**Programming Assignment #1**

**Web Technology II (BIT301)**

*"PHP is the language of the web, and control flow, loops, and functions are your notes. Write your web symphony, and let it resonate with innovation."*

**Implement the following problem statements using the concepts of conditional statements, switch case, loops and functions in Php.**

1. Develop a PHP program for an online store. If a user's cart total is over $100, apply a 10% discount; if it's over $50, apply a 5% discount; otherwise, no discount. Display the final amount to be paid.
2. Create a PHP program that converts temperatures from Celsius to Fahrenheit. Ask the user for a temperature in Celsius and use a conditional statement to check if it's below freezing (below 0°C) or not. Provide an appropriate message.
3. Write a PHP program that asks for a person's age and citizenship status. If the person is both 18 or older and a citizen, display "You are eligible to vote"; otherwise, display "You are not eligible to vote."
4. You are developing a simple coffee ordering system. Write a PHP script that presents a menu of coffee options to the user, such as "Espresso," "Latte," "Cappuccino," and "Mocha." The user should enter their choice, and the program should use a switch statement to display the price of the selected coffee. If an invalid option is chosen, display an error message.
5. You are building a simple menu-driven program in PHP. Create a PHP script that displays a menu to the user with options to perform different actions. Use a switch statement to execute the corresponding action based on the user's selection. The menu should include options like:
    a. View Profile
    b. Edit Profile
    c. View Orders
    d. Place an Order
    e. Logout

    Implement each option as a separate case in the switch statement.

6. Create a PHP script that simulates a shopping cart. Use a while loop to allow users to add items to their cart until they decide to check out. Display the items in the cart and the total cost.
7. Write a PHP program that asks the user to enter a password. Use a while loop to keep prompting the user until they enter the correct password. Add a maximum number of attempts (e.g., 3) and display an error message if the user exceeds that limit.
8. Develop an HTML page with a table that uses PHP code and loops to generate a multiplication table for a specific number.
9. Create an HTML page that embeds PHP code to display the current date and time.
10. Construct an HTML page that includes an external PHP file (e.g., include('header.php')) to display a header section. The external PHP file should contain the header content. Extend the previous example to include a footer section using a separate external PHP file.
11. In an academic institution, there's a need to calculate the final grades for students based on their scores in different assignments and exams. The grading system has specific weightage for each component, such as assignments, quizzes, midterm exams, and a final exam.
    a. Assignments: 20% of the final grade.
    b. Quizzes: 10% of the final grade.
    c. Midterm Exam: 30% of the final grade.
    d. Final Exam: 40% of the final grade.

    Problem:

    Write a PHP function that calculates the final grade for a student given their scores in each component. The program should also display the corresponding letter grade based on the final score using a function.
12. In a company, you are tasked with creating a PHP program to calculate the monthly payroll for employees. Each employee has a base salary and can receive bonuses based on performance. You need to use global and local variables to track and calculate employee salaries.

    **Problem**: Write a PHP program to calculate the monthly salary of employees based on their base salary and performance bonus. Use global variables to store company-wide

information like the bonus percentage, and local variables to calculate individual employee salaries.

a. Create a global variable called `$bonusPercentage` and set it to 10%. This variable represents the bonus percentage for all employees.
b. Write a function called `calculateEmployeeSalary` that takes the following parameters:
   - `employeeName` (string)
   - `baseSalary` (float)
   - `performanceScore` (float)

Inside the `calculateEmployeeSalary` function:

1. Declare a local variable `$bonus` and calculate it as a percentage of the `baseSalary` based on the global `$bonusPercentage`.
2. Calculate the total `monthlySalary` for the employee as the sum of `baseSalary` and `$bonus`.
3. Return the `monthlySalary`.

In the main part of the program:

1. Call the `calculateEmployeeSalary` function for three employees with different base salaries and performance scores.
2. Display the employee's name, base salary, bonus amount, and monthly salary for each employee.

**Note**: You can assume that the bonus percentage and other company-wide settings will remain constant for all employees.

**Submission Guidelines:**

**Zip Your Files:** Before submission, compress all relevant files into a zip archive. Include your source code files, documentation, and any other required materials.

**Naming Convention:** Rename the zip archive file using the following format: YourFullName_AssignmentName.zip. For example, if your name is Prakash Neupane and the assignment is "PA1," the zip file should be named PrakashNeupane_PA1.zip.

**File Structure**: Maintain a clear and organized file structure within the zip archive. Use folders or directories if needed to separate different parts of your assignment.

***Submit only your original work. Plagiarism, copying, or using code from external sources without proper citation is strictly prohibited.***

**Deadline**: **2080/06/07**