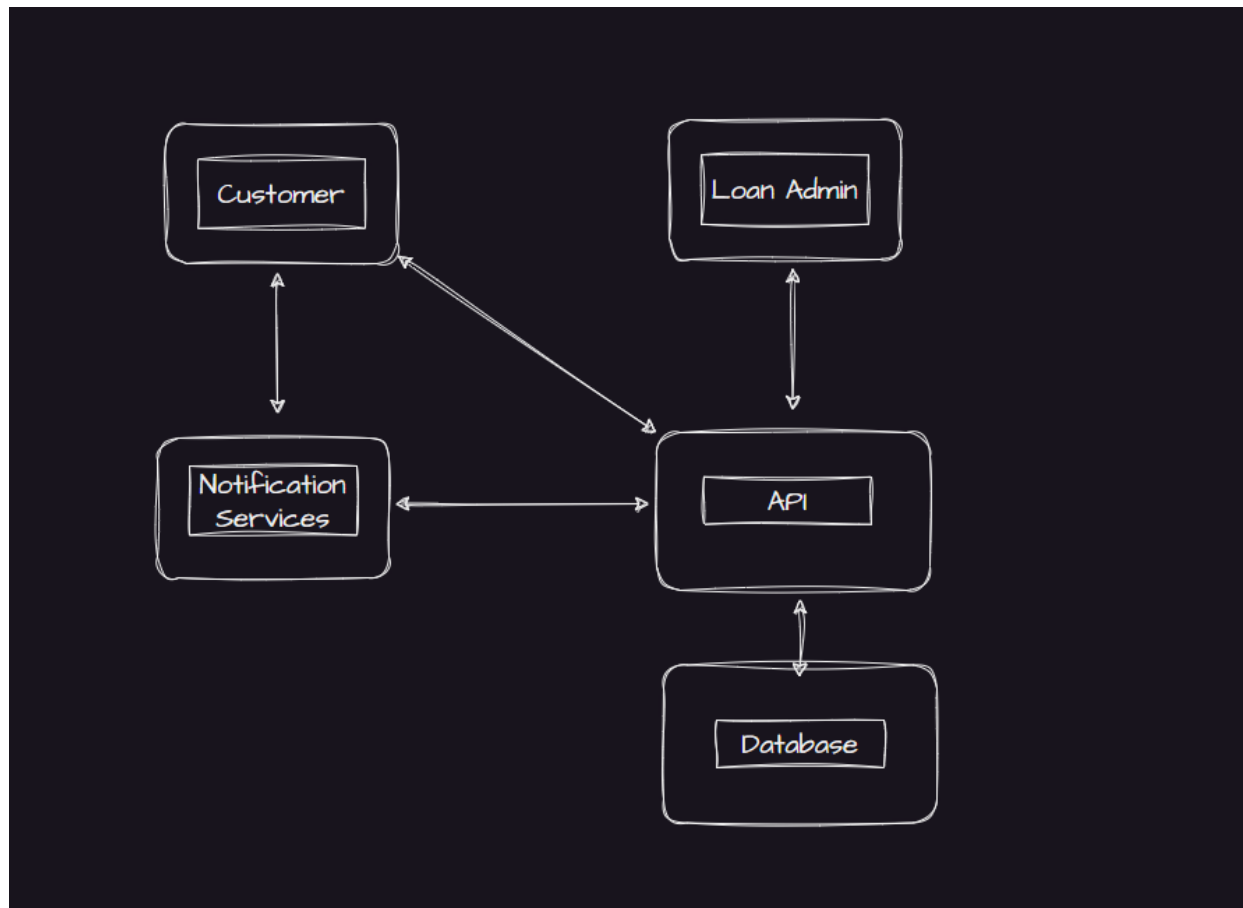


High-Level Design



1. ****Client (Mobile App):****

- The mobile app is the front-end client that interacts with the user.

2. ****Authentication Service:****

- Manages user authentication and authorization.
- Handles user registration and login.
- Provides authentication tokens for secure communication.

3. ****User Service:****

- Manages user data and profile information.
- Handles user registration, updates, and retrieval.

4. ****Loan Service:****

- Manages loan-related operations.
- Processes loan requests, approvals, and rejections.
- Tracks loan details, including amount, tenure, and status.

5. ****Repayment Service:****

- Manages loan repayment processes.
- Calculates repayment schedules and amounts.

- Tracks repayment status.

6. ****Notification Service:****

- Sends notifications to users for loan approvals, rejections, and repayment reminders.
- Manages the notification queue and delivery.

7. ****Database (DB):****

- Stores user data, loan details, and repayment information.
- Ensures data integrity and persistence.

8. ****API Gateway:****

- Serves as a single entry point for the mobile app to access various services.
- Routes requests to the appropriate service.

9. ****Message Queue:****

- Facilitates asynchronous communication between services.
- Used for decoupling services and ensuring scalability.

10. ****External Services:****

- May include external APIs for credit scoring, identity verification, or other third-party services.

11. **Email Service:**

- Sends email notifications to users.
- Integrated with the notification service.

12. **Logging and Monitoring:**

- Monitors system performance, logs errors, and tracks user activities.
- Supports troubleshooting and performance optimization.

13. **Security Layer:**

- Ensures data security, including encryption of sensitive information.
- Implements proper authentication and authorization mechanisms.

14. **Load Balancer:**

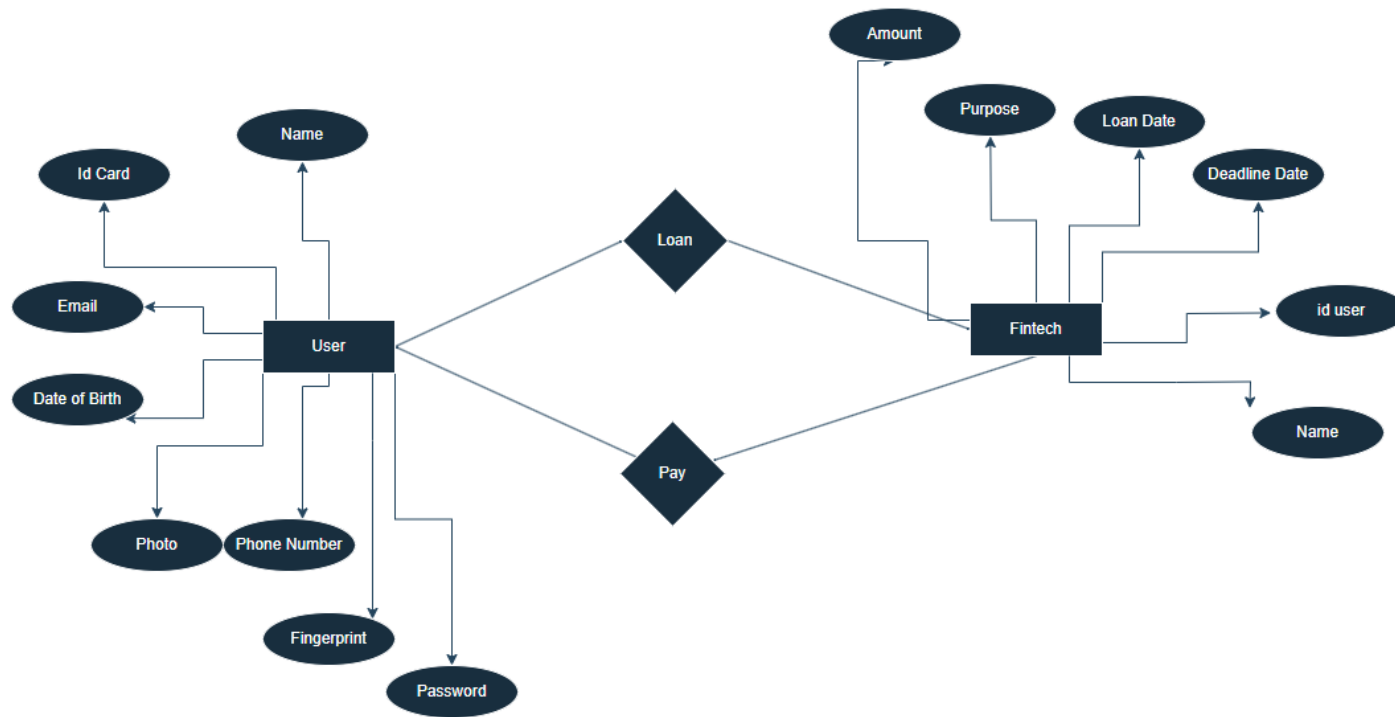
- Distributes incoming requests across multiple instances of services for load distribution and high availability.

15. **Container Orchestration (Optional):**

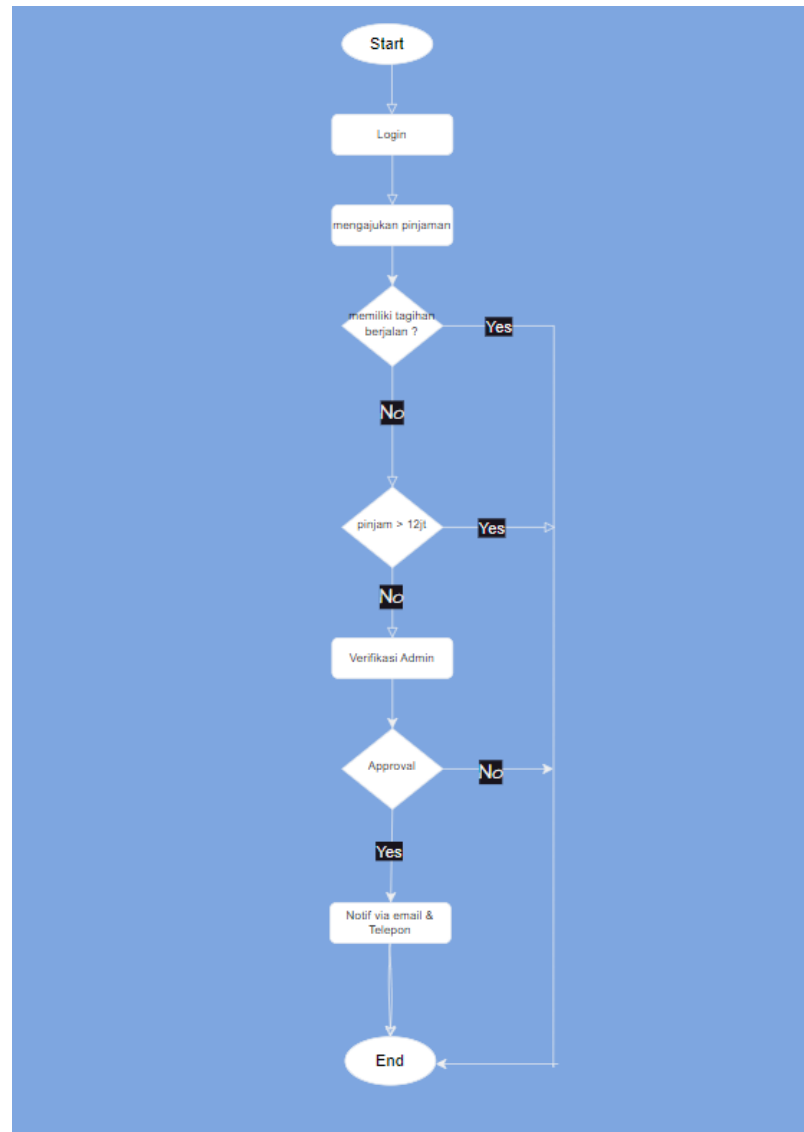
- Manages the deployment, scaling, and operation of application containers.

16. **CDN (Content Delivery Network):**

- Improves the delivery of static assets, such as images and stylesheets, to enhance app performance.

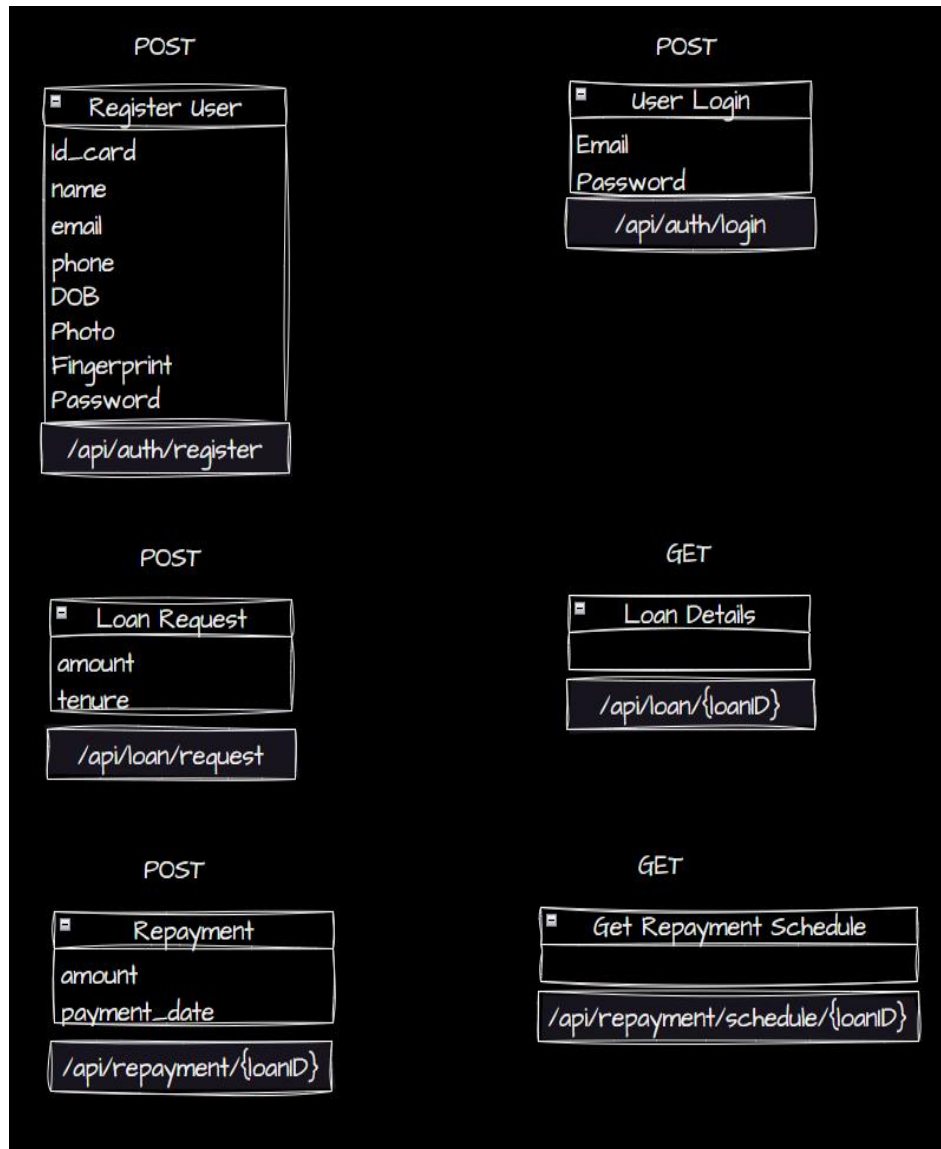


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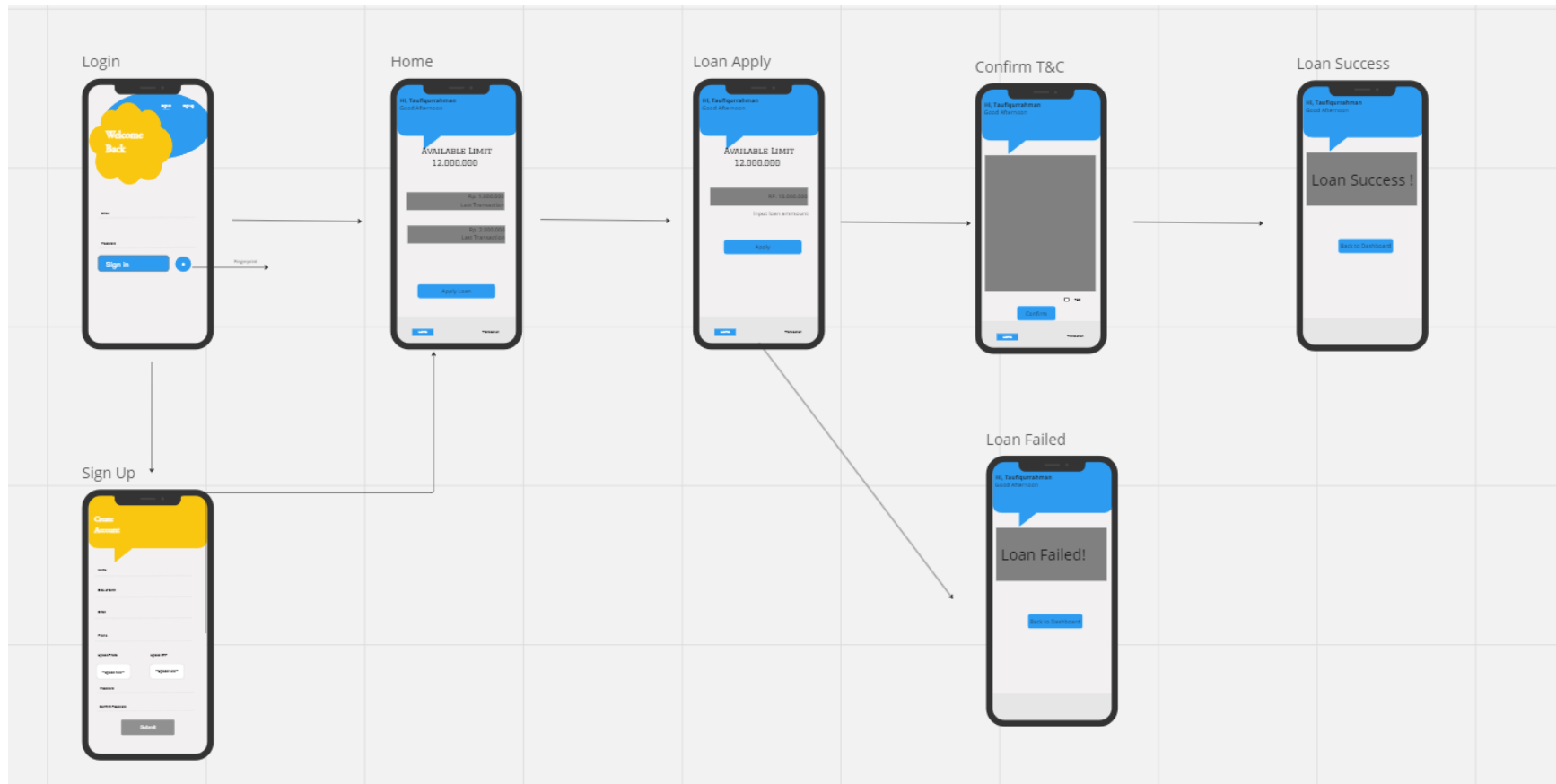


Flowchart

API Design



Screen Flow



1. Login
Tampilan awal ketika user membuka aplikasi yang akan menampilkan menu login dan registrasi
2. Home
Tampilan awal ketika user berhasil login yang akan menampilkan total limit yang dimiliki user dan beberapa transaksi yang telah dilakukan user

3. Sign Up
Tampilan ketika user akan mengisi data diri untuk membuat akun
4. Loan Apply
Tampilan pengajuan pinjaman yang dimana berisi jumlah limit yang ada dan total nominal yang akan dipinjam user
5. Confirm T&C
Tampilan ketika user mengisi persetujuan kontrak
6. Loan Success
Tampilan ketika user telah berhasil mengajukan pinjaman
7. Loan Failed
Tampilan ketika user gagal dalam mengajukan pinjaman karena ditolak admin