

# **UNIVERSITY MANAGEMENT SYSTEM**

## **DATABASE SYSTEMS PROJECT**

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Project Description: We focused on creating a web interface panel of the University Management System using HTML, PHP and SQL. First, we have created a SQL database called “UMS” and a table called “students”. There are 3 attributes in the students table: ssid (Student ID), sname (Student Name) and ssurname (Student Surname). The primary key of this table is the “ssid” value. After this step, we started to work on PHP and HTML side of this web panel. We created the config.php file, which allows us to connect SQL to the VSCode to use HTML and PHP languages. We created the HTML code of the insertion page which allows a user to insert a student to the database by filling the required spaces such as Student ID, Student Name and the Student Surname (student\_insertion.html). Then we worked on the PHP code of this insertion page (insertstudent.php). After creating this page, we created the admin page which allows a user to delete a student by selecting the name of him/her (admin.php and delete.php). As a final step, we worked on creating the selection page which allows a user to project the information of a student by filling in the ID of the wanted student (student\_selection.html and index\_selection.php).

A screenshot of a web browser window displaying a form titled "University Management System". The browser's address bar shows "localhost/student/student\_insertion.html". The page content includes the heading "University Management System" and a prompt "Please fill in the given spaces to insert a student:". Below this prompt are three bullet points, each followed by a text input field: "Student ID:", "Student Name:", and "Student Surname:". A "Submit" button is located at the bottom left of the form area. The browser's tab bar shows several open tabs, including "mySU", "Bannerweb Sabanci", "Abracadabra: math...", "Arthur Benjamin", "SuCourse Plus", "mySU", "Stack Overflow", "Top Hat", "GradeScope", "CSSO's Introduction...", and "IBM Data Science P...".

Figure 1: Student Information Insertion Page

A screenshot of the same web browser window as in Figure 1, showing the "University Management System" form. The form is identical to the previous one, but the "Student Surname:" input field now contains the text "Sabanci". All other elements, including the browser tabs and the "Submit" button, remain the same.

Figure 2.1: Error Case Example (all combinations are available.)

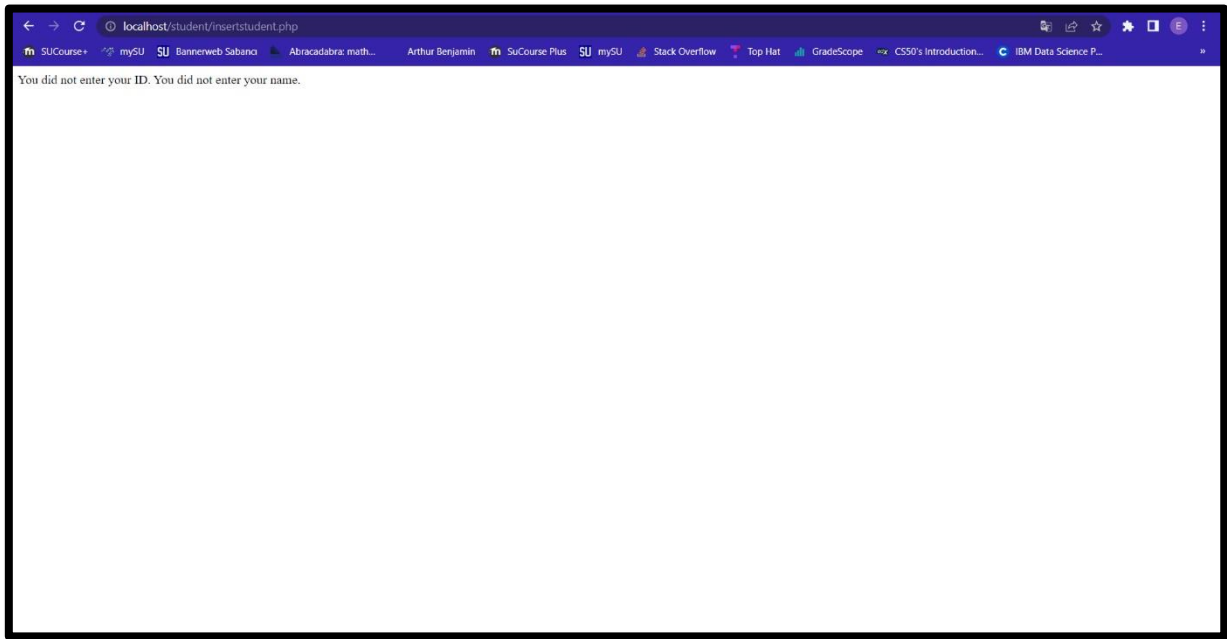


Figure 2.2: Error Case Message

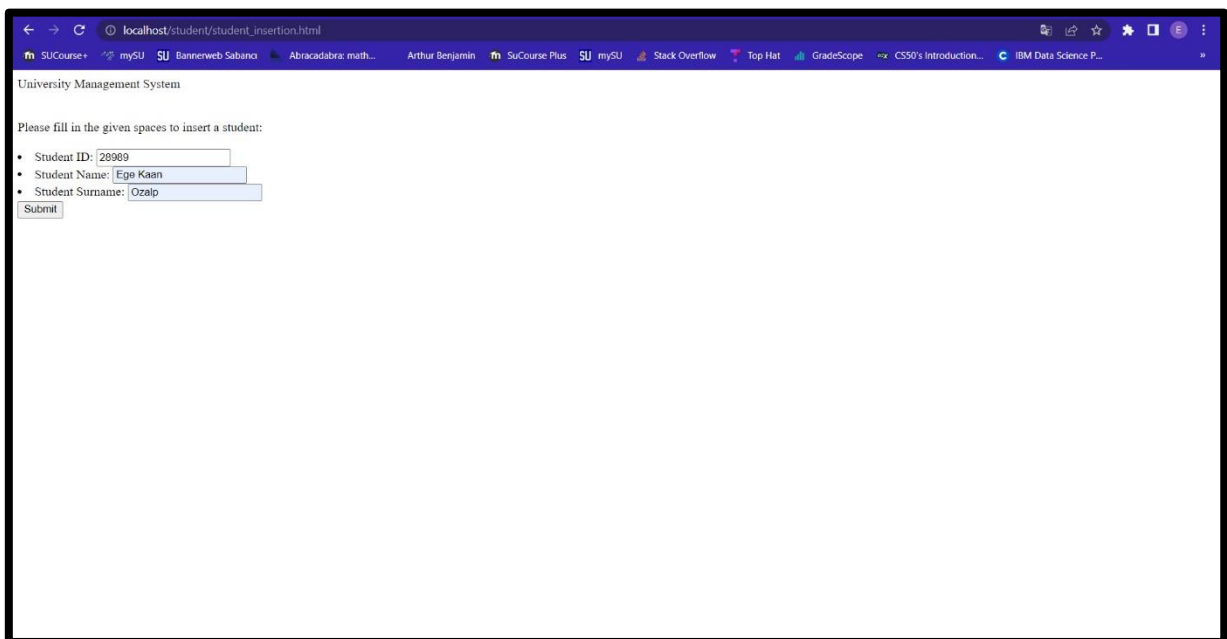


Figure 2.3: Error Case Example (inserting an existing student.)

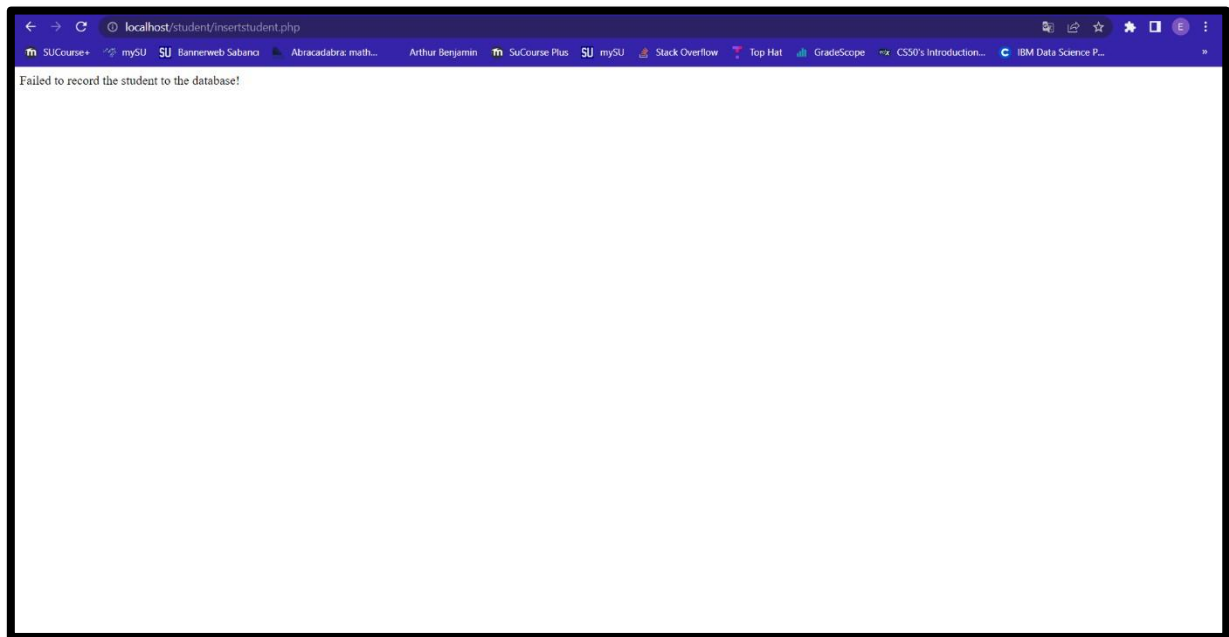


Figure 2.4: Error Case Message (inserting an existing student.)

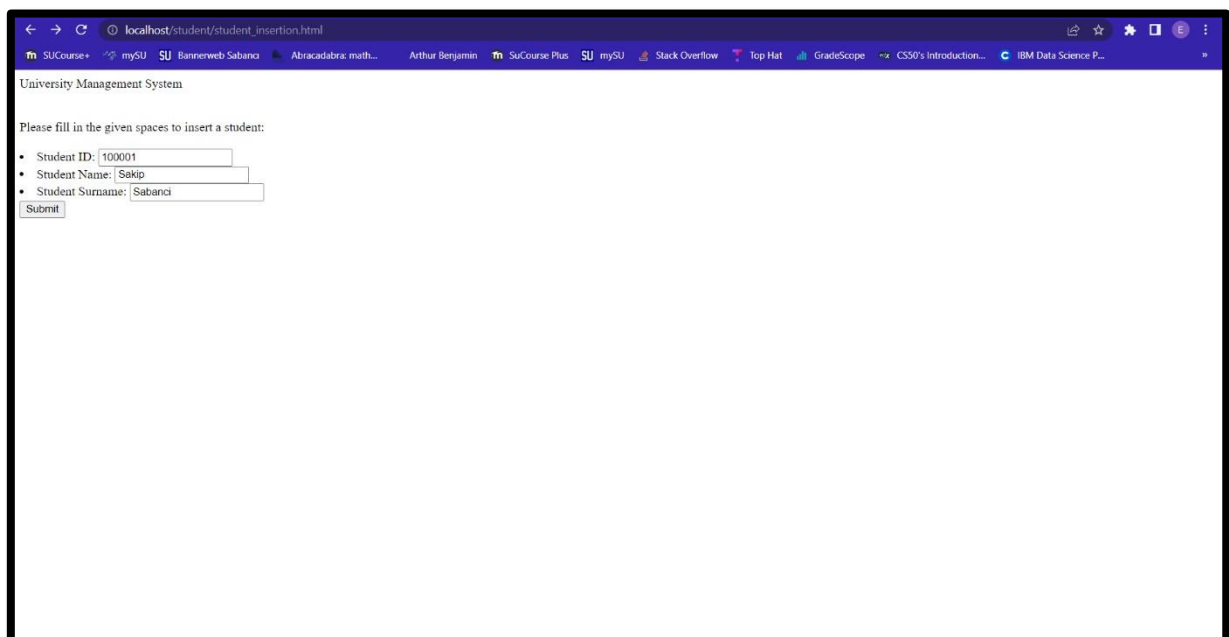


Figure 3.1: Success Case Example

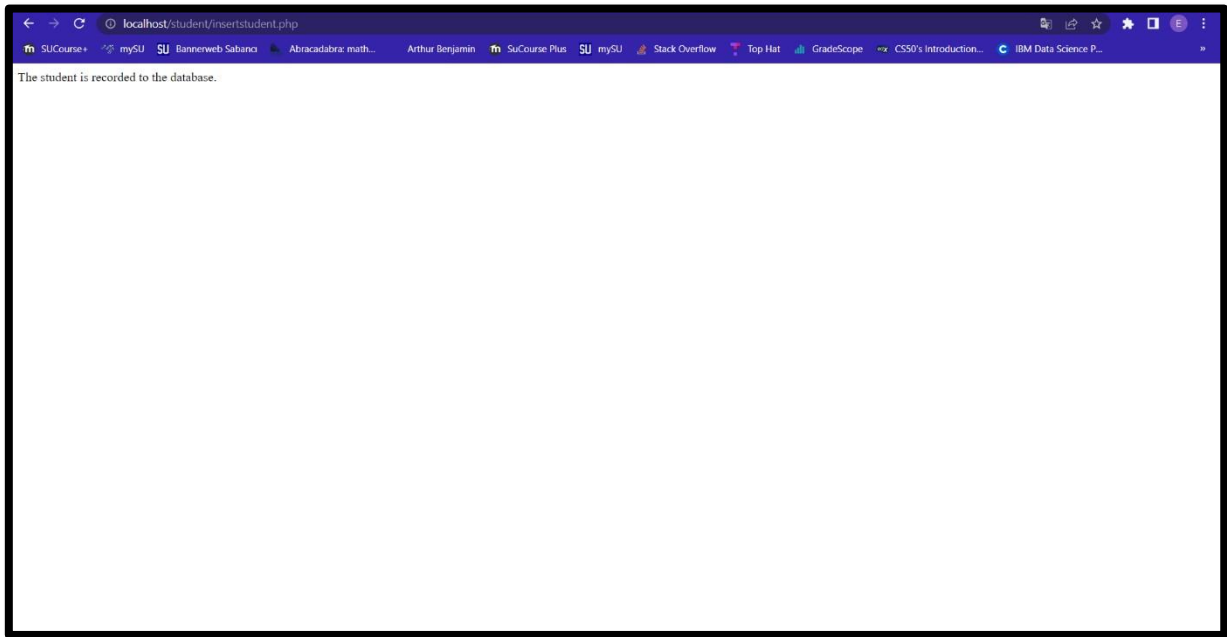


Figure 3.2: Success Case Message

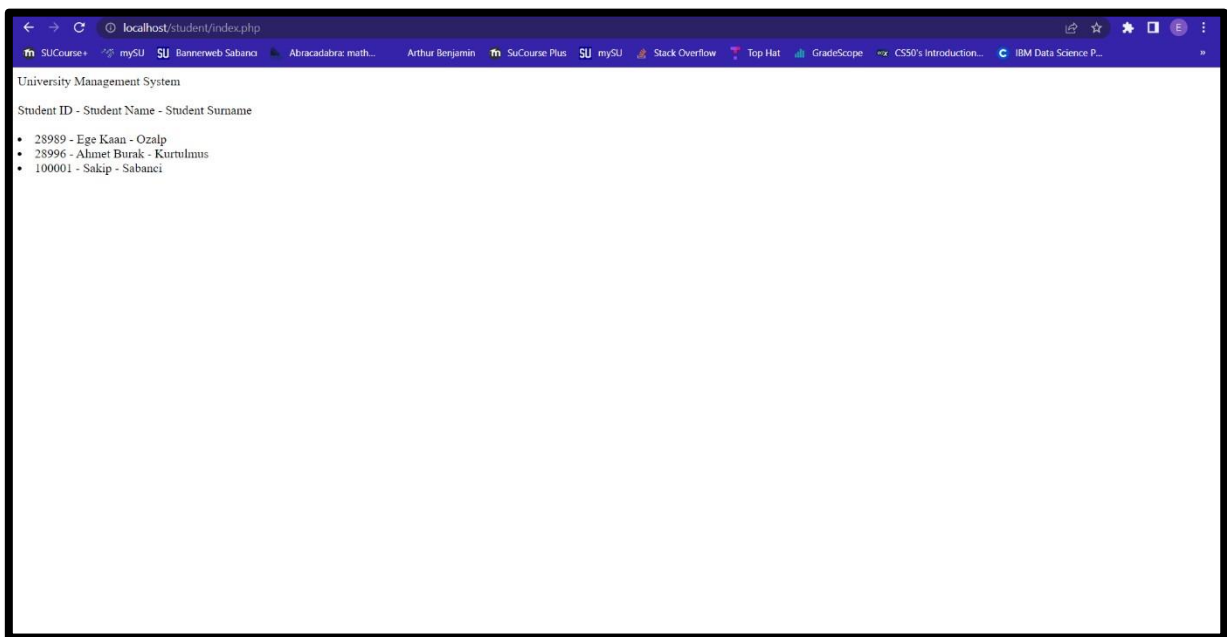


Figure 4: Index Page of the Insertion Operation

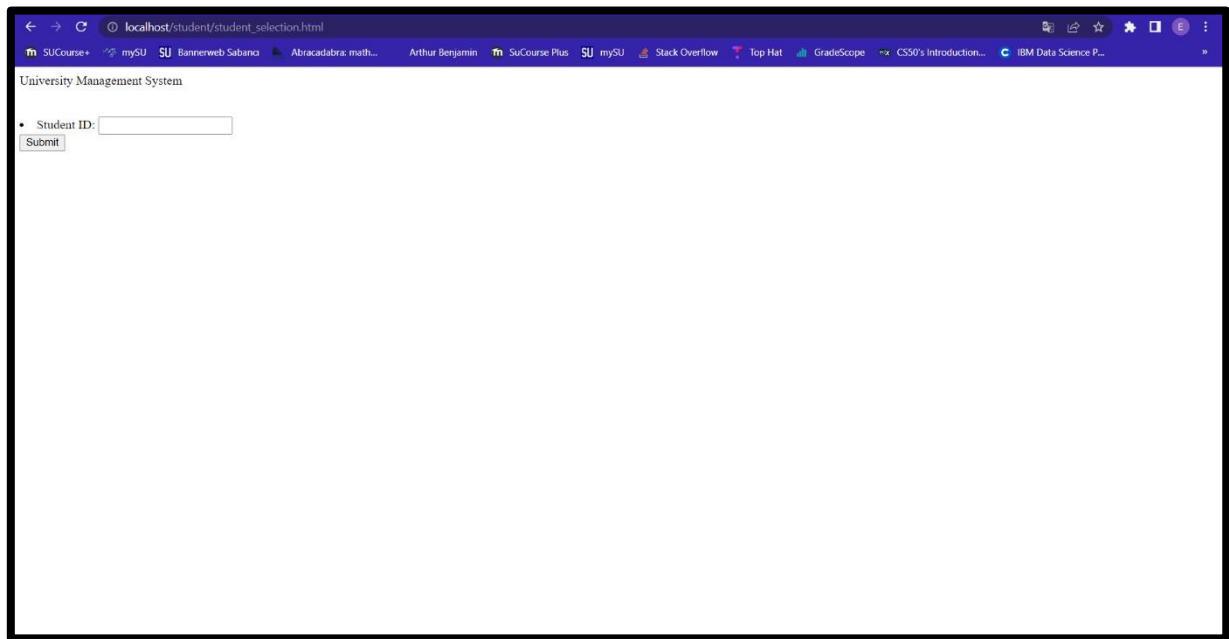


Figure 5: Student Selection Page

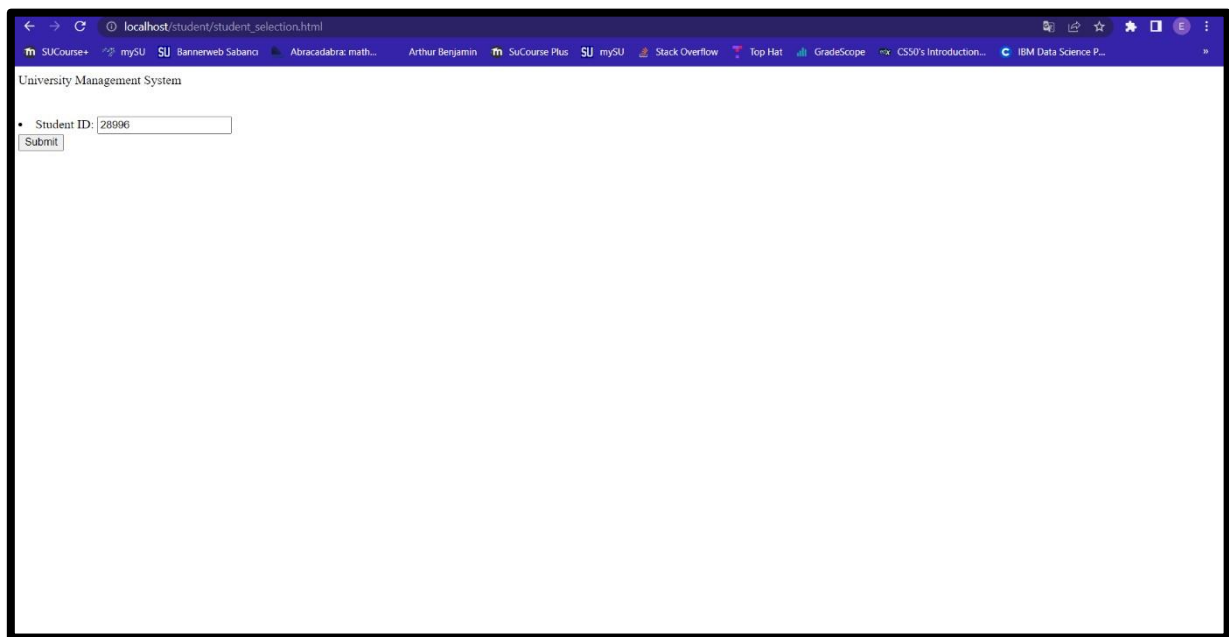


Figure 6.1: Success Case Example

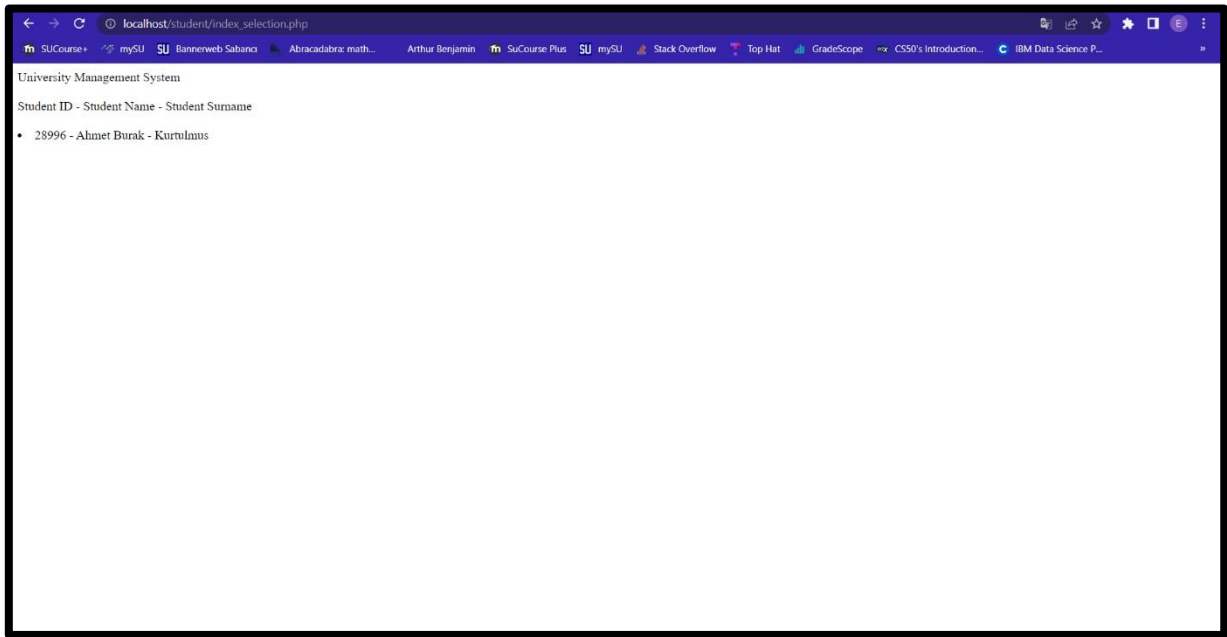


Figure 6.2: Success Case Index Page of the Selection Operation

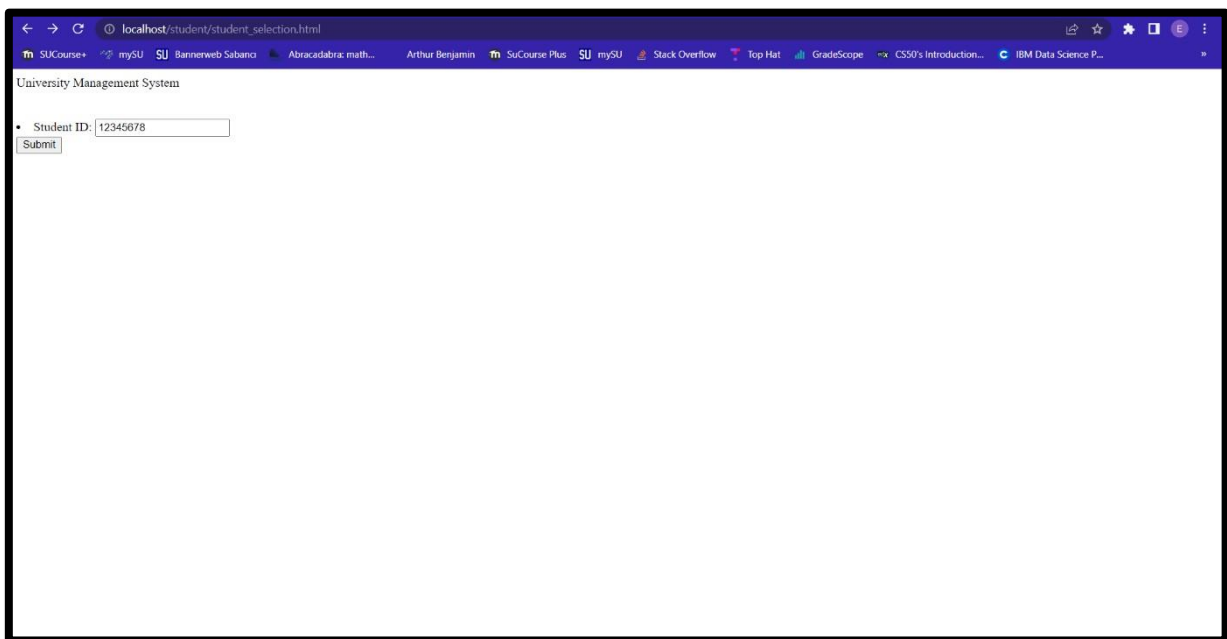


Figure 7.1 Failure Case Example



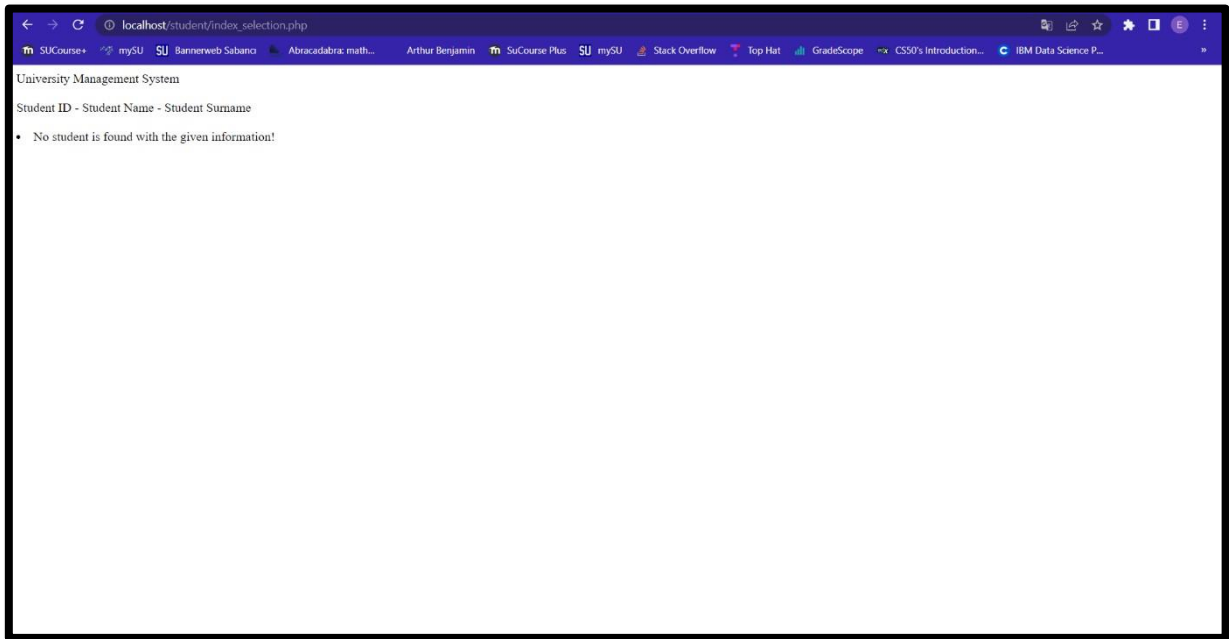


Figure 7.2: Failure Case Index Page of the Selection Operation

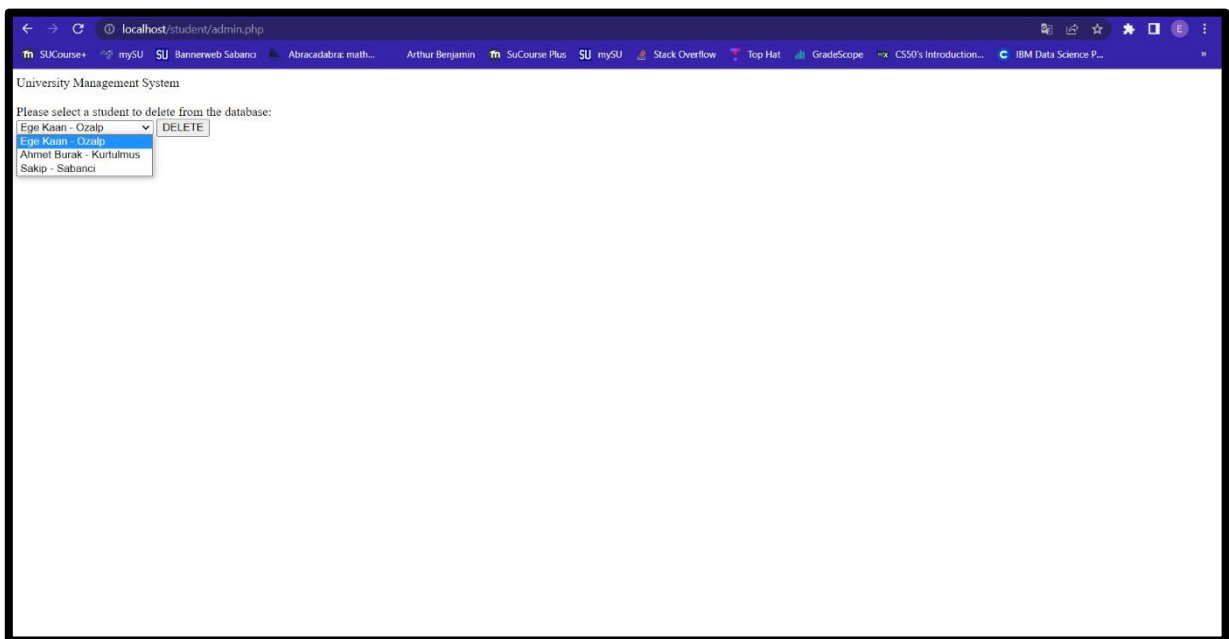


Figure 8.1: Deletion Page (Admin)

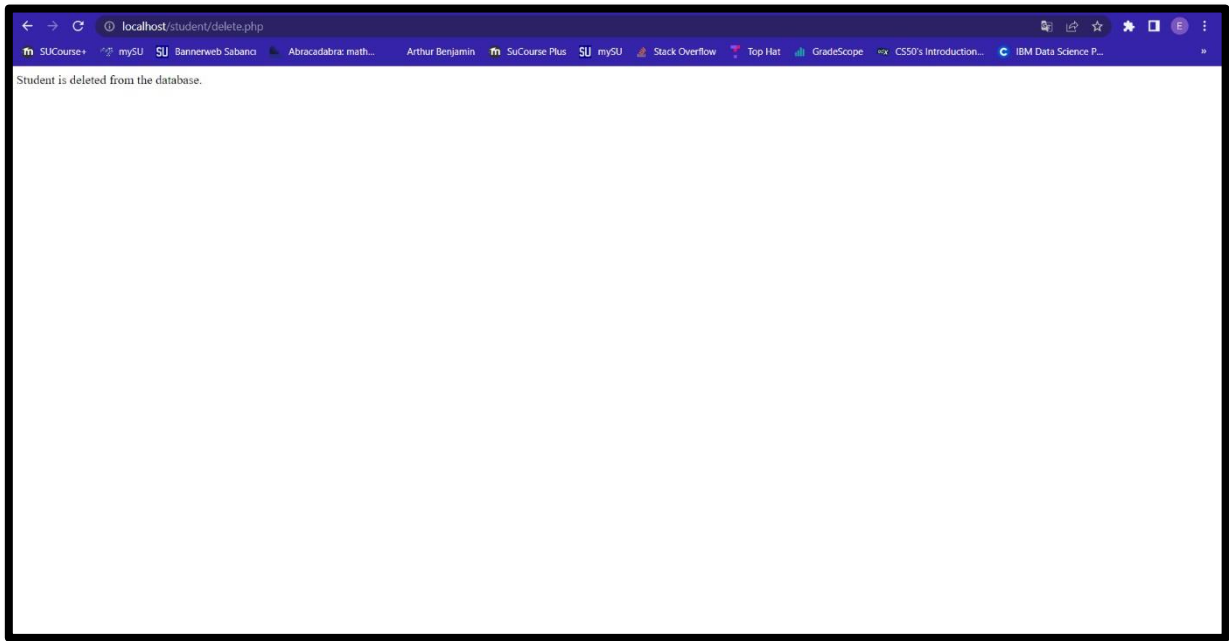


Figure 8.2: Deletion Page Success Message

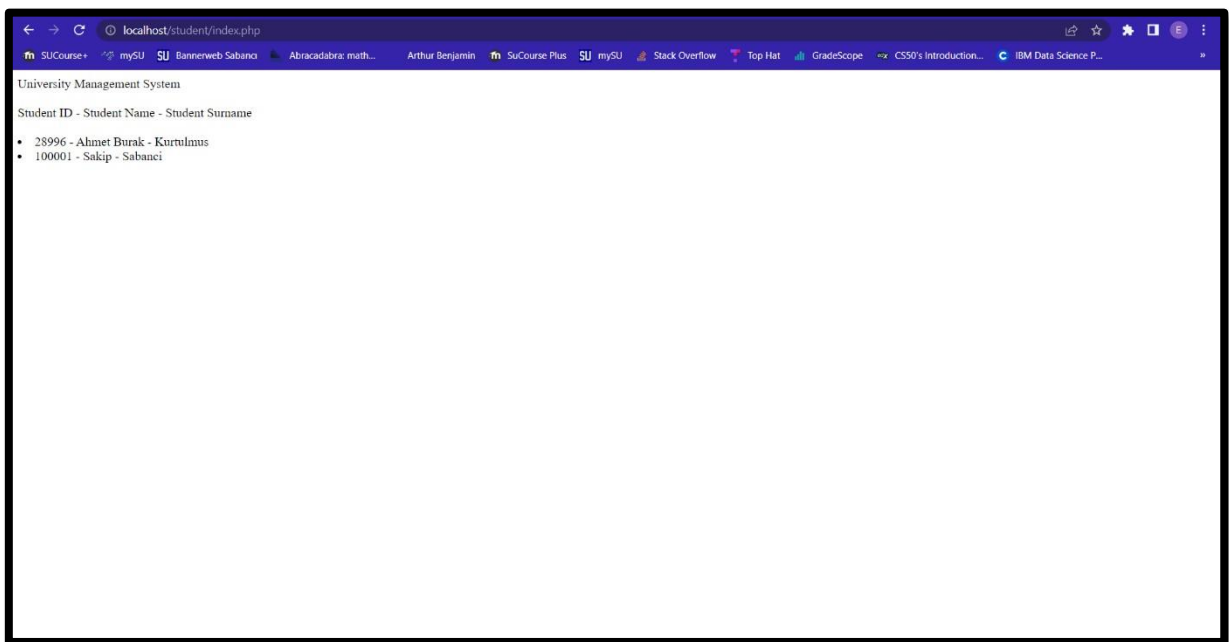


Figure 9: Index Page of the Insertion Operation after the Deletion Operation

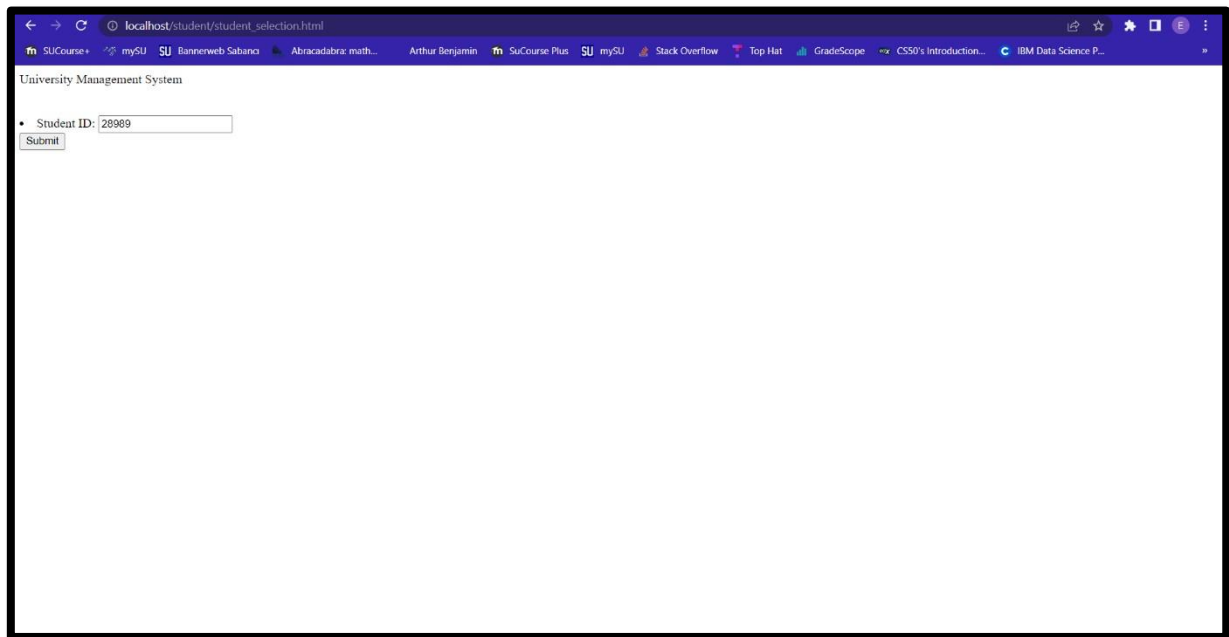


Figure 10.1: Selection Operation after the Deletion Operation (Fail Case)

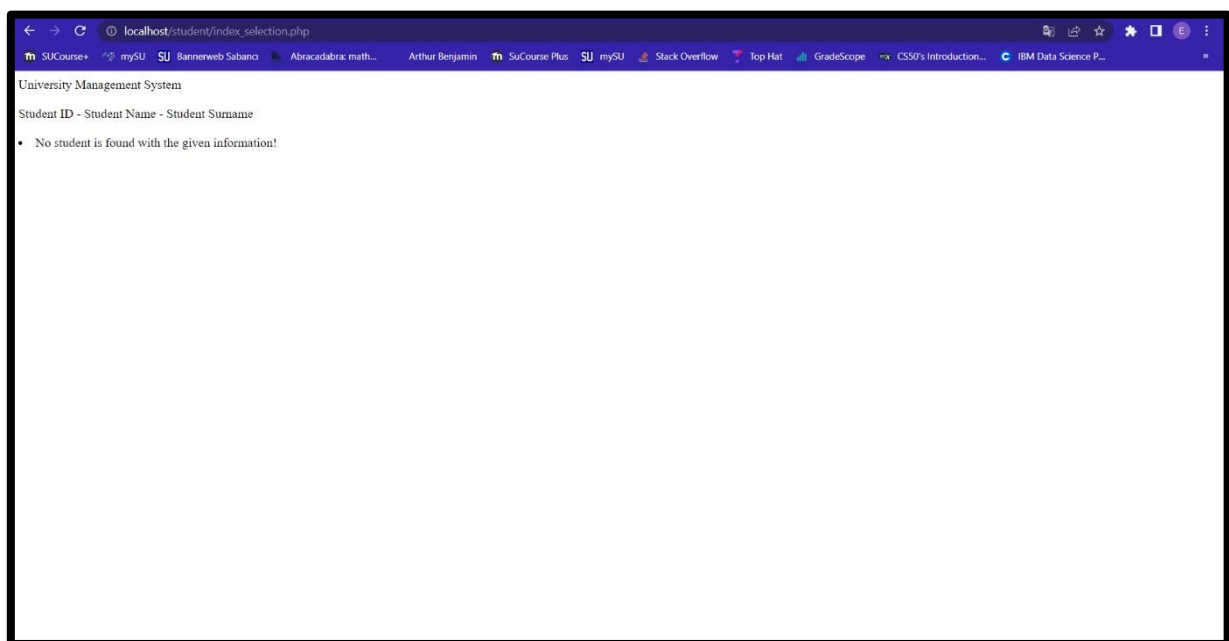


Figure 10.2: Selection Operation after the Deletion Operation (Fail Case Message)

Code Lines of student\_selection.html:

```
<h>
    University Management System
</h>

<form action="index_selection.php" method="POST">
    <br></br>
    <li>Student ID:
    <input type="text" id="ssid" name="ssid"></li>
    <input type="submit" value="Submit">
</form>
```

Code Lines of student\_insertion.html

```
<h>
    University Management System
</h>

<form action="insertstudent.php" method="POST">
    <br></br>
    Please fill in the given spaces to insert a student:
    <br></br>
    <li>Student ID:
    <input type="text" id="ssid" name="ssid"></li>
    <li>Student Name:
    <input type="text" id="sname" name="sname"></li>
    <li>Student Surname:
    <input type="text" id="ssurname" name="ssurname"></li>
    <input type="submit" value="Submit">
</form>
```

Code Lines of insertstudent.php:

```
<?php

include "config.php";

if (!empty($_POST['ssid']))$student_id = $_POST['ssid'];
else echo "You did not enter your ID. ";

if (!empty($_POST['sname'])) $student_name = $_POST['sname'];
else echo "You did not enter your name. ";

if (!empty($_POST['ssurname'])) $student_surname = $_POST['ssurname'];
else echo "You did not enter your surname.";

if (!empty($_POST['ssid']) && !empty($_POST['sname']) &&
!empty($_POST['ssurname']))
```

```
{
    $sql_statement = "INSERT INTO students(ssid, sname, ssurname) VALUES
($student_id, '$student_name', '$student_surname')";
    $result = mysqli_query($db, $sql_statement);
    if($result == 1) echo "The student is recorded to the database.";
    else echo "Failed to record the student to the database!";
}

?>
```

Code Lines of index.php:

```
<h>
University Management System
<br></br>
Student ID - Student Name - Student Surname
<br></br>
</h>

<?php

include "config.php"; // Makes mysql connection

$sql_statement = "SELECT * FROM students";

$result = mysqli_query($db, $sql_statement); // Executing query

while($row = mysqli_fetch_assoc($result)) { // Iterating the result
    $student_id = $row['ssid'];
    $student_name = $row['sname'];
    $student_surname = $row['ssurname'];
    echo "<li>" . $student_id . " - " . $student_name . " - " .
    $student_surname . "<br>";
}

?>
```

Code Lines of index\_selection.php:

```
<h>
University Management System
<br></br>
Student ID - Student Name - Student Surname
<br></br>
</h>

<?php
```

```

include "config.php"; // Makes mysql connection

$sql_statement = "SELECT * FROM students";

$result = mysqli_query($db, $sql_statement); // Executing query
$control = 0;
while($row = mysqli_fetch_assoc($result)) { // Iterating the result
    if($_POST['ssid'] == $row['ssid'])
    {
        echo "<li>" . $row['ssid'] . " - " . $row['sname'] . " - " .
$row['ssurname'] . "<br>";
        $control = 1;
    }
}
if ($control == 0) echo "<li>" . "No student is found with the given
information!"
?>

```

Code Lines of delete.php:

```

<?php

include "config.php";

if(!empty($_POST['ids']))
{
    $student_id = $_POST['ids'];
    $sql_statement = "DELETE FROM students WHERE ssid = $student_id";
    $result = mysqli_query($db, $sql_statement);
    if($result == 1) echo "Student is deleted from the database.";
    else echo "An error occurred!";
}

?>

```

Code Lines of config.php:

```

<?php

$db = mysqli_connect('localhost','root','','UMS');

if($db->connect_errno > 0){
    die('Unable to connect to database [' . $db->connect_error . ']');
}

?>

```

Code Lines of admin.php:

```
<?php
include "config.php";

?>

<h>
University Management System
<br></br>
Please select a student to delete from the database:
</h>

<form action="delete.php" method="POST">
<select name="ids">

<?php

$sql_command = "SELECT ssid, sname, ssurname FROM students";

$myresult = mysqli_query($db, $sql_command);

    while($id_rows = mysqli_fetch_assoc($myresult))
    {
        $student_id = $id_rows['ssid']; // LOCALHOST EDIT
        $student_name = $id_rows['sname'];
        $student_surname = $id_rows['ssurname'];
        echo "<option value=$student_id>". $student_name . " - " .
$student_surname . "</option>";
    }

?>

</select>
<button>DELETE</button>
</form>
```

Code Lines of SQL:

```
CREATE TABLE students (
sid INTEGER,
sname VARCHAR(50),
ssurname VARCHAR(50),
PRIMARY KEY (sid)
)
```