Low Level Design Document

PROJECT MANAGEMENT SYSTEM

1. Introduction

1.1 Purpose:

The Project Management system helps in maintaining data of employee and projects. This helps admin to spot any particular project and employee details at any given time. The ERP for Project Management systems can be easily customized as per individuals' requirements.

Here are the top use cases of the Project Management System: Add/Remove/Edit projects: To add, remove or modify a project or project item. Add/Remove/Edit employee: To add, remove or modify an employee or employee item. Project allocation and close project: to allocate employees to project and deallocate employees from projects.

1.2 Document Conventions

TBD

1.3 Intended Audience and Reading Suggestions

Document is primarily intended for members of Project Management System team which consists of 4 members of team under the guidance of g maheswaran (trainer).

1.4 References

- Project Proposal Document
- System Specification for Library Management System

2. System Use Cases

Name	readAllAdmin()		
Number	1.1		
Author	Sharanukumar Gorantli	**Date**	July 25,2022
Description	This function is used to print all the admin details from the admin database		
Actors	Admin/Employee		
Pre-conditions	• If the Admin data is present then only admin details will shown		
Course	readAllAdmin()------- malloc()----- allocate dynamic memory memset()-----used to initialize the dynamically allocated memory to zero admin_readAll()----- to get all the admin details from file insertNodeBack()-----to add admin node to the double link list doTraversal()----- to print the admin details using double link list, here we are passing a function pointer to display the details free()-----used to deallocate the dynamically allocated memory. destroy()-----used to destroy/free link list		
Post-conditions			
Alternatives/ Exception			
Notes			

Name	create_project ()		
Number	1.1		
Author	Mounika m	**Date**	July 25,2022
Description	This function is used to read project details and add to data base		
Actors	Admin		
Pre-conditions	• If the difference between the start date and end date is less than 30 days, read the dates again.		

Course	create_project ()-----
	      malloc()----- allocate dynamic memory
	      memset()-----used to initialize the dynamically allocated memory to zero
	      strptime()-----used to convert string to date
	      mktime()------used to convert date to second
	      add_project()-----used to add project information to database
	      free()-------used to free the used to deallocate the dynamically allocated
	           Memory.		

Post-conditions			
Alternatives/ Exception			
Notes			

Name	Delete()		
Number	1.1		
Author	Sai Avulakunta	**Date**	July 25,2022
Description	This function is used to delete all the employee details from database and DLL		
Actors	Admin		
Pre-conditions	• Only if employee details is present in database		

Course	Delete()
	    system()-----used to perform terminal operations
	    db_delete_obj_using_id()------used to delete employee details from database
	    free()-----used to free the used to deallocate the dynamically allocated Memory.		

Post-conditions			
Alternatives/ Exception			
Notes			

Name	projectAllocation()		
Number	1.1		
Author	Narosh Mathew	Date	July 25,2022
Description	This function is used to allocate employee to project		
Actors	Admin		
Pre-conditions	• If there is any active projects • If the percentage to allocation less than 100 • No of employees required is less than allocated employees • If employee have less than 3 projects		

Course	projectAllocation()--------
	     project_readAll(0)-----to show all active projects
	     readbyid()------to get the project details from file using project id
	     read_emp_from_file()------to show all the employee details from file
	     empAlocation()-------to updated the allocated project to the employee
	                details
	     edit_project()------update the project details		

Post-conditions			
Alternatives/ Exception			
Notes			

3. Detailed System Design

3.1 readAllAdmin

3.1.1 Design Description:

In the Project Management System First we will check whether there is admin or not .if admin is present in the database it will show all the admin details.

1st we read the admin details from the file and that data is added to the double link list as node. Then by using the doTraversal() function we will print the admin details. In doTraversal() function we are passing a function pointer, which is used to print the admin details.

3.2 create_project

3.2.1 Design Description:

In the Project Management System this function is used to create project database.

1st we read the all the project details. While reading the start date and end date we are checking the difference between them. If the difference between then is less than 30 days, it will again ask the admin to enter the date. If the date and other data's are valid then the data is stored in database.

3.3 Delete

3.3.1 Design Description:

In the Project Management System this function is used to delete the employee database.

1st we check whether there is any employee information in database and in DLL ,if the data is present in the database and DLL it will delete employee details from data base and also from DLL. After deleting the data from the DLL, the memory is deallocated using free function.

3.4 projectAllocation

3.4.1 Design Description:

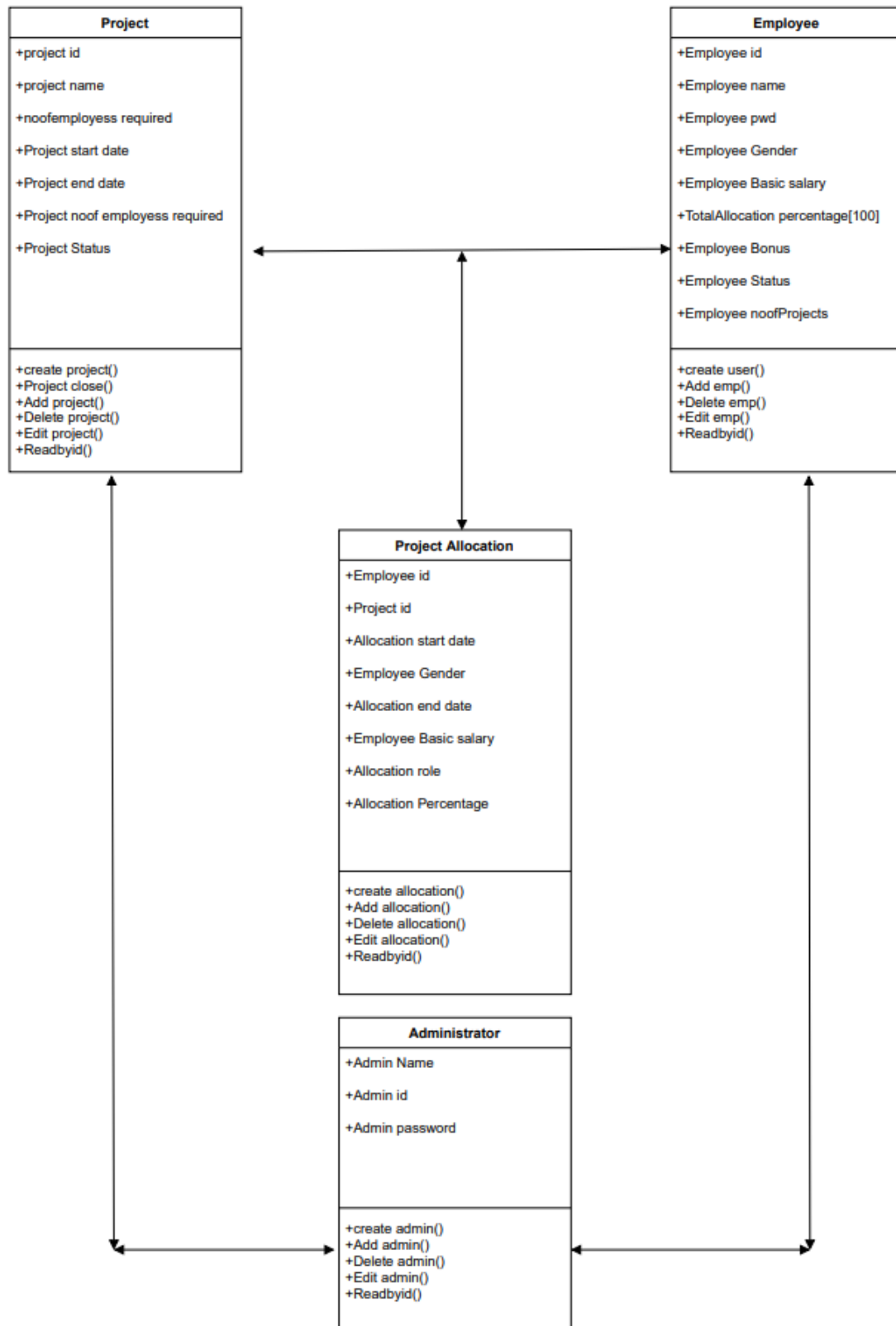In the Project Management System this function is used to allocate project to employees.

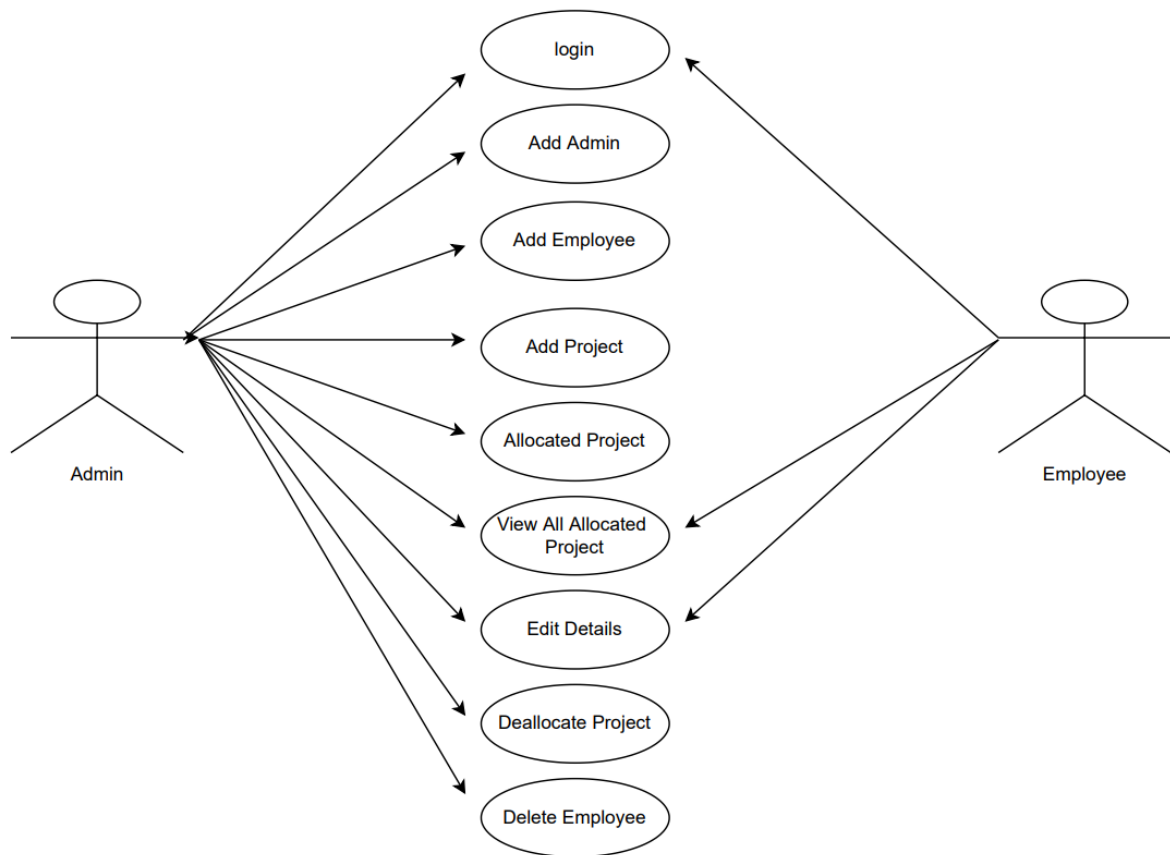Before we allocate project to an employee we will check some conditions

- If there is any active projects
- If the percentage to allocation less than 100
- No of employees required is less than allocated employees
- If employee have less than 3 projects

If these conditions gets true then only the project is allocated to the employee

4. Class Diagram

Project

+project id

+project name

+noofemployess required

+Project start date

+Project end date

+Project noof employess required

+Project Status

+create project()
+Project close()
+Add project()
+Delete project()
+Edit project()
+Readbyid()

Employee

+Employee id

+Employee name

+Employee pwd

+Employee Gender

+Employee Basic salary

+TotalAllocation percentage[100]

+Employee Bonus

+Employee Status

+Employee noofProjects

+create user()
+Add emp()
+Delete emp()
+Edit emp()
+Readbyid()

Project Allocation

+Employee id

+Project id

+Allocation start date

+Employee Gender

+Allocation end date

+Employee Basic salary

+Allocation role

+Allocation Percentage

+create allocation()
+Add allocation()
+Delete allocation()
+Edit allocation()
+Readbyid()

Administrator

+Admin Name

+Admin id

+Admin password

+create admin()
+Add admin()
+Delete admin()
+Edit admin()
+Readbyid()

5. Use case diagram

6. Sequence diagram