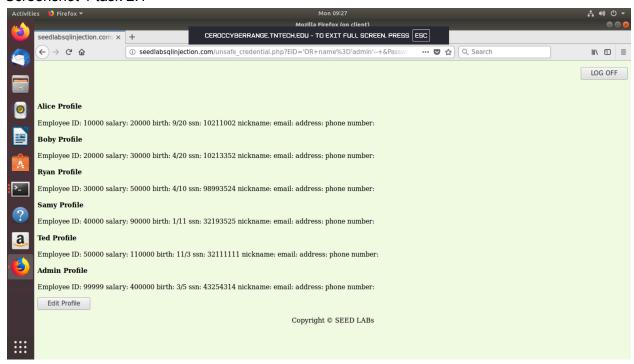
Screenshot 1 task 2.1



Screenshot 2 task 2.2

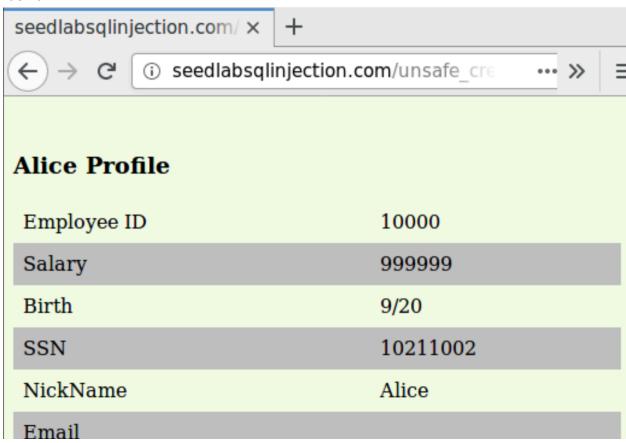
Task 2.2 - SQL Injection via curl curl'www.SEEDLabSQLInjection.com/index.php?SUID=99999%27+OR+%271%27%3D%271& Password='abc'

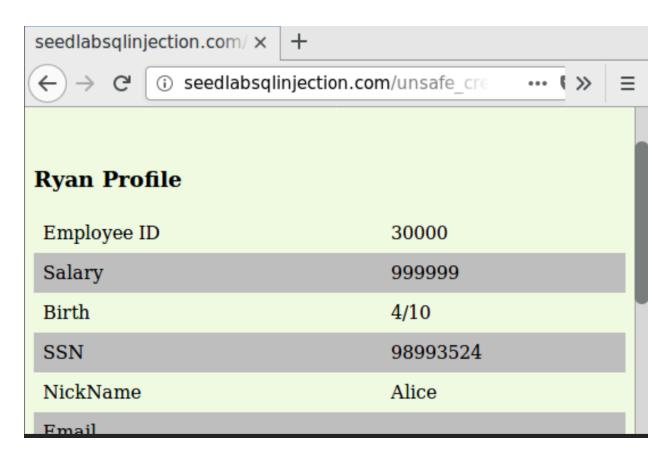


2.3 - to get past the login screen and mess with the user names and passwords table, a hacker tried to squeeze in a new command right after the one the system was expecting. They'd end the first command with a semicolon. After doing some digging, it turns out the tool PHP uses to talk to the database, called MySQLi, is stubborn. It's programmed to only listen to and execute

one single command at a time. Since the system executed the first part (the login check), it completely ignored the second, harmful part (the delete command). That's why I didn't see any changes to the data after "logging in." and it wont delete 'Boby" because it's a preventer.

Task 3.1





Task 4



Here is the code that I created to fix the SQL!

Unsafe_credential.php

```
$stmt = $conn->prepare("SELECT
id,name,eid,salary,birth,ssn,phoneNumber,address,email,nickname,Password FROM credential
WHERE eid=? AND Password=?");
$stmt->bind_param("ss",$input_eid,$input_pwd);
$stmt->execute();
$stmt->store_result();
$stmt->bind_result($id,$name,$eid,$salary,$birth,$ssn,$phoneNumber,$address,$email,$nickna
me,$db_pwd);
if($stmt->fetch()){
    /* login OK – keep your admin/employee logic here */
}else{
    $error = "Invalid login";
}
$stmt->close();
```

Unsafe_edit.php

```
<?php
session start();
if(!isset($_SESSION['authenticated'])){ die("Login required"); }
$conn = getDB(); // keep your existing getDB() function
// --- GET USER INPUT ---
$input nickname = $ POST['nickname']
$input email
             = $ POST['email']
                                      ??":
                 = $_POST['address']
$input address
                                        ?? ";
$input phonenumber = $ POST['phonenumber'] ?? ";
$input pwd
                = $ POST['pwd']
                                      ?? ";
$input_id
               = $ SESSION['user id'];
// --- OPTIONAL: hash password if provided ---
if($input pwd !== "){
  $input_pwd = sha1($input_pwd);
}
// --- PREPARED STATEMENT (6 LINES) ---
$stmt = $conn->prepare("UPDATE credential SET nickname=?, email=?, address=?,
Password=?, PhoneNumber=? WHERE ID=?");
$stmt->bind_param("ssssss", $input_nickname, $input_email, $input_address, $input_pwd,
$input phonenumber, $input id);
$stmt->execute();
$stmt->close();
// --- END FIX ---
echo "Profile updated.";
?>
```