**OPERATIONAL NEED**

Rosemarie D.R. San Joaquin, the owner, only has her residence as an organizational location because she mainly owns her business. She does all the catering services and work hours with her helpers in her residence. All the processes of making the products, packing, and delivering them happen in the address, Zone 7, Mamomoton St., Vilmar Homes, Calauag 4400, Naga City, Philippines. She does not own any branches or any buildings for her business.

Upon conducting an online interview with the owner’s close friend, who happens to know the nature of the catering services and one of the group members of the team, Mr. Dante Baldonado, we, as the developers, have reviewed and analyzed the way of how they processed their sales in the said Catering Service. They are using Manual Data Processing which they write in their record book and the following are the things that they list.

* Sales
* Which includes the total amount of orders and other lists of order menus of the catering service.
* Expenses
* Total amount of the money spent, or costs incurred.
* Cash and Coins
* The total amount of income.

Rosemarie D.R. San Joaquin uses manual processing for all her transactions and business functions. Ms. San Joaquin lists down the list of orders, its amount, the total expenses, and the income she gains manually in a Record Book. This is also how she records, organizes, and fulfills the customer’s order requests. All the planning, creating, and delivering of products are also written down and managed manually.

We, as the developers, want to develop a system to speed up the transactions of the inventory and point of sale of Athena Pherb’s Catering Services and to improve their time management. By creating a software-based system that allows the owner and the employee to monitor and view the records of the business’ data. In addition, it would not be time consuming since there are only a few employees in Athena Pherb’s Catering Services.

**THE NEEDS DOCUMENT**

**OF**

**ATHENA PHERB’S CATERING SERVICES: A POS AND INVENTORY**

**SOFTWARE-BASED SYSTEM**

Baldonado, Dante D.

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Otic, Jogie A.

Pano, Rose Bianca Frances V.

1. **INTRODUCTION**

**Background of the study**

Athena Pherb’s Catering Services are having a hard time to compute their sales and to show their menu to the customer. Just like what Mr. Baldonado has experienced, he was instructed by the owner to write all the records of the sales and transactions related to the catering services, the difficulties that he encountered was the repeated computation of sales and due to that, the total amount of sales is not accurate from the previous computation. In addition, to get the exact amount, Mr. Baldonado needs to double check the previous total sales and compare it to the current total sales which is very time consuming for the said business.

This project aims to address the needs of the owner and employee by creating a software-based system in which the owner and employees of Athena Pherb’s Catering Services can login an account, one for the owner, one for the employee, these two subjects have its different interface but its data and information are all interconnected. Both of the interfaces can view their point of sales and inventory offline. The features of this system are somehow similar to other software like Microsoft Excel and Google Sheets. The uniqueness of this software-based system is that compared to the feature of Microsoft Excel in which the user will manually save their documents by pressing Ctrl+s, the software-based system that the creators propose will automatically record all the data when the user clicks the “Save Changes” button. The similarity with the Microsoft Excel is that the user can access the software-based system offline. In terms of Google Sheets, the software-based system's difference is that in Google Sheets the user can edit it online although they can still edit it offline but it lacks features such as the user can edit it through offline but the disadvantage is that it will save to the drive once reconnected so if the user experienced power interruption in their area, the user won’t be able to retrieve the data that they made. Since Athena Pherb’s Catering Services has an assigned employee or also known as the Sales Manager, they are authorized to access their point of sale and inventory in the system, so they don’t need to share their data unlike google sheets. This project also aims to fasten the process of computing the total sales by using the formula that the owner will be providing.

1. **MISSION STATEMENT**

The mission of this project is to provide the following:

1. A software-based system that allows the owner to post the food they serve, edit and view the sales and inventory of the system.
   1. A software-based technology that allows the owner to login to an account which can access through the point of sales, edit, and view the inventory of the system.
2. A software-based system that allows the employee to monitor the records of their data in the system.
3. A software-based technology that allows the employee to login their accounts that were given by the owner and input the needs information of the customers, and the customer’s order.

**3. TECHNICAL OBJECTIVES**

A software-based system that allows the owner to post the food they serve, edit and view the sales and inventory of the system.

| **Technical Objectives** | **Performance Measures** |
| --- | --- |
| Create a software-based system that allows the owner to login an account. | Presence of a login module requires 25-30 rounds of test cases. Target goal should be a 100% success.  Owners must be able to login and logout of the system. Requires 50-60 test cases to know if it fails or if it's a success. Target goal should be a 100% success. |
| Create a software-based system that allows registered owners to post the food that they serve. | Presence of a post form module. Owners must be able to create, read, delete, and update a post. Should be at least 80-90% to achieve the success target rate. |
| Create a software-based system that allows registered owners to browse and edit the point of sale, discounts, history and recent records,and the stocks and inventory of the system. | Presence of a simple and advanced database search module. Requires around 30-50 test cases. Target goal is a 85% success rate. |
| Create a software-based system that allows the registered owners to add the customers information and their orders. This includes the payment method, the type of service(buffet serving or delivery only), list of their orders, set of date and time to be delivered, place of order, number of pax or people to be served, and the total expenses of the customer. | Presence of a login module requires 25-30 rounds of test cases. Target goal should be a 100% success.  Presence of a post form module. Owners must be able to edit and delete a post if there has been a mistake in recording the sales. Requires 25-30 rounds of test cases to identify errors of bugs. Should be at least 85% to achieve the success target rate.  Presence of a post form module registered employees must be able to create and view the sales and inventory. Requires 20-30 rounds of test cases to identify errors of bugs. Should be at least 80-90% to achieve the success rate.  Presence of a selection module for the customers to select their payment method, the type of service that the customers chose, list of their orders, record of the order’s scheduled date and time, the number of pax or people to be served. Requires 15-20 rounds of test cases to identify errors of bugs. The target goal for the test should be 90%. |
| Create a software-based system that allows registered owners to edit, remove, and view the product code that is registered in the system and to search for the previous and present orders by filtering the date range of the customers orders or searching the product code. | Presence of a simple and advanced database search module. Requires around 30-50 test cases. Target goal is a 85-90% success rate. |

A software-based system that allows the employee to monitor the records of their data in the system.

| **Technical Objectives** | **Performance Measures** |
| --- | --- |
| Create a software-based system that allows the employee to login an account. | Presence of a login module requires 25-30 rounds of test cases. Target goal should be a 100% success.    Presence of a login module requires 25-30 attempts of test cases. Target goal should be a 100% success.  Employees must be able to login and logout of the system. Requires 50-60 test cases to know if it fails or if it's a success. Target goal should be a 100% success. |
| Create a software-based system that allows the registered employee to add the customers information and their orders. This includes the payment method, the type of service(buffet serving or delivery only), list of their orders, set of date and time to be delivered, place of order, number of pax or people to be served, and the total expenses of the customer. | Presence of a login module requires 25-30 rounds of test cases. Target goal should be a 100% success.  Presence of a post form module owners must be able to edit and delete a post if there has been a mistake in recording the sales. Requires 25-30 rounds of test cases to identify errors of bugs. Should be at least 85% to achieve the success target rate.  Presence of a post form module registered employees must be able to create and view the sales and inventory. Requires 20-30 rounds of test cases to identify errors of bugs. Should be at least 80-90% to achieve the success rate.  Presence of a selection module for the employee to list down customers orders by choosing what are the customers mode of payment, the type of service that the customers chose, list of their orders, record of the order’s scheduled date and time, the number of pax or people to be served. Requires 20-30 rounds of test cases to identify errors of bugs. The target goal for the test should be 85 - 90%. |
| Create a software-based system that allows the registered employee to edit the point of sale but can only view the inventory. | Presence of a post form module. Registered employees must be able to view and edit a post. Requires 20-35 rounds of test cases to identify errors of bugs. Should be at least 80-90% to achieve the success target rate. |
| POS POP UP LOGIN FOR DISCOUNT |  |
| VOUCHER POP UP DIALOG BOX MESSAGE DIALOG WARNING THAT THIS VOUCHER HAS ALREADY BEEN USED |  |
| OWNER - ACCESS RECORDS > VOUCHER |  |

**4. SCOPE AND LIMITATIONS**

The project is concerned with developing a software-based system that allows registered owners to access, update, create, and remove the variety of food products they are offering and to view the lists of order menus, list of the amount of orders they gain, the list of their total expenses and list of income. This project allows the owner to edit the food services’ information and view the point of sale and inventory of the system. This project also allows the employee to place whatever catering orders of the customers put in. This helps the business owners in their daily transactions and business processes so that they can easily keep track of their order lists and salary. This software-based system would lessen the amount of work that they have to do and would make every process easier and more efficient.

The software-based system is guaranteed to work for a mobile device but the developers will not promise to accomplish it fully with the limited amount of time given. The creators will try to cover or develop a web-based system to gain more learning on how it works by using the cloud storage and the web-based system only covers the owner's interface. Us, the developers will not cover the creation of a user due to the fact that the creation of the user is covered by the owners therefore the creators will no longer cover that part. The developers will only cover the owner and employee portion.

This project is expected to complete within 2 to 3 months because the developers want the system to be deployed before a special event in Ateneo occurs.

**CONCEPTUAL FUNCTIONAL MODEL**

**OF**

**ATHENA PHERB’S CATERING SERVICES: A POS AND INVENTORY**

**SOFTWARE-BASED SYSTEM**

1. **A software-based system that allows the owner to post the food they serve, edit and view the sales and inventory of the system.**

**Technical Objective 1: Create a software-based system that allows the owner and employee to login an account.**

OPERATIONAL SCENARIO:

Once the owner or employee visits the software-based system they will be presented with a login page. In the login page they will provide the email and password that was given by the developers and when they click the “Login” button the system will verify their information and if the login is successful they will be redirected to the “Dashboard” otherwise, they will be redirected back to the “Login” page with an error message. In the “Dashboard” if the user that logged in is the owner, they can see the total monthly sales, the total expenses per month, and the number of customers per month, and also the best seller of Athena Pherb’s Menu. On the other hand, if the user who logged in is the employee, they can only see the best sellers of Athena Pherb’s Catering Services. In the dashboard’s side navigation bar, they are presented with a “Logout” button that logs them out and transfers them back to the front page.

**Technical Objective 2: Create a software-based system that allows registered owners and employees to add, edit, and remove the food that they serve.**

OPERATIONAL SCENARIO:

In the “DASHBOARD”, they will be able to see the best sellers of Athena Pherb’s Catering Services. The owner will be able to see a side navbar on the upper left portion of the software indicating the “ADMINISTRATOR PROFILE”, “USERS”, “DASHBOARD”,“POS”, “PRODUCT MENU”, “CUSTOMERS”, “RECORDS”, “STOCKS AND FOOD INVENTORY”, “USER SETTINGS” and “LOG OUT”. Each button has different landing pages. When the owner clicks the “Product Menu” button they will be redirected to the “Product Menu” page. In the Product Menu page, the owner and employee will be able to edit, view, and delete the list of ordered menus with a fixed package. The owner also provides a discount if the customers meet the criteria of 50 packages. On the same page, the owner can create or edit the food that are available or offered in Athena Pherb’s Catering Services.

**Technical Objective 3: Create a software-based system that allows registered owners and employees to browse and edit the point of sale and stock and food inventory.**

OPERATIONAL SCENARIO:

Once the owner or employee logged in to the system, by looking at the Side Navigation bar he/she will be able to see the “POS” button. Once the POS button is clicked, they will be redirected to the “POS '' page where they can create a new transaction with a transaction number, the date of that transaction, and the product code. In the same page, there will be a navigation bar indicating the “NEW TRANSACTION”, “ADD DISCOUNT”, “MONTHLY SALES”, and “CLEAR CART”. Another feature is that, in the bottom navigation bar, there will be a panel that shows the “SALES TOTAL”, “DISCOUNT”, “VAT” , and “TOTAL AMOUNT OF PAYMENT” and inside that panel there will be a “SETTLE PAYMENT” button that has “TOTAL AMOUNT TO BE PAID”, “AMOUNT PAID”, and “CHANGE”. On the right side of the screen there will be a RECEIPT that shows all the products that have been ordered and its total price.

search the name of the specific customer which is provided by a dropdown menu placed on the middle part of the page. When the owner clicks the specific customer from the dropdown menu, the owner will be redirected to the same page (POS Page) showing the information of that particular customer and below is the list of that specific customer’s order. The owner will be able to edit those orders or even the customers information. On the other hand, in the Side navigation bar, it is also indicated there the Inventory button, once clicked it will land in the “Inventory Page” where inside that page, on the upper portion, there will be a summary of the stock products such as meal boxes (plastic utensils included), soft drinks, bottled water, and juices. Below the summary of the stock products there will be a date field where the owner can select the date range of the customer's order and below that date range, there will be a bootstrap panel where the recent top 10 customer orders are shown. Below that bootstrap panel, there will be another bootstrap panel which shows the top 6 popular meals. Below that is the sales report of an individual customer’s order. For additional features, the developers will create an “Export Report” button based on the date range selected.

**Technical Objective 4: Create a software-based system that allows the registered owner or employee to add the customers information and their orders. This includes the payment method, the type of service(buffet serving or delivery only), list of their orders, set of date and time to be delivered, address of their orders, number of pax or people to be served, and the total expenses of the customer.**

OPERATIONAL SCENARIO:

In the “SIDE NAVBAR” when the owner or employee click the “PRODUCT MENU” button, it will redirect to the “PRODUCT MENU” page where they can see the category of “AVAILABLE CUISINE” which is the different kinds of (Dish(Meat), Rice, Fish, Soup, Seafood, Vegetables, Snacks, Dessert) and also inside the product menu page they will see the “FIXED PAX” and it has four options(30 PAX, 50 PAX, 70 PAX, 100 PAX) above 50 PAX will have to avail discount or just add-on order which depends on the customers discount price. Another feature in “SIDE NAVBAR” is the “CUSTOMERS” page where the owner or employee add the information of customer order. In the “COSTUMERS” page they can see the “ADD CUSTOMER” and when they clicked it there will be a pop up dialog box where they can fill up the “COSTUMERS FULL NAME”, “LOCATION ADDRESS”, “PHONE NUMBER”, “TYPE OF SERVICE” which is the(Buffet or Delivery Method) and also the “DATE OF ORDERS”, “RECEIVED DATE”, “MODE OF PAYMENT” which is (Cash, Gcash, Bank Transfer, Cheque) and also the “DATE DEPOSIT”, “FULLY PAID DATE”

When the owner clicks the “Menu” button, it will redirect to the “Menu Page” where there will be a button on the upper right corner named “Add Customer and order” and when it is clicked, there will be a pop up dialog box where the owner creates the informations of the customer together with the list of their orders. First thing that the owner will create or edit is the image of what the customer ordered, it will be a input file followed by the list of their orders, which includes the “Payment Method”, which will be a radio button, the “Type of service” either “Buffet” or “Delivery”, which will also be a radio button, the “Date” when will it be delivered, which will be a date field button, “Address”, which will be a text field, and the “Number of Pax”, which will be a number field and the “Total Expenses”, where it will be automatically calculated in the system. So, when the owner clicks the “Save Changes” button he/she will be redirected to the same page which is the “Menu Page” where all the information that was provided are shown.

**Technical Objective 5: Create a software-based system that allows registered owners to edit, remove, and view the number of Users registered in the system and to search for their previous and present employees.**

OPERATIONAL SCENARIO:

Once the owner or owner has logged in to the system, on the Side Navigation bar located on the left portion, there is a button called “Users” when the owner clicks that button, he/she will be redirected to the “Owner Employee Page” where in that page the owner will be able to edit, remove and view the number of users in the system. On the upper left corner, there will be a search bar where the owner can search the employee and be able to edit, or remove if that specific employee has turned down his/her position in the business.

1. **A software-based system that allows the employee to monitor the records of their data in the system.**

**Technical Objective 1: Create a software-based system that allows the employee to login an account.**

OPERATIONAL SCENARIO:

Once the employee visits the software-based system they will be presented with a login page. In the login page they will provide the email and password that was given by the developers and when they click the “Login” button the system will verify their information and if the login is successful, they are transferred to the “Dashboard”, otherwise, they will be redirected back to the “Login” page with an error message. In this dashboard, they are presented with a “Logout” button that logs them out and transfers them back to the front page.

**Technical Objective 2: Create a software-based system that allows the registered employee to add the customers information and their orders. This includes the payment method, the type of service(buffet serving or delivery only), list of their orders, set of date and time to be delivered, place of order, number of pax or people to be served, and the total expenses of the customer.**

OPERATIONAL SCENARIO:

When the employee clicks the “Menu” button, it will redirect to the “Menu Page” where there will be a button on the upper right corner named “Add Customer and the list of its Menu” and when it is clicked, there will be a pop up dialog box where the employee creates the informations of the customer together with the list of their orders. First thing that the employee will be able to create or edit is the image of what the customer ordered, it will be a input file followed by the list of their orders, which includes the “Payment Method”, which will be a radio button, the “Type of service” either “Buffet” or “Delivery”, which will also be a radio button, the “Date” when will it be delivered, which will be a date field button, “Address”, which will be a text field, and the “Number of Pax”, which will be a number field and the “Total Expenses”, where it will be automatically calculated in the system. So, when the employee clicks the “Save Changes” button he/she will be redirected to the same page which is the “Menu Page” where all the information that was provided are shown.

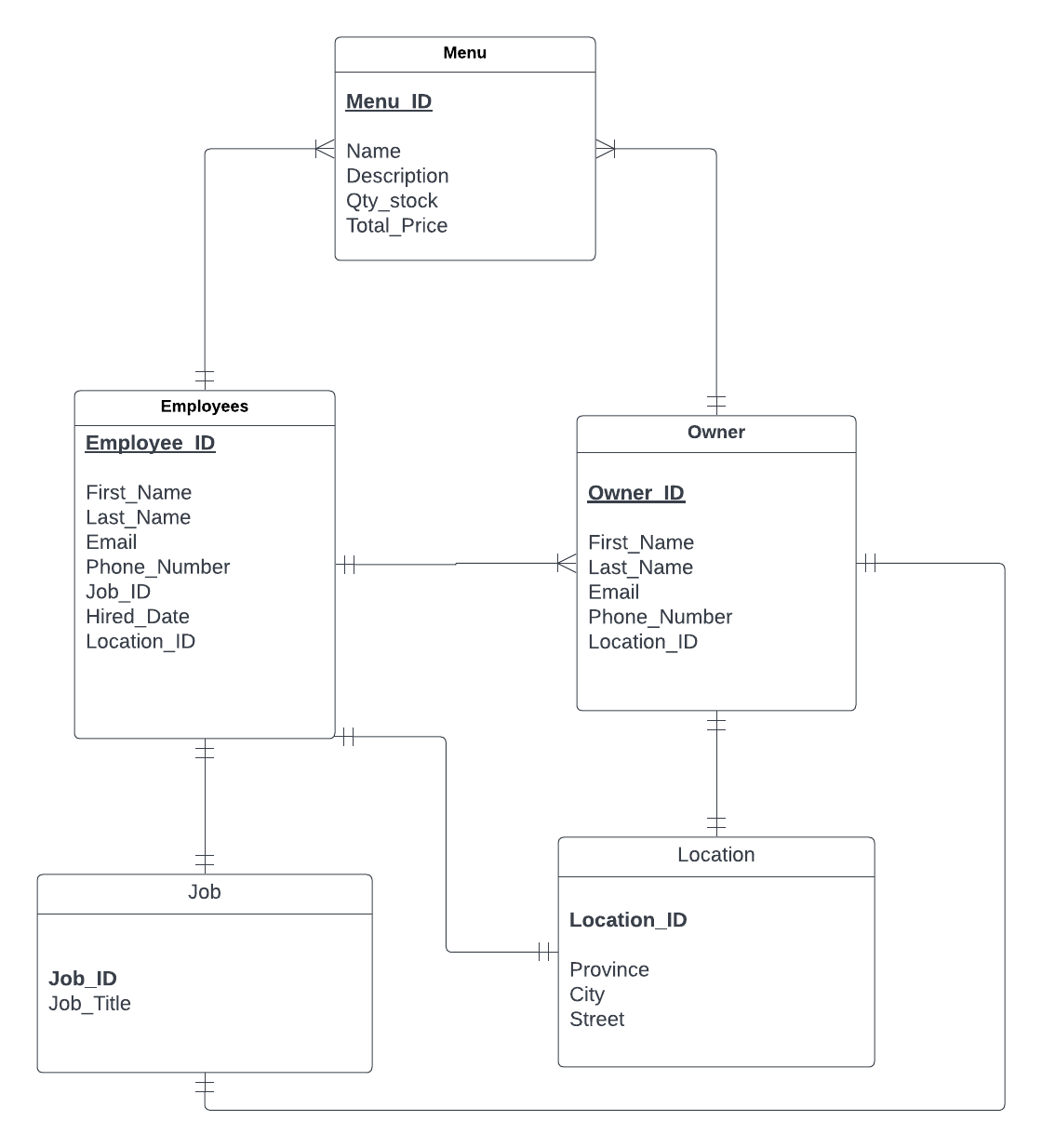
**Technical Objective 3: Create a software-based system that allows the registered employee to edit the point of sale but can only view the inventory.**

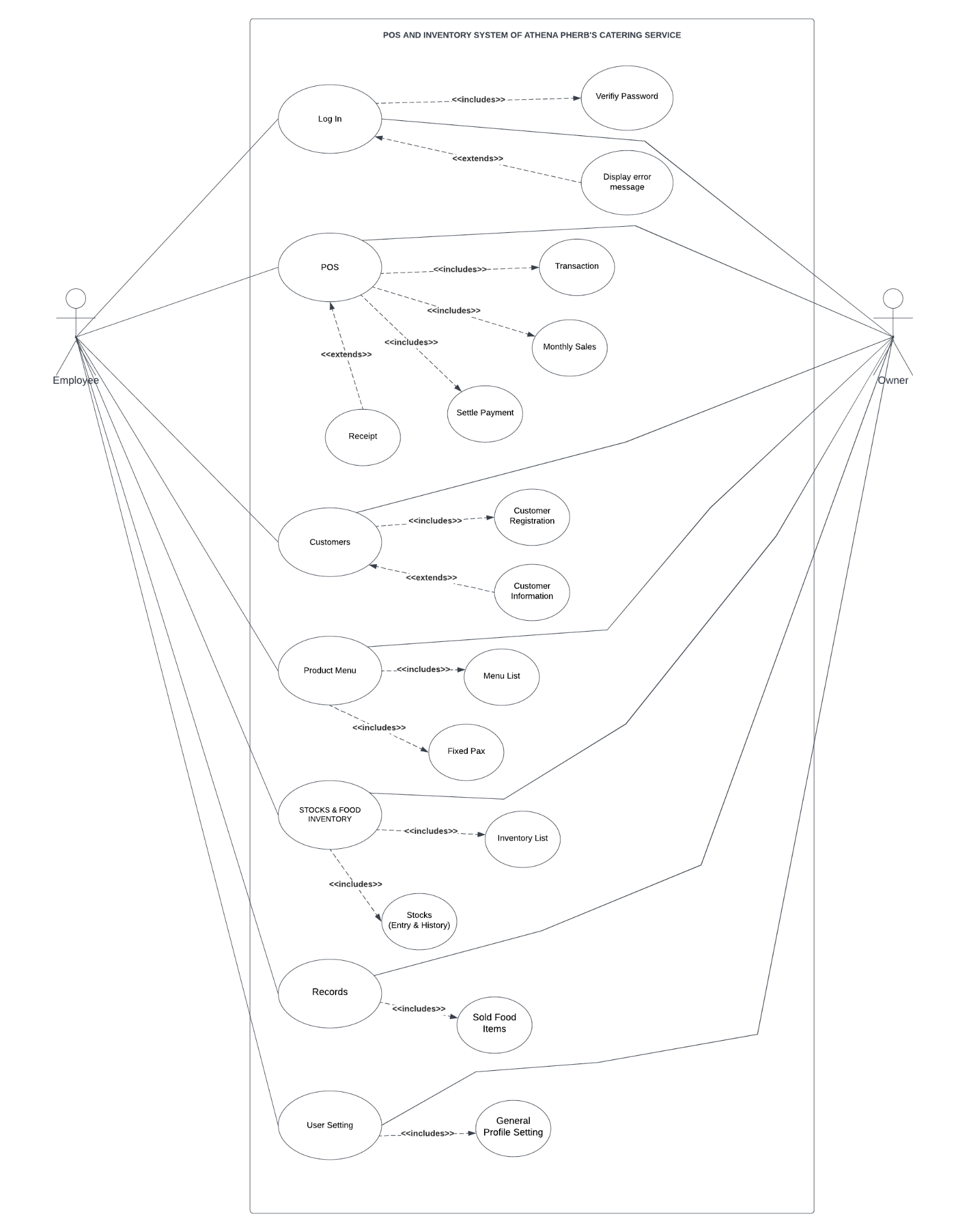
OPERATIONAL SCENARIO:

Once the employee logged in to the system, by looking at the Side Navigation bar he/she will be able to see the “POS” and “Inventory” button. Once the POS button is clicked, the employee will be redirected to the “POS Page” where the employee can search the name of the specific customer which is provided by a dropdown menu placed on the middle part of the page. When the employee clicks the specific customer from the dropdown menu, the employee will be redirected to the same page (POS Page) showing the information of that particular customer and below is the list of that specific customer’s order. The employee will be able to edit those orders or even the customers information. On the other hand, in the Side navigation bar, it is also indicated there the Inventory button, once clicked it will land in the “Inventory Page” where inside that page, the employee can only view the inventory of the system.

**System Activity Diagram**

**Flowchart**

**ERD**



**Use-Case Diagram**

**Data Flow Diagram(DFD)**

**Mock Prototype**

**Gantt Chart**

**Milestones:**

**Task 1 - Deploying Database**

**Physical Allocation Model**

**Creating the Operational Needs - Dia, Baldonado**

**Creating the Slide Guide Presentation - Baldonado, Pano**

**Creating the Introduction and Mission Statement - Dia, Otic, Pano, Baldonado**

**Creating the Technical Objectives - Otic, Pano, Dia**

**Creating the Scope and Limitations - Pano, Dia, Baldonado**

**Creating the Operational Scenarios - Baldonado, Dia, Otic,Pano**

**Creating the Diagrams - Baldonado, Dia, Otic**

**Creating the Gantt Chart and Physical Allocation Model - Otic, Dia**