**Appendix 4**

*This appendix shows exactly the source code of each document:*

**IA.css document:**

body{

background-color: #dfe3e6;

color: #1e058b;

font-family: Calibri;

cursor: default;

}

#mytitle{

text-align: center;

color: #1e058b;

font-weight: bold;

}

.mybase{

color: #0d3800;

font-weight: bold;

font-size: 165%;

text-align: center;

}

.popup {

position: relative;

display: inline-block;

cursor: pointer;

}

/\* Styling the popup itself \*/

.popup .popuptext {

visibility: hidden;

width: 320px;

background-color: #b4bdc4;

text-align: center;

border-radius: 6px;

padding: 8px 0;

position: absolute;

z-index: 1;

bottom: 125%;

left: 25%;

margin-left: -80px;

}

/\* Styling the arrow below the popup \*/

.popup .popuptext:after {

content: "";

position: absolute;

top: 100%;

left: 50%;

margin-left: -5px;

border-width: 5px;

border-style: solid;

border-color: #555 transparent transparent transparent;

}

/\* When clicking on the popup, this class is toggled \*/

.popup .show {

visibility: visible;

-webkit-animation: fadeIn 1s;

animation: fadeIn 1s

}

/\* The popup's fading animation \*/

@-webkit-keyframes fadeIn {

from {opacity: 0;}

to {opacity: 1;}

}

@keyframes fadeIn {

from {opacity: 0;}

to {opacity:1 ;}

}

div#saving {

position: fixed;

top: 5px;

right: 5px;

color: black;

text-shadow: 1px 1px 1px #fffffff;

opacity: 0.7;

}

#mySlidebar:hover{

color: #28ad00;

}

.sidenav {

height: 100%;

position: fixed;

z-index: 1;

top: 0;

left: 0;

background-color: #000059;

overflow-x: hidden;

padding-top: 60px;

transition: 0.55s;

}

.sidenav a {

padding: 8px 8px 8px 32px;

text-decoration: none;

font-size: 25px;

color: #b4bdc4;

display: block;

transition: 0.28s;

}

.sidenav a:hover {

color: #28ad00;

}

.sidenav .closebtn {

position: absolute;

top: 0;

right: 25px;

font-size: 40px;

margin-left: 50px;

}

#main {

transition: margin-left .5s;

padding: 20px;

}

.descInput{

font-size: 125%;

font-weight: bold;

margin-left: 2%;

}

.btn {

border-radius: 20px;

color: white;

background-color: #1e058b;

}

#button:hover{

background-color: green;

}

.btn:disabled{

background-color: grey !important;

}

#sortAlphabeticallyButton{

border-radius: 20px;

font-size: 110%;

color: white;

background-color: #0d3800;

}

#sortAlphabeticallyButton:hover{

background-color: #1e058b;

}

#myLogin:hover {

background-color: darkgreen;

}

#myCancel:hover {

background-color: darkred;

}

#submit:hover {

background-color: darkgreen;

}

#reset:hover {

background-color: darkred;

}

.form-control {

border-radius: 20px;

}

input:focus, select:focus {

border-color: green !important;

}

.error:focus {

border-color: red !important;

}

.table {

border-collapse: collapse;

width: 100%;

background-color: white;

}

.img-fluid{

max-width: 100%;

height: auto;

border-radius: 20%;

}

.table tr:hover {background-color: #ddd;}

.table th{

color: #1e058b;

font-size: 140%;

background-color: #cba;

font-weight: bold;

}

.table td {

padding: 8px;

font-size: 125%;

width: 0%;

text-align: center;

color: #0d3800;

font-size: 110%;

line-height: 90%;

}

.table td, .table th, .table tr{

border: 1px solid black;

padding: 8px;

border-collapse: collapse;

text-align: center;

vertical-align: middle;

}

.notes{

max-width: 500px;

width: 500px;

}

.grades{

max-width: 150px;

width: 150px;

}

div.scrollable\_notes {

width: 100%;

max-height: 200px;

height: 200px;

margin: 0;

padding: 0;

overflow-y: auto;

height: 80px;

text-align: left;

}

div.scrollable\_grades {

width: 100%;

max-height: 75%;

height: 50%;

margin: 0;

padding: 0;

overflow-y: auto;

text-align: center;

}

.addButton:hover {

background-color:darkgreen;

}

.removeButton:hover {

background-color:darkred;

}

**IA.php document:**

<!DOCTYPE html>

<html>

<head>

<!-- Bootstrap library in order to make the application responsive for all devices -->

<link rel="stylesheet" href="https://maxcdn.bootstrapcdn.com/bootstrap/4.1.3/css/bootstrap.min.css">

<script src="https://maxcdn.bootstrapcdn.com/bootstrap/4.1.3/js/bootstrap.min.js"></script>

<script src="https://ajax.googleapis.com/ajax/libs/jquery/3.3.1/jquery.min.js"></script> <!-- jQuery library -->

<link href="IA.css?v21" rel="stylesheet" type="text/css"/> <!-- Links to the CSS document -->

<meta name="viewport" content="width=device-width, initial-scale=1">

<title> German students manager </title>

</head>

<body>

<div id="saving">

All your changes have been saved! <!-- Fading message for when the user makes a change in the database -->

</div>

<div id="mySidenav" class="sidenav" style="width: 0px;"> <!-- Navigation Sidebar -->

<a href="javascript:void(0)" class="closebtn" onclick="closeNav()">&times;</a>

<a href="#home" onclick="homeClick(); closeNav(); resetAdd(); resetRemove();"> Home </a> <br>

<a href="#search" onclick="searchClick(); closeNav(); resetAdd(); resetRemove();"> Search/Edit Students </a> <br>

<a href="#edit" onclick="editClick(); closeNav();"> Add/Remove Students </a> <br>

</div>

<span style="font-size:32px;cursor:pointer; display:none;" onclick="openNav()" id="mySlidebar"> &#9776; Menu </span>

<div class="container-fluid" id="main">

<h1 id="mytitle"> German students manager </h1> <!-- Present everywhere -->

<form action="login.php" id="loginForm" method="post"> <br> <!-- Form used for login -->

<div class="imgcontainer" style="text-align:center;">

<img src="IA\_photos/Welcome\_pic.jpg" alt="welcome" class="img-fluid">

</div>

<br>

<div class="container">

<label for="uname"><b>Username</b></label>

<input type="text" placeholder="Enter Username" name="uname" autocomplete="off" class="form-control" required>

<br>

<label for="psw"><b>Password</b></label>

<input type="password" placeholder="Enter Password" name="psw" autocomplete="off" class="form-control" required>

<br>

<button type="submit" class="btn btn-primary mb-2" id="myLogin">Login</button>

<button type="button" class="btn btn-primary mb-2" id="myCancel">Cancel</button>

</div>

<br>

<div class="container">

<p style="font-style:italic; text-align:right;">If you forgot your password, please contact the author</p>

</div>

</form>

<!-- In this div will appear the possible error message of login -->

<div id="errorLoginArea" style="display:none; text-align: center; font-size: 130%; color: #980101; font-weight: bold;">

hello

</div>

<br>

<div id="homeSpace" style="display:none;"> <!-- Home screen -->

<p class="mybase"> Welcome to the "Home" section! </p>

<br>

<div class="container" style="text-align:center;">

<img id="GermanFlag1" class="img-fluid" src="IA\_photos/GermanFlag.jpg" alt="image test" style="border-radius: 10%;"/>

<br><br><br>

<div class="popup" onclick="openPopup();"> <!-- Opens the popup which explains the application's functionalities -->

<p style="color:#0d3800; font-size:130%;"> Click here for further information! </p>

<span class="popuptext" id="myPopup">

<p class="mybase" style="font-size:120%; color:#1e058b;"> Here, you will be able to:

<ul>

<li style="color:#0d3800;"> Search for any student you currently teach </li>

<li style="color:#0d3800;"> Make notes on their progress </li>

<li style="color:#0d3800;"> Give them predicted or recorded grades </li>

<li style="color:#0d3800;"> Add new or remove graduate students </li>

</ul>

</p>

</span>

</div>

<br>

<p class="mybase" style="color:#1e058b"> Click on the "Menu" on the top left to navigate!</p>

</div>

</div>

<div id="searchEditSpace" style="display:none;"> <!-- Screen where you can search for students and edit their credentials -->

<p class="mybase"> Welcome to the "Search/Edit students" section! Please input any information to find the students that match it! </p>

<form id="searchForm" method="post" action="getstudents.php"> <!-- Form used for searching students -->

<div class="form-group col-sm-4"> <!-- Div where the inputs appear -->

<label for="name" class="descInput">Search by name:</label>

<input type="text" class="form-control" id="name" autocomplete="off" placeholder="Enter student name" name="name">

<span class="error-message-name" id="error-message-nameID" style="color: red; font-style: italic; display:none; margin-left: 1.7%;">

Only letters, full stops and spaces are allowed! </span>

<small class="form-text" style="margin-left: 1.7%; color: #0d3800;"> Insert first name or first letter of last name </small>

<br>

<label for="year" class="descInput"> Search by year: </label>

<input type="text" class="form-control" id="year" autocomplete="off" placeholder="Enter student year" name="year">

<span class="error-message-year" id="error-message-yearID" style="color: red; font-style: italic; display:none; margin-left: 1.7%;">

Only numbers are allowed! </span>

<br>

<label for="SchoolSystem" class="descInput"> Search by school system: </label>

<select class="form-control" id="schoolSystemSearch" onchange="showDropdown('schoolSystemSearch', 'hiddenOptionSearch')" style="cursor: pointer" name="SchoolSystem">

<option value="" disabled selected> Select school system </option>

<option> Hungarian System </option>

<option> IB </option>

<option> Both </option>

</select>

<br>

<div id="hiddenOptionSearch" style="display:none"> <!-- Option that appears only when SchoolSystem is IB -->

<label for="CourseLevel" class="descInput"> Select IB course level: </label>

<select class="form-control" style="cursor: pointer; margin-bottom: 5%;" name="CourseLevel">

<option value="" disabled selected> Select German course level </option>

<option> HL </option>

<option> SL </option>

<option> Both </option>

</select>

</div>

<input name="identifier" value="searchForm" style="display:none"> <!-- Used so that getstudents.php understands which form has been submitted -->

<input id="submit" type="submit" name="search" value="Search" class="btn btn-primary mb-2" onclick="showResults(); if (checkAllEmpty()){return true;} else return false;">

<button type="reset" id="reset" class="btn btn-primary mb-2" onclick="enableSearch(); hideHint('error-message-nameID'); hideHint('error-message-yearID'); makeAroundGreen();

closeDropdown('hiddenOptionSearch'); hideResults(); closeSort();"> Reset </button>

</div>

</form>

<br> <br>

<!-- Button that sorts the table records alphabetically -->

<button class="btn btn-primary mb-2" id="sortAlphabeticallyButton" onclick="sortTableAlphabetically()" style="display:none;"> Sort alphabetically </button>

<div id="resultsArea" style="display: none;"> <!-- Div where the results of search will appear -->

<form id="externalForm"> <!-- getstudents.php will return among results a form that will be used to edit the students -->

<div class="table-responsive" id="results">

</div>

</form>

</div>

</div>

<div id="addRemoveSpace" style="display: none;"> <!-- Screen where you can add new students or remove old ones -->

<p class="mybase"> Welcome to the "Add/Remove students" section! Here you can add or remove students! </p>

<br> <br> <br>

<div style="text-align:center;"> <!-- Div where the add and remove button will appear -->

<button class="btn btn-primary mb-2 addButton" style="margin-right:2.5%; font-size:125%;" onclick="showAddRemoveInputs('addInputs', 'removeInputs'); resetRemove();"> Add Student </button>

<button class="btn btn-primary mb-2 removeButton" style="margin-left:2.5%; font-size:125%;" onclick="showAddRemoveInputs('removeInputs', 'addInputs'); resetAdd();"> Remove Student </button>

</div>

<br> <br>

<div class="form-group">

<div class="col-sm-5" id="addInputs" style="display:none;">

<form id="addForm" method="post" action="addRemoveRecord.php"> <!-- Form used to add a new student -->

<label for="name" class="descInput">Insert name:</label>

<input id="insertName" type="text" class="form-control" autocomplete="off" placeholder="Enter student name" name="name">

<span class="error-message-name" id="error-message-nameID2" style="color: red; font-style: italic; display:none; margin-left: 1.7%;"> Only letters, full stops and spaces are allowed! </span>

<br>

<label for="year" class="descInput"> Insert year: </label>

<input id="insertYear" type="text" class="form-control" autocomplete="off" placeholder="Enter student year" name="year">

<span class="error-message-year" id="error-message-yearID2" style="color: red; font-style: italic; display:none; margin-left: 1.7%;"> Only numbers are allowed! </span>

<br>

<label for="SchoolSystem" class="descInput"> Insert school system: </label>

<select class="form-control" id="insertSchoolSystem" onchange="showDropdown('insertSchoolSystem', 'hiddenOptionInsert')" style="cursor: pointer" name="SchoolSystem">

<option value="" disabled selected> Select school system </option>

<option value="Hungarian"> Hungarian System </option>

<option> IB </option>

</select>

<br>

<div id="hiddenOptionInsert" style="display:none"> <!-- Option that appears only when SchoolSystem is IB -->

<label for="CourseLevel" class="descInput"> Insert course level: </label>

<select id="insertCourseLevel" class="form-control" style="cursor: pointer; margin-bottom: 5%;" name="CourseLevel">

<option value="" disabled selected> Select German course level </option>

<option> HL </option>

<option> SL </option>

</select>

</div>

<input type="submit" value="Add" id="addButton" class="btn btn-primary mb-2 addButton" style="font-size:125%; position:relative; left:1%;">

</form>

</div>

<div class="col-sm-5" id="removeInputs" style="display:none">

<form id="removeForm" method="post" action="addRemoveRecord.php"> <!-- Form used to delete a student based on their name -->

<label for="name" class="descInput">Insert name of student to remove:</label>

<input id="removeName" type="text" class="form-control" autocomplete="off" placeholder="Enter student name" name="removeName">

<span class="error-message-name" id="error-message-nameID3" style="color: red; font-style: italic; display:none; margin-left: 1.7%;"> Only letters, full stops and spaces are allowed! </span>

<br>

<input type="submit" value="Remove" id="removeButton" class="btn btn-primary mb-2 removeButton" style="font-size:125%; position:relative; left:1%;">

</form>

</div>

<div id="addRemoveArea" style="display:none;"> <!-- Div where the message for either successful/failed add or remove -->

</div>

</div>

</div>

</div>

</body>

<script src="IA\_scripts.js"> </script>

</html>

**IA\_scripts.js document:**

//error message handling for search name

var nameOk = true;

var yearOk = true;

//disables the search button

function disableSearch() {

$("#submit").attr("disabled", "disabled");

}

//if year and name input conditions are met, enable the search button

function tryToEnableSearch(){

if (yearOk && nameOk){

$("#submit").removeAttr("disabled", "disabled");

}

}

$("#name").on('input', function (evt) {

var value = evt.target.value

//checks if input is empty in order to hide error message and try to enable search button

if (value.length === 0) {

document.getElementById("error-message-nameID").style.display="none";

$("#name").removeClass('error');

nameOk = true;

tryToEnableSearch();

return;

}

//checks if input contains letters and fullstop

//in order to hide error message and try to enable search button

if (/^([A-Za-z .]\*)$/.test(value)) {

document.getElementById("error-message-nameID").style.display="none";

$("#name").removeClass('error');

nameOk = true;

tryToEnableSearch();

}

//in any other case show error message and disable search button

else {

document.getElementById("error-message-nameID").style.display="block";

$("#name").addClass('error');

nameOk = false;

disableSearch();

}

});

//error message handling for search year

$('#year').on('input', function (evt) {

var value = evt.target.value

//checks if input is empty in order to hide error message and try to enable search button

if (value.length === 0) {

document.getElementById("error-message-yearID").style.display="none";

$("#year").removeClass('error');

yearOk = true;

tryToEnableSearch();

return;

}

//checks if input is numeric in order to hide error message and try to enable search button

if ($.isNumeric(value)) {

document.getElementById("error-message-yearID").style.display="none";

$("#year").removeClass('error');

yearOk = true;

tryToEnableSearch();

}

//in any other case show error message and disable search button

else{

document.getElementById("error-message-yearID").style.display="block";

$("#year").addClass('error');

yearOk = false;

disableSearch();

}

})

//makes the input borders green

function makeAroundGreen() {

$("#name").removeClass('error');

$("#year").removeClass('error');

}

//the functionality which makes the pictures rotate

var images = new Array ('IA\_photos/GermanFlag.jpg', 'IA\_photos/ClassroomPicture.jpg', 'IA\_photos/Acropolis.jpg');

var index = 1;

function rotateImage()

{

$('#GermanFlag1').fadeOut('fast', function()

{

$(this).attr('src', images[index]);

$(this).fadeIn('fast', function()

{

if (index == images.length-1)

{

index = 0;

}

else

{

index++;

}

});

});

}

//set the time for pictures' rotation

$(document).ready(function()

{

setInterval (rotateImage, 3000);

});

//when clicking on the <div>, open the popup

function openPopup() {

var popup = document.getElementById("myPopup");

popup.classList.toggle("show");

}

//set up the sort alphabetically button

function sortTableAlphabetically() {

var table, rows, switching, i, x, y, shouldSwitch;

table = document.getElementById("myTable");

switching = true;

rows = table.rows;

while (switching) {

switching = false;

rows = table.rows;

for (i = 1; i < (rows.length - 1); i++) {

shouldSwitch = false;

x = rows[i].getElementsByTagName("TD")[0];

y = rows[i + 1].getElementsByTagName("TD")[0];

if (x.innerHTML.toLowerCase() > y.innerHTML.toLowerCase()) {

shouldSwitch = true;

break;

}

}

if (shouldSwitch) {

rows[i].parentNode.insertBefore(rows[i + 1], rows[i]);

switching = true;

}

}

}

//AJAX call for the searchForm

$(function() {

//Get the form.

var form = $('#searchForm');

//set up a submit event listener for the form

$(form).on("submit",function(event) {

//stop the browser from submitting the form

event.preventDefault();

//serialize the form data

var formData = $(form).serialize();

//submit the form via AJAX

$.ajax({

type: 'POST',

url: $(form).attr('action'),

data: formData

}).done(function(response) {

$('#results').html(response);

//determine when the "Sort Alphabetically" button will be visible

if (response.indexOf('Sorry, no matches found!') < 0) {

$('#sortAlphabeticallyButton').attr('style', 'display:block;');

}

else {

$('#sortAlphabeticallyButton').attr('style', 'display:none;');

}

}).fail(function(response) {

$('#resultsArea').html(response);

});

});

});

//AJAX call for the loginForm

$(function() {

var form = $('#loginForm');

$(form).on("submit",function(event) {

event.preventDefault();

//serialize the form data

var formData = $(form).serialize();

//submit the form via AJAX

$.ajax({

type: 'POST',

url: $(form).attr('action'),

data: formData

}).done(function(response) {

//determine when the error message will appear, and when the rest of the application will appear

if (response.indexOf('Error during login: ') >= 0) {

$('#errorLoginArea').css('display', 'block');

$('#errorLoginArea').html(response);

}

else {

$('#errorLoginArea').css('display', 'none');

$('#loginForm').css('display', 'none');

homeClick();

$('#mySlidebar').css('display', 'block');

}

}).fail(function(response) {

$('#errorLoginArea').css('display', 'block');

$('#errorLoginArea').html('Error during login: There was a network problem , please try again later!');

});

});

});

//hides the error message that appears when something inappropriate is typed into the search inputs

function hideHint(hint) {

document.getElementById(hint).style.display="none";

}

//determines when "Course Level" will be visible and when not

function showDropdown(schoolSystem, hiddenOption){

var option = document.getElementById(schoolSystem).value;

if (option == "IB") {

document.getElementById(hiddenOption).style.display='block';

}

else {

document.getElementById(hiddenOption).style.display="none";

document.getElementById(hiddenOption).getElementsByClassName("form-control")[0].value="";

}

}

//makes the "Course Level" option invisible

function closeDropdown(z){

document.getElementById(z).style.display="none";

}

//checks if all inputs are empty, if they are it prevents submission

function checkAllEmpty(){

var input1 = document.getElementById("name").value;

var input2 = document.getElementById("year").value;

var input3 = document.getElementById("schoolSystemSearch").value;

if ( input1 == "" && input2 == "" && input3 == "" )

{

alert("Please complete at least one field!");

return false;

}

return true;

}

//check if at least one input is empty, if it is it prevents submission

function checkAnyEmpty(){

var input1 = document.getElementById("insertName").value;

var input2 = document.getElementById("insertYear").value;

var input3 = document.getElementById("insertSchoolSystem").value;

if (input3 == "IB")

var input4 = document.getElementById("insertCourseLevel").value;

if ( input1 == "" || input2 == "" || input3 == "" || (input3 == "IB" && input4 == "") )

{

alert("Please complete all available fields!");

return false;

}

return true;

}

//hides the resultsArea

function hideResults(){

document.getElementById("resultsArea").style.display="none";

}

//makes the resultsArea visible

function showResults(){

document.getElementById("resultsArea").style.display="block";

}

//enables the search button

function enableSearch() {

$("#submit").removeAttr("disabled", "disabled");

}

//opens the sidebar and changes the background color of the rest

function openNav() {

document.getElementById("mySidenav").style.width = "250px";

document.getElementById("main").style.marginLeft = "250px";

document.body.style.backgroundColor = "#b4bdc4";

}

//closes the sidebar

function closeNav() {

document.getElementById("mySidenav").style.width = "0px";

document.getElementById("main").style.marginLeft = "0px";

document.body.style.backgroundColor = "#dfe3e6";

}

//makes the sortTableAlphabeticallyButton invisible

function closeSort() {

document.getElementById("sortAlphabeticallyButton").style.display="none";

}

//auto-save functionality

var timeoutId;

$('#resultsArea').on('input', 'textarea' , function() {

clearTimeout(timeoutId);

timeoutId = setTimeout(function() {

//runs 1 second (1000 ms) after the last change

saveToDB();

}, 1000);

});

//message that appears when something has been saved

$("#saving").hide();

function saveToDB(){

console.log('Saving to the db');

var form = $('#externalForm');

$.ajax({

url: "getstudents.php",

type: "POST",

data: $(form).serialize(), //serializes the form's elements.

})

.done(function(response) {

//used in order to make the response message fade out after 4 seconds

$("#saving").fadeIn("fast", function(){

$("#saving").fadeOut(4000);

});

});

}

//the following three are all functions in order for changing the menu screens

function homeClick(){

document.getElementById("homeSpace").style.display="block";

document.getElementById("searchEditSpace").style.display="none";

document.getElementById("addRemoveSpace").style.display="none";

}

function searchClick(){

document.getElementById("homeSpace").style.display="none";

document.getElementById("searchEditSpace").style.display="block";

document.getElementById("addRemoveSpace").style.display="none";

}

function editClick(){

document.getElementById("homeSpace").style.display="none";

document.getElementById("searchEditSpace").style.display="none";

document.getElementById("addRemoveSpace").style.display="block";

}

//AJAX call for addForm

$(function() {

var form = $('#addForm');

$(form).on("submit",function(event) {

event.preventDefault();

if (checkAnyEmpty()){

//serialize the form data

var formData = $(form).serialize();

//submit the form via AJAX

$.ajax({

type: 'POST',

url: $(form).attr('action'),

data: formData

}).done(function(response) {

//set the message texts

$('#addRemoveArea').html(response);

$('#addRemoveArea').attr('style', 'display:block;');

}).fail(function(response) {

$('#addRemoveArea').html(response);

$('#addRemoveArea').attr('style', 'display:block;');

});

}

});

});

//error message handling for insert name

var insertNameOk = true;

var insertYearOk = true;

$("#insertName").on('input', function (evt) {

var value = evt.target.value

if (value.length === 0) {

document.getElementById("error-message-nameID2").style.display="none";

$("#insertName").removeClass('error');

insertNameOk = true;

tryToEnableAdd();

return;

}

if (/^([A-Za-z .]\*)$/.test(value)) {

document.getElementById("error-message-nameID2").style.display="none";

$("#insertName").removeClass('error');

insertNameOk = true;

tryToEnableAdd();

}

else {

document.getElementById("error-message-nameID2").style.display="block";

$("#insertName").addClass('error');

insertNameOk = false;

disableAdd();

}

});

//error message handling for insert year

$('#insertYear').on('input', function (evt) {

var value = evt.target.value

if (value.length === 0) {

document.getElementById("error-message-yearID2").style.display="none";

$("#insertYear").removeClass('error');

insertYearOk = true;

tryToEnableAdd();

return;

}

if ($.isNumeric(value)) {

document.getElementById("error-message-yearID2").style.display="none";

$("#insertYear").removeClass('error');

insertYearOk = true;

tryToEnableAdd();

}

else{

document.getElementById("error-message-yearID2").style.display="block";

$("#insertYear").addClass('error');

insertYearOk = false;

disableAdd();

}

})

//disables the add button

function disableAdd() {

$("#addButton").attr("disabled", "disabled");

}

//tries to enable the add button

function tryToEnableAdd(){

if (insertYearOk && insertNameOk){

$("#addButton").removeAttr("disabled", "disabled");

}

}

//AJAX call for removeForm

$(function() {

//get the form

var form = $('#removeForm');

//set up a submit event listener for the form

$(form).on("submit",function(event) {

//stop the browser from submitting the form

event.preventDefault();

if ($('#removeName').val()!=""){

//serialize the form data

var formData = $(form).serialize();

//submit the form via AJAX

$.ajax({

type: 'POST',

url: $(form).attr('action'),

data: formData

}).done(function(response) {

//set the message texts

$('#addRemoveArea').html(response);

$('#addRemoveArea').attr('style', 'display:block;');

}).fail(function(response) {

$('#addRemoveArea').html(response);

$('#addRemoveArea').attr('style', 'display:block;');

});

}

else {

alert("Please insert the name of the student to remove!");

}

});

});

//makes the respective inputs visible or invisible

function showAddRemoveInputs(addRemoveInputs, removeAddInputs){

document.getElementById(addRemoveInputs).style.display="block";

document.getElementById(removeAddInputs).style.display="none";

}

//error message handling for remove name

var removeNameOk = true;

$("#removeName").on('input', function (evt) {

var value = evt.target.value

if (value.length === 0) {

document.getElementById("error-message-nameID3").style.display="none";

$("#removeName").removeClass('error');

removeNameOk = true;

tryToEnableRemove();

return;

}

if (/^([A-Za-z .]\*)$/.test(value)) {

document.getElementById("error-message-nameID3").style.display="none";

$("#removeName").removeClass('error');

removeNameOk = true;

tryToEnableRemove();

}

else {

document.getElementById("error-message-nameID3").style.display="block";

$("#removeName").addClass('error');

removeNameOk = false;

disableRemove();

}

});

//disables the remove button

function disableRemove() {

$("#removeButton").attr("disabled", "disabled");

}

//tries to enable the remove button

function tryToEnableRemove(){

if (removeNameOk){

$("#removeButton").removeAttr("disabled", "disabled");

}

}

//resets the add inputs

function resetAdd(){

document.getElementById("insertName").value="";

document.getElementById("insertYear").value="";

document.getElementById("insertSchoolSystem").value="";

document.getElementById("insertCourseLevel").value="";

document.getElementById("hiddenOptionInsert").style.display="none";

document.getElementById("addRemoveArea").style.display="none";

document.getElementById("error-message-nameID2").style.display="none";

document.getElementById("error-message-yearID2").style.display="none";

$("#addButton").removeAttr("disabled", "disabled");

}

//resets the remove input

function resetRemove(){

document.getElementById("removeName").value="";

document.getElementById("addRemoveArea").style.display="none";

document.getElementById("error-message-nameID3").style.display="none";

$("#removeButton").removeAttr("disabled", "disabled");

}

**login.php document:**

<?php

if ($\_SERVER['REQUEST\_METHOD'] == 'POST'){

if ($\_SERVER["HTTP\_HOST"]==='localhost') {

$servername = "localhost";

$username = "root";

$password = "";

$dbname = "German\_Class";

} else {

$servername = "localhost";

$username = "pdxia";

$password = "DxtXVa2nWZKvcFKt";

$dbname = "pdx\_ia\_studman";

}

//establish the connection with database and server credentials

$conn = new mysqli($servername, $username, $password, $dbname);

//if there is an error during connection do the following

if ($conn->connect\_error) {

http\_response\_code(500);

echo "<br> <br> <p id='zeroResults' style='text-align: center; font-size: 130%; color: #0d3800; font-weight: bold;'>

Connection failed: " . $conn->connect\_error . "</p>";

die("Connection failed: " . $conn->connect\_error);

}

//if there is no error during connection do the following

else{

$sql = "SELECT Username FROM credentials WHERE Username='" . htmlspecialchars($\_POST['uname']) . "' AND Password='" . htmlspecialchars($\_POST['psw']) . "'";

$result = $conn->query($sql);

//if the input matches the database record do the following

if ($result){

if ($result->num\_rows>0){

$row = $result->fetch\_assoc();

echo $row['Username'];

}

//if the input does not match the database record do the following

else {

echo "Error during login: Username and password do not match, please try again!";

}

}

//if there has been an error during login do the following

else{

echo "An error has occured, please refresh the page to try again!";

}

http\_response\_code(200);

}

//close the connection

mysqli\_close($conn);

}

else {

http\_response\_code(403);

echo "Error during login: There was a network problem , please try again later!";

}

?>

**getstudents.php document:**

<?php

if ($\_SERVER['REQUEST\_METHOD'] == 'POST'){

if ($\_SERVER["HTTP\_HOST"]==='localhost') {

$servername = "localhost";

$username = "root";

$password = "";

$dbname = "German\_Class";

} else {

$servername = "localhost";

$username = "pdxia";

$password = "DxtXVa2nWZKvcFKt";

$dbname = "pdx\_ia\_studman";

}

//establish the connection with database and server credentials

$conn = new mysqli($servername, $username, $password, $dbname);

//if there is an error during connection do the following

if ($conn->connect\_error) {

http\_response\_code(500);

"<br> <br> <p id='zeroResults' style='text-align: center; font-size: 130%; color: #0d3800; font-weight: bold;'>Connection failed: " . $conn->connect\_error . "</p>";

die("Connection failed: " . $conn->connect\_error);

}

//if there is no error during connection do the following

else{

//the user's input is first checked in order to form the appropriate query

$sql = "SELECT \* FROM students WHERE";

$name = htmlspecialchars($\_POST['name']);

$year = htmlspecialchars($\_POST['year']);

if(!empty($name)) {

$sql = $sql . " (name LIKE '" . $name . "%' or name LIKE '% " . $name ."%')";

}

if(!empty($year)){

if(!empty($name)) {

$sql = $sql . " and";

}

$sql = $sql . " year = " . $year;

}

if(!empty($\_POST['SchoolSystem'])){

$schoolSystem = htmlspecialchars($\_POST['SchoolSystem']);

if(!empty($name) || !empty($year)) {

$sql = $sql . " and";

}

if ($schoolSystem=="Both"){

$sql = $sql . " (SchoolSystem = 'Hungarian' or SchoolSystem = 'IB')";

}

else if ($schoolSystem=="Hungarian System"){

$sql = $sql . " (SchoolSystem = 'Hungarian')";

}

else{

$sql = $sql . " SchoolSystem = '" . $schoolSystem . "'";

}

}

if(!empty($\_POST['CourseLevel'])){

$courseLevel = htmlspecialchars($\_POST['CourseLevel']);

if ($courseLevel=="Both"){

$sql = $sql . " and (SchoolSystem = 'Hungarian' or SchoolSystem = 'IB')";

}

else {

$sql = $sql . " and CourseLevel = '" . $courseLevel . "'";

}

}

//query to database

$result = $conn->query($sql);

//identifier is an invisible input that is used when the searchForm is submitted in order to specify which input has been submitted

if ( isset($\_POST['identifier'])){

//what happens when searchForm is submitted

if ($result){

if ($result->num\_rows > 0) {

echo '<table class="table" id="myTable">';

echo '<tr>';

echo '<th> Student Name </th>';

echo '<th> Student Year </th>';

echo '<th> School System </th>';

echo '<th> Course Level </th>';

echo '<th colspan="2"> Grades </th>';

echo '<th class="notes"> Notes </th>';

echo '</tr>';

echo '<form action="' . $\_SERVER['PHP\_SELF'] . '" id="tableForm" method="post">';

$counter = 0;

//for each student that matches the search input, a record is shown in the table

while($row = $result->fetch\_assoc()) {

$counter = $counter + 1;

//the variable $counter is used to determine the specific student and to know where the changes we make should apply

echo '<tr>';

echo '<td>';

echo $row["Name"];

echo '</td>';

echo '<td>';

echo '<textarea name="editYear\_' . $counter . '" rows="1" style="overflow:hidden; width:80%; resize: none; text-align:center; border: 10px solid transparent;">' . $row["Year"] . '</textarea>';

echo '</td>';

echo '<td>';

echo '<textarea name="editSchoolSystem\_' . $counter . '" rows="1" style="overflow:hidden; width:80%; resize: none; text-align:center; border: 10px solid transparent;">' . $row["SchoolSystem"] . '</textarea>';

echo '</td>';

echo '<td>';

if ($row['CourseLevel']=="") echo '<textarea name="editCourseLevel\_' . $counter . '" rows="1" style="overflow:hidden; width:80%; resize: none; text-align:center; border: 10px solid transparent;">' . "-" . '</textarea>';

else echo '<textarea name="editCourseLevel\_' . $counter . '"rows="1" style="overflow:hidden; width:80%; resize: none; text-align:center; border: 10px solid transparent;">' . $row["CourseLevel"] . '</textarea>';

echo '</td>';

echo '<td class="grades"> <div style="font-weight: bold; color: #1e058b; margin-bottom: 5px" > First Semester </div>';

echo '<textarea name="gradeA\_' . $counter . '" rows="1" style="overflow:hidden; width:80%; resize: none; text-align:center;" placeholder="Insert grade..">' . $row['Grades\_A'] . '</textarea>';

echo '</td>';

echo '<td class="grades"> <div style="font-weight: bold; color: #1e058b; margin-bottom: 5px"> Second Semester </div>';

echo '<textarea name="gradeB\_' . $counter . '" rows="1" style="overflow:hidden; width:80%; resize: none; text-align:center;" placeholder="Insert grade..">' . $row['Grades\_B'] . '</textarea>';

echo '</td>';

echo '<td class="notes">';

echo '<textarea name="notes\_' . $counter . '" rows="5" style="overflow:hidden; width:98%; resize: none; text-align:left;" placeholder="Take notes..">' . $row['Notes'] . '</textarea>';

echo '</td>';

echo '</tr>';

}

//we pass all the search inputs to the dynamically generated edit form in order to re-execute the search query and edit the appropriate student record

echo '<input name="name" style="display: none;" value="' . $name . '"></input>';

echo '<input name="year" style="display: none;" value="' . $year . '"></input>';

echo '<input name="SchoolSystem" style="display: none;" value="';

if (isset($schoolSystem))

echo $schoolSystem;

else

echo '';

echo '"></input>';

echo '<input name="CourseLevel" style="display: none;" value="';

if (isset($courseLevel))

echo $courseLevel;

else

echo '';

echo '"></input>';

echo '</form>';

echo '</table>';

}

else {

echo "<br> <br> <p id='zeroResults' style='text-align: center; font-size: 130%; color: #980101; font-weight: bold;'> Sorry, no matches found! </p>";

}

}

}

else {

//what happens when (dynamically generated) editForm is submitted

$counter = 0;

while($row = $result->fetch\_assoc()) {

//either editForm or searchForm, results are gonna be displayed in the same order after the search query

//that's why counter variable now can match the correct changes that have been submitted to the dynamically generated editForm above

//counter variable here corresponds to the appropriate student records of counter variable at lines 90-115

$counter = $counter + 1;

if( $\_POST["editYear\_" . $counter]!=$row['Year'] ){

$sql\_updated = "UPDATE `students` SET `Year`='" . $\_POST["editYear\_" . $counter] . "' WHERE `Name`='" . $row["Name"] . "'";

$result\_updated = $conn->query($sql\_updated);

}

if( $\_POST["editSchoolSystem\_" . $counter]!=$row['SchoolSystem'] ){

$sql\_updated = "UPDATE `students` SET `SchoolSystem`='" . $\_POST["editSchoolSystem\_" . $counter] . "' WHERE `Name`='" . $row["Name"] . "'";

$result\_updated = $conn->query($sql\_updated);

}

if( $\_POST["editCourseLevel\_" . $counter]!=$row['CourseLevel'] && $\_POST["editCourseLevel\_" . $counter]!="-"){

$sql\_updated = "UPDATE `students` SET `CourseLevel`='" . $\_POST["editCourseLevel\_" . $counter] . "' WHERE `Name`='" . $row["Name"] . "'";

$result\_updated = $conn->query($sql\_updated);

}

if( $\_POST["gradeA\_" . $counter]!=$row['Grades\_A'] ){

$sql\_updated = "UPDATE `students` SET `Grades\_A`='" . htmlspecialchars($\_POST["gradeA\_" . $counter]) . "' WHERE `Name`='" . $row["Name"] . "'";

$result\_updated = $conn->query($sql\_updated);

}

if ( $\_POST["gradeB\_" . $counter]!=$row['Grades\_B'] ){

$sql\_updated = "UPDATE `students` SET `Grades\_B`='" . $\_POST["gradeB\_" . $counter] . "' WHERE `Name`='" . $row["Name"] . "'";

$result\_updated = $conn->query($sql\_updated);

}

if ( $\_POST["notes\_" . $counter]!=$row['Notes'] ){

$sql\_updated = "UPDATE `students` SET `Notes`='" . $\_POST["notes\_" . $counter] . "' WHERE `Name`='" . $row["Name"] . "'";

$result\_updated = $conn->query($sql\_updated);

}

}

}

http\_response\_code(200);

}

//close the connection

mysqli\_close($conn);

}

else {

http\_response\_code(403);

echo "<br> <br> <p id='zeroResults' style='text-align: center; font-size: 130%; color: #980101; font-weight: bold;'>There was a problem with your submission, please try again.</p>";

}

?>

**addRemoveRecord.php document:**

<?php

if ($\_SERVER['REQUEST\_METHOD'] == 'POST'){

if ($\_SERVER["HTTP\_HOST"]==='localhost') {

$servername = "localhost";

$username = "root";

$password = "";

$dbname = "German\_Class";

} else {

$servername = "localhost";

$username = "pdxia";

$password = "DxtXVa2nWZKvcFKt";

$dbname = "pdx\_ia\_studman";

}

$conn = new mysqli($servername, $username, $password, $dbname);

if ($conn->connect\_error) {

http\_response\_code(500);

echo "<br> <br> <p id='zeroResults' style='text-align: center; font-size: 130%; color: #0d3800; font-weight: bold;'>

Connection failed: " . $conn->connect\_error . "</p>";

die("Connection failed: " . $conn->connect\_error);

}

else {

if ( isset($\_POST['removeName'])){

$sql\_remove="DELETE FROM `students` WHERE `Name`='" . htmlspecialchars($\_POST['removeName']) . "';";

$conn->query($sql\_remove);

if($conn->affected\_rows>0) echo "<p style='text-align: center; font-size: 130%; color: #0d3800; font-weight: bold;'>

Student '" . htmlspecialchars($\_POST['removeName']) . "' successfully removed! </p>";

else echo "<br> <br> <p style='text-align: center; font-size: 130%; color: #980101; font-weight: bold;'>

The student '" . htmlspecialchars($\_POST["removeName"]) . "' does not exist. Please make sure that the exact inserted name exists. </p>";

}

else{

if ( isset($\_POST['CourseLevel'])){

$sql\_insert="INSERT INTO `students`(`Name`, `Year`, `SchoolSystem`, `CourseLevel`)

VALUES ('" . htmlspecialchars($\_POST['name']) . "'," . htmlspecialchars($\_POST['year']) . ",'" . htmlspecialchars($\_POST['SchoolSystem']) . "','" . htmlspecialchars($\_POST['CourseLevel']) . "');";

}

else {

$sql\_insert="INSERT INTO `students`(`Name`, `Year`, `SchoolSystem`)

VALUES ('" . htmlspecialchars($\_POST['name']) . "'," . htmlspecialchars($\_POST['year']) . ",'" . htmlspecialchars($\_POST['SchoolSystem']) . "');";

}

$result\_inserted = $conn->query($sql\_insert);

if($result\_inserted) echo "<p style='text-align: center; font-size: 130%; color: #0d3800; font-weight: bold;'>

Student '" . htmlspecialchars($\_POST['name']) . "' successfully added! </p>";

else echo "<p style='text-align: center; font-size: 130%; color: #980101; font-weight: bold;'>

Something went wrong. Please try again. </p>";

}

}

mysqli\_close($conn);

}

else {

http\_response\_code(403);

echo "<br> <br> <p id='zeroResults' style='text-align: center; font-size: 130%; color: #980101; font-weight: bold;'>

There was a problem with your submission, please try again.</p>";

}

?>