

Dokumentasi Integrasi Sistem Reservasi Hotel

Arsitektur Sistem

Sistem terdiri dari beberapa microservices yang saling terintegrasi:

1. Frontend (Port 3000)

- Dibangun dengan React
- Berkomunikasi dengan backend services melalui REST API
- Fitur:
 - Form booking
 - Dashboard admin

2. Hotel Service (Port 5001)

- Mengelola informasi kamar
- Database: PostgreSQL
- Endpoint:
 - GET /api/rooms: Daftar kamar
 - GET /api/rooms/{id}: Detail kamar
 - POST /api/rooms: Tambah kamar (admin)
 - PUT /api/rooms/{id}: Update kamar (admin)
 - DELETE /api/rooms/{id}: Hapus kamar (admin)

3. Auth Service (Port 5002)

- Mengelola autentikasi
- Database: PostgreSQL
- Endpoint:
 - POST /api/auth/login: Login admin
 - POST /api/auth/logout: Logout
 - GET /api/auth/verify: Verifikasi token

4. Reservation Service (Port 5003)

- Mengelola pemesanan
- Database: PostgreSQL
- Endpoint:
 - POST /api/bookings: Buat reservasi
 - GET /api/bookings: Daftar reservasi
 - PUT /api/bookings/{id}: Update status

Alur Komunikasi

1. User Flow:

- User membuka website → Frontend
- Lihat kamar → Hotel Service
- Booking kamar → Reservation Service

2. Admin Flow:

- Login → Auth Service
- Kelola kamar → Hotel Service
- Kelola reservasi → Reservation Service

Integrasi Database

- Semua service menggunakan PostgreSQL
- Database: hotel_db
- Tabel:
 - room: Informasi kamar
 - booking: Data reservasi
 - user: Data admin

Docker Integration

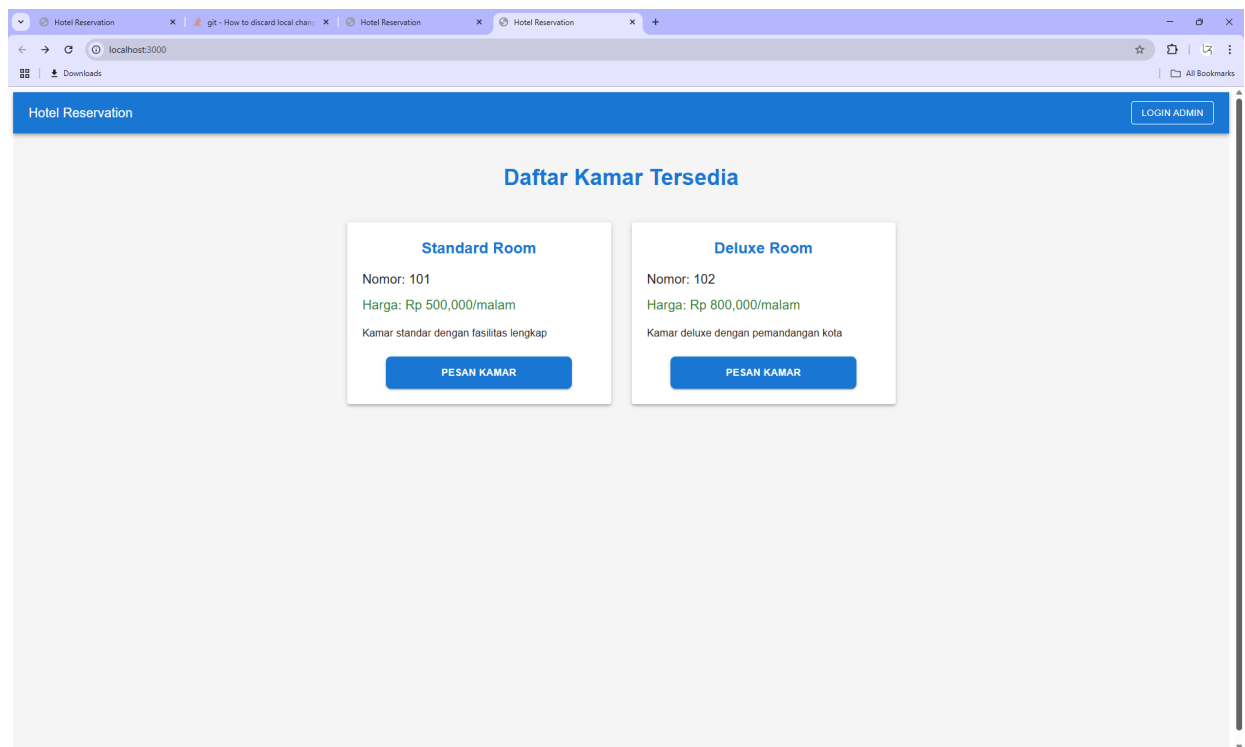
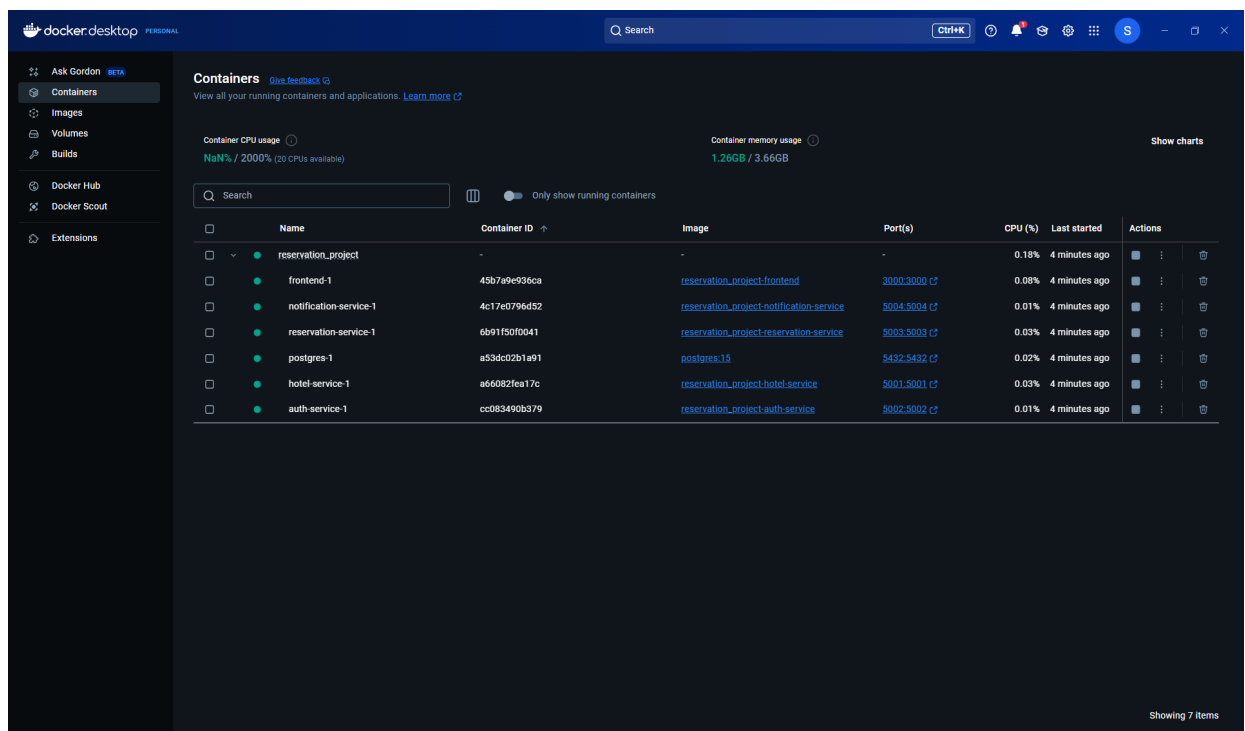
- Semua service berjalan dalam container
- Menggunakan docker-compose untuk orchestration
- Volume untuk persistensi data
- Health check untuk database

Screenshot

```

postgres-1 | 2025-05-02 07:18:15.728 UTC [29] LOG: database system was shut down at 2025-05-02 07:14:05 UTC
postgres-1 | 2025-05-02 07:18:15.752 UTC [1] LOG: database system is ready to accept connections
hotel-service-1 | * Serving Flask app 'run.py'
hotel-service-1 | * Debug mode: off
notification-service-1 | * Serving Flask app 'run.py'
notification-service-1 | * Debug mode: off
auth-service-1 | * Serving Flask app 'run.py'
auth-service-1 | * Debug mode: off
hotel-service-1 | WARNING: This is a development server. Do not use it in a production deployment. Use a production WSGI server instead.
hotel-service-1 | * Running on all addresses (0.0.0.0)
hotel-service-1 | * Running on http://127.0.0.1:5001
hotel-service-1 | * Running on http://172.18.0.8:5001
hotel-service-1 | Press CTRL+C to quit
notification-service-1 | WARNING: This is a development server. Do not use it in a production deployment. Use a production WSGI server instead.
notification-service-1 | * Running on all addresses (0.0.0.0)
notification-service-1 | * Running on http://127.0.0.1:5004
notification-service-1 | * Running on http://172.18.0.7:5004
notification-service-1 | Press CTRL+C to quit
auth-service-1 | WARNING: This is a development server. Do not use it in a production deployment. Use a production WSGI server instead.
auth-service-1 | * Running on all addresses (0.0.0.0)
auth-service-1 | * Running on http://127.0.0.1:5002
auth-service-1 | * Running on http://172.18.0.9:5002
auth-service-1 | Press CTRL+C to quit
reservation-service-1 | * Serving Flask app 'run.py'
reservation-service-1 | * Debug mode: off
reservation-service-1 | WARNING: This is a development server. Do not use it in a production deployment. Use a production WSGI server instead.
reservation-service-1 | * Running on all addresses (0.0.0.0)
reservation-service-1 | * Running on http://127.0.0.1:5003
reservation-service-1 | * Running on http://172.18.0.6:5003
reservation-service-1 | Press CTRL+C to quit

```



Halaman Utama (Homepage)

Halaman utama menampilkan:

- Tombol "LOGIN ADMIN" di pojok kanan atas
- Tampilan responsif untuk berbagai ukuran layar



Form Pemesanan Kamar

Detail Kamar:

Tipe: Deluxe Room

Harga: Rp 800000/malam

Tanggal Check-in *

dd/mm/yyyy

Tanggal Check-out *

dd/mm/yyyy

Nama Lengkap *

Email *

Nomor Telepon *

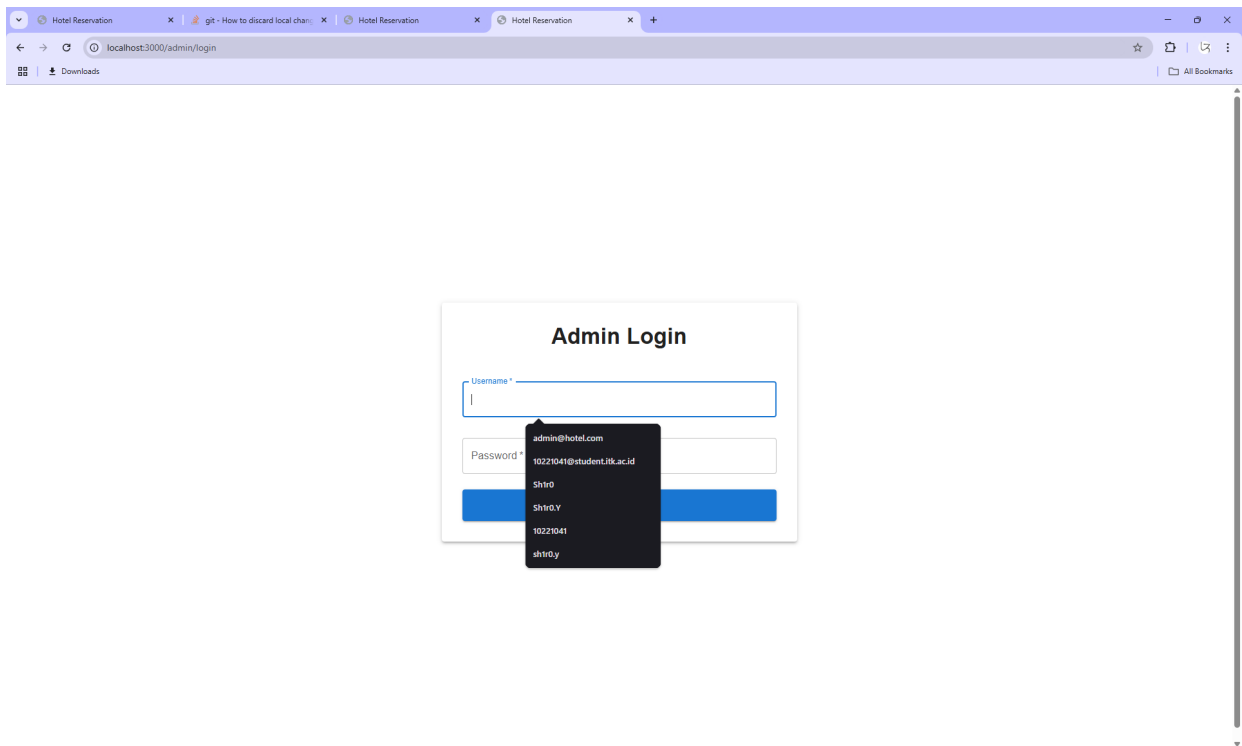
KONFIRMASI PEMESANAN

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Form Pemesanan Kamar

Form pemesanan menampilkan:

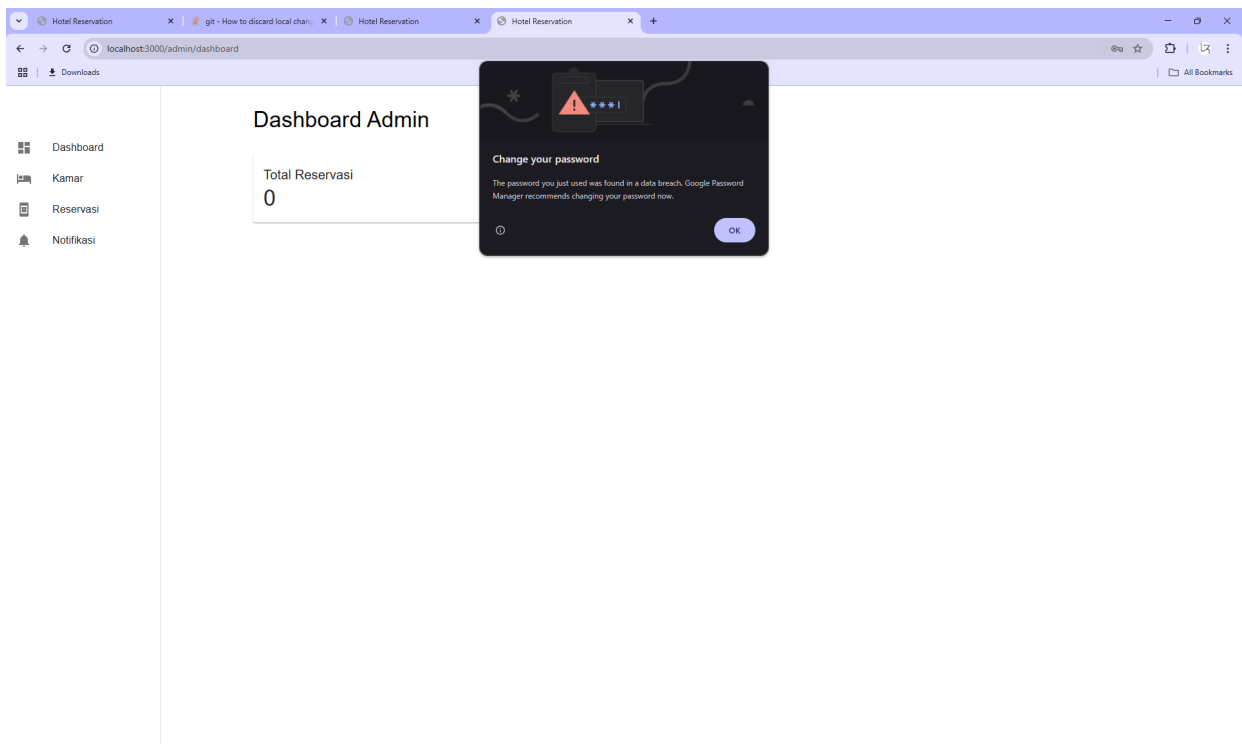
- Detail kamar yang dipilih (tipe dan harga)
- Input untuk:
 - Tanggal Check-in dan Check-out
 - Nama Lengkap
 - Email
 - Nomor Telepon
- Tombol "KONFIRMASI PEMESANAN"
- Validasi input untuk semua field wajib



Halaman Login Admin

Halaman login admin dengan:

- Field untuk username dan password
- Validasi input
- Pesan error jika login gagal



Dashboard Admin

Dashboard admin menampilkan:

- Menu navigasi di sidebar
- Total reservasi yang tercatat