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1.Introduction

1.1 Purpose:

Most companies face difficulty in reviewing, auditing, and keeping their financial budget and its data. We provide a Web Application that aims to simplify financial services for other companies, and allows them to manage and control their budget and their purchases by display them in an easy and clear manner by providing them with follow-up, auditing, and reviewing purchases by uploading a copy of the invoice and recording invoice data and provide some reports and graphs are displayed form the invoice that have been inserted. Subscribers are required to use the website, and you can subscribe monthly or yearly.

1.2 Scope:

Financial Solutions is a system that targets companies to manage, control and review their budget and purchases easily. The Financial Solutions will provide different interfaces for companies of the system with 4 types of users, the owner, financial department, Project managers and employers, and different features provided from one user to another. Different features are available to different types of users, the main functions that the Financial Solutions system provides regardless of the user are the following: Log-in, Insert a invoice, Follow-up, Requests a budget, approving a request, Assign work.

1.3. Product Description:

1.3.1 Product Perspective:

Financial Solutions is an independent software product that does not require an additional hardware interface to function other than the Web Page. Financial Solutions works on multiple browsers (Google Chrome, Firefox, Opera and Microsoft Edge), to allow different users to use the system easily.

1.3.2 Product Functions:

With the Web application, the users will be able to simplify financial services for other companies by managing expenses and controlling more clearly by organizing. The result will be based on the criteria the user inputs. Financial Solutions is an online web system whose role is to help companies to manage their financial solutions. The Financial Solutions will provide different interfaces of the system to the company owner, financial department, Project managers and employers. It will also provide information about the system, for example showing when there is a new update.

1.3.3 User Characteristics:

A company has 4 types of different users: employees of the Project manager, Project manager, financial department and Financial Solutions owners and administrators. Each of these four types of users has different uses of the system so each of them has their own and shared

requirements. The web application employees can only use the application to insert a bill and view their assignment of Project tasks. This means that the employers have to be able to insert a bill, choose a task from that Project task and then go buy it . In order for the employees to insert a Product bill there are multiple criteria the employees must specify a for example picture, time ,and the price. The Project manager can assign work to his employees, he can identify a Project name, classification and tasks. He can also see the employee's Progress and bills that he inserts. He can also request a budget from the financial department to give it to his employees to do the tasks. The financial department can approve the request and monitor the financial status of the company, and view the employees bills. The owners will not use the web application but they will manage the information about their company. view and monitor everything that happened in the company, from the financial department, project manager and the employee.

1.3.4 Limitations:

1.3.2.1: employees can't manipulate the data,only insert his data.

1.3.2.2: managers can only manipulate his own department only

1.3.2.3:Managers' requests must be approved by the Finance Department before they can be funded .

1.4-Definitions:

Financial : is the study and discipline of money, currency and capital assets

Solutions : an answer to a problem : explanation specifically : a set of values of the variables that satisfies an equation.

SRS – Systems Requirements Software, this document which outlines the requirements that the software must fulfill. Entirely design independent.

Login Page – the page that allows the user to login if they have a valid login.

UML – Unified Modeling Language.

Database- Collection of all the information monitored by this system

Minabulting - Different Users need to insert a bill, request a budget or approve a request.

2.References

- 1.1. ISO/IEC/IEEE std 29148:2011 IEEE Recommended Practice for Software Design Specifications.

3.Specific Requirements

3.1External Interfaces:

3.1.1 External bank system, to validate and confirm the payment.

3.1.1.1 The bank should validate the card number

3.1.1.2 The bank should validate the cardholder name

3.1.1.3 The bank should validate the expiration date

3.1.1.4 The bank should validate CVV security code

3.2 Functions:

3.2.1 owner:

3.2.1.1 The System shall allow the owner to login to the system

3.2.1.1.1 The system shall allow the owner to login using email and password

3.2.1.1.2 The system shall send the owner otp to login to system

3.2.1.2 The system shall allow the owner to monitor the financial performance

3.2.1.3 The system shall allow the owner to approve the incoming requests and proposals

3.2.1.4 The system shall allow the owner to check the projects

3.2.1.5 The System shall allow the owner to receive an alert if there any iteration point.

3.2.1.6 The system shall allow the owner to determine the financial limits in coordination with the finance department

3.2.1.6.1 The owner shall accept the budget limits .

3.2.2 Financial department:

3.2.2.1 The head of the financial shall log in to the system

3.2.2.1.1 The system shall allow users to log in using Email and password.

3.2.2.1.2 The head of the department shall add users to his department

3.2.2.2 The system shall allow the user to log out.

3.2.2.3 The system shall allow the user to edit his/her account.

3.2.2.3.1 The system shall allow the user to change the account's name.

3.2.2.3.2 The system shall allow the user to change the account's email address.

3.2.2.3.3 The system shall allow the user to change the account's password.

3.2.2.3.4 The system shall allow the user to delete his/her account.

3.2.2.3.5 The system shall allow the user to change the language (Arabic/English).

3.2.2.3.6 The system shall allow the user to view his/her information

3.2.2.4 The system shall allow the accounting department to manage the classification of each project

3.2.2.5 The system shall allow the accounting department to give an initial visualization of the disbursement in projects.

3.2.2.6 The system shall allow the head of the Finance/Accounting department can see the details of each team in one project and compare the expenses between them so that he can get a report on the team that spends the most.

3.2.2.7 the system shall allow the accounting department to see the dynamic charts of each project

3.2.2.8 The system shall allow the accounting department to receive and View project details, including employees, budget, invoices, etc.

3.2.2.9 the system shall allow the identification of the attrition points in the expenses of projects and give alerts to the finance department to try to fix them early

3.2.2.10 The system shall allow checking whether the employee defined whether he purchased materials by bulk purchase or not.

3.2.3 Project managers:

3.2.3.1 The Project managers must log in to the system

3.2.3.1.1 The system shall allow the Project managers to login using email and password

3.2.3.1.2 The system shall send the Project managers OTP to login to system

3.2.3.2 The Project managers can assign a project to his employees

3.2.3.3 The Project managers can assign classifications related to the project to his employees

3.2.3.4 The Project managers can assign tasks related to the classification to his employees

3.2.3.5 The Project managers can check his employee's progress

3.2.3.6 The Project managers must get approval from the Financial
Department

3.2.3.7 The Project managers shall determine the amount of exchange

3.2.3.8 The Project managers can check employees data

3.2.3.9 The system shall allow the user to edit his/her account.

3.2.3.9.1 The system shall allow the user to change the account's
name.

3.2.3.9.2 The system shall allow the user to change the account's
email address.

3.2.3.9.3 The system shall allow the user to change the account's
password.

3.2.3.9.4 The system shall allow the user to delete his/her account.

3.2.3.9.5 The system shall allow the user to change the language.

3.2.4 employees:

3.2.4.1 The employees must log in to the system

3.2.3.3.1 The system shall allow the employees to login using email and
password

3.2.3.3.2 The system shall send the employees OTP to login to
system

3.2.4.2 The employee can see the project assigned to him

3.2.4.3 The employee can see the classification of project

3.2.4.4 The employee can see the tasks assigned to classification

3.2.4.5 The employees may insert data of bills related to the tasks

3.2.4.5.1 The employees shall insert a picture of the bill

3.2.4.5.2 The employees shall insert the Product Price

3.2.4.5.3 The employees shall insert the time of buying the Product

3.2.4.6 The system shall allow the user to edit his/her account.

3.2.4.6.1 The system shall allow the user to change the account's
name.

3.2.4.6.2 The system shall allow the user to change the account's
email address.

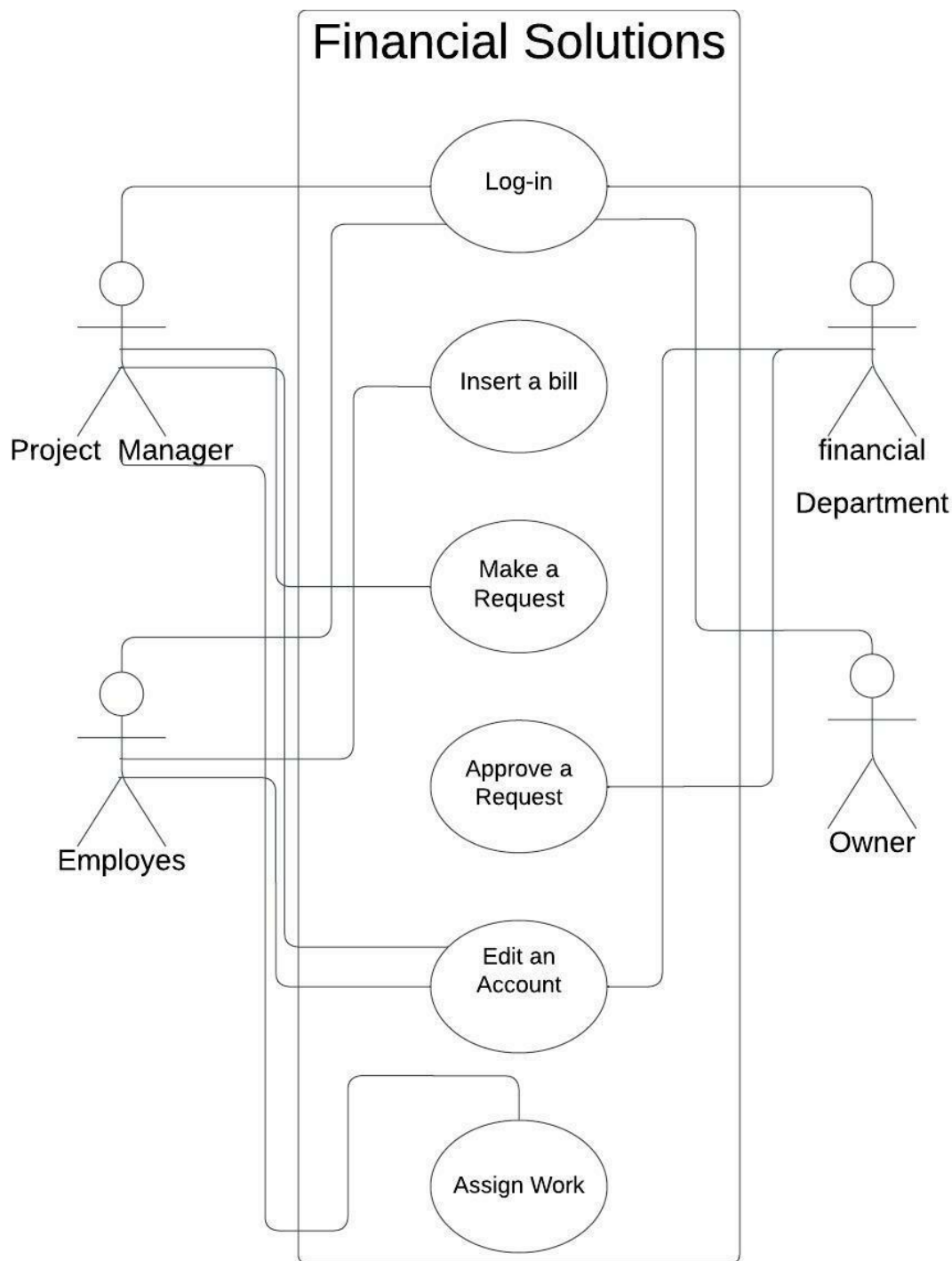
3.2.4.6.3 The system shall allow the user to change the account's
password.

3.2.4.6.4 The system shall allow the user to delete his/her account.

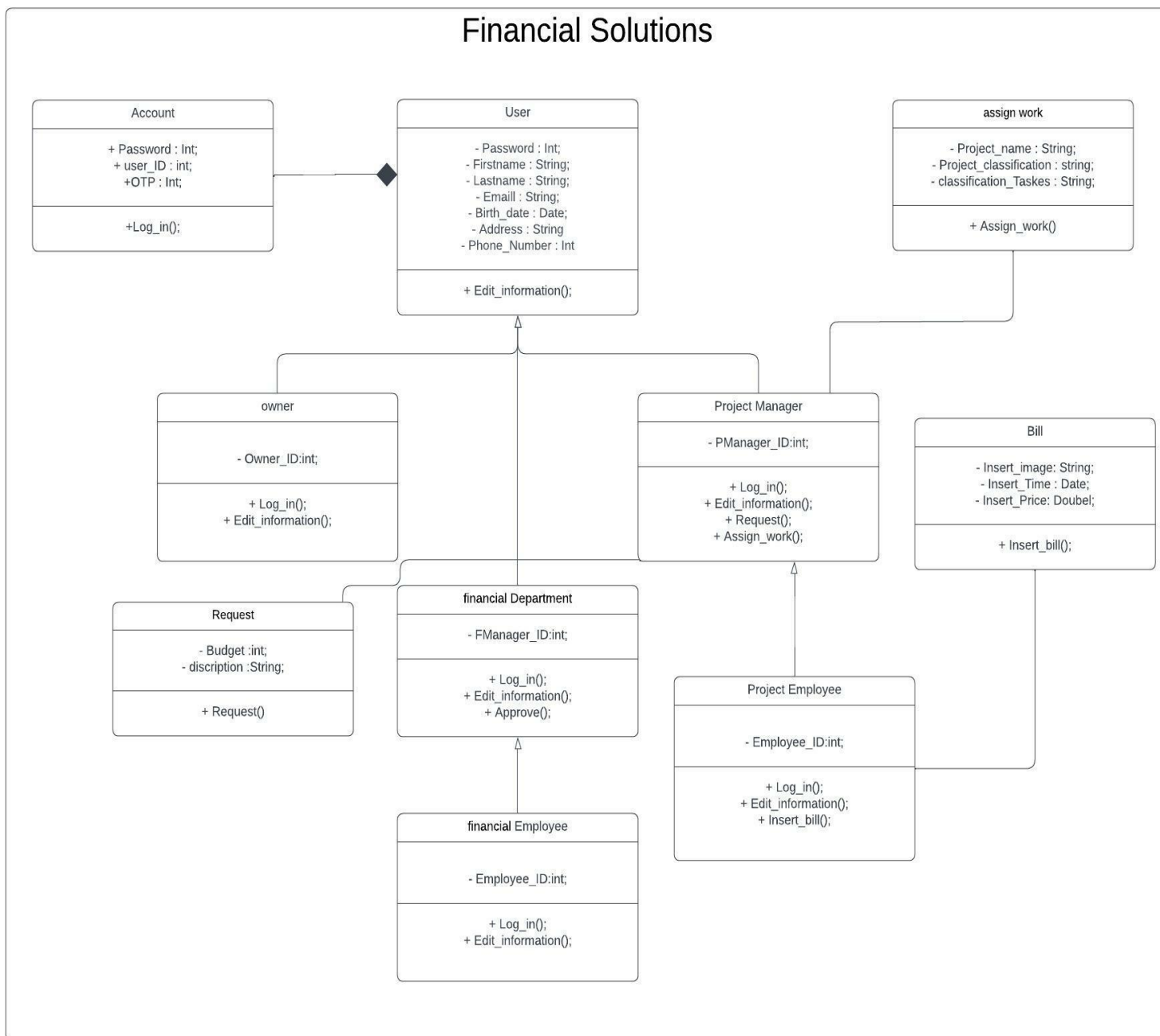
3.2.2.6.5 The system shall allow the user to change the language

3.3. UML diagrams

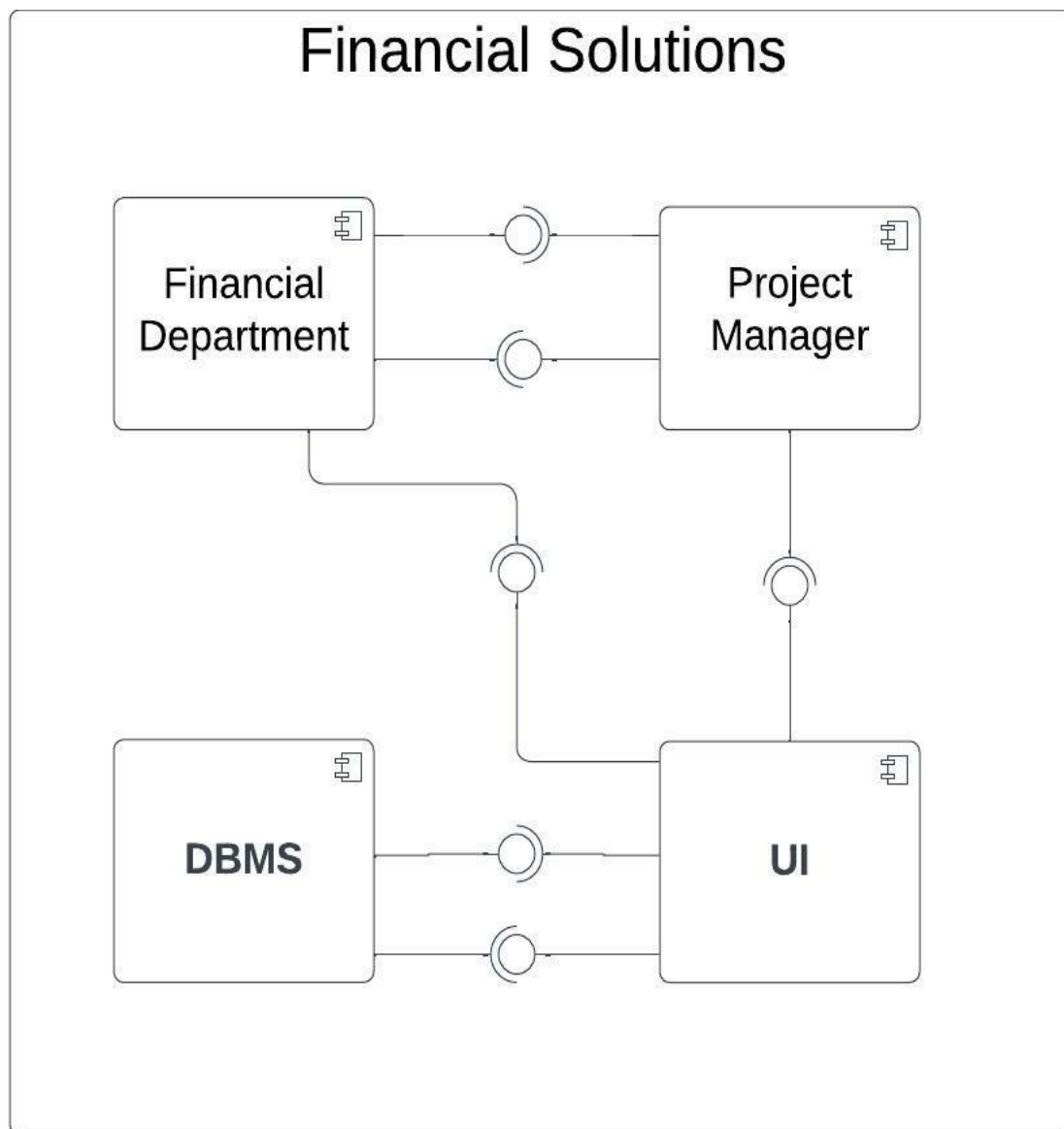
3.3.1 Use case diagram



3.3.2 Class diagram

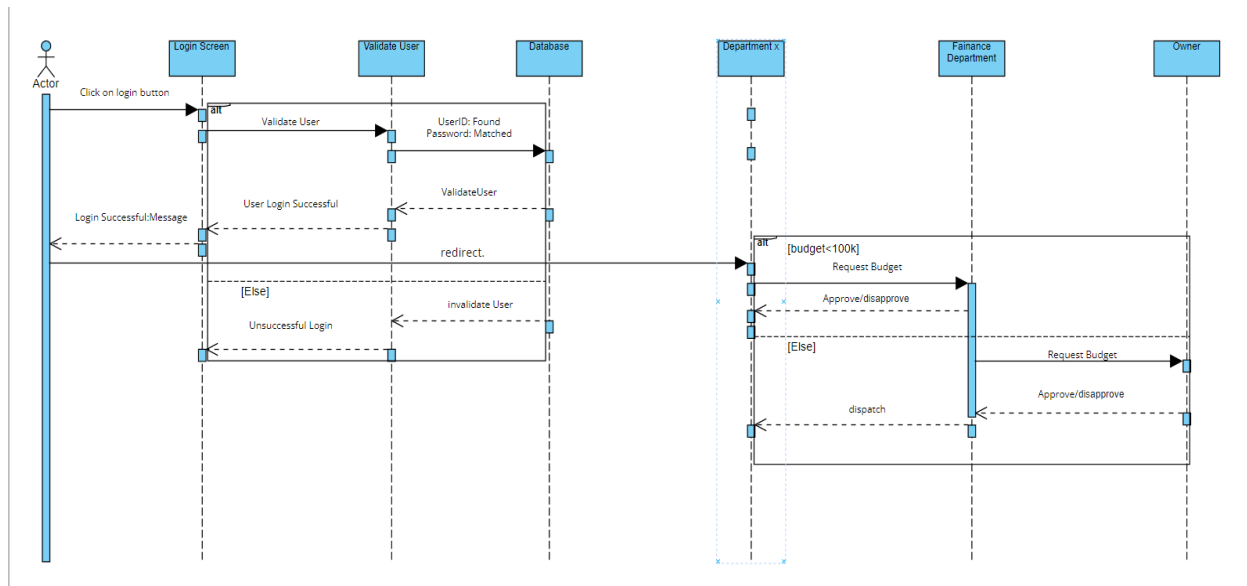


3.3.3 Compound diagram

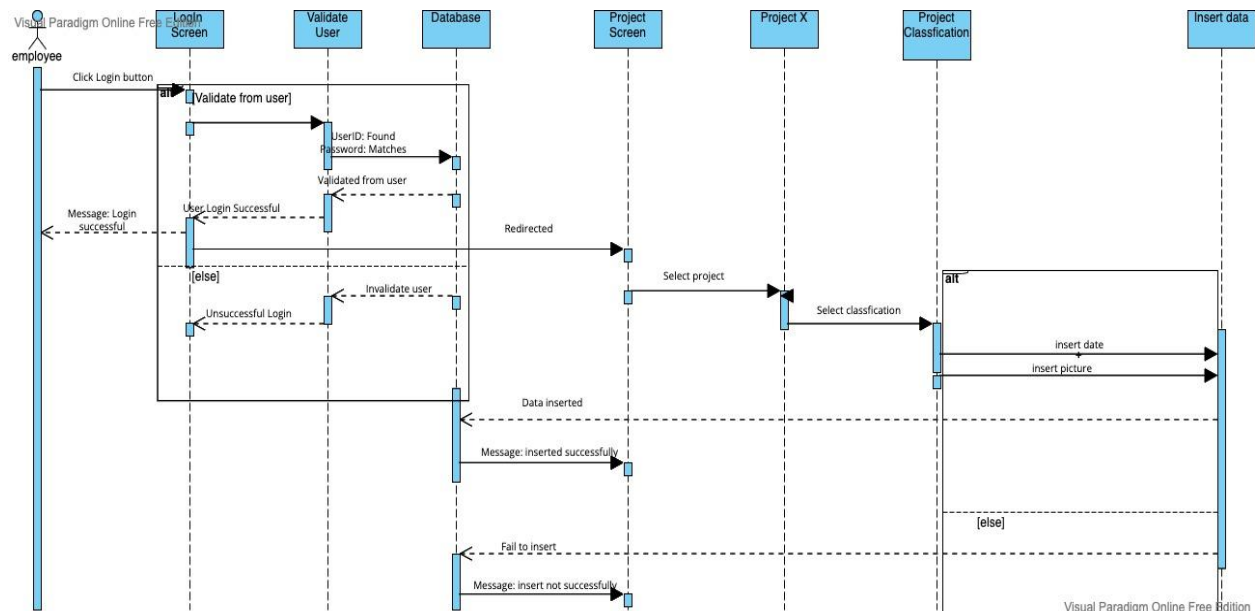


3.3.4 Sequence diagram

3.3.4.1 Log-in/ Request



3.3.4.2 Log-in/ insert a bill



3.4 Performance Requirements:

3.4.1 The system shall be able to serve 100 Users at time.

3.4.2 The system shall be able to process 15 transactions per second in peak load.

3.4.3 The user interface shall be updated within 1 second after the user triggered an action.

3.5 Logical Database Requirements:

Amazon web services

3.6 Design Constraints:

3.6.1 The information of all users must be stored in a database that is accessible by system administrators.

3.6.2 Users must have their correct usernames and passwords to access their online accounts.

3.7 Software System Attributes

3.7.1 Reliability

The system should have a mean time before failure (MTBF) no more than 14 days.

3.7.2 Availability

The system shall be available 95% of the time except for the maintenance time throughout the year. The maintenance should be pre-scheduled and it shouldn't take more than 2 days. The users should be informed before the maintenance at least 3 days before.

3.7.4 Security

The system shall encrypt users' information.

The System shall apply two-step authentication to the users when they login to the system.

3.7.5 Maintainability

Configuration should be clear, consistent, and separate from the source code.

All source code shall adhere to an agreed-upon and well-defined set of coding standards for each development language used.

3.7.6 Portability

The system should support new versions of web browsers on PC

The system should support the webpage resolution of smartphone

3.7.7 Modifiability:

The system functions shall be customized in coordination with the customer(client) needs.

3.7.8 Usability:

The system shall be usable after 30 minutes of training to use the system.

3.8 Supporting information:

There are no known Supporting information requirements at this time.

4.priority

Priority will be measured on a scale from 1 to 5, 5 means highly important, and 1 means not important.

Function	Rate	Function	Rate	Function	Rate
owner		3.2.4.5	5	financial	
3.2.1.1	5	3.2.4.6	5	3.2.2.1	5
3.2.1.2	2	manager		3.2.2.2	3
3.2.1.3	5	3.2.3.1	5	3.2.2.3	2
3.2.1.4	2	3.2.3.2	4	3.2.2.4	5
3.2.1.5	3	3.2.3.3	4	3.2.2.5	5
3.2.1.6	4	3.2.3.4	4	3.2.2.6	5
employees		3.2.3.5	3	3.2.2.7	5
3.2.4.1	5	3.2.3.6	4	3.2.2.8	5
3.2.4.2	4	3.2.3.7	4	3.2.2.9	5
3.2.4.3	4	3.2.3.8	3	3.2.2.10	5
3.2.4.4	4	3.2.3.9	5		

5. Appendices

5.1 Assumptions and Dependencies

5.1.1 The system must be compatible with these operating systems:

Windows 10 and 11 macOS 10

5.1.2 The web server should display a page as a result to the end-user (in HTML, CSS and javascript form).

5.1.3 MySQL cloud Database

It's an open-source SQL database to store all data which communicates with the application on the server.

5.2 Acronyms and Abbreviations.

5.2.1 SRS – Software Requirements Specification document.

5.2.2 Cloud SQL for MySQL: is a fully-managed database service that helps you set up, maintain, manage, and administer your MySQL relational databases on Amazon web services

5.2.3 HTML (HyperText Markup Language)

5.2.4 CSS (Cascading Style Sheets)

5.2.5 PC- personal Computer