

# DATABASE DEMO

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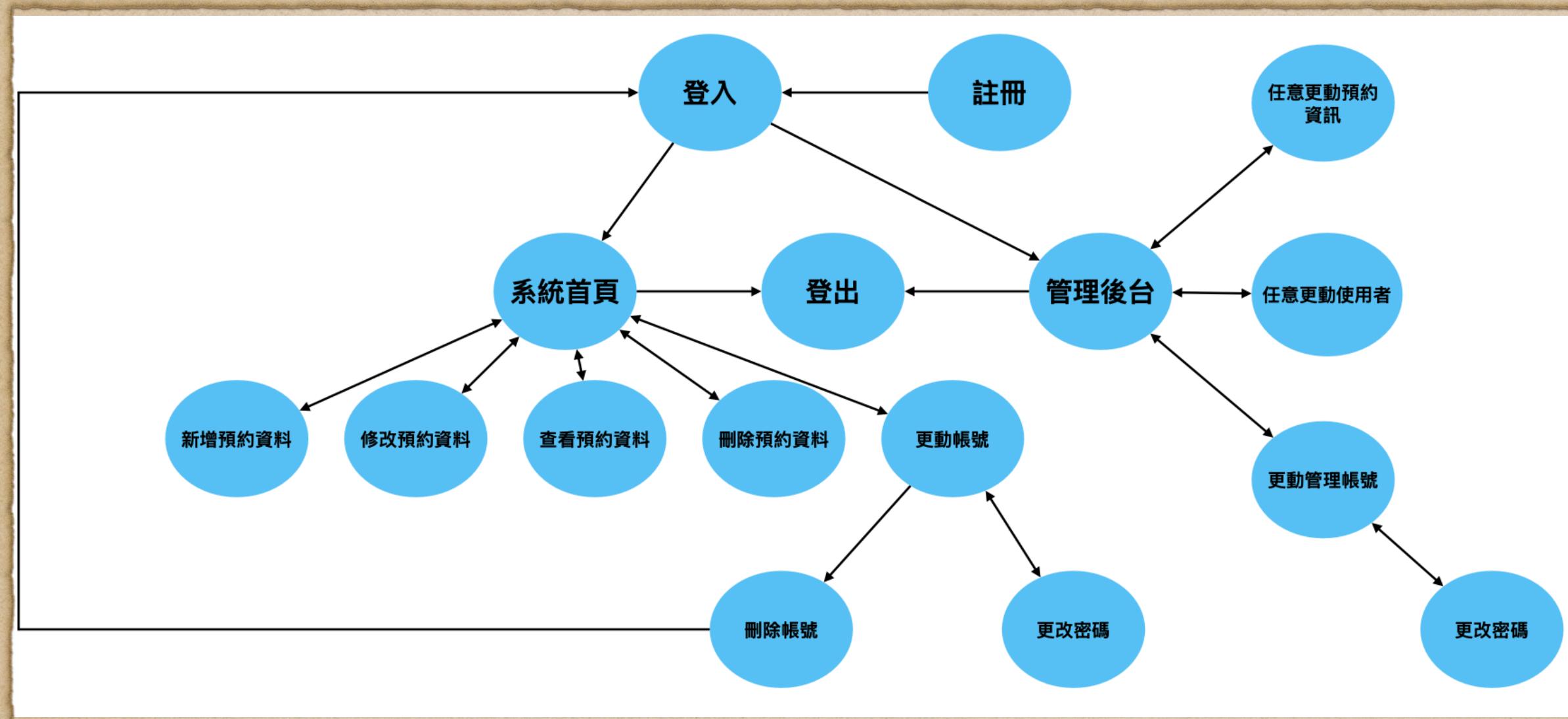
# 動機 & 說明

- 因為最近常常開始會和同學去圖書館唸書，但總是會有需要討論的時候，所以決定寫一個可以借圖書館自學空間的系統
- 一般人員可以自己註冊帳號並預約空間，也可以刪除或者修改自己的預約，不想用也可以刪除掉整個帳號。管理者可以查看到所有人的預約資訊，也能隨時管理

# FUNCTION

- ◆ Session 存取登入資訊
- ◆ DATABASE CRUD (增刪查改)
- ◆ CSS 網頁排版
- ◆ JavaScript & jQuery 頁面跳轉與網頁互動
- ◆ Form 選單選擇資料
- ◆ 判斷輸入是否有正確或填寫完整
- ◆ Table 顯示 DATABASE 資料

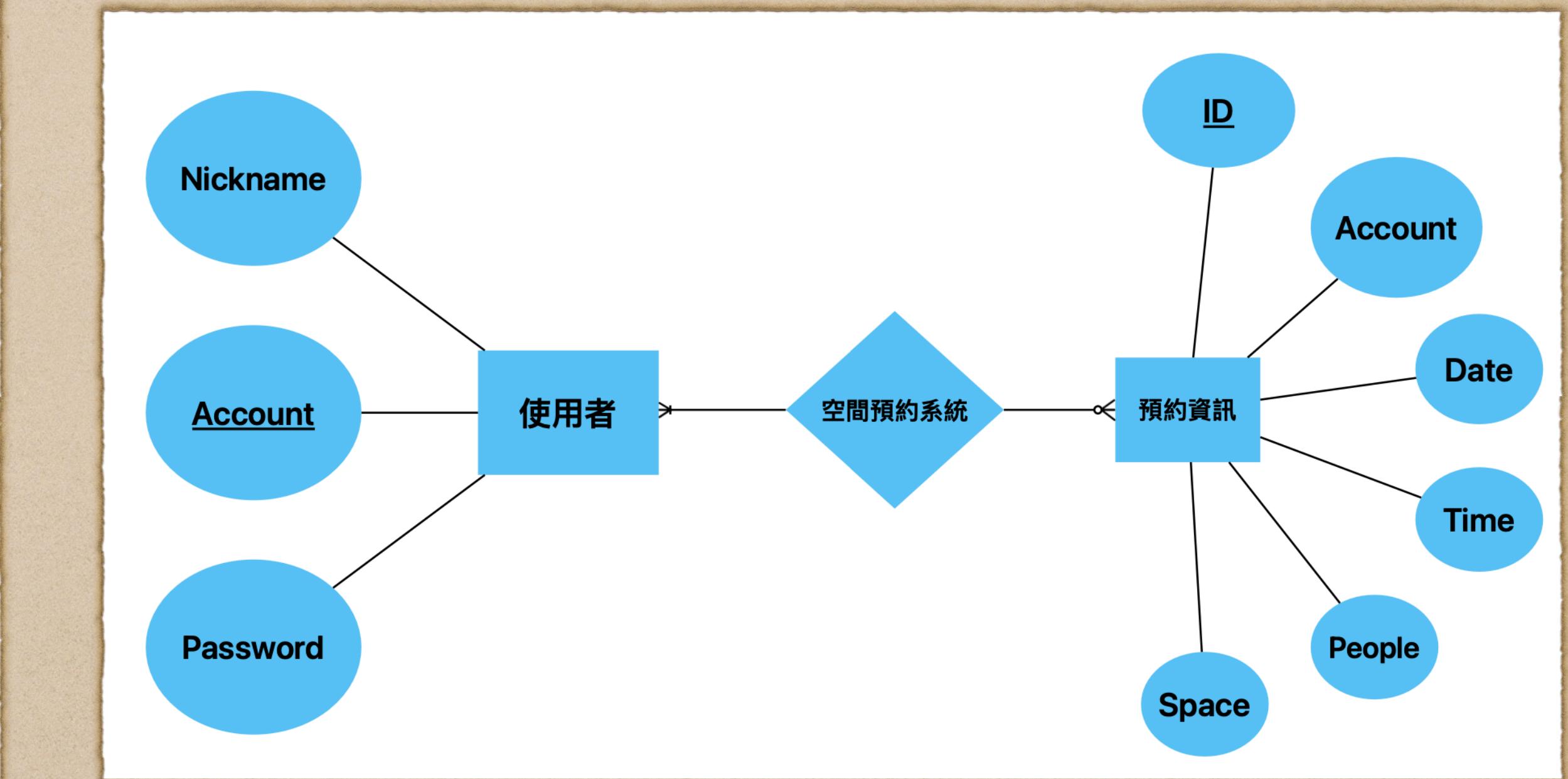
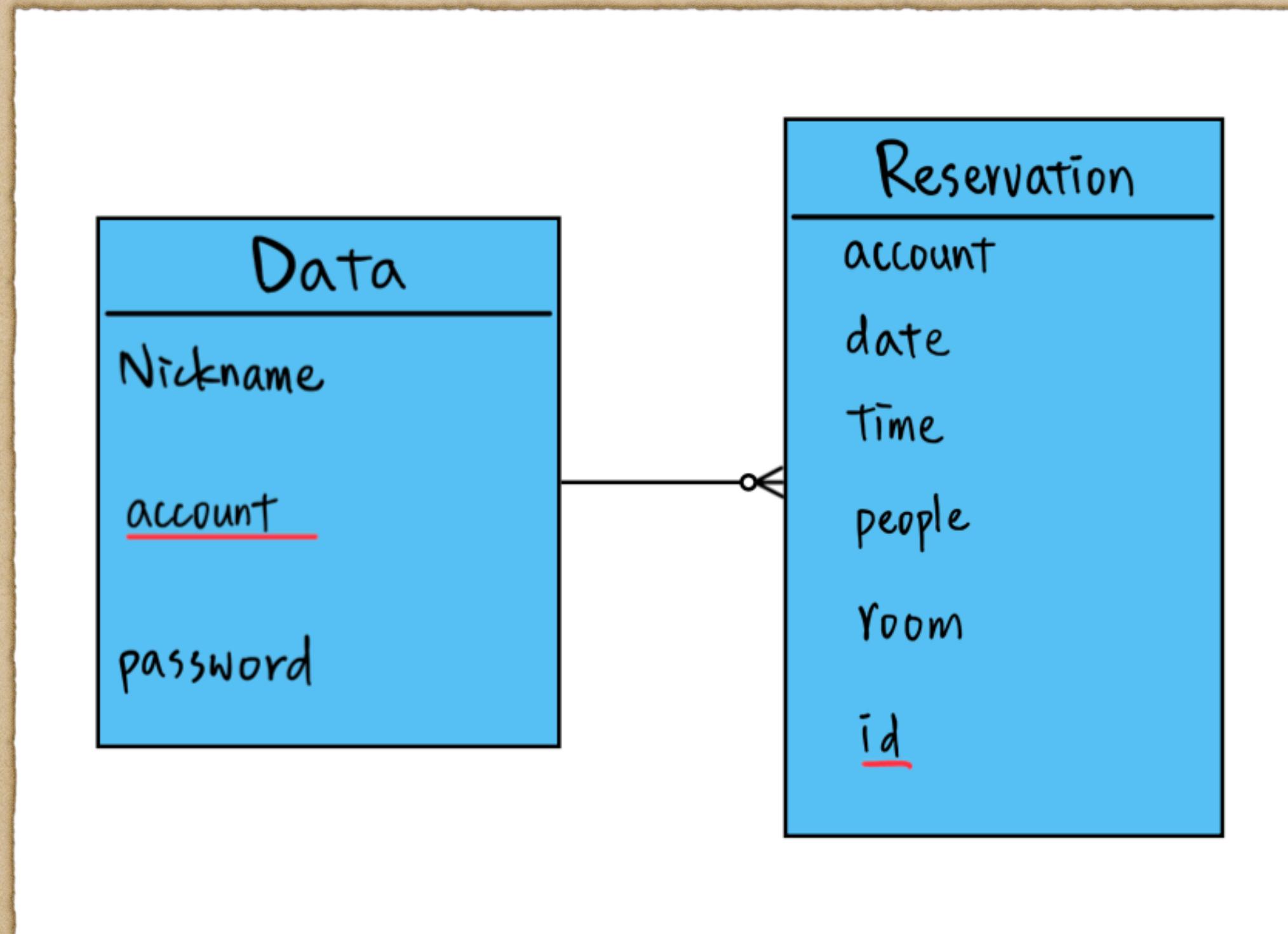
# 系統架構



#	名稱	類型	編碼與排序	屬性	空值(Null)	預設值
1	name	varchar(12)	utf8mb4_general_ci	否	無	
2	account	varchar(100)	utf8mb4_general_ci	否	無	
3	password	varchar(100)	utf8mb4_general_ci	否	無	

#	名稱	類型	編碼與排序	屬性	空值(Null)	預設值	備註
1	account	varchar(100)	utf8mb4_general_ci	否	無		
2	date	date		否	無		
3	time	varchar(100)	utf8mb4_general_ci	否	無		
4	people	int(11)		否	無		
5	room	varchar(1)	utf8mb4_general_ci	否	無		
6	id	varchar(10)	utf8mb4_general_ci	否	無		

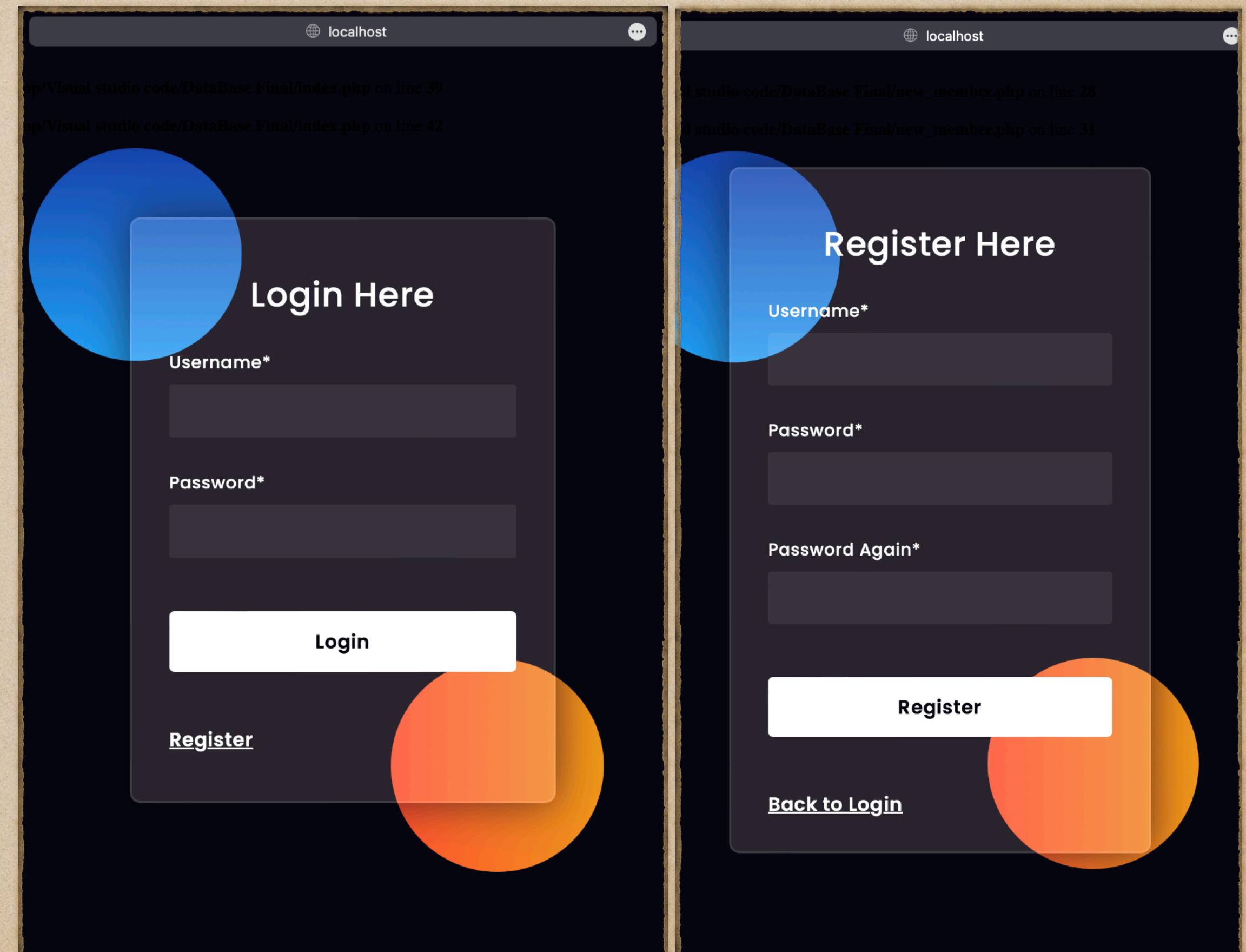
# 關聯圖與關聯綱目



# 系統特色

## 登入 & 註冊頁面

- ◆ 允許使用者自行建立帳戶，或登入既有的帳戶
- ◆ 根據登入的帳號來判定要導入到 Admin 介面還是 User 介面



# 系統特色

## 管理者介面

- ◆ 可以顯示所有人的預約資訊
- ◆ 可更動任意一筆的預約資訊
- ◆ 新增資訊
- ◆ 依帳號過濾預約資訊

The screenshot shows a dark-themed web application window titled "所有預約資訊！" (All Reservation Information!). On the left, there is a sidebar with icons for users (highlighted with a red box), settings, and a search bar. The main content area displays a table of reservation data with the following columns: Account, Password, Date, Time, People, Room, and ID. The table contains ten rows of sample data. To the right of the table is a form titled "修改 / 刪除 / 新增預約資訊" (Modify / Delete / Add Reservation Information). This form includes fields for "欲更動的ID & 帳號" (Selected ID & Account) set to "13D2OEL75A", "欲更動的帳號" (Selected Account) set to "2024/06/06", "預約時間" (Reservation Time) set to "09:00-12:00", "預約人數" (Number of Guests) set to "3", and "預約空間" (Reservation Space) set to "A". A large "修改！" (Modify!) button is at the bottom of the form.

Account	Password	Date	Time	People	Room	ID
beluga	123	2024-05-17	17:00-20:00	6	B	13D2OEL75A
123	123	2024-05-17	13:00-16:00	4	B	2U0B2XEFJ3
beluga	123	2024-08-23	13:00-16:00	6	B	4D3CMIOXNT
aaa	aaa	2024-05-29	17:00-20:00	3	A	6SK511Z1O4
beluga	123	2024-05-22	17:00-20:00	4	B	90Y212D191
beluga	123	2024-05-29	17:00-20:00	3	C	A92124JG85
beluga	123	2024-05-27	13:00-16:00	3	B	ABCDE12345
1234	111	2024-06-26	17:00-20:00	3	C	CCDI8Q5122
123	123	2024-05-19	13:00-16:00	7	A	J9O2A8N48O
		2024-	09:00-			

# 系統特色

## 管理者介面

- ◆ 可以顯示所有人的帳號資訊
- ◆ 可更動任意一筆的帳號資訊
- ◆ 新增帳號

The screenshot displays a web-based user management application. On the left, a sidebar menu includes icons for users (highlighted in orange), settings, and other options. The main content area has a header '使用者資訊！' (User Information!). Below it is a table with columns 'Account' and 'Password', containing the following data:

Account	Password
123	123
1234	111
aaa	aaa
beluga	123
qqq	qqq
www	www

To the right of the table is a sidebar titled '修改 / 刪除 / 新增使用者' (Modify / Delete / Add User). It contains fields for '欲修改 / 新增 / 刪除的帳號:' (Account to modify/add/delete) and '欲修改 / 新增的密碼:' (Password to modify/add). Below these fields are three buttons: '修改！' (Modify!), '新增！' (Add!), and '刪除！' (Delete!).

# 系統特色

## 使用者介面

- ◆ 可以根據左方選單列選擇功能
- ◆ 預設首頁Home會顯示帳號名稱  
Hi, {Account\_Name} Welcome!



# 系統特色

## 使用者介面

- ◆ 顯示自己的預約資訊
- ◆ 可直接點選 X 刪除該筆預約
- ◆ 依照日期過濾預約資訊



# 系統特色

## 使用者介面

- ◆ 透過網頁的Form功能送出預約
- ◆ 能避免空間被重複預約
- ◆ 成功與否都會跳Alert來通知



# 系統特色

## 使用者介面

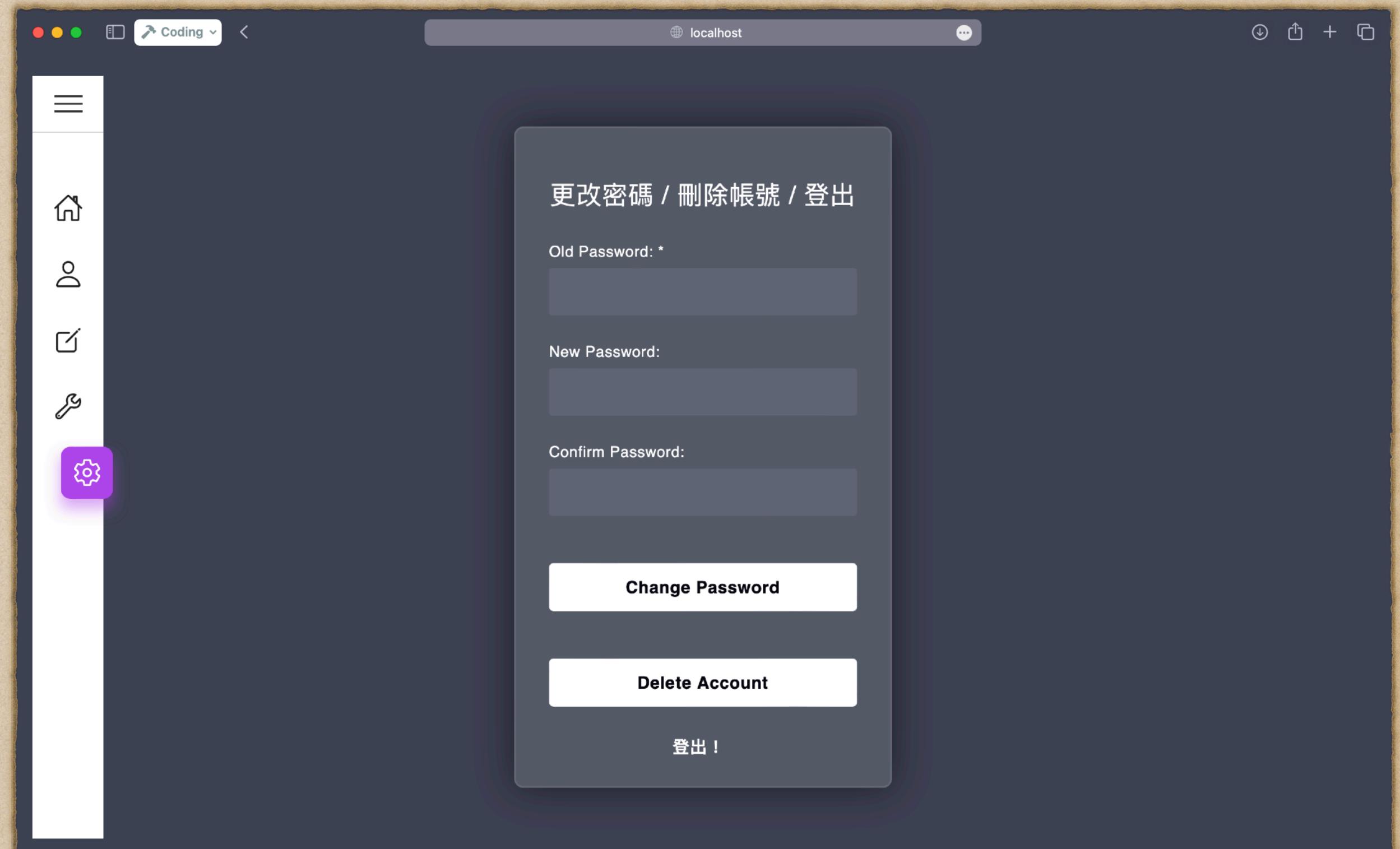
- ◆ 透過網頁的Form功能送出修改資訊
- ◆ 能避免被改到已經被預約的空間
- ◆ 成功與否都會跳Alert來通知



# 系統特色

## 使用者介面

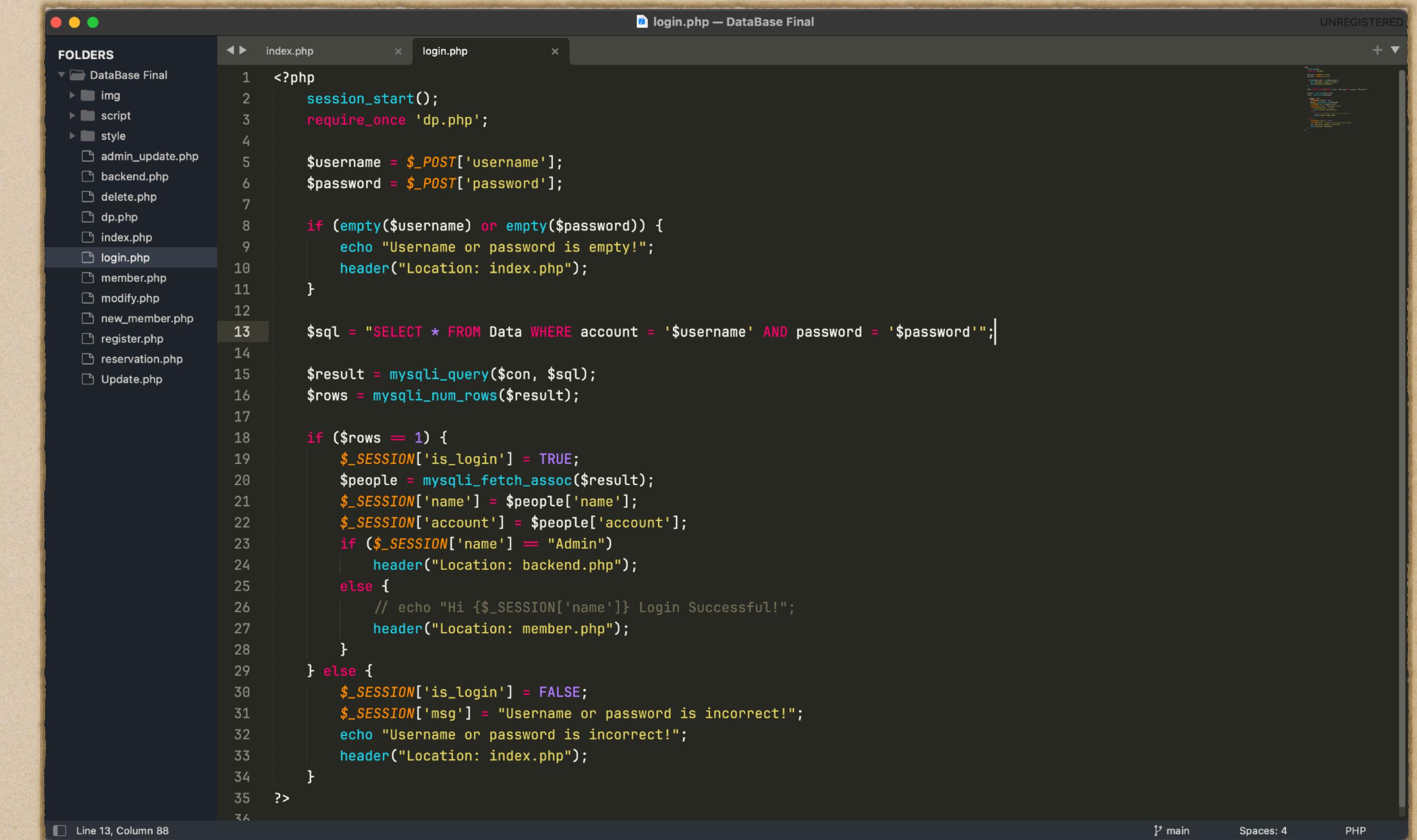
- ◆ 更改帳戶密碼
- ◆ 刪除帳戶
- ◆ 登出



# 核心演算法

## 登入流程

- ◆ `$_POST`取的form資料
- ◆ `SELECT * FROM XX WHERE XX`
- ◆ `$_SESSION`存取登入資訊
- ◆ 註冊帳號也類似



The screenshot shows a code editor window with two tabs: 'index.php' and 'login.php'. The 'login.php' tab is active, displaying the following PHP code:

```
<?php
session_start();
require_once 'dp.php';

$username = $_POST['username'];
$password = $_POST['password'];

if (empty($username) or empty($password)) {
    echo "Username or password is empty!";
    header("Location: index.php");
}

$sql = "SELECT * FROM Data WHERE account = '$username' AND password = '$password'";

$result = mysqli_query($con, $sql);
$rows = mysqli_num_rows($result);

if ($rows == 1) {
    $_SESSION['is_login'] = TRUE;
    $people = mysqli_fetch_assoc($result);
    $_SESSION['name'] = $people['name'];
    $_SESSION['account'] = $people['account'];
    if ($_SESSION['name'] == "Admin")
        header("Location: backend.php");
    else {
        // echo "Hi {$_SESSION['name']} Login Successful!";
        header("Location: member.php");
    }
} else {
    $_SESSION['is_login'] = FALSE;
    $_SESSION['msg'] = "Username or password is incorrect!";
    echo "Username or password is incorrect!";
    header("Location: index.php");
}
?>
```

The code handles user input from a form, performs a database query to check credentials, and then sets session variables for successful login or displays an error message.

# 核心演算法

## 新增 / 修改 / 刪除預約資訊

- ◆ isset判斷按鈕是否觸發
- ◆ \$\_POST取的form資料
- ◆ INSERT INTO table (vars, ...) VALUES(vals, ...)
- ◆ UPDATE table SET vars = XX, ...
- ◆ (Admin) DELETE FROM table WHERE vars = XX
- ◆ \$\_SESSION存成功與失敗訊息
- ◆ (User) jQuery觸發delete.php來刪除

```
$sql = "SELECT * FROM `reservation` WHERE `account` = '$account' AND `date` = '$date' AND `time` = '$time'";
$result = mysqli_query($con, $sql);
$rows = mysqli_num_rows($result);
if ($rows == 1) {
    $_SESSION['msg'] = "You have already reserved this time!";
    header("Location: member.php");
} else {
    $id = randomID();
    $sql = "INSERT INTO `reservation`(`account`, `date`, `time`, `people`, `room`, `id`) VALUES ('$account',
        '$date', '$time', '$people', '$space', '$id')";
    $result = mysqli_query($con, $sql);
    if ($result) {
        $_SESSION['msg'] = "Reservation successful!";
        header("Location: member.php");
    } else {
        $_SESSION['msg'] = "Reservation failed!";
    }
}
$result = mysqli_query($con, $sql);
$rows = mysqli_num_rows($result);
if ($rows == 1) {
    $_SESSION['msg'] = "You have already reserved this time!";
    header("Location: member.php");
} else {
    $sql = "UPDATE `reservation` SET `date` = '$date', `time` = '$time', `people` = '$people', `room` = '$
        space' WHERE `id` = '$old_id'";
    $result = mysqli_query($con, $sql);
    if ($result) {
        $_SESSION['msg'] = "Update successful!";
        header("Location: member.php");
    } else {
        $_SESSION['msg'] = "Update failed!";
        header("Location: member.php");
    }
}

$(".DelR").click("on", function () {
    var id = $(this).prev().text();
    $.post("delete.php", {
        id: id
    }, function (data) {
        alert("Delete Successful");
        location.reload();
    });
});
```

# 核心演算法

## 新增 / 修改 / 刪除帳號

- ◆ isset判斷按鈕是否觸發
- ◆ \$\_POST取的form資料
- ◆ INSERT INTO table (vars, ...) VALUES(vals, ...)
- ◆ UPDATE table SET vars = XX, ...
- ◆ DELETE FROM table WHERE vars = XX
- ◆ \$\_SESSION存成功與失敗訊息

```
$sql = "SELECT * FROM `Data` WHERE `account` = '$account' AND `password` = '$old'";
$result = mysqli_query($con, $sql);
$rows = mysqli_num_rows($result);
if ($rows == 1) {
    $sql = "UPDATE `Data` SET `password` = '$new' WHERE `account` = '$account'";
    $result = mysqli_query($con, $sql);
    if ($result) {
        $_SESSION['msg'] = "Password changed successfully!";
        echo "Password changed successfully!";
        header("Location: member.php");
    } else {
        $_SESSION['msg'] = "Password change failed!";
    }
}
```

```
} else {
    $sql = "DELETE FROM `Data` WHERE `account` = '$account'";
    $result = mysqli_query($con, $sql);
    if ($result) {
        $_SESSION['msg'] = "Account deleted successfully!";
    } else {
        $_SESSION['msg'] = "Account deletion failed!";
    }
}

} else {
    $sql = "INSERT INTO `Data`(`name`, `account`, `password`) VALUES ('CAT', '$account', '$password')";
    $result = mysqli_query($con, $sql);
    if ($result) {
        $_SESSION['msg'] = "Insert successful!";
        header("Location: backend.php");
    } else {
        $_SESSION['msg'] = "新增失敗!";
    }
}
```

# 核心演算法

## 登出

- 將頁面直接傳回去index.php登入介面
- index.php中有session\_unset()  
所以可以達到登出效果

```
$("#bye").click("on", function () {  
    window.location.href = "index.php";  
});
```

```
<?php elseif (isset($_SESSION["is_login"]) && $_SESSION["is_login"] == TRUE) : ?>  
    <?php  
        session_unset();
```

謝謝！