

# Proof of Concept (POC) Document

## Project Overview

This Proof of Concept (POC) aims to create a basic user management system for freshers in the company to understand and implement fundamental authentication and CRUD operations. The application will be built using **React (or Angular) for the frontend, Node.js (or Python/Java/.NET) for the backend, and MySQL for the database.**

## Features

### 1. Authentication System

- Login
- Signup
- Forgot Password
- Update Password

### 2. User Management

- Add User (Fields: Name, DOB, Password, Profile Image)
  - Edit User
  - Delete User
  - List Users (with Search & Sort functionality for all fields)
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## Tech Stack

- **Frontend:** React.js / Angular
  - **Backend:** Node.js / Python / Java / .NET / PHP
  - **Database:** MySQL
  - **Authentication:** JWT / OAuth2.0
  - **File Storage:** Local / Cloud (AWS S3, Firebase Storage)
  - **API Communication:** REST API
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## Tasks & Subtasks

### 1. Authentication Module

#### 1.1 Signup

- User registration form with Name, Email, Password, Confirm Password

- Password hashing (BCrypt)
- Save user details in MySQL
- Send verification email (optional)

## **1.2 Login**

- User authentication using Email & Password
- JWT Token generation for session management

## **1.3 Forgot Password**

- Input email to request password reset
- Send password reset link via email
- Implement reset password functionality

## **1.4 Update Password**

- Change password from profile settings
  - Validate old password before updating
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# **2. User Management Module**

## **2.1 Add User**

- Form to enter user details (Name, DOB, Password, Profile Image)
- Password encryption before saving
- Store image in local/cloud storage

## **2.2 Edit User**

- Fetch user details for modification
- Allow updating any field

## **2.3 Delete User**

- Soft delete or permanent delete option

## **2.4 List Users**

- Display user list with Name, DOB, Profile Image
  - Implement Search on all fields
  - Implement Sort functionality on all fields
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# UI Sections

## 1. Login Page

- Email & Password input fields
- "Forgot Password" link
- "Signup" button

## 2. Signup Page

- Name, Email, Password, Confirm Password fields
- "Sign Up" button

## 3. Forgot Password Page

- Email input field
- "Send Reset Link" button

## 4. User Management Page

- **Add User Form:** Name, DOB, Password, Profile Image upload
  - **Edit User Form:** Pre-filled form to update user details
  - **User List Table:** Displays all users with search & sort
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## Summary

This POC provides freshers with a fundamental understanding of authentication, user management, and database operations. It also helps them explore technologies like **React**, **Node.js**, and **MySQL** in a real-world application setup.

## Submission -

Code Repository Access of Frontend

Code Repository Access of APIs

Database Schema of MySQL

APIs documentation ( postmen / swagger ) URL