Group O

Computer Store

Design Report

Version 1.3

Date	Version	Description	Author
04/22/23	1.0	Beginning of report, research	Verald, Alhamza, Rezwan, Sebastian, Melchizedek
04/23/23	1.1	Front-end coding. Landing Page. Sign in/up page.	Melchizedek De Castro
04/25/23	1.2	Finishing up Report	Verald, Alhamza, Rezwan, Sebastian, Melchizedek

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Phase II: Design Report

1. Introduction

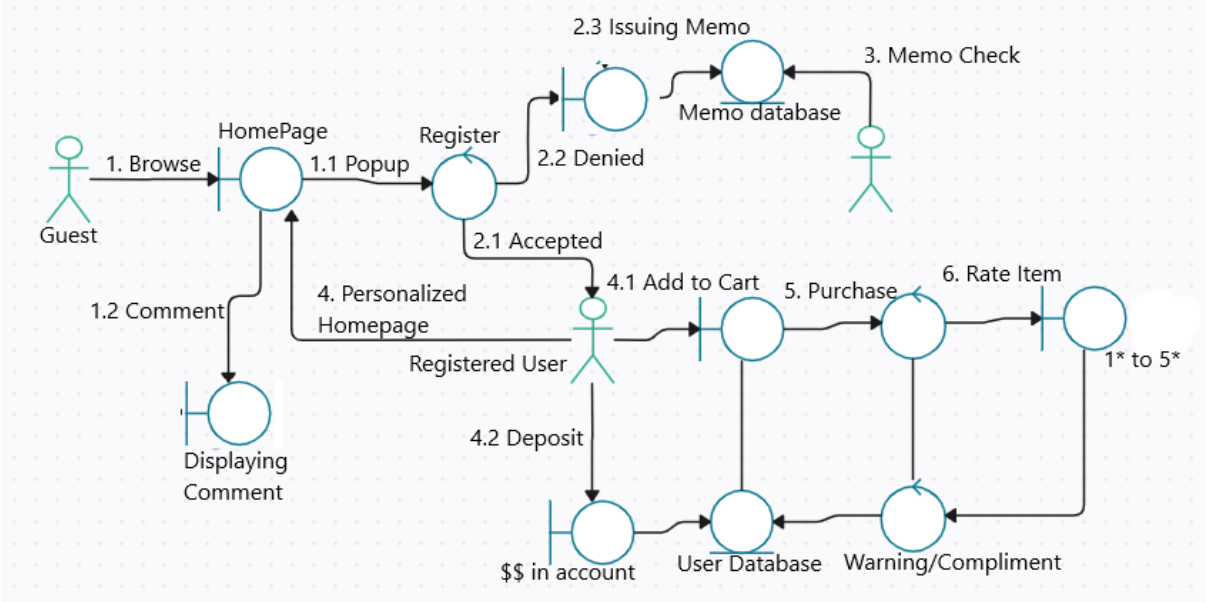
This design report will give detailed information of our Online Computer Store O-CompS.

The preceding sections go into depth about our systems functionality, use cases, and database.

1.1 Purpose

The purpose of this document is to give a detailed overview of our system. We use different UML diagrams to illustrate system specifications, use cases, and databases.

1.2 Collaboration Class Diagram

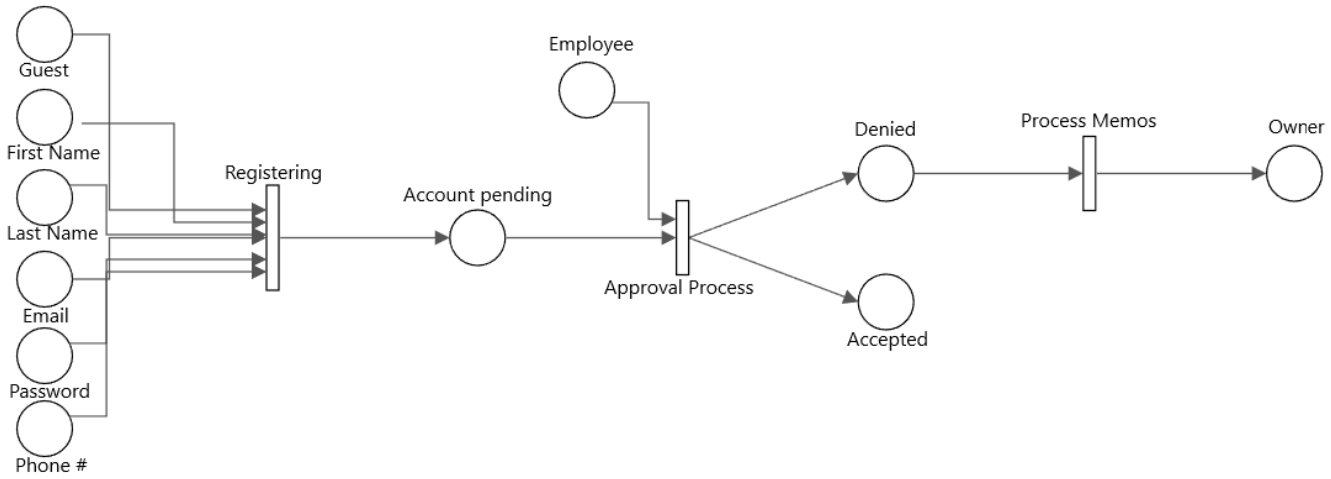


2. Use Cases

2.1 Register Account

Normal Scenario: After entering the homepage, the user is given the option of registering an account. The customer provides their first name, last name, email, password with confirmation, and their phone number.

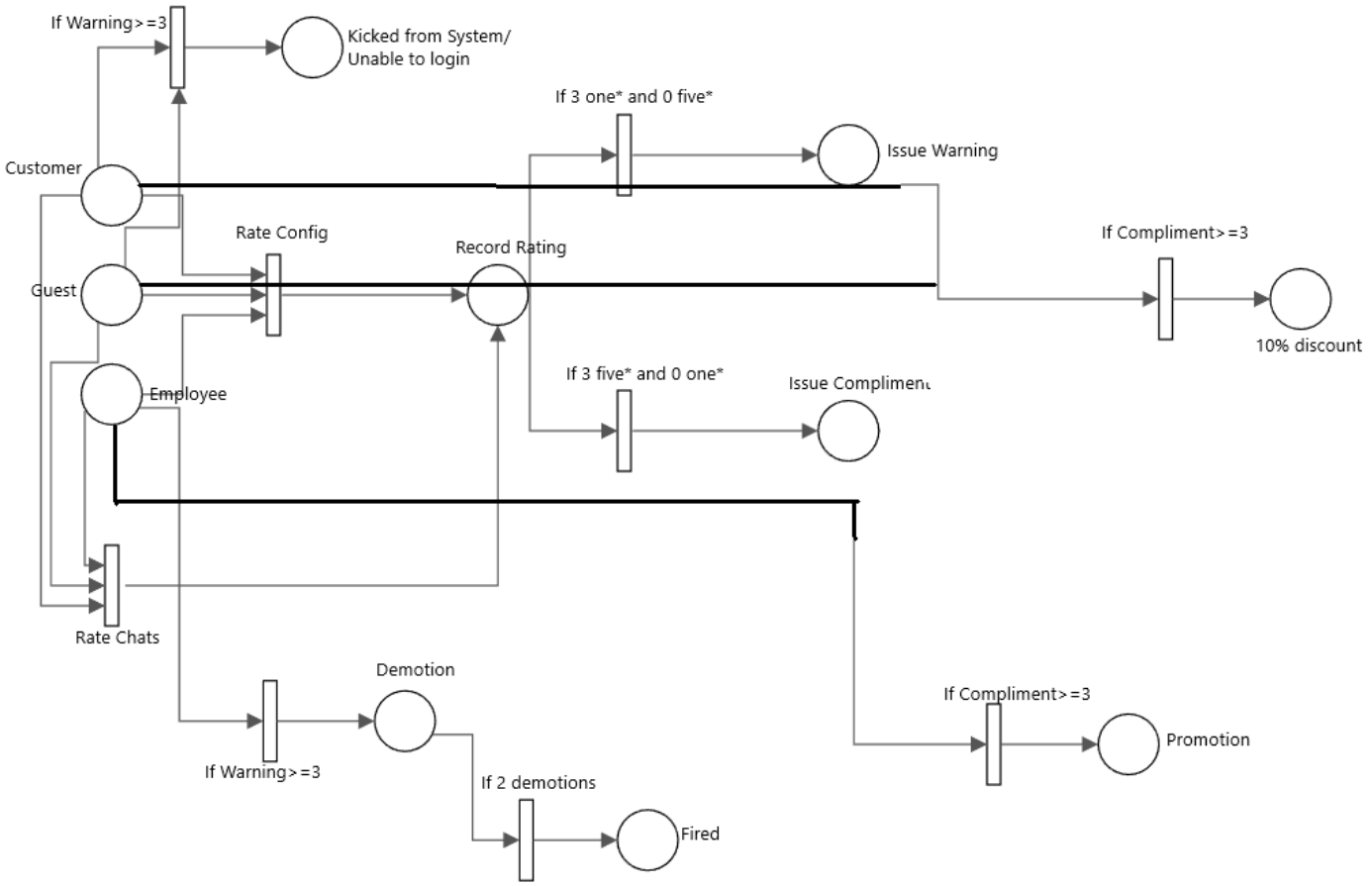
Exceptional Scenario: An employee has to approve a registration application. If the application is denied for any reason, a memo is to be sent to the owner in case the customer protests their registration.



2.2 Rating and Compliment/Warning System

Normal Scenario: After a successful purchase, the customer can rate the configuration.

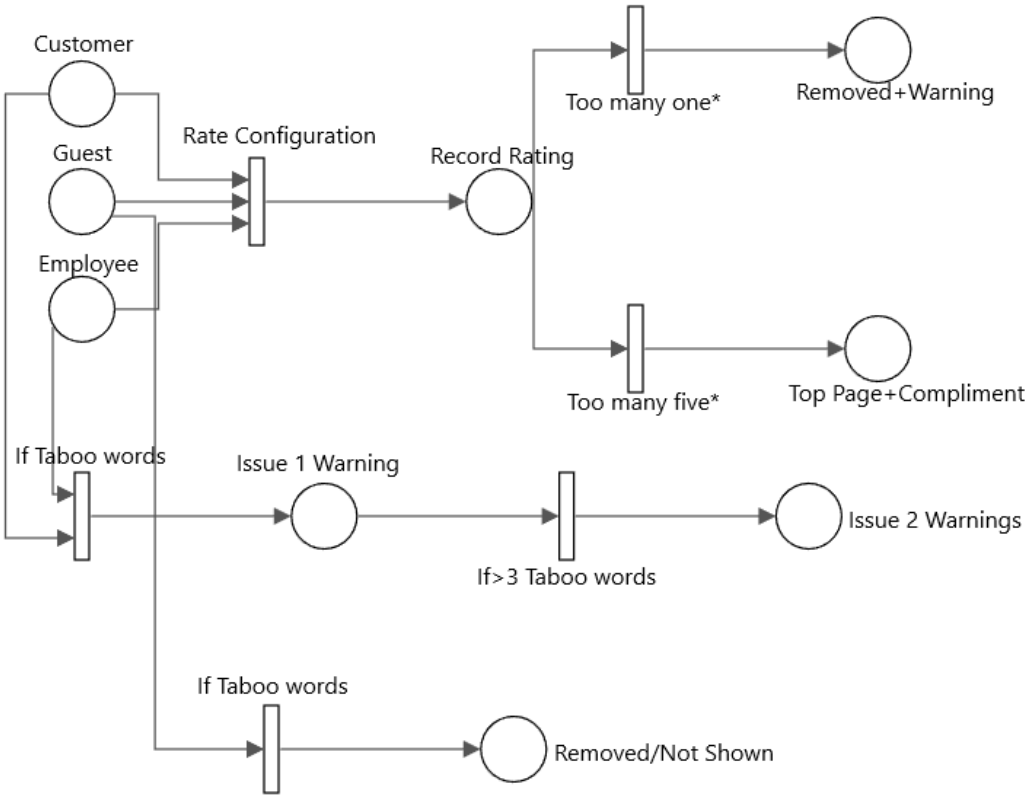
Exceptional Scenario: If a configuration gains at least three 5☆ (best) and zero 1☆ (worst), the related party will receive a compliment. In the same way, if a configuration gains at least three 1☆ and zero 5☆, then a warning will be issued instead. Customers can also either complain or compliment their chats with an employee about purchase concerns in the same manner. Employees can also complain/compliment their chats with customers. However, the store owner will decide for these matters about the distribution of warnings and compliments. Any customer with 3 warnings is kicked, cannot log in, and will be directed to an employee for this matter. Any customer with 3 compliments gains a 10% discount in the next purchase. An employee with 3 warnings gets demoted, 2 demotions = fired. An employee with 3 compliments gets promoted.


If Warning>=3
Kicked from System/
Unable to login
If 3 one* and 0 five*
Issue Warning
Customer
Rate Config
Record Rating
If Compliment>=3
Guest
10% discount
If 3 five* and 0 one*
Employee
Rate Chats
Demotion
If Compliment>=3
Promotion
If Warning>=3
If 2 demotions
Fired

2.3 Display System (Items and Comments; extension of 2.2)

Normal Scenario: Any configuration receiving the worst ratings will be removed. Any configuration receiving the best ratings will be displayed at the top. Comments will be run through language checks.

Exceptional Scenario: If a configuration is removed, the related party will receive a warning. If a configuration is displayed at the top, the related party will receive a compliment. If a visitor comments taboo words, they are removed immediately and not shown. If a registered customer or employee comments taboo words, they are given a warning. If more than 3 taboo words are shown, 2 warnings are issued and the comments are not shown.



3. E-R diagram for the entire system

An entity relationship diagram is a graphical representation of an information system that depicts the relationships among people, objects, places, concepts or events within that system. Below is an Entity Relationship Diagram describing our overall system and outlining our database. The diagram specifies the relationship between different entities and lists each entity's attributes for use in the database. The entities are represented in square containers with their name as a header and their attributes are listed below the header.

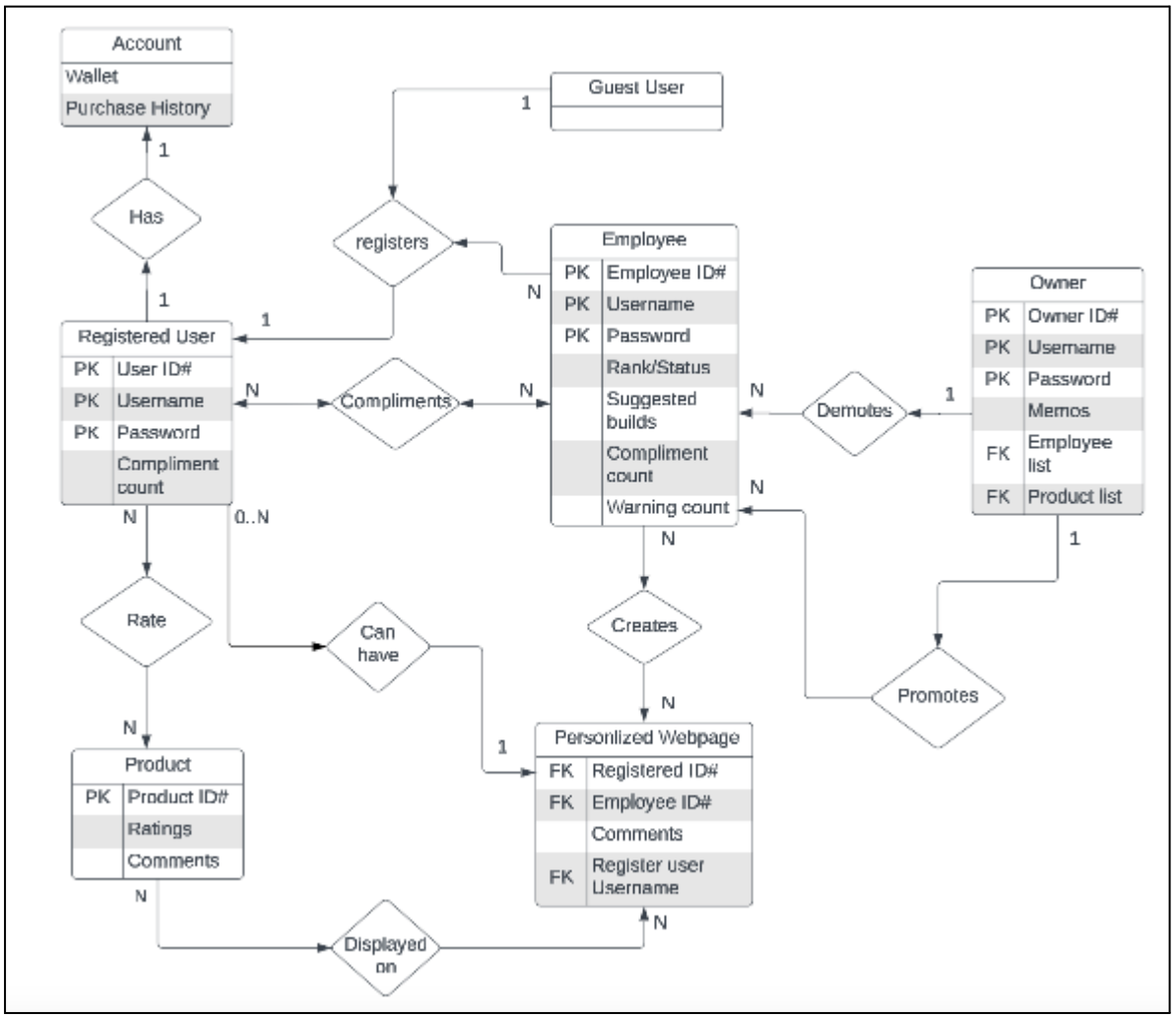


Figure 3.1: *ER-Diagram for entire system*

4. Detailed Design

4.1 - registerUser(email, password)

Input: user's desired email(string) and password(string)

Output: Boolean(?) value to determine whether email/password already exists in the database or not.

Main Functionality:

Check if email is available or not taken.

If email is available, create a new user record in the database with the provided information (email/password), and any additional information (First Name, Last Name, Mobile Phone Number).

4.2 - loginUser(email, password)

Input: user's email(string) and password(string)

Output: Boolean value to determine if the email exists, and if it matches with the password.

Main Functionality:

Find if the entered email exists in the database.

If so, check if it matches with the registered password.

If it matches, return true(1) for a successful user login.

Else, Return false(0) for user login failed.

4.3 - sendProductRating(userID, productID, userRating)

Input: userID(int), userRating(int) for the product, and the rated productID(int).

Output: Successfully sent user's rating on product or Failed to send.

Main Functionality:

Check if productID exists in the database. Same for userID.

If so, apply the user's rating value onto the product.

4.4 - submitEmployeeCompliment(userID, employeeID, compliment)

Input: userID(int), employeeID(int), user's compliment(int) to employee

Output: employee's compliment_count++

Main Functionality:

Check if userId and employeeID exist in the database.

If so, add the compliment count to the corresponding employee coming from the corresponding user.

4.5 - sendProductOrder(userID, productID, quantity)

Input: userID(int), productID(int), user's desired quantity(ID) of the product.

Output: Subtract one from productID_quantity, purchase receipt

Main Functionality:

Check if userID and productID exist in the database.

If so, check if productID is in stock (also take account of user purchase quantity).

If so, check if userID's wallet balance is >= to productID's price.

If so, process purchase.

Take the calculated cost away from user balance.

Process receipt for user.

5. System Screens

O-CompS' landing page, sign-up and sign-in pages, and chat box with an employee.

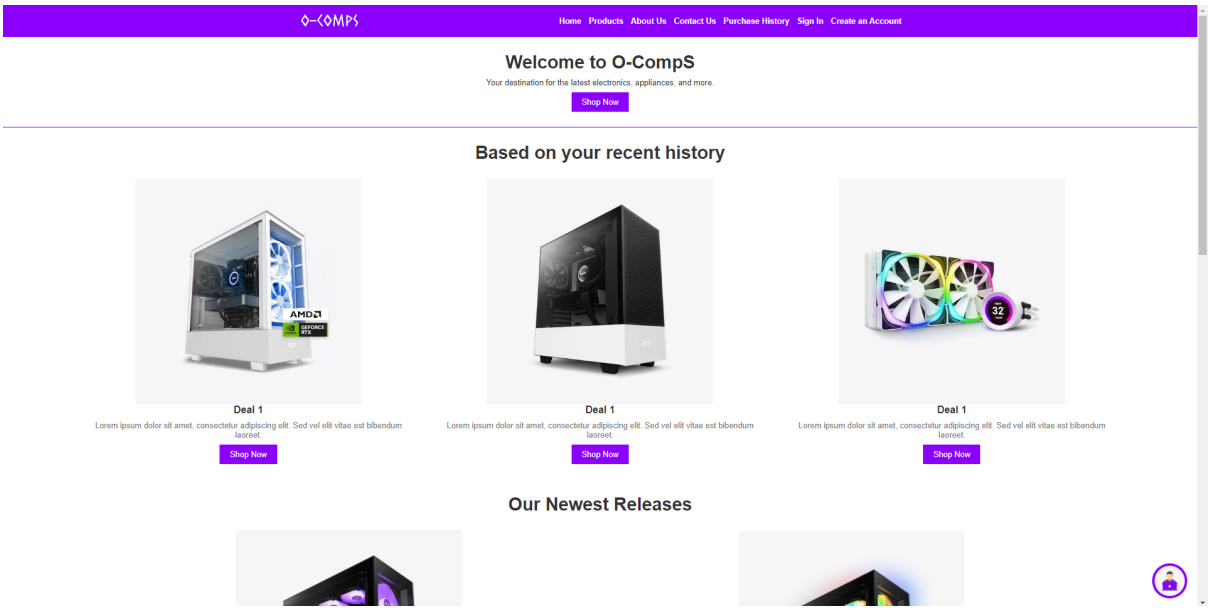


***Figure 5.1**: Landing Page. Shows user's recently viewed product*

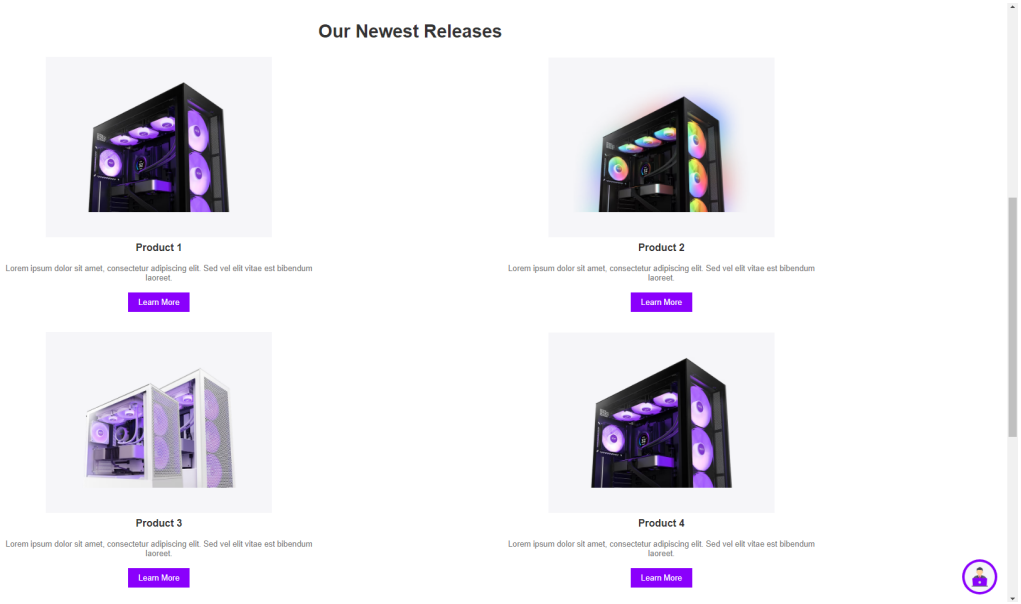


***Figure 5.2**: Landing Page. Showing our newest product releases.*

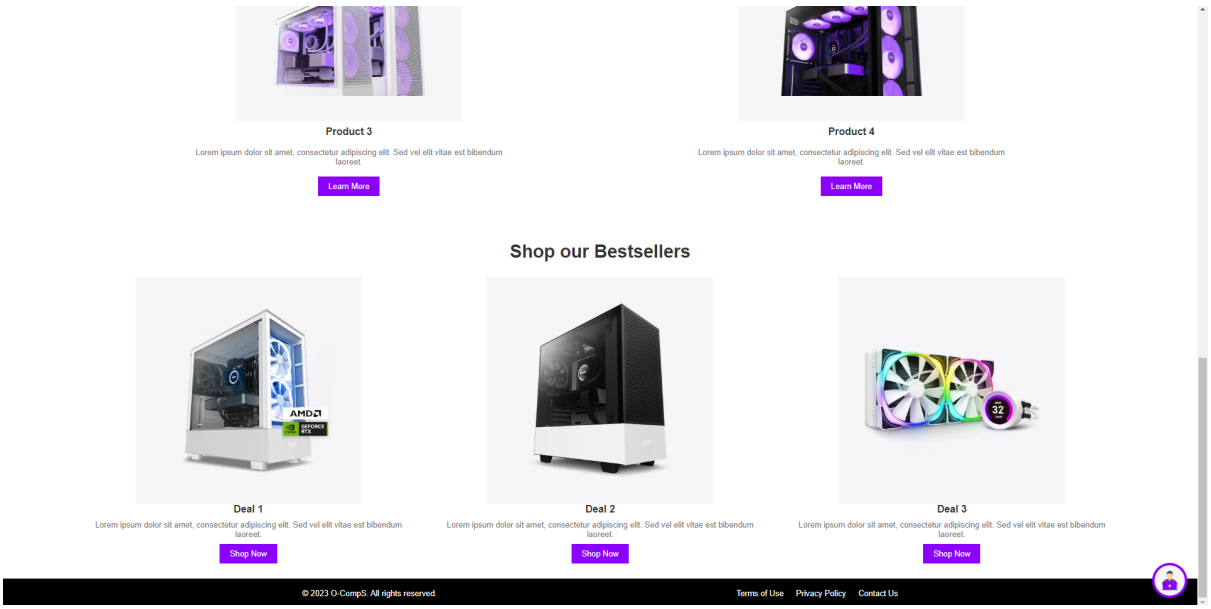


***Figure 5.3**: Landing Page. Showing our best selling products.*

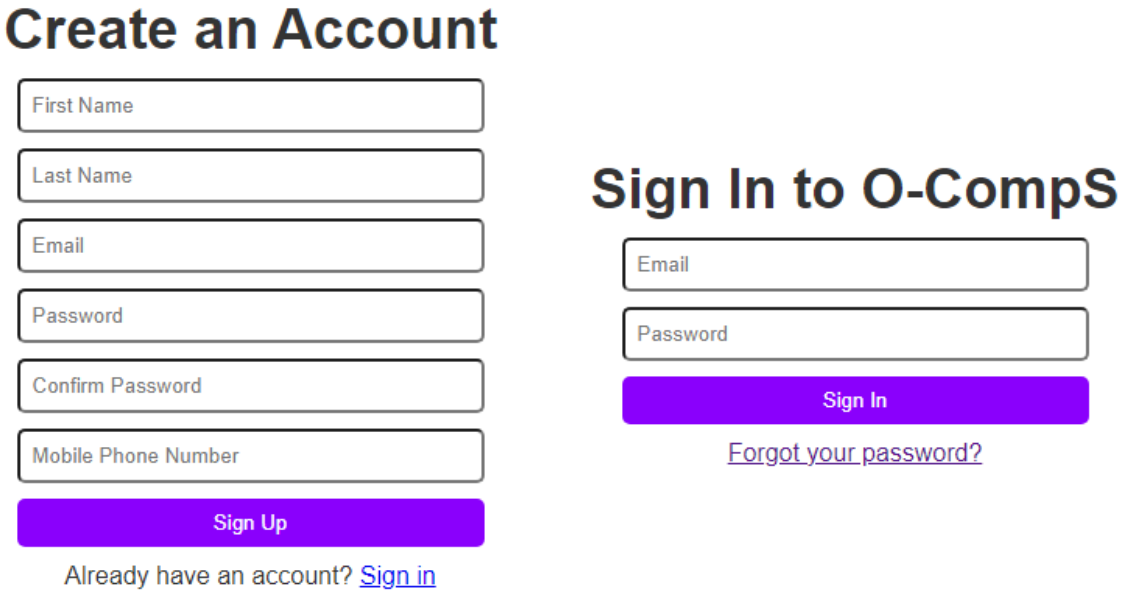


***Figure 5.4**: Users can create their account or sign in to O-CompS.*

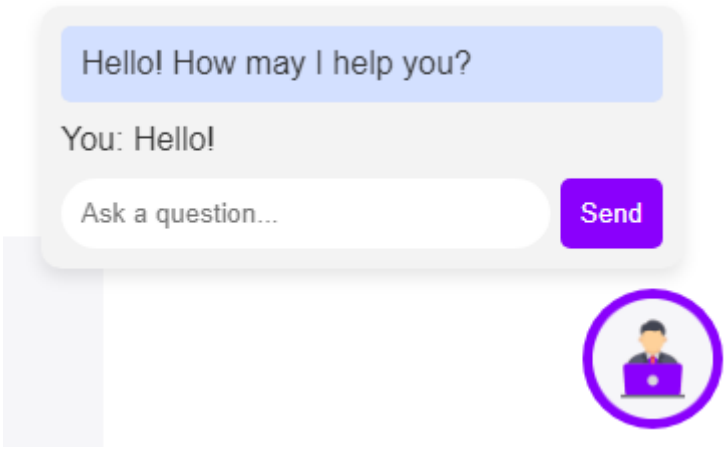


***Figure 5.5**: Users can connect and interact with an employee through a chat box at the bottom right corner of the website.*

6. Memos of Group Meetings and Possible Concerns of Team Work

6.1 Group Meetings

Meeting 1

Topics: Going over design specifications, framework, and technologies.

In the first group meeting we went through each design specification and made sure everyone understood the requirements of our system. We decided to make a website and choose to use reactJS as the framework and MySQL as the database. We looked through different website designs and we agreed on using https://nzxt.com/collection/bld-kit as a reference.

Meeting 2

Topics: went over report 1 and created a Use-case diagram

In the second group meeting we went through the requirements for design report 1. In the beginning of the meeting we create a use case diagram for the entire system. We all agreed to each take one section of the report to complete.

Meeting 3

Topics: went over report 2, created a Collaboration diagram , created landing page

In the third group meeting we went through the requirements for design report 2. In the beginning of the meeting we created a collaboration class diagram of the system. We worked on the landing page of the website. Distributed sections for design report 2.

6.2 Possible Concerns of teamwork

1. Conflicting schedules
2. Unbalanced work division

7. GitHub Address

Our Github Repository: zehdi02/csc322 (github.com)

Github Pages of the computer store currently: O-CompS Home Page (zehdi02.github.io)