"Investing in Africa's Future"

COLLEGE OF ENGINEERING AND APPLIED SCIENCES

NCIS 211: WEB TECHNOLOGIES

END OF FIRST SEMESTER EXAMINATIONS

NOVEMBER 2024

LECTURER: MR BRAITON U MUKHALELA

TIME: 3 HOURS

INSTRUCTIONS

Create a folder on the desktop of your allocated computer into which you are to save all your work. The folder name should be your Student Reg Number- Course code eg **20000-NCIS215**

You are required to answer ALL questions as instructed in each section.

Use provided images in a folder called *Web Tec Exam Source Images* found on your desktop.

Use Invigilator Allocated Computer in one of the designated Computer Labs

The Examination is Lab based, no any other writing material is required.

Objective: Create a simple web application that utilizes HTML, CSS, JavaScript, PHP, and MySQL to demonstrate your understanding of web technologies and other emerging web technologies.

Project Requirements

1. **Web Page Structure (10 points)**
   - Create an HTML file that includes:
     - A header with the title of your project VAP-Rabbirty Manager.
     - A navigation menu with at least three links (e.g., Home, About, Hutch, Out-Breeder Contact).
     - A main content section that includes a form for user input (e.g., Breeder's name, email, Breeds available (implement Check Box Selection Options) **NB:** VAP-Rabbitry only encourage its Out-Breeders to breed breeds: New Zealand White, California and Chinchilla only).
     - Image of rabbits as included in the attached folder Source images.
     - A footer with your name and date.
2. **Database Setup (20 points)**
   - Create a MySQL database named `vap_rabbitrydb`.
   - Create a table named `outbreeders` with the following fields:
     - `id` (INT, Primary Key, Auto Increment)
     - `Obreeders_name` (VARCHAR)
     - `email` (VARCHAR)
     - `Breeds_Kept` (VARCHAR)
     - `No_of_Does` (INT)
     - `No_of_Bucks` (INT)
     - `Total_Rabbits`(INT)
     - `created_at` (TIMESTAMP)
   - Include SQL scripts for creating the database and table.
3. **Form Handling with PHP (20 points)**
   - Write a PHP script to handle form submission.
   - Validate the form inputs (e.g., check if fields are filled).
   - Insert the data into the `users` table in your MySQL database.
   - Display a success message upon successful submission.
4. **Data Retrieval and Display (20 points)**
   - Create a PHP script that retrieves and displays all records from the `outbreeders` table.
   - Format the output in an HTML table.
5. **CSS Styling (10 points)**
   - Create a CSS file to style your webpage:
     - Style the header, navigation menu, footer, and form elements.
     - Ensure the layout is responsive.
6. **JavaScript Functionality (10 points)**
   - Implement JavaScript to enhance user experience (e.g., form validation before submission).
   - Add an interactive feature (e.g., toggle visibility of a section).
7. **Documentation and Presentation (10 points)**
   - Include comments in your code explaining key sections.

- o Prepare a brief presentation (PPT file) on the use of React (include some major source code) and any other 2 of these emerging web technologies like: Action, PWs, AI powered web techs like React-ML, Brain.js etc.

Deliverables

- Submit your HTML, CSS, JavaScript, PHP files, and the SQL script in a zipped folder.

Evaluation Criteria

- **Functionality:** Does the web application work as intended? (30 points)
- **Code Quality:** Is the code well-structured, commented, and easy to read? (20 points)
- **Database Integration:** Is the database set up correctly, and is data handled appropriately? (20 points)
- **Design:** Is the design aesthetically pleasing and user-friendly? (20 points)
- **Presentation:** Was the project presented clearly and effectively on raised topics? (10 points)

Total: **100 points**

Additional Notes

- Students are encouraged to be creative with their designs and functionalities.
- Use resources from the course materials to assist in completing the project.
- Ensure that PHP and MySQL are properly configured in your development environment

END OF EXAMINATION