**Software Requirements Specifications**

**Problem statement:**

**Wildlife Conservation awareness platform**

**DRAGON BOOSTERS**

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**Introduction:**

A Wildlife Conservation Awareness Platform is an initiative designed to educate and engage the public on the importance of protecting wildlife and their natural habitats. It aims to create a strong connection between people and the environment by raising awareness about the threats that wildlife face and the urgent need for conservation efforts.

* 1. **Purpose:**

Raise awareness about the importance of wildlife conservation and the threats faced by species and ecosystems. This includes educating people about endangered species, habitat loss, climate change, poaching, and other factors affecting wildlife.

* 1. **Intended Audience:**

The Wildlife Conservation Awareness Platform is a comprehensive resource designed to engage a wide range of individuals and organizations dedicated to the protection of nature. Our platform is open to:

**Students & Educators:** Those eager to expand their knowledge on wildlife conservation, biodiversity, and sustainable practices. Educators will find valuable resources to enhance their lessons.

**Environmental Enthusiasts & Nature Lovers:** Individuals who have a deep appreciation for wildlife and are interested in learning how they can contribute to conservation efforts.

Conservation Professionals & Researchers: Scientists, ecologists, and conservationists who are looking to share their expertise, collaborate with others, and stay informed on global conservation initiatives.

**Wildlife Photographers & Filmmakers:** Visual storytellers who use their craft to showcase the beauty of nature and raise awareness about the threats facing wildlife.

**Policy Makers & Environmental Advocates:** Government officials, NGOs, and activists who are dedicated to developing policies and laws that protect endangered species and their habitats.

**Community Leaders & Volunteers:** Individuals who are passionate about engaging their local communities in conservation projects and wildlife protection activities.

**Corporate & Business Leaders:** Companies that are committed to sustainable practices, corporate social responsibility (CSR), and supporting conservation programs.

**General Public:** Anyone who has a love for nature and a desire to make a positive impact, regardless of their background.

* 1. **Project Scope:**

The Wildlife Conservation Awareness Platform aims to educate, engage, and inspire individuals and organizations to take action in protecting wildlife and preserving natural habitats. This project will focus on key areas of conservation awareness, outreach, and community involvement.

**1.4 Assumptions and Constraints**

* The chatbot will require an active internet connection.
* Users may have different levels of knowledge about wildlife conservation.
* Initial launch will support text-based interactions, with voice and image recognition added in later updates.

**2. Functional Requirements**

**2.1 Chatbot Features**

* Interactive Q&A: Answer user queries on conservation topics.
* Educational Content: Share facts, articles, and research materials.
* News & Updates: Deliver real-time conservation news and alerts.
* User Guidance: Provide information on volunteer programs, events, and donation opportunities.

**2.2 User Authentication & Profiles**

* Guest users can access general information.
* Admin users can update chatbot responses and manage content.

**2.3 Integration & Accessibility**

* Responsive UI for web and mobile platforms.

**3. Non-Functional Requirements**

**3.1 Performance**

* Chatbot should respond to user queries within 2 seconds.
* Must support concurrent users without performance degradation.

**3.2 Security**

* Data encryption for user interactions.
* Secure login for registered users and admin roles.

**3.3 Scalability**

* The chatbot should handle increasing user traffic as the platform grows.

**3.4 Usability**

* Simple, user-friendly interface for all age groups.

**4. System Requirements**

**4.1 Hardware Requirements**

* Server with cloud-based hosting support.
* Minimum 8GB RAM and scalable storage for high availability.

**4.2 Software Requirements**

* Frontend: React
* Backend: Python with Flask
* Database: PostgreSQL for user data and chatbot responses.
* AI & NLP Engine: RASA
* Hosting: AWS/Heroku/Render

**5. Deployment & Maintenance**

* Initial beta release for testing with a small user group.
* Continuous learning model to improve chatbot responses over time.
* Regular updates for adding new features and improving performance.