S.D.M.E Society's

SDM COLLEGE OF ENGINEERING AND TECHNOLOGY DHAVALAGIRI, DHARWAD-580002

(AFFILIATED TO VISVESVARAYA TECHNOLOGICAL UNIVERSITY)

DEPARTMENT OF INFORMATION SCIENCE & ENGINEERING

Synopsis On

WILDLIFE WATCH

MINOR PROJECT-2
21UISL605

SUBMITTED BY,

PRADYUMNA P	**2SD21IS033**
VISHAL K SAKLATHI	**2SD21IS061**
PAVAN KALBURGI	**2SD22IS402**

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HOD-ISE **Project Coordinator**

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WILDLIFE WATCH

(A Comprehensive Wildlife Monitoring and Conservation Platform)

ABSTRACT

"Wildlife Watch" is a groundbreaking web platform and mobile app that empowers communities to actively engage in wildlife conservation while promoting responsible interaction with natural habitats. Through real-time wildlife sighting reporting, educational resources, and threat alerts, users can contribute to monitoring wildlife populations and protecting endangered species. By addressing gaps in existing systems and fostering community participation, WildlifeWatch emerges as a powerful tool for safeguarding biodiversity and ensuring the sustainable management of wildlife resources for generations to come.

INTRODUCTION

In an era of increasing human-wildlife interactions and escalating conservation concerns, the need for innovative solutions to monitor, manage, and conserve wildlife populations has never been more pressing. "Wildlife Watch" emerges as a pioneering web application aimed to revolutionize wildlife management and conservation efforts through its multifaceted approach. Through real-time wildlife sighting reporting, educational resources, and threat alerts, "Wildlife Watch" provides users with the tools and knowledge needed to monitor, protect, and preserve wildlife populations and their habitats.

Our platform emerges as a response to the inadequacies inherent in existing wildlife management systems. While some platforms may offer limited functionalities for reporting wildlife sightings or providing educational resources, they often lack the integration, scalability, and real-time capabilities necessary to address the complex challenges facing wildlife conservation today. From fragmented data collection methods to a lack of community involvement, the shortcomings of current systems underscore the urgent need for a more holistic and user-centric approach. As we embark on this journey to reimagine wildlife management and conservation, our platform stands poised to revolutionize the way communities engage with and protect our wildlife community. With a focus on innovative features, transformative capabilities, and the profound implications it holds for the future of wildlife conservation.
Our project aims to build a comprehensive Wildlife Monitoring and Conservation Platform.

PROBLEM STATEMENT

Traditional wildlife monitoring methods face challenges such as resource constraints and limited real-time data, hindering effective conservation efforts. There's a disconnect between conservation initiatives and public engagement, with few opportunities for active participation. Our project "Wildlife Watch" aims to bridge these gaps by developing a web application that facilitates real-time wildlife monitoring, encourages community engagement, and provides educational resources, fostering a collaborative approach to wildlife conservation.

HARDWARE AND SOFTWARE REQUIREMENTS

SOFTWARE REQUIREMENTS:

- ReactJS for frontend framework
- NodeJS for server side
- Android Studio / Flutter
- Firebase / MongoDB for database storage

HARDWARE REQUIREMENTS:

- 4GB of RAM Laptop and android phone
- Minimum 500GB Hard disk

OBJECTIVES

- To create an intuitive and accessible web platform that allows users to easily log wildlife sightings, track movement patterns, and be safe.

- To implement feature to enable real-time monitoring of wildlife movement and sightings, providing users with timely notifications and alerts.

- To Promote Public Awareness and Education by providing educational resources, articles about Wildlife conservation and endangered species preservation to raise public awareness and promote environmental stewardship.

- To establish a platform for users to provide feedback, suggestions, and reports of wildlife or conservation concerns, facilitating continuous improvement and responsiveness to community needs.

PROPOSED METHODOLOGY:

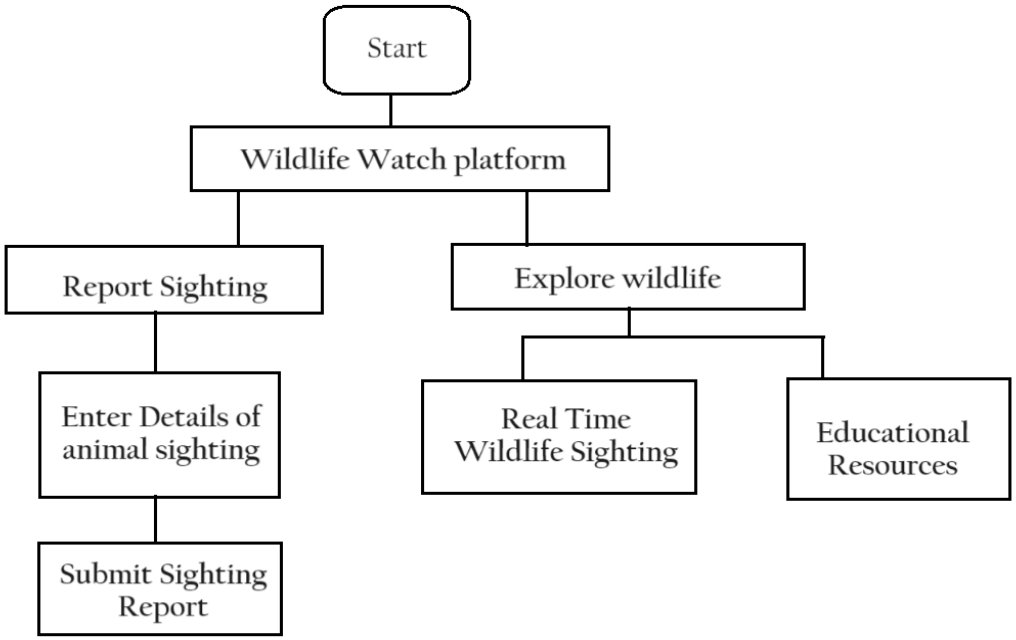
“Wildlife Watch" is designed to make it easy for people to track and protect wildlife and themselves. With Wildlife Watcher,

→users can quickly report sightings of animals they encounter
→they can share where they saw the animal, what type it was, and at what time
→and even upload pictures of the animals.

These reports help create a map showing where different animals are being spotted, which can be used to understand their movements and plan conservation efforts.

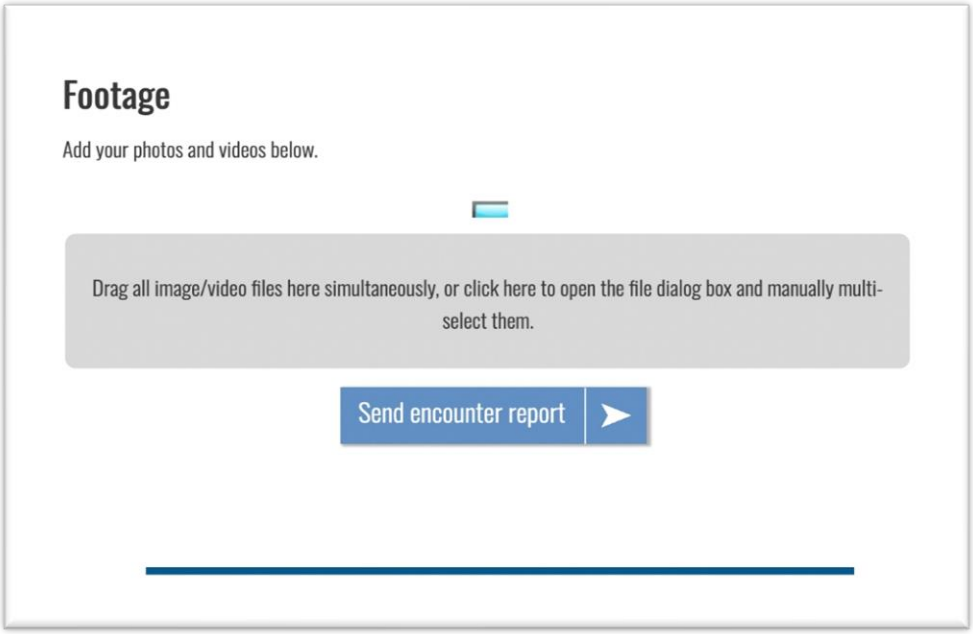
Wildlife Watcher isn't just about data – it's also about bringing together a community of nature lovers, scientists, and conservationists. By sharing information and working together, we can better protect wildlife and their habitats. With Wildlife Watch, everyone can play a part in saving our planet's amazing animals.

Here is the Flow chart of our project which outlines the features / steps involved

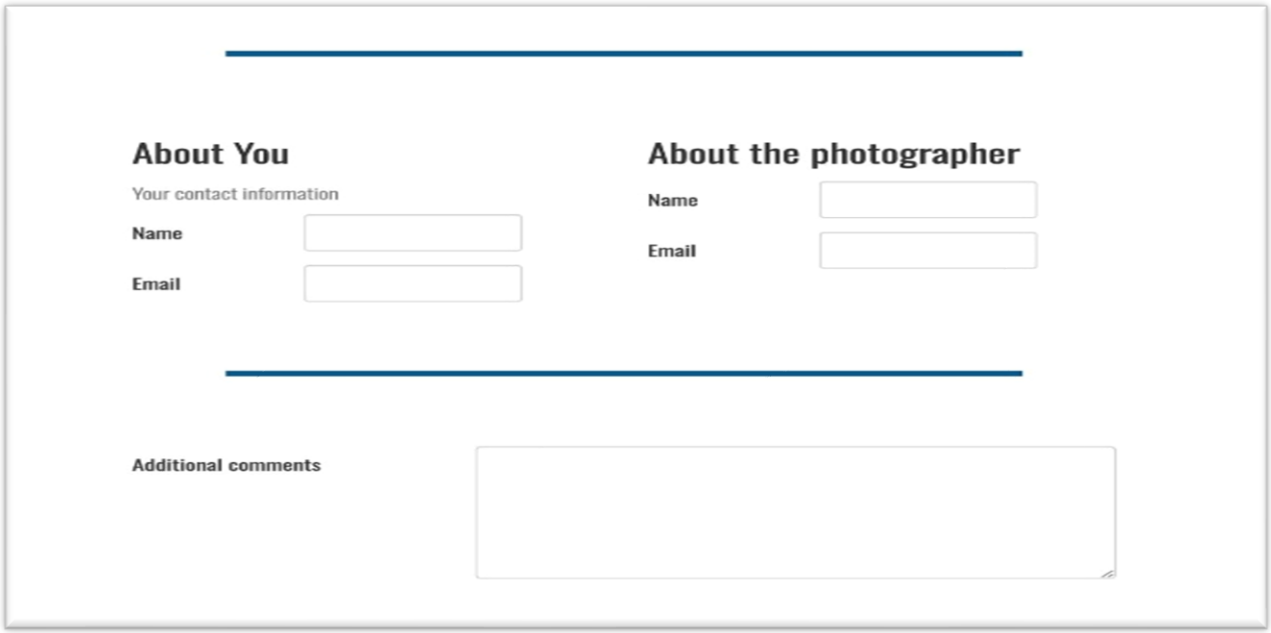


EXPECTED OUTCOME OF THE PROPOSED WORK

a. Demo layout to add images of wild animal sightings



b. Demo layout to fill info of user (sighter)



APPLICATION

- "Wildlife Watch" will enable more comprehensive and real-time monitoring of wildlife populations, contributing to a better understanding of their distribution, movement patterns, and habitat preferences.

- By analysing the wildlife movement through the Web Application one can protect themselves from the wildlife, hence no harm to both community and wildlife.

- The data collected through Wildlife Watcher will inform conservation planning and management decisions, helping to identify priority areas for protection, mitigate human-wildlife conflicts, and implement targeted conservation strategies.

CONCLUSION

The development of our wildlife management web application marks a significant advancement in our commitment to conserve and protect both wildlife and the people who inhabit their environments. By establishing a user-friendly platform that empowers individuals to actively participate in wildlife monitoring and conservation efforts, we cultivate a shared sense of ownership and responsibility for the natural world. In conclusion, through features such as real-time reporting of wildlife sightings, access to educational resources, and a focus on saving endangered species, our platform not only enhances our understanding of wildlife but also fosters deeper connections between people and their surroundings.

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