.
- Ensure compliance with financial regulations and industry best practices.

5. Real-Time Gold Price Integration:

- Integrate with external APIs to fetch and update live gold prices for accurate transactions.

Deliverables:

1. Backend API:

- RESTful API for user management, gold transactions, holdings, inventory, notifications, and admin operations.
- Secure authentication, authorization, and audit logging for all critical actions.

2. Frontend Application:

- Responsive web interface for users and admins, including dashboards, KYC, inventory, and transaction management.
- Real-time notifications and user feedback (e.g., toasts, loading spinners, error boundaries).

3. Gold Price Integration:

- Automated fetching and updating of gold prices from trusted sources.

- Price management tools for admins.

4. KYC and Compliance:

- User onboarding with KYC verification and admin review workflows.
- Audit trails for all compliance-related actions.

5. Documentation and Best Practices:

- Comprehensive documentation for setup, deployment, and API usage.
- Guidelines for security, scalability, and maintainability.

Requirements:

- Node.js, Express:
 - Backend server and REST API implementation.
- React, Tailwind CSS:
 - Frontend application for user and admin interfaces.
- MongoDB:
 - Database for storing users, transactions, holdings, inventory, and audit logs.
- Cloudinary:
 - Media storage for KYC documents and user uploads.
- Vercel/Render:
 - Deployment of frontend and backend services.
- CI/CD Tools (e.g., GitHub Actions):
 - Automated testing and deployment pipelines.
- Git:
 - Version control for all source code and configuration files.

Advanced Features:

1. Admin Dashboard and Controls:

- Advanced admin tools for managing users, inventory, KYC, pricing, and auditing.

2. Real-Time Notifications:

- In-app and email notifications for transactions, KYC status, and system alerts.

3. Audit Logging and Monitoring:

- Comprehensive audit logs for all sensitive actions and system events.
- Monitoring tools for system health and performance.

4. Security and Compliance:

- End-to-end encryption, secure password storage, and regular security audits.
- Compliance with financial regulations and data protection standards.