

User Management Application using Node.js, Express, and Supabase

Objective

The objective of this project is to build a RESTful backend User Management Application using Node.js and Express.js, with Supabase (PostgreSQL) as the database. The application performs complete CRUD operations with proper validation and error handling.

Supabase Integration

The application connects to Supabase using the official Supabase client. Supabase PostgreSQL database stores all user data. Credentials are managed using environment variables.

User Schema Design

id (UUID, Primary Key)
name (required)
email (required, unique)
password (required, hashed)
age (optional, >=18)
role (default: user)
created_at (timestamp)

CRUD Operations

Create User – Adds new user with validations and hashed password.

Read Users – Fetch all users or single user by ID.

Update User – Modify user details using ID.

Delete User – Remove user by ID.

Validations

Name not empty, valid email format, password minimum 8 characters, age >=18, prevent duplicate emails.

Error Handling

Uses proper HTTP status codes like 400, 404, 500 with meaningful messages.

Non-Functional Requirements

Environment variables, clean folder structure, JSON responses only, tested using Postman or Thunder Client.

Submission

Submit GitHub repository link.