CTI.110 - Group Project

Pulling the Web, Database and Backend Programming Together

# Objectives:

* Work with a group to complete a project
* Create a Web Application integrating:
  + PHP programs
  + Web Technologies
  + SQL and Database
* Develop .php files that combine PHP instructions with HTML and CSS
* Develop .php files that combine PHP with SQL, CSS, and HTML
* Use HTML and CSS for instructions, information, and input
* Create consistent style within the web application
  + Create:
    - HTML Landing Page of Concert
    - HTML Form Page for Customer Entry
    - PHP Program to Process Concert Cost based on customer input
* Create consistent style within the web application

# Project Overview – Human Resources (hr) Portal

This project creates a Human Resources (HR) Portal. The portal will integrate different Database Reports and some common generic calculators and applications. Information about the portal and links to the different web applications will be provided by the Portal Landing Page.

Different reports and applications will be provided on the Portal Landing Page allowing the customer to decide what they want. The form page allows the user to input in accordance with the requirements below. The php programs will do the required processing and return the output/results using HTML tags.

Minimum web application requirements can be found in the Instructions below.

# Lab Task Checklist

* It is expected you have read the required reading in this course.
* Review Course Resources/Rules of Engagement (ROE) and Standards/ROE
* Review the Group Project Overview
* Review Database Installation and Preparation and install the HR Database
* Review the Minimum Requirements for the Portal
* **PROJECT DELIVERABLES:**
  + FIRST DELIVERABLE: Create a Hierarchy Chart and Tentative Schedule (This should show who is responsible for what) and ***will be posted in your TEAMS Group Channel***. This deliverable is due generally within one week after groups are assigned. *Specific dates will be provided by your instructor.*
    - ***The Project Manager will have a weekly deliverable.*** They need to provide a weekly progress report. See Overview of Project in Blackboard.
  + SECOND DELIVERABLE:
    - Create the Portal Landing Page (LP) for your project. Name Convention for the HTML Exercise -- **group#-hr-portal.html**
    - Create the Form WEB Pages (form) for your project. You will need multiple form pages. Most likely one for each minimum requirement. Recommended Name Convention can be found in the minimum requirements.
    - Create the PHP programs that will complete the processing required. Recommended Name Convention can be found in the minimum requirements.
    - Ensure your html and css meets W3C validation.
    - Ensure the form pages, html returned by the php program, and the portal landing page have the same CSS styling
    - **Provide a separate document for test plan/cases in Microsoft word.** Naming convention: group#-hr-test-plan.docx.
    - Test your web applications and portal using XAMPP and localhost. All files must be in your xampp htdocs folder for localhost to work.
    - Upload **all** needed files for your PORTAL WEB APPLICATION to Blackboard. You do not need to upload the database. The instructor will already have a copy.

# Portal Landing Page Instructions

1. Semantic Tags will be used
2. The web page should meet accessibility requirements
3. There should be at least one image
4. At least one table
5. At least 2 sections
6. Navigation sections with required portal links
7. See below for minimum CSS Selectors required

# Form Page Instructions

1. Semantic Tags will be used
2. The web page should meet accessibility requirements
3. Add the required CSS styling. Styling will be common to all web forms, portal landing page and php html output
4. See below for minimum CSS Selectors required

# PHP Program Instructions

1. Semantic Tags will be used for HTML output
2. Add the required CSS styling. Styling will be common to all web forms, portal landing page and php html output
3. See below for minimum CSS Selectors required

# Minimum HR portal Requirements

1. Create the Portal Landing Page (LP) for your project. Name Convention for the HTML Exercise -- **group#-hr-portal.html. See above instructions for expected code.**
2. Create a php program using SQL to create a report where the HR employee can search the **HR** database by last name **or** employee ID. The results should include all fields in table employee and the Job Title in jobs table. Naming Conventions: **group#-hr-emp-search.html** and **group#-hr-emp-search.php.** See below for example of minimum render:

*Example: Form Input for Last Name: King*

Table

Description automatically generated

*Example: Form Input for Employee ID 100*

Table

Description automatically generated

1. Create a php program using SQL to create a report where the HR employee can search the **HR** database for specific job titles and provide a list of employees with that job title as well as the average salary for that job title. Naming Conventions: **group#-hr-job-title.html** and **group#-hr-job-title.php.**See below for example of minimum render:

*Example: Form Input for Job Title*

Table

Description automatically generated

1. Group Choice. Naming Conventions: **group#-hr-??.html** and **group#-hr-/??.php. ?? to be determined by group.** Create a php program using SQL to create a report using at least two of the following tables:
   1. Countries
   2. Departments
   3. Locations
   4. Regions
   5. Employees
2. Generic Employee Calculators. Naming Conventions: **group#-hr-fuel.html** and **group#-hr-fuel.php.**
   1. Program to help calculate fuel cost for a trip

Write web- based application that will calculate and display the fuel costs for a trip. The user will provide the cars average miles per gallon expected cost of gas per gallon, and the length of the trip to be traveled. The program needs to calculate and display the cost of the trip based on the input.

Travel cost = miles traveled/mpg \* cost

1. Make sure the styling used is common to all your files used for the HR Portal. Naming Conventions: **group#-hr-style.css.**

# Minimum CSS Selector Instructions

| Selector | Property | Notes |
| --- | --- | --- |
| body | background-color  font-family | primary with 2 backup |
| header | background-color  color  text-align  padding  margin |  |
| nav ul | list-type  padding  font-size |  |
| ul | List-type  Padding  Border |  |
| li | border  padding |  |
| Nav | Width  float |  |
| a | text-decoration  color |  |
| img | Border  width |  |
| h1, h2, h3 | color | each with different color |
| table, th ,td | border |  |
| thead | background-color  color |  |
| tbody | color |  |
| tfoot | font-size  color  background-color |  |
| caption | font-family  font-weight  font-size  color  border | primary with 2 backup |
| Button | background-color  Color  font-size |  |
| legend | background-color  Color  padding |  |
| Define a minimum of 2 classes | Adjust a minimum of 3 properties |  |

# Peer Evaluations

The peer evaluations count as part of your Group Project and is used for each team members project grade. The deliverable will receive a grade based on the quality of the submission.  In turn, each team member will be graded based on the deliverable grade and your participation average (peer evaluation's and instructor observation).

**Example1:**

* Deliverable grade for the lab is 100%
* Your Peer Evaluation from your peers averages 20% points
* Then your grade for the Lab would be 20% of the deliverable grade (20%)

**Example2:**

* Deliverable grade for the lab is 80%
* Your Peer Evaluation from your peers averages 50%
* Then your grade for the lab would be 40%.  This is 50% of the deliverable grade (80 x .50)

# Submit Files to Blackboard to Blackboard

Submit all required files and peer assessment to Blackboard (do not forget to upload your image used in your code as well). You do not need to upload the database. The instructor will already have a copy.