COSC360

UBCO

Feb 27, 2023

Gyumin Moon

Harshall

# Server-Side Proposal

Server-Side Demo

URL: https://cosc360.ok.ubc.ca/gyumin/PROJECT-COSC360-1/page/

[ Test Account | email: tester@gmail.com, password: Tester1234 ]

[ Test Admin Account | email: admin@gmail.com, password: Password1234]

Github: https://github.com/COSC360/project-2020-byte

Demo Video:

Page List:

/page/index.php

/page/login.php

/page/signup.php

/page/lost.php

/page/profile.php

/page/users.php

/page/productSearch.php

/page/product.php

/page/opinion.php

# Website user's objectives:

\# Browse discussions without registering.

/page/productSearch.php



\# Search for items/posts by keyword without registering.
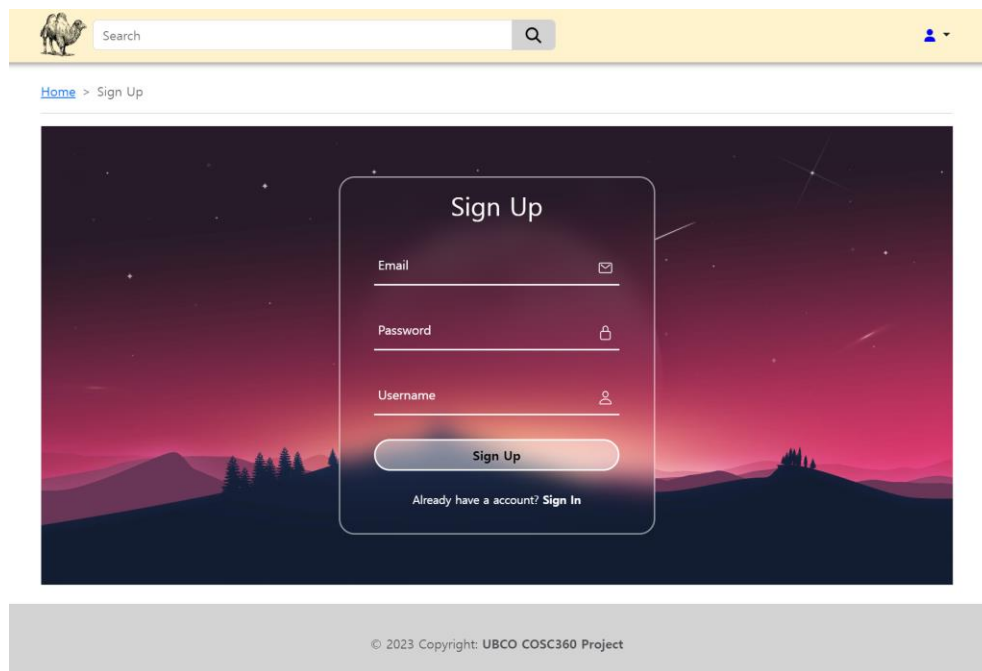
# Register at the site by providing their name, e-mail.

/page/singup.php



# Allow user login by providing user id and password.

/page/login.php

# Users are required to be able to view/edit their profile.

/page/profile.php
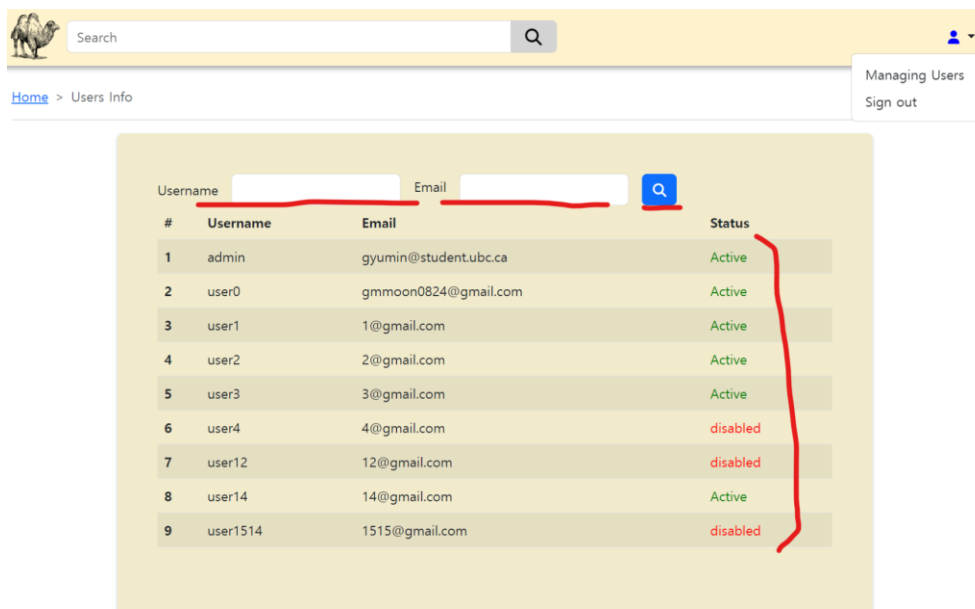


# Website administrator's objectives:

# Search for user by name, email.

# Enable/disable users. (Status is changed by clicking it like toggle)

/page/users.php

# Edit/remove posts items or complete posts.

(Administrator account can click any review and move to its review page)

| # | Username | Rating | Review | Posted Date | Updated Date |
|---|----------|--------|--------|-------------|--------------|
| 1 | user0 | 5 | fsafa | 2023-03-14 18:08:04 | 2023-03-18 15:15:14 |
| 2 | user0 | 5 | fsafa | 2023-03-14 18:07:40 | 2023-03-18 15:15:14 |
| 3 | user0 | 4 | niceLorem ipsum dolor sit amet consectetur adipisicing elit. Quos voluptatem laudantium quo magnam! Beatae repudiandae maiores, debitis, expedita aliquam magni, aut doloremque error veritatis a impedit seqniceLorem ipsum dolor sit amet consectetur adipisicing elit. Quos voluptatem laudantium quo magnam! Beatae repudiandae maiores, debitis, expedita aliquam magni, aut doloremque error veritatis a impedit seqniceLorem ipsum dolor sit amet consectetur adipisicing elit. Quos voluptatem laudantium quo magnam! Beatae repudiandae maiores, debitis, expedita aliquam magni, aut doloremque error veritatis a impedit seq | 2023-03-14 14:45:24 | 2023-03-18 15:15:14 |
| 4 | user1 | 3 | not bad | 2023-03-14 14:45:24 | 2023-03-18 15:15:14 |
| 5 | user2 | 2 | not good | 2023-03-14 14:45:24 | 2023-03-18 15:15:14 |
| 6 | user3 | 1 | bad | 2023-03-14 | 2023-03-18 |

Once moved to certain review page, administrator can edit and delete posts like its own user.

Home > Product Search > MacBook Air 13.6" (M2) > Review

| # | Username | Product |
|---|----------|---------|
| 1 | admin | MacBook Air 13.6" (M2) |

Rating  4

niceLorem ipsum dolor sit amet consectetur adipisicing elit. Quos voluptatem laudantium quo magnam! Beatae repudiandae maiores, debitis, expedita aliquam magni, aut doloremque error veritatis a impedit seqniceLorem ipsum dolor sit amet consectetur adipisicing elit. Quos voluptatem laudantium quo magnam! Beatae repudiandae maiores, debitis, expedita aliquam magni, aut doloremque error veritatis a impedit seqniceLorem ipsum dolor sit amet consectetur adipisicing elit. Quos voluptatem laudantium quo magnam! Beatae repudiandae maiores, debitis, expedita aliquam magni, aut doloremque error

Edit          Delete

# Minimum Functional Requirements:

# Hand-styled layout with contextual menus (i.e. when user has logged on to site, menus reflect change). Layout frameworks are not permitted other than Bootstrap (see above).

1. Unsigned user view
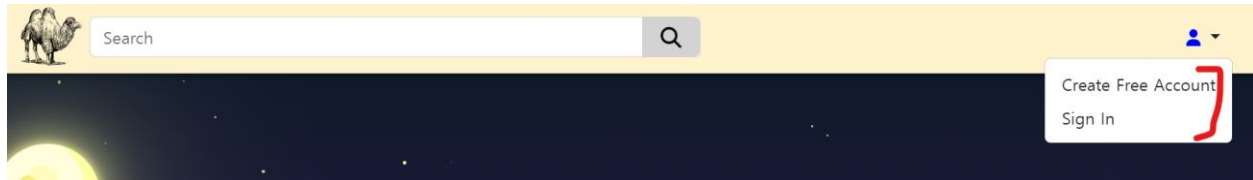


2. Signed user view
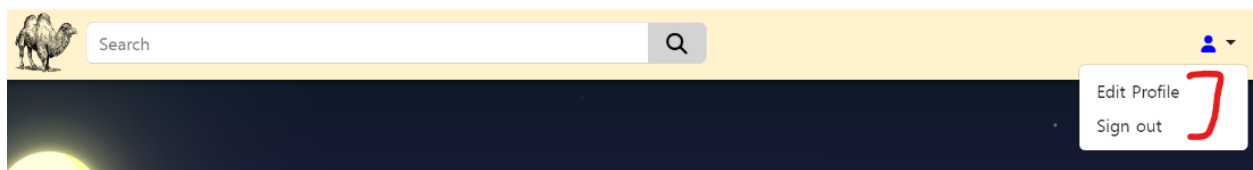


3.Administrator view
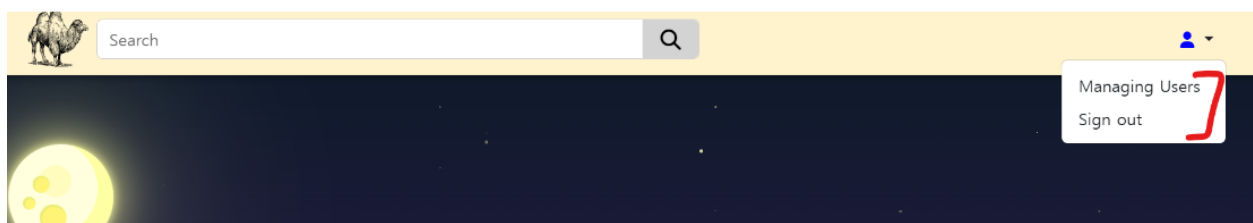
# 2 or 3 column layout using appropriate design principles (i.e. highlighting nav links when hovered over, etc) responsive design.

Responsive design
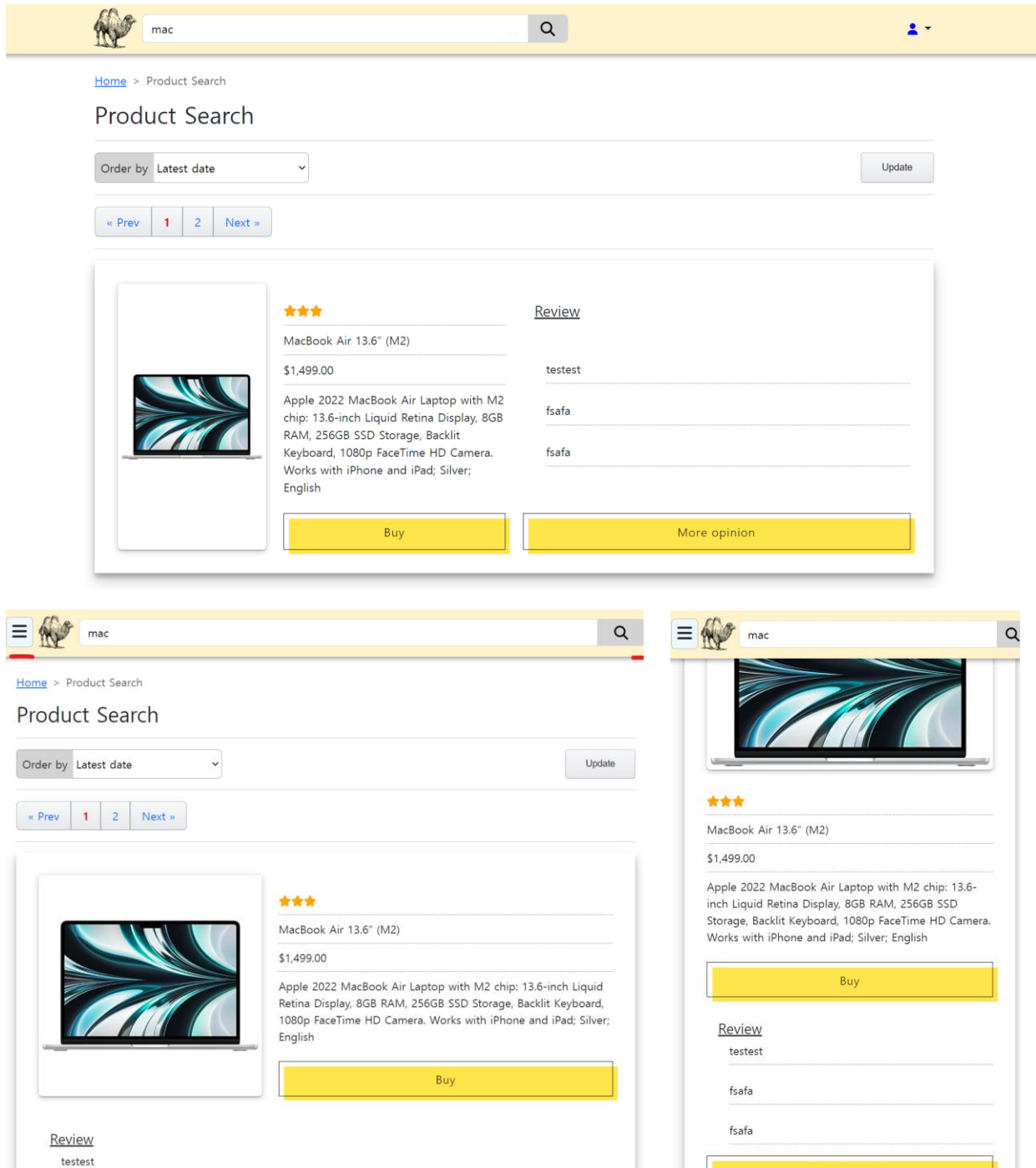
When hover "LET'S DIVE IN" button, it is filled with blue from the lower left corner to upper right corner.



When hover menu, that menu's background color is changed.



When hover magnifier icon, color keep changing from sky blue to pink and vice versa.
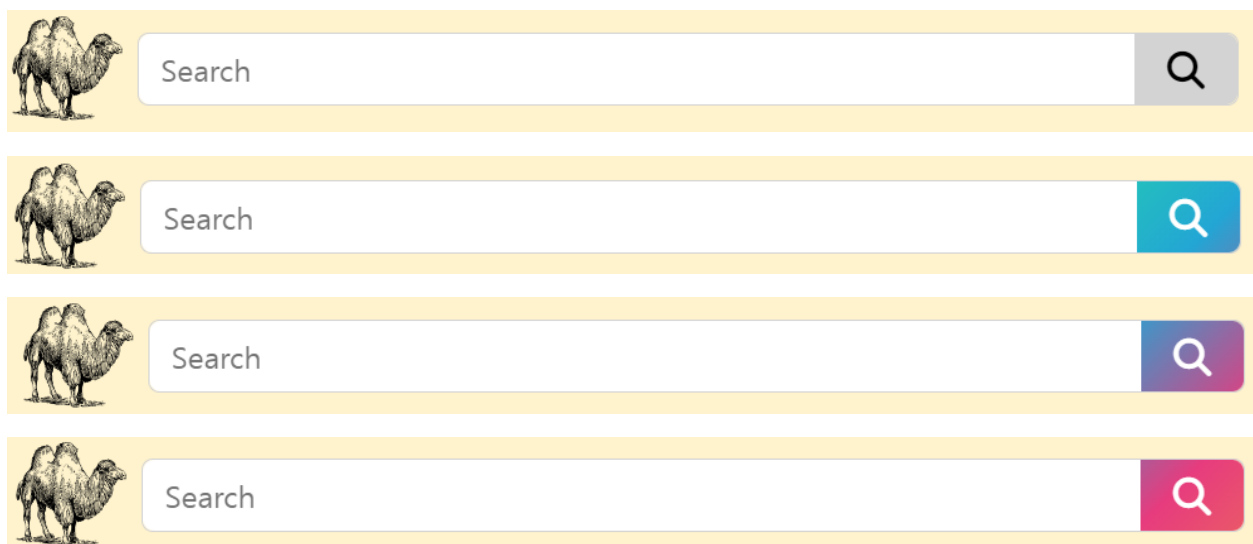


When input is focused, red outline is activated.

When hover pagination button, it gets to has shadow.

When it is focused, it changes background color and font color.

| « Prev | **1** | ... | 5 | Next » | | « Prev | 1 | ... | 5 | Next » | | « Prev | 1 | ... | 5 | Next » |

Total number of pages: 5

Current page: 2

| « Prev | 1 | **2** | ... | 5 | Next » |

Current page: 3

| « Prev | 1 | ... | **3** | ... | 5 | Next » |
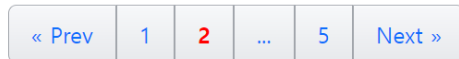
Total number of pages: 1

Current page:1

| **1** |

Total number of pages: 2

Current page: 1

| « Prev | **1** | 2 | Next » |
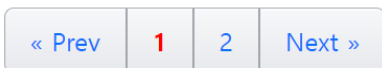
Total number of pages: 4

Current page: 3

| « Prev | 1 | ... | **3** | 4 | Next » |

When hover Buy or More opinion button, its background yellow shadow fits to its location

| Buy | | More opinion |

| Buy | | More opinion |

| Buy | | More opinion |
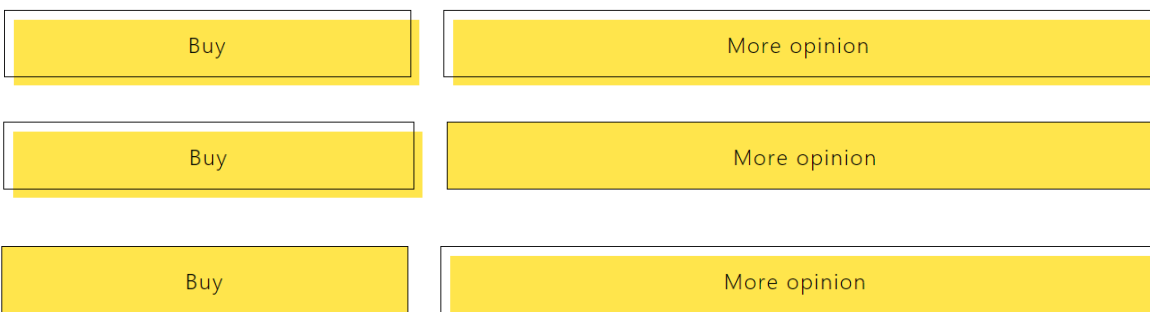
When hover image of product at product.php page, it slides up details.
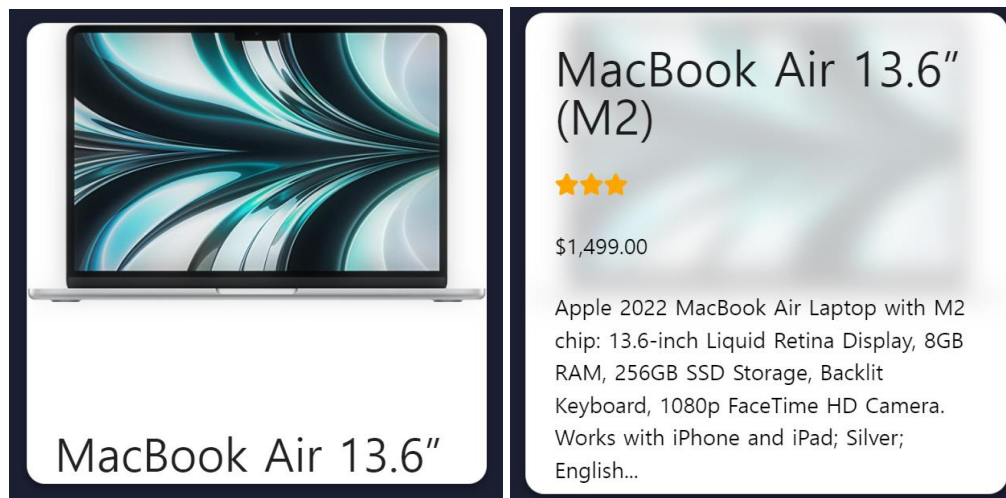


When hover user own review at product.php page, its color change to blue.



If user is disabled and hover its own posts, its color change to red

Submit review button changes its color when it is hovered.

| Rating | 1 |
|---|---|

Review

Submit

| Rating | 1 |
|---|---|

Review

Submit

If user is disabled, submit review button is changed to Not allowed with red color as well.

| Rating | 1 |
|---|---|

Review

Not allowed

When it is focused or has correct formation of input, the label goes up.

On the contrary, When it is not focused with invalid input, the label goes down.
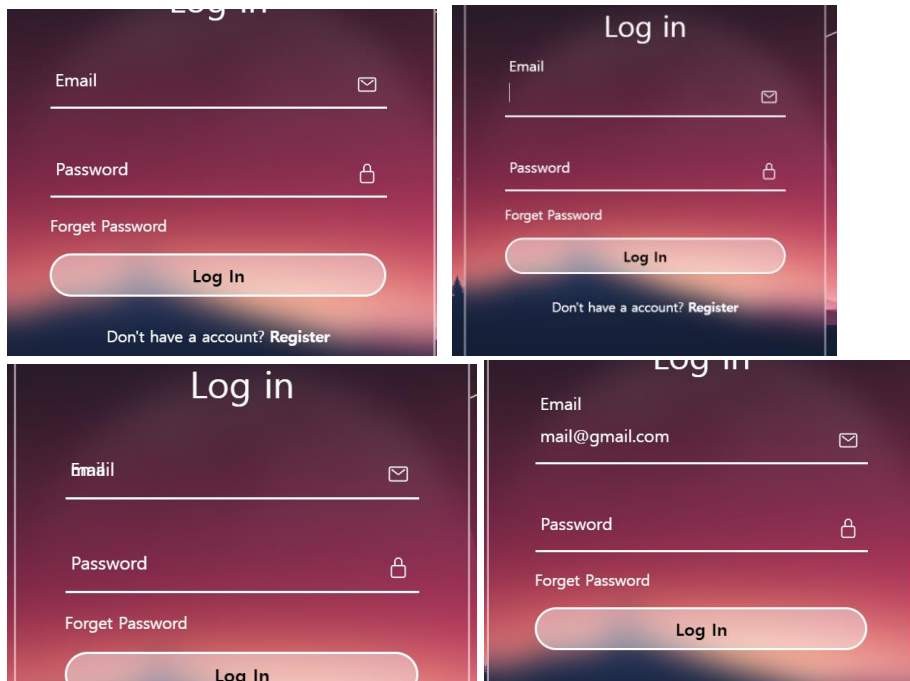


# Form validation with JavaScript

When input is empty or inavlid, it shows warning message.
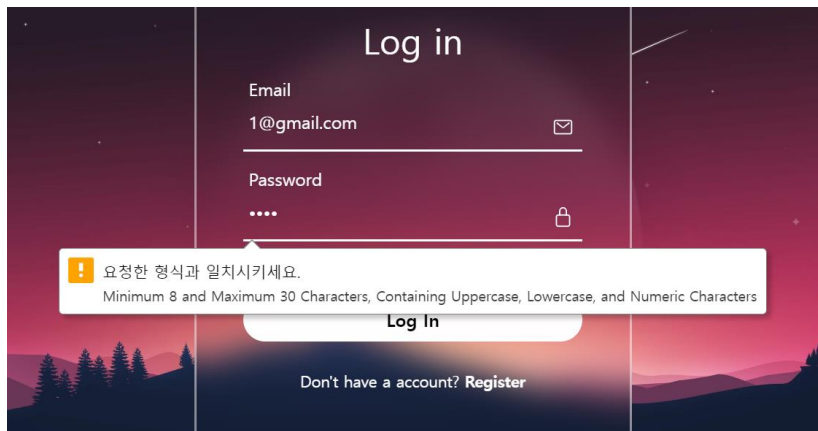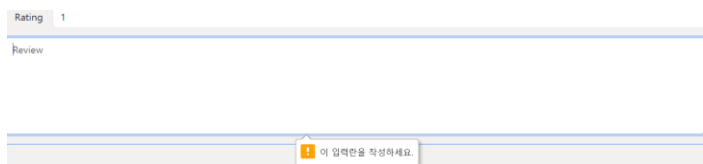
Besides, when user submit email that isn't exist in database or password doesn't match the email, it gives warning.
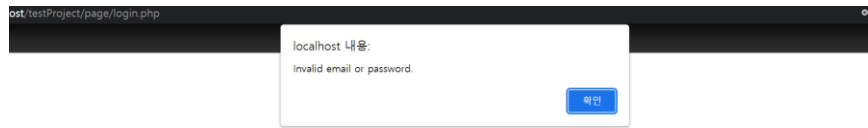


Likewise, when user forgot email and try to sign in, if they enter unexisted eamil, it gives warning.
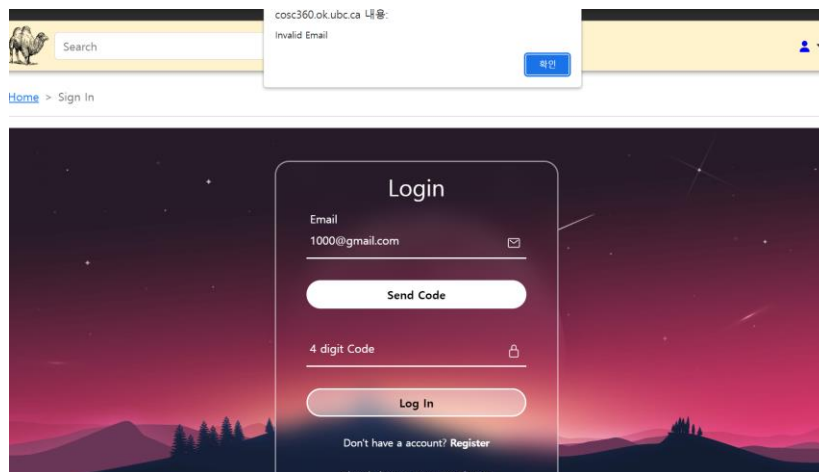


Invalid code is submitted, it shows warning as well.
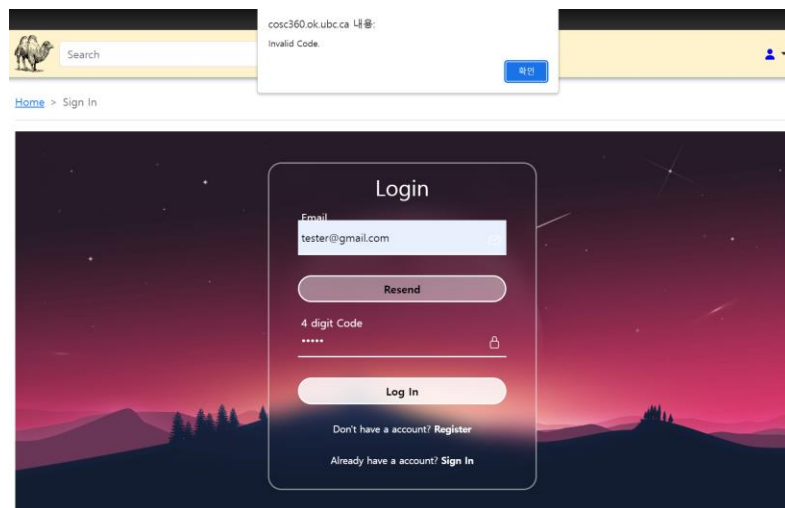
# Server-side scripting with PHP

Basically, this site is created using php. Therefore, it prepares file with database at server and renders it to user's browser unless ajax is used to get data asynchronously. (Php is used to set up a session, search for and import data, or write a review.)

# Data storage in MySQL

All data is stored using mySQL. There are tables of users, options, and items.

# Appropriate security for data

By using the prepare() and bind_param() functions in PHP, the code is able to prevent SQL injection attacks as shown below.

```php
// Prepare and execute the SQL query
$stmt = $conn->prepare("SELECT * FROM items WHERE id = ?");
// $stmt = $conn->prepare("SELECT * FROM opinions");

$itemId = $_GET['id'];
$stmt->bind_param("i", $itemId);
$stmt->execute();

// Get the result
$result = $stmt->get_result();
```

Besides, It ensures the security of the user's personal information using hased password

Part of signup.php

```php
 if (!empty($_POST['email']) && !empty($_POST['password'])
&& !empty($_POST['username'])) {
      // Check if email and password are valid
      $email = $_POST['email'];
      $password = $_POST['password'];
      $password = password_hash( $password, PASSWORD_DEFAULT);
      $username = $_POST['username'];
```

Part of login.php

```php
// Check if email and password are set and not empty
   if (!empty($_POST['email']) && !empty($_POST['password'])) {
        // Check if email is valid
        $email = $_POST['email'];
```

```php
        // Prepare and execute SQL query to retrieve the user's hashed password
        $stmt = $conn->prepare('SELECT id, status, password FROM users WHERE
email = ?');
        $stmt->bind_param('s', $email);
        $stmt->execute();
        $result = $stmt->get_result();

        // Check if a row was returned
        if ($result->num_rows == 1) {
            // Fetch the row and verify the hashed password
            $row = $result->fetch_assoc();
            $hashed_password = $row['password'];
            $input_password = $_POST['password'];

            if (password_verify($input_password, $hashed_password)) {
                // Authentication successful, set session variables
                $_SESSION['user_id'] = $row['id'];
                $_SESSION['email'] = $email;
                $_SESSION['status'] = $row['status'];

                // Redirect to authorized page
                header("Location: ./index.php");
                exit();
            }
```

Hashed Password

| $2y$10$qj4KSMNdJE8qVWCbEZz/HOsI7moPVMQO5K/7gG4j9rD... | user8 | 1 | 2023-03-26 19:41:02 |

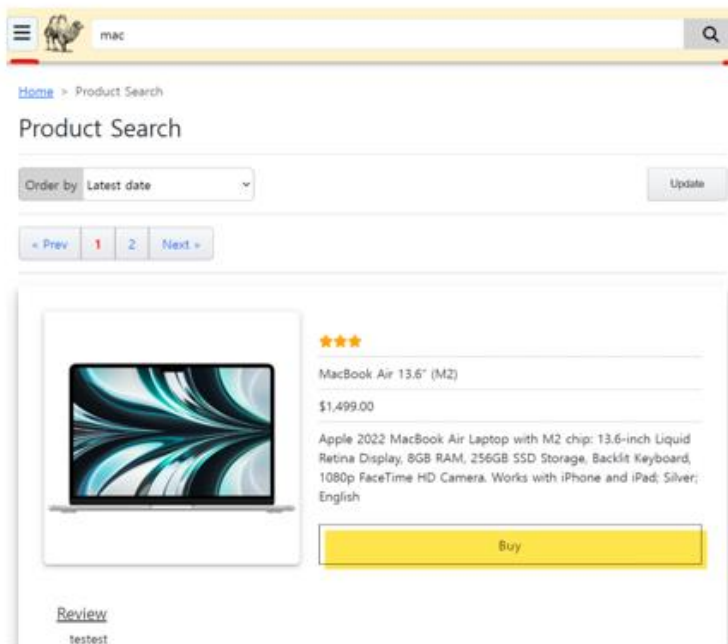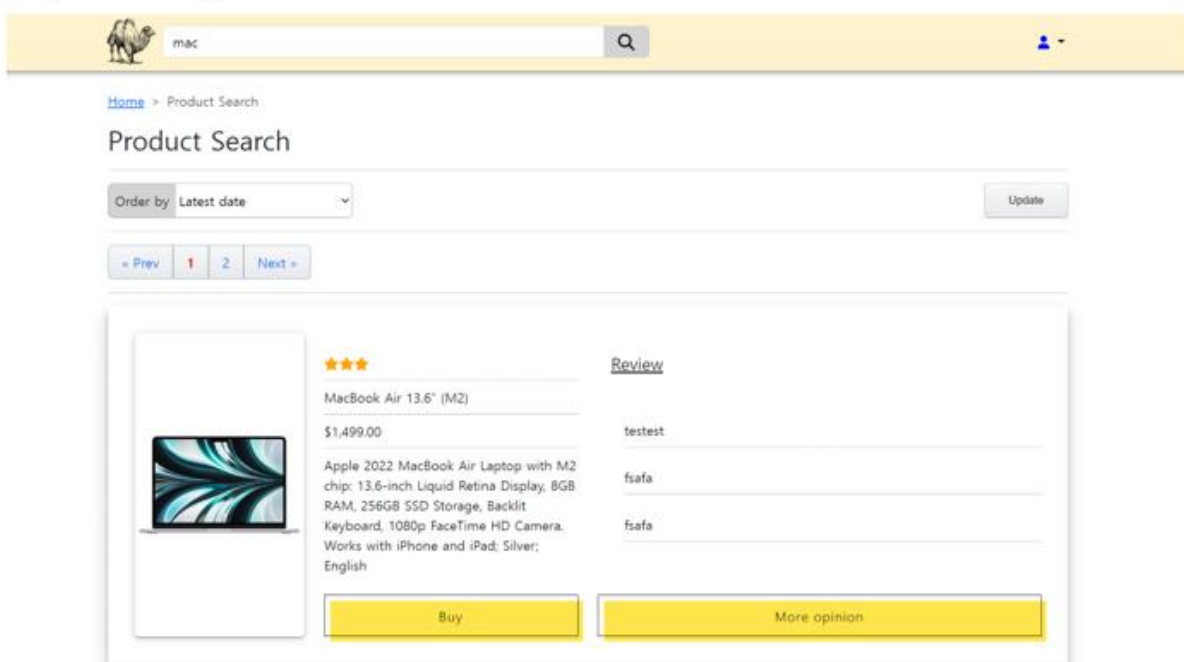# Site must maintain state (user state being logged on, etc)

The codes of page files start with session start() as shown below so can always check and manage state maintenance.

```php
<?php
// Start session
session_start();
```

# Responsive design philosophy (minimum requirements for different non-mobile display sizes)

# AJAX (or similar) utilization for asynchronous updates (meaning that if a discussion thread is updated, another user who is viewing the same thread will not have to refresh the page to see the update)

Item lists are imported asynchronously using AJAX. When the Internet speed is adjusted slowly, you can directly see that the item list changes without reloading the page.

Setinterval is used with callback function which is ajax and 100sec timer so it keeps automatically updating every 100sec so user can see updating without renewing the page.
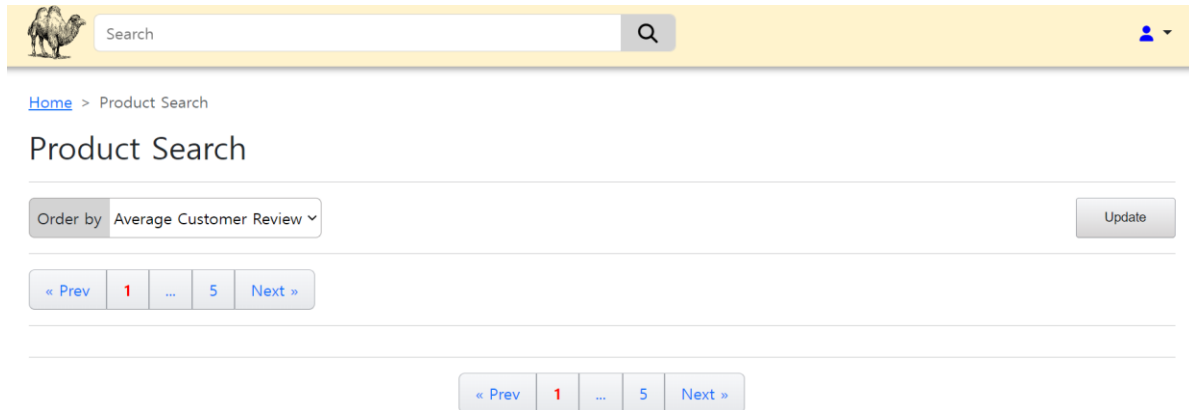


Example of Code

```
var intervalID = setInterval(() => {
    console.log('setData');
    if(!search) {
        getItemNum("");
        asyncItems("", order);
    } else {
        getItemNum(search);
        asyncItems(search, order);
    }
}, 100000);
```

```
const asyncItems = (search = "", order, page=1) => {
    $.ajax({
        url: "../database/items.php",
        type: "GET",
        dataType: "json",
        data: {
            search: search,
```

```
            order: order,
            page: page
        },
        success: function(response) {
            // Update the HTML with the fetched data

            productItem_html = "";
            $(".item_list").html("");
            showData(response);
            showPagination(pageNum);
            console.log("asyncItems: "+search);


        },
        error: function(xhr, status, error) {
            // Handle errors here
            console.log("Error: " + error);
        }
    });
}
```
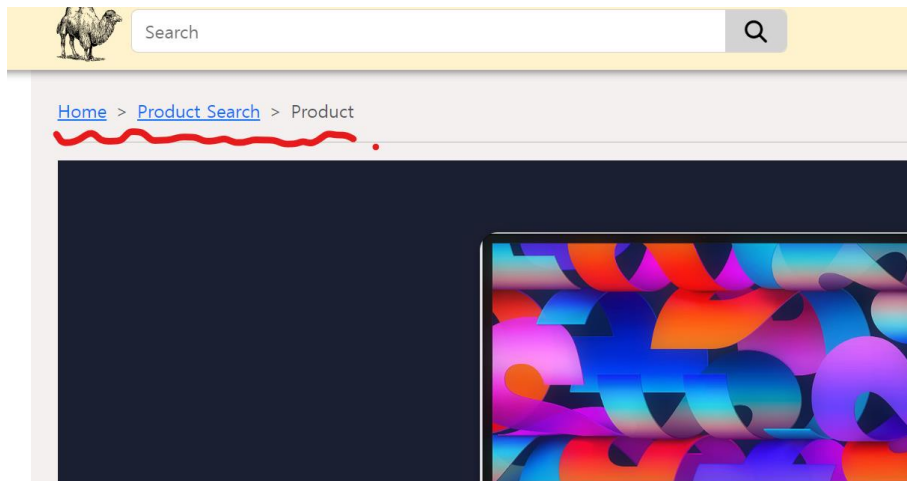
# User profile stored in database.

User information is stored in the database. A user has an id, email, username, password, status, account creation date.

# Navigation breadcrumb strategy (i.e. user can determine where they are in threads)



# Error handling (bad navigation)

If an unauthorized user tries to use url to move to a specific page, it is automatically moved to index.php using the header function in php.

```php
// Start session
session_start();

// Check if user is already logged in
if (!isset($_SESSION['user_id'])|| $_SESSION['status'] == 0) {
  // Redirect to authorized page
  header("Location: ./index.php");
  exit();
}
```
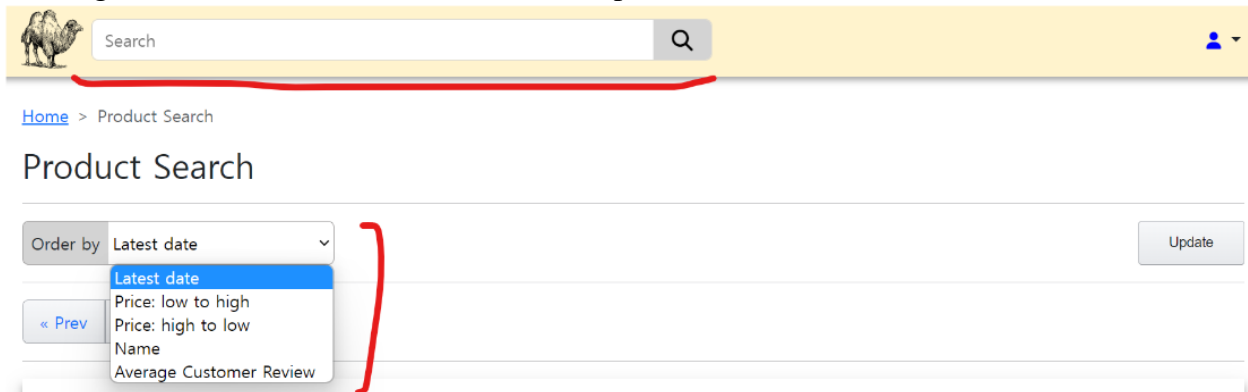
# Additional Requirements:

# Search and analysis for topics/items

# Hot threads/hot item tracking

This site allows users to search and analyze topics/items using a search bar and select options.

"Average Customer Review" will show most reputable items first, which is hot items.



# Activity by date

# Collapsible items/treads without page reloading

User can see next data set from the next offset using pagination without reloading the page.

★★

Apple 2020 MacBook Air Laptop: Apple M1

$1,699.00

Apple 2020 MacBook Pro with Apple M1 Chip (13-inch, 8GB RAM, 256GB SSD Storage) - Space Gray

Buy

Review

good

sadfa

fsdfsa

More opinion

Order by Latest date

★★

iMac (24" 7-code GPU)

$1,949.00

Apple 2021 iMac (24-inch, Apple M1 chip with 8-core CPU and 8-core GPU, 8GB RAM, 256GB) - Blue - English

Buy

Review

More opinion

The administrator can fold and unfold certain form elements to modify the product's information. Input elements currently have data of the product as a default.

The same approach is utilized while adding products, wherein the default value is an empty string.

# Styling flourishes

In order to create various styles, css grammar related to style changes such as keyframe and transition was used.


# Responsive layout for mobile