



Unit:

Back-End Website Development

Assignment title:

Green Futures

Introduction

GreenFutures is an environmental advocacy group committed to accelerating the transition towards renewable energy sources to mitigate the impacts of climate change. They aim to educate the public on the importance of sustainable energy solutions and lobby for policies that support green energy adoption.

The organisation has approached you to develop a dynamic website that serves as an educational platform and a hub for community action. The website should include the following:

- **Home Page:** A visually compelling landing page with a clean, modern design. It should feature a responsive navigation bar, a brief introduction to GreenFutures, a "Join Us" pop-up form (First Name, Last Name, Email, and password), an integrated news feed from their official news outlet, and a carousel showcasing renewable energy projects. Social media links, privacy policy, and cookie consent should be clearly accessible.
- **About Renewable Energy:** This page will offer educational content on various renewable energy sources, their benefits, and how they combat climate change.
- **Get Involved:** A page detailing how visitors can support or join renewable energy initiatives, including donation options and volunteer sign-up.
- **Contact Us:** An interactive form allowing visitors to reach out with questions, suggestions, or support.
- **Latest News:** Featuring articles, updates on renewable energy advancements, and GreenFutures' projects.
- **Policy Advocacy:** Highlighting the group's efforts in lobbying for renewable energy policies and ways the public can support these initiatives.
- **Educational Resources:** Providing downloadable resources, infographics, and videos on renewable energy topics.

The website must support user registration and login, with a security feature that locks users out after three failed login attempts, allowing reset after three minutes.

The website should be mobile-responsive, and accessible, and include a cookie notification pop-up. A database is required for managing user accounts and tracking donations.

You will create a web application for users to register, manage their information, and interact with the database to create, query, update, and delete records.

This project requires the use of PHP, MySQL, and JavaScript, including a web service for handling donations.

Tasks

Task 1 – 10 Marks

Set up the initial website structure, including the "Join Us" form and cookie notification.

Task 2 – 15 Marks

Develop the registration and login system with secure password handling and account lockout functionality.

Task 3 – 15 Marks

Enable logged-in users to view and manage their donation history through a user-friendly interface.

Task 4 – 20 Marks

Implement additional website features such as:

- Mobile responsiveness – fully accessible through mobiles
- Sign up Now Pop Up that appears on the home page.
- Links to Privacy, Copyright and Cookies information
- Cookie accepts and agrees to the message.
- Social media integration like Twitter and Instagram links
- Dynamic content like a news feed.

Task 5 – 15 Marks

Allow users to interact with their account records, enabling them to create, query, update, and delete their data securely.

Task 6 – 10 Marks

Incorporate a unique user ID generator for new registrations, using a prefix (e.g., GF for GreenFutures) followed by SIX (6) digits.

Task 7 – 15 Marks

Write a 500-word reflection on the project covering:

- What you learned
- Potential improvements
- Challenges faced, and how you overcame them.

Submission requirements

- For each task, you should present the necessary code and screen dumps in a word-processed document.
- All references and citations must use the Harvard Style.

Candidate checklist

Please use the following checklist to ensure that your work is ready for submission.

Have you read the NCC Education Documents *What is Academic Misconduct? Guidance for Candidates* and *Avoiding Plagiarism and Collusion: Guidance for Candidates* and ensured that you have acknowledged all the sources that you have used in your work?

Have you completed the *Statement and Confirmation of Own Work* form and attached it to your assignment? **You must do this.**

Have you ensured that your work has not gone over or under the recommended word count by more than 10%?

Have you ensured that your work does not contain viruses and can be run directly?