India's Wildlife Management System Using IoT Technology

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Abstract— This research article aims to raise awareness and protect India's wildlife. It not only stimulates interest but also offers comprehensive details on a variety of endangered Indian fauna, including an overview of all the animal species found in India's forests. Consequently, it serves as a forum for wildlife conservation experts and ecologists to exchange insights and discuss current developments in the field. It fosters research and engagement in topics such as animal communication, habitats, issues related to wildlife health, the impact of climate change, and various natural disasters. It is a resource for individuals eager to learn about wildlife, providing accurate information on different species and their habitats, among other things. It also allows users to share captivating photos, videos, and presentations on Indian wildlife. Additionally, it helps members to create groups for organizing local gatherings, wildlife forums, magazines, wildlife camps, and to understand the behaviors of various wildlife species.

Index Terms- Biodiversity, Wildlife, IoT

I. INTRODUCTION

To raise consciousness and protect the wildlife of India. In addition to stimulating awareness, it will provide comprehensive details on numerous endangered Indian fauna and discuss all types of animals that inhabit the forests of India. Consequently, it will serve as a forum for wildlife conservationists and ecologists to exchange their insights and the latest developments in this area.

Biodiversity is a crucial element of the natural world, and India stands out for its rich variety of both wild animals and plants. However, the rapid pace of industrial growth, the swelling population, pollution, and the high demand for food, among other things, have resulted in the overuse and disappearance of several well-recognized species from the country. To halt the loss of these species, conservation measures have been put in place. Since 1930, India has launched various wildlife conservation initiatives, beginning with the creation of Jim Corbett National Park. The government has also launched numerous projects aimed at preserving the diversity of animal life and preventing the loss of species. Wildlife conservation involves efforts to safeguard species on the brink of extinction and their natural environments.

II. OBJECTIVE OF THE RESEARCH

The platform encourages research and engagement in topics such as animal communications, habitats, wildlife health, impact of global warming, and natural disasters. Users can take part in wildlife blogs, forums, internships, conferences, and awareness programs, and access recent wildlife success stories.

III. IDENTIFYING EXISTING RESEARCH GAPS

The current initiative fails to deliver essential information regarding wildlife, leaving individuals who seek knowledge about wildlife and its habitats without adequate resources. Furthermore, there is a lack of support for individuals to establish groups aimed at organizing local meetings, wildlife forums, publications, and wildlife camps. Additionally, there is no platform available for users to share captivating photographs, videos, and presentations related to Indian wildlife. Lastly, users do not have access to comprehensive information regarding career opportunities in the wildlife sector, including a list of universities that offer degrees, fellowships, and certifications in this field. It offers access to recent success stories in wildlife conservation, allowing users to engage in wildlife blogs, forums, internships, conferences, and various awareness initiatives.

IV. RESEARCH METHODOLOGY

The primary objective of this website is to enable users to search for animals and access comprehensive

information regarding various species, as well as to review wildlife regulations online. The site will feature static pages that provide project details, along with sections for Login, Registration, and Contact Information. Users will have the capability to search for animals and examine their specific details. This is a web-based application that is integrated with the website, encompassing functionalities for Animal Management, User Management, and Wildlife Acts. Users are categorized as Admins and are also integrated into the project framework. This application is designed to assist users who complete the registration process, allowing them to log in with a valid username and password to view their personal information and access all relevant wildlife regulations.

V. IMPLEMENTATION

The system after careful analysis has been identified to be presented with the following modules.

- Site Administrator
- Registered Users (Conservationists, Veterinarian, others)
- Anonymous Users
- Career opportunities, News Letter, Queries and Replays
- Authentication and Security

1. Site Administrator

In this module Site Administrator can accept/Reject the registration requests of the different users (Wildlife conservationist, veterinarians and wildlife enthusiasts). He can portray recent wildlife success stories with an opportunity for users to participate in Wildlife blogs, forums, internships, conferences and other awareness programs. He can add different types of animals (categories) and animal Names. He can upload animal images, files (videos, txt, Audio). He can post, delete a regular News-Letter. This News-Letter should be sent by registered users (Conservationist, veterinarians) to spread awareness.

2. Registered Users

In this module Registered Users (Wildlife conservationist, ecologists, veterinarians and wildlife enthusiasts) add, view event details. They can get the details about veterinaries contact details and conservationist addresses a contact details. They can view newsletter posted by registered users and get knowledge about animals. They can also upload animal images files, video files, documentaries. They can post queries to conservationist, veterinarians and get replies to their queries.

3. Anonymous Users

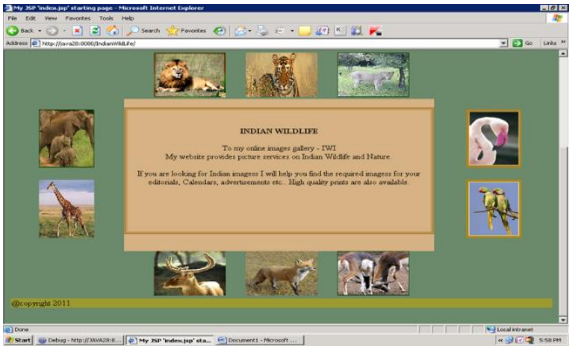
Anonymous user has the permissions to visit this site and get information about animals. They will get recent wildlife success stories with an opportunity for users to participate in Wildlife blogs, forums, internships, conferences and other awareness programs.

4. Career opportunities, News Letter, Queries and Reply

This module contains with various career opportunities in the field of wildlife, along with list of universities offering Wildlife Degrees, fellowships and certifications. It provides information wildlife education, education offering universities, recently posted animal related news.

5. Authentication and Security

The user details should be verified against the details in the user tables and if it is valid user, they should be entered into the system. Once entered, based on the user type access to the different modules to be enabled disabled and individual user.

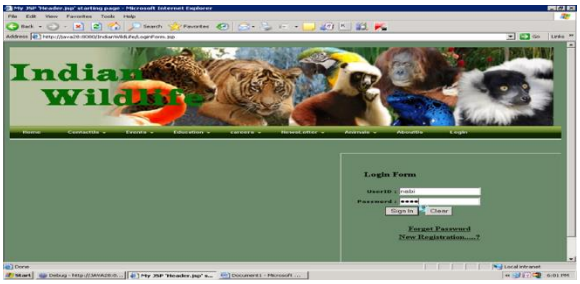


Home Page of Indian Wild Life

Description: It shows the home page details of Indian wild life.

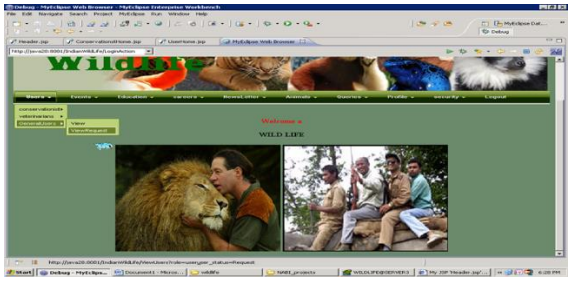
Conservationist Details for Indian Wild Life

Description: It shows the conservationist details of Indian wild life.



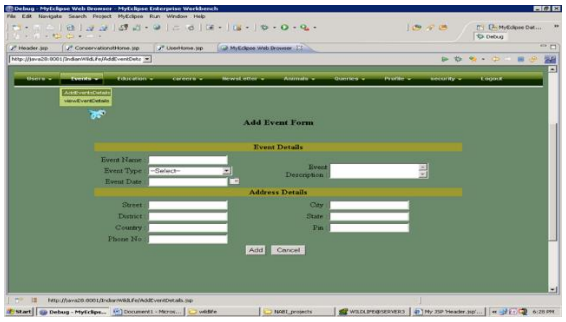
Login Form of Indian Wild Life

Description: It shows login form for Indian wild life.



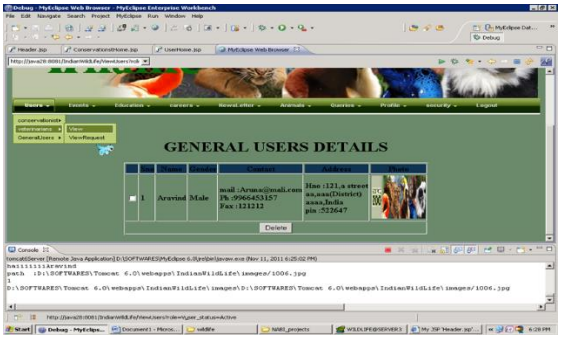
Welcome Page of Indian Wild Life

Description: It shows welcome page for Indian wild life.



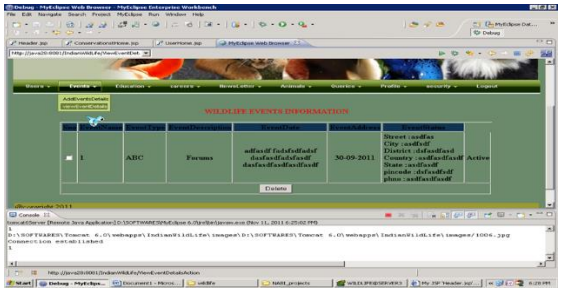
Add Event Form Page of Indian Wild Life

Description: It Shows add event form page for Indian wild life.



General User Details

Description: It shows General User Details in Indian Wild Life.



Wild Life Events Information

Description: It shows Wild life event information.

VI. CONCLUSION

In summary, I assert that the Indian Wildlife initiative has been successfully crafted and thoroughly evaluated for precision and quality. Throughout this endeavor, we have met all objectives, ensuring that the project fulfills the organization's requirements. The developed application will assist in searching,

retrieving, and generating information pertinent to specific requests. It is designed to provide details about wild animals to users who may not be familiar with them. Furthermore, it offers information on job vacancies for those seeking employment and aims to enhance awareness of wildlife. This application includes comprehensive data on the structure and classification of animals, as well as related information. It is designed to satisfy the needs of users interested in Indian Wildlife.

- Streamlined information retrieval process.
- Versatile and user-friendly.
- Extensive informational support for users.

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