

Roll Off Project

Low Level Design

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Contents

1.0 Document Purpose.....	3
2.0 Intended Audience	3
3.0 Project Background, Objective(s).....	3
3.1 Project Background	3
3.2 Project Objective	3
4.0 Design Pattern.....	3
5.0 Solution Diagram.....	4
6.0 Architecture Diagram	4
7.0 Flow Diagram:	5
8.0 Use case Diagram:	5
9.0 Class Diagram.....	6
10.0 E-R Diagram:	7
11.0 User Requirements	8
11.1 Hardware.....	8
11.2 Software.....	8
12.0 Developer Requirements.....	8
12.1 Hardware.....	8
12.2 Software.....	8
12.3 Technology	8
13.0 Solution Steps.....	8
14.0 Classes/function	9
15.0 API Canvas.....	10
16.0 HTTP Status Code	10

Roll Off(LLD)

1.0 Document Purpose

This document describes the solution architecture For Roll Off employee.

2.0 Intended Audience

This document is intended as a reference for the following roles who performed Roll Off technical architecture.

Role	Functions
Account Team	Account Team submit the reason of roll off for particular employee.
PSP Team	Psp team will check reasons of roll off and decide whether to approved it or not.
Super Admin	If employee is from A grade level then super admin will have access to approve it or not.

3.0 Project Background, Objective(s)

3.1 Project Background

Roll Off project is implemented to make roll off process easier for all department and it is very easy to maintain all process from initiating roll off until to approved roll off. It is very time saving as all process is done using a single system.

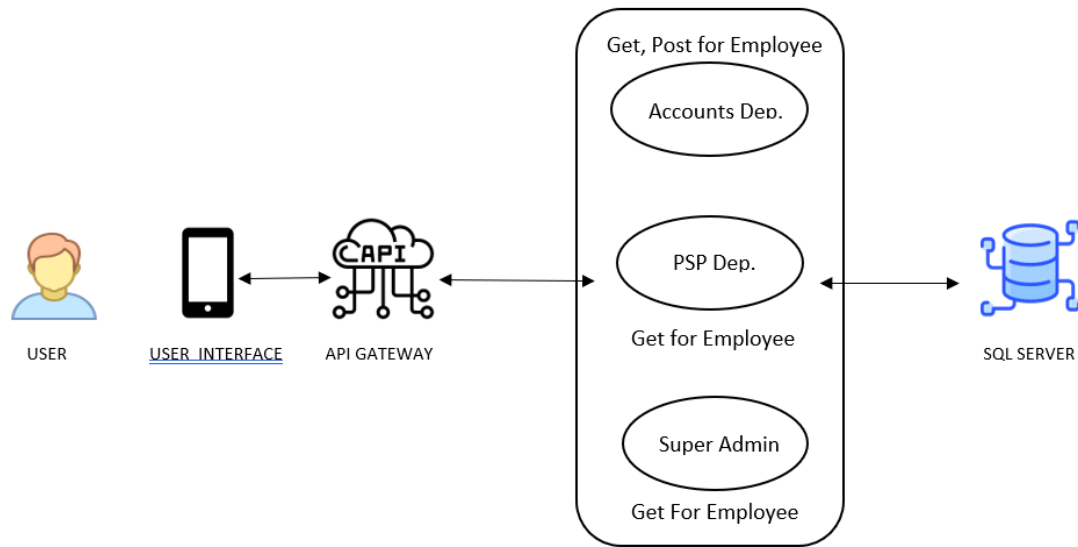
3.2 Project Objective

The main objective of Roll Off is to act as bridge between department i.e Account team, PSP team and Super admin by registering and user will search employee and will able to make roll off using accurate reasons.

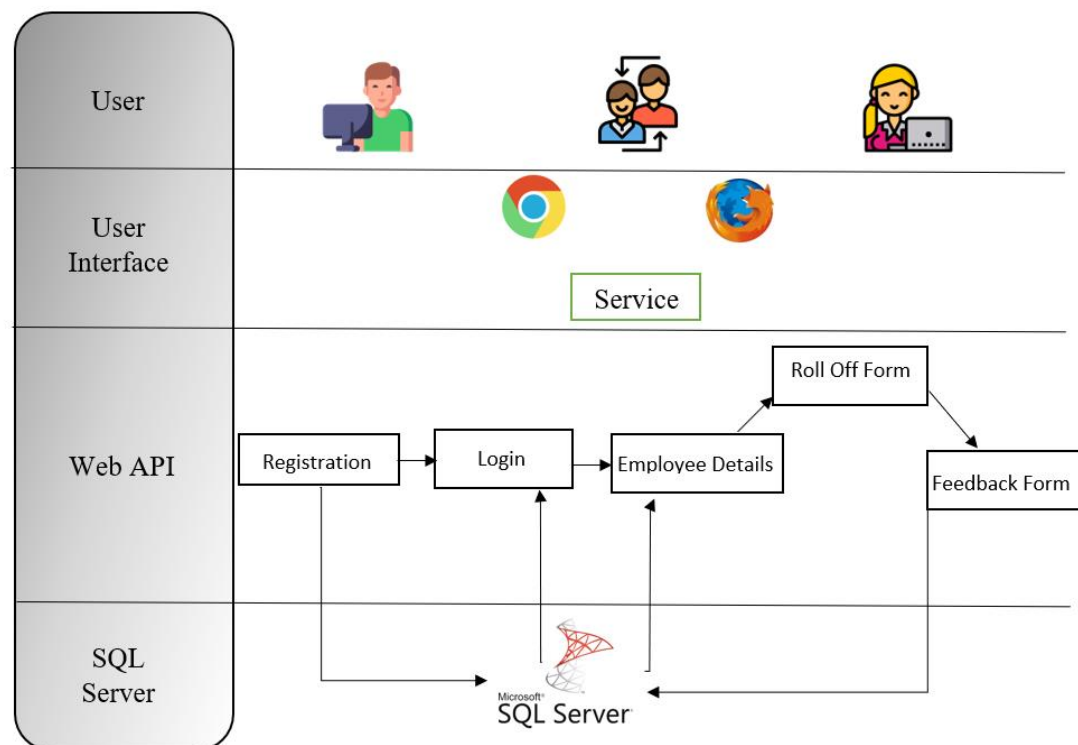
4.0 Design Pattern

#	Name	Description
1	ANGULAR	Angular is used for the frontend and designing of the application
2	API	API is used to process all the http Requests.
3	SQL SERVER	SQL server is used to store data to the database

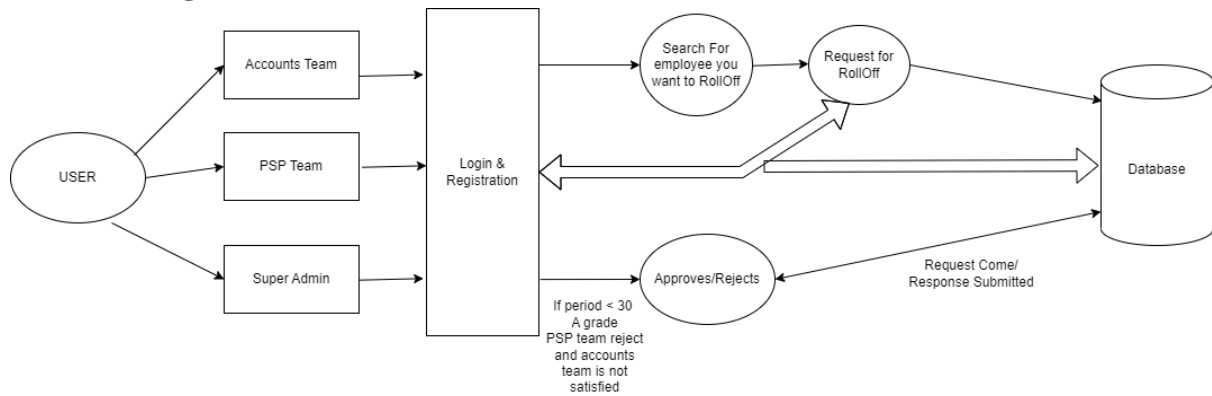
5.0 Solution Diagram



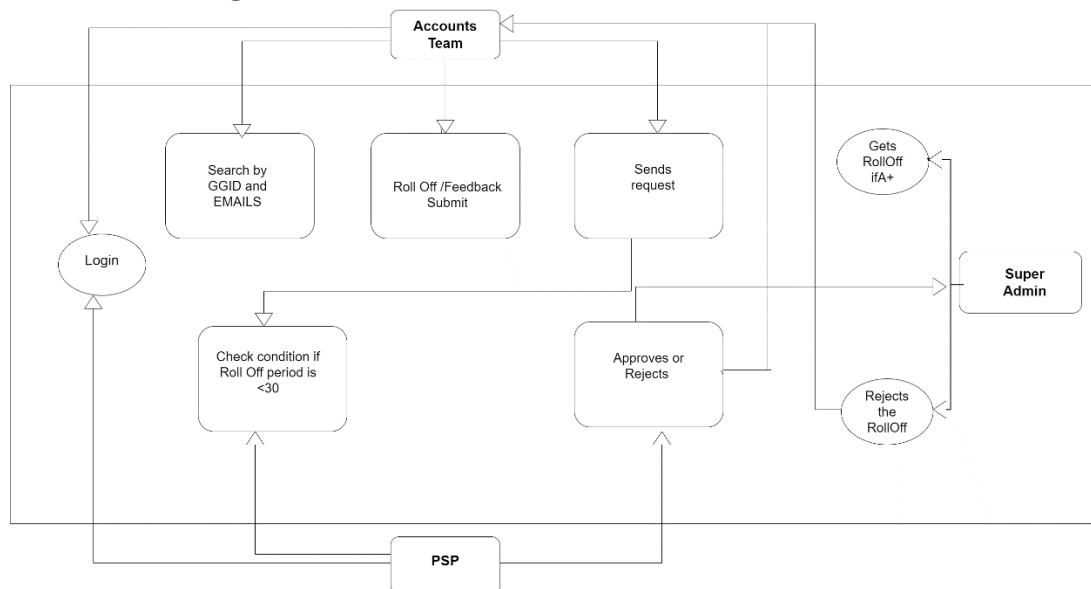
6.0 Architecture Diagram



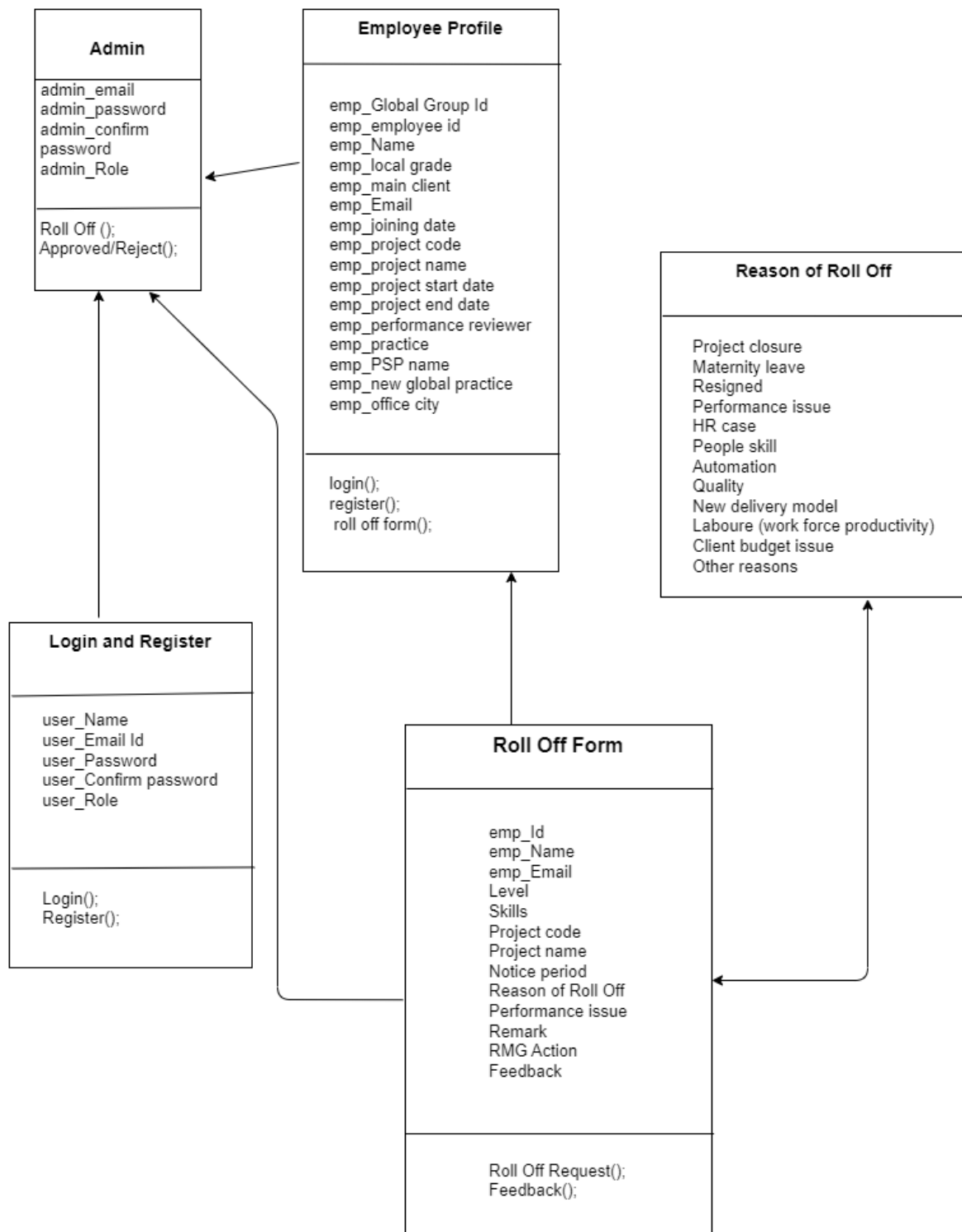
7.0 Flow Diagram:



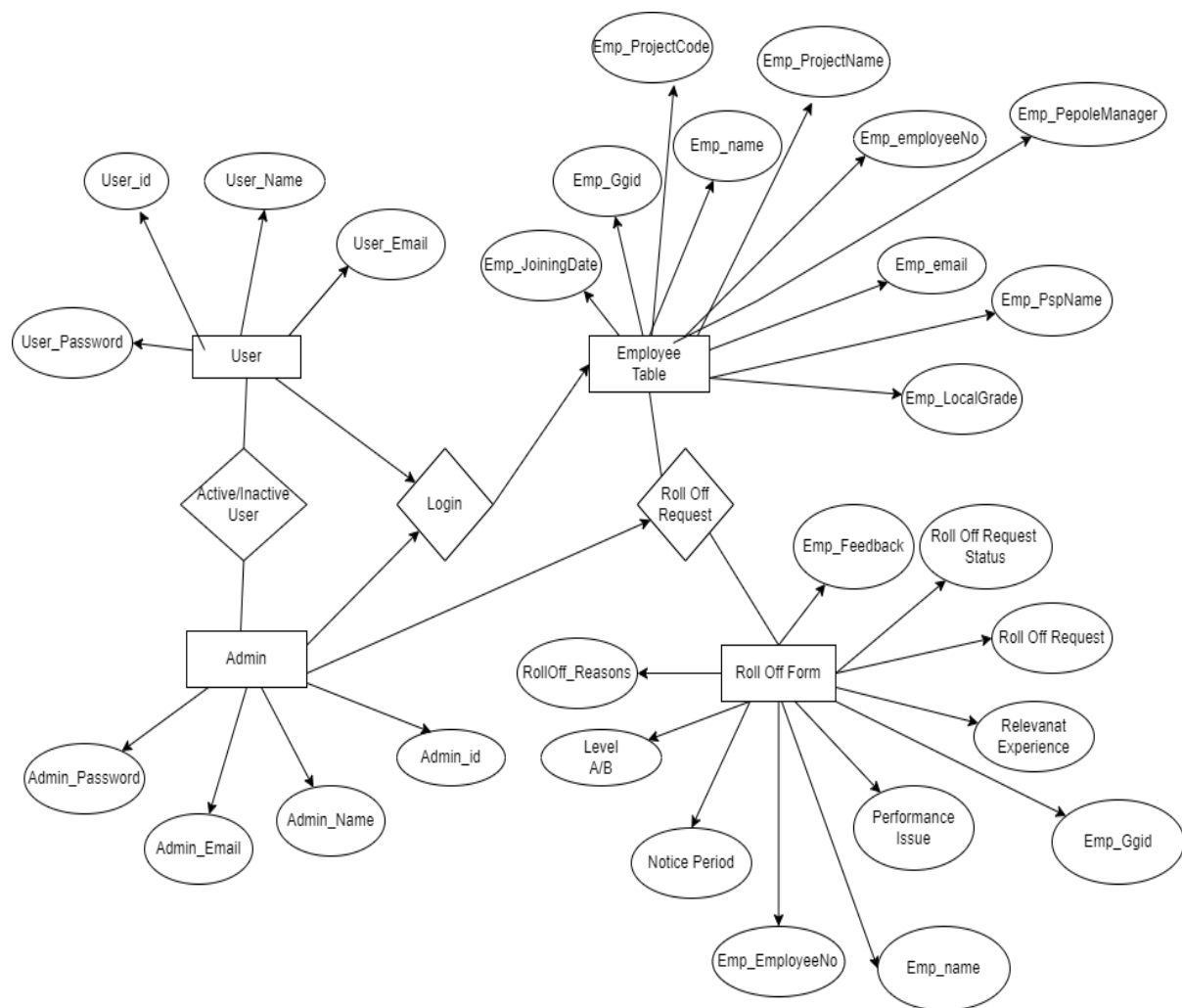
8.0 Use case Diagram:



9.0 Class Diagram



10.0 E-R Diagram:



11.0 User Requirements

11.1 Hardware

- Processor: Minimum 1.8 GHz. Recommended 2GHz or more.
- Ethernet connection (LAN) OR a wireless adapter (Wi-Fi)
- Hard Drive: Minimum 100 GB; Recommended 500GB or more.
- Memory (RAM): Minimum 4 GB; Recommended 8 GB or above.
- OS: Windows.

11.2 Software

- Any Latest Browsers.

12.0 Developer Requirements

12.1 Hardware

- Processor: Minimum 1.8 GHz. Recommended 2GHz or more.
- Ethernet connection (LAN) OR a wireless adapter (Wi-Fi)
- Hard Drive: Minimum 100 GB; Recommended 500GB or more.
- Memory (RAM): Minimum 4 GB; Recommended 8 GB or above.
- OS: Windows.

12.2 Software

- Visual studio 2019.
- Sql server management studio (ssms).
- ASP .NET Web Api, Angular.

12.3 Technology

- ASP.NET for backend
- SQL for the database operations
- Angular for frontend.

13.0 Solution Steps

13.1 User Registration

1. The user will select their role as Account team, PSP team and Super Admin.
2. The user will enter the name, email, and password during registration.
3. The input validation will be done
 - a. If validation fails, then it will return the error code and error description. with status code
 - b. If validation is successful, then the User details is stored in the database and success code is sent.

13.2 Employee List

1. Employee details
2. User will search employee from employee list using global group id and email and send request for roll off.
3. After that user will submit roll off form with roll off reasons.

13.3 Roll Off Form

1. Roll Off form contain reasons for roll off.
2. User fill the roll off form and give feedback of particular employee.

13.4 Approving Roll Off

1. Psp team decide whether to approve it or not.
2. If psp team reject form it the request goes to account team.
3. If employee is level A employee then request goes to super admin.

13.5 Admin Module

1. Admin will login with his Username and Password.
2. Admin can able to filter active/inactive farmers and dealers.
3. The admin can approve/ reject roll off .

14.0 Classes/function

#	Class	Description
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1	User.cs	Model holds the user schema details
2	RegisterUserController.cs	It contains the core business logic for the registration of User which calls the register user class to create the user in database
3	LoginUserController.cs	This class deals with the data accessibility for user login
4	RollOffTable.cs	Model holds employee's data.
5	RollOffController.cs	It contains the core business logic for searching employee using global group id and email.
6	RollOffForm.cs	This class hold roll off form schema.
7	RollOffFormController.cs	It contains the core business logic for the form to store reasons of roll off form in database
8	Request.cs	This class hold details of request whether it approved or not.
9	RequestController.cs	It contains the core business logic for the request of roll off.

15.0 API Canvas

POC	Path	Verb	API Description	Role	Auth
Roll-Off	/Login	POST	User Login	Account/PSP /Super Admin	True
Roll-Off	/Register	POST	Register User	Account/PSP /Super Admin	True
Roll-Off	/employee	GET	List of employee	Account/PSP	True
Roll-Off	/employee/ggid	GET	To search employee	Account/PSP	True
Roll-Off	/rolloff-form	POST	To insert rolloff details and feedback form.	Account/PSP	True

16.0 HTTP Status Code

201 – User registered, Admin registered.

200 - Request succeeded

400 – Inputs are invalid

404 – Data not found

502 – Bad gateway