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**MBARARA UNIVERSITY OF SCIENCE AND TECHNOLOGY**

**FAUTLY OF COMPUTING AND INFORMATICS.**

**COURSE UNIT: WEB DESIGN AND DEVELOPMENT**

**COURSE CODE: BIT1203**

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**REGISTRATION NO: 2024/BIT/046/PS**

**COURSE WORK: WEB DEVELOPMENT AND DESIGN**

**WEBSITE WIREFRAME**

HEADER

LOGO

Home

SECTION 1

SECTION 2

SECTION 3

FOOTER

News/Events

Log in/Sign out

About Us

**Conceptualizing a Web Project on Forest Conservation**

**Topic/Problem Identified:** One of the critical environmental issues facing our planet is deforestation and the loss of biodiversity. Forests are vital to maintaining a healthy ecosystem, and many local communities, organizations, and governments struggle to promote forest conservation efforts effectively. Despite growing awareness of environmental issues, there is often a gap in action, education, and community engagement.

**Some of the Problems:**

**Lack of awareness:** Many people are unaware of the importance of forests and the threats they face.

**Limited community engagement:** There is no centralized platform where individuals and organizations can find ways to actively engage in forest conservation efforts.

**Difficulty in monitoring progress:** Conservation efforts often lack clear, real-time data and feedback mechanisms for tracking success.

**Providing a Web-Based Solution**

**Proposed Web Solution:** The proposed solution is a Forest Conservation Platform that serves as an educational hub, awareness platform, and community engagement tool for forest conservation. This website would offer resources to educate the public, provide opportunities for people to take action (through donations, tree planting programs, and volunteering), and offer a dashboard for tracking conservation progress.

**Key Features & Functionalities:**

**Educational Resources:**

Articles, videos, and interactive content about the importance of forests, threats to forests, and the role individuals can play in conservation.

A section with expert interviews and case studies of successful conservation efforts globally.

**Conservation Projects Directory:**

A searchable database of ongoing forest conservation initiatives, allowing users to find projects they can get involved with.

Ability to donate directly to projects or sign up for volunteering opportunities.

**Interactive Features:**

**User Registration & Profile Management:** Users can create profiles to track their activities, donations, or involvement in specific conservation efforts.

**Forums/Discussion Boards:** To foster a community of individuals passionate about forest conservation, where users can share knowledge, ideas, and success stories.

**Progress Tracker:** Real-time data showing how much forest area has been protected or restored, or how many trees have been planted, through the combined efforts of community members.

**Mobile Responsiveness:**

Ensuring the platform is optimized for all devices (smartphones, tablets, and desktops) so users can access it on the go.

**Location-Based Features:**

Integrate Google Maps API to display local conservation projects near the user's location.

A geotagging feature where users can upload their activities (like planting trees) to a map that shows global efforts.

**Gamification:**

Implement a rewards system where users earn badges or points for participating in conservation activities like donations, volunteering, or education sharing.

Leaderboards for users who contribute the most to local or global conservation efforts.

**News & Events:**

A news feed section for up-to-date information about environmental issues, climate change, and forest-related topics.

A calendar of local and global forest conservation events (tree planting days, fundraisers, etc.).

**API Integrations:**

**Payment Gateways** for donations, supporting services like PayPal, Stripe, etc.

**Chatbot Integration:** For providing real-time assistance and guiding users to the right resources.

**Target Audience:**

**General Public:** Individuals who want to learn more about forest conservation and how they can get involved.

**Environmental Organizations:** NGOs and other entities involved in forest preservation.

**Educational Institutions:** Schools, colleges, and universities looking to integrate environmental topics into their curriculum.

**Donors/Volunteers:** People who are ready to financially contribute or donate their time to conservation projects.

**Technology Stack:**

**Frontend:**

HTML5, CSS3, and JavaScript (for building the structure, design, and interactivity of the website).

Frameworks like React.js or Vue.js could be used to build interactive UI components.

**Backend:**

PHP with Laravel or Node.js for handling server-side logic and interacting with the database.

MySQL for storing user data, conservation project details, and donation information.

**APIs:**

**Google Maps API** for displaying local projects and geotagging.

**Payment Gateway API** (e.g., PayPal or Stripe) for donations.

**Chatbot API** (e.g., Dialogflow) for automated assistance.

**Hosting:**

Hosting solutions like GitHub Pages (for static content), Heroku, or AWS (for dynamic content and databases).

Netlify for continuous deployment and hosting.