Mentor
Scott Robert Larocca

Forest Frames

Design Review

Dalton Tippings

Daniel Austin

Nick Greco

Problem Statement

Rural and more isolated parts of the world are more likely to experience degradation of its biodiversity due to a lack of conservation efforts.

- Less reported on areas due to a lack of funding or resources
  - Malaysia, Kenya, Colombia

- Citizens are not incentivized or lack resources to be collecting data themselves
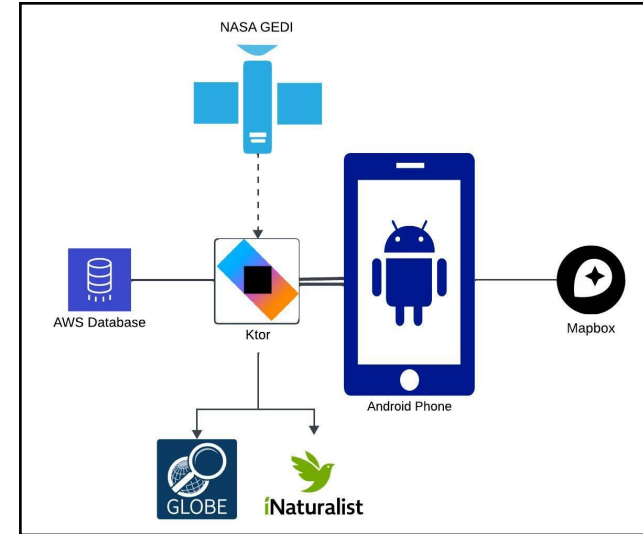
Dr. Camille Gaillard

Not Pictured
Dr. Chris Doughty
Dr. Duan Biggs
Dr. Jenna Keany

Solution Overview

- Our solution is a mobile app that is easily available to our target market

- We intend on making an efficient and preformant mobile application

- Users of our app will be able to upload data to a remote server where it will be verified through outside services

- Verified data will then be pass off to other science organizations

Key Requirements

Requirements gathered in meetings with the client & personal research

User and Functional Requirements

- Collect visual and audio data natively

- App to server data transfer

- Verification of User Data

- Offline Functionality

- Provide accurate data to other conservation organizations
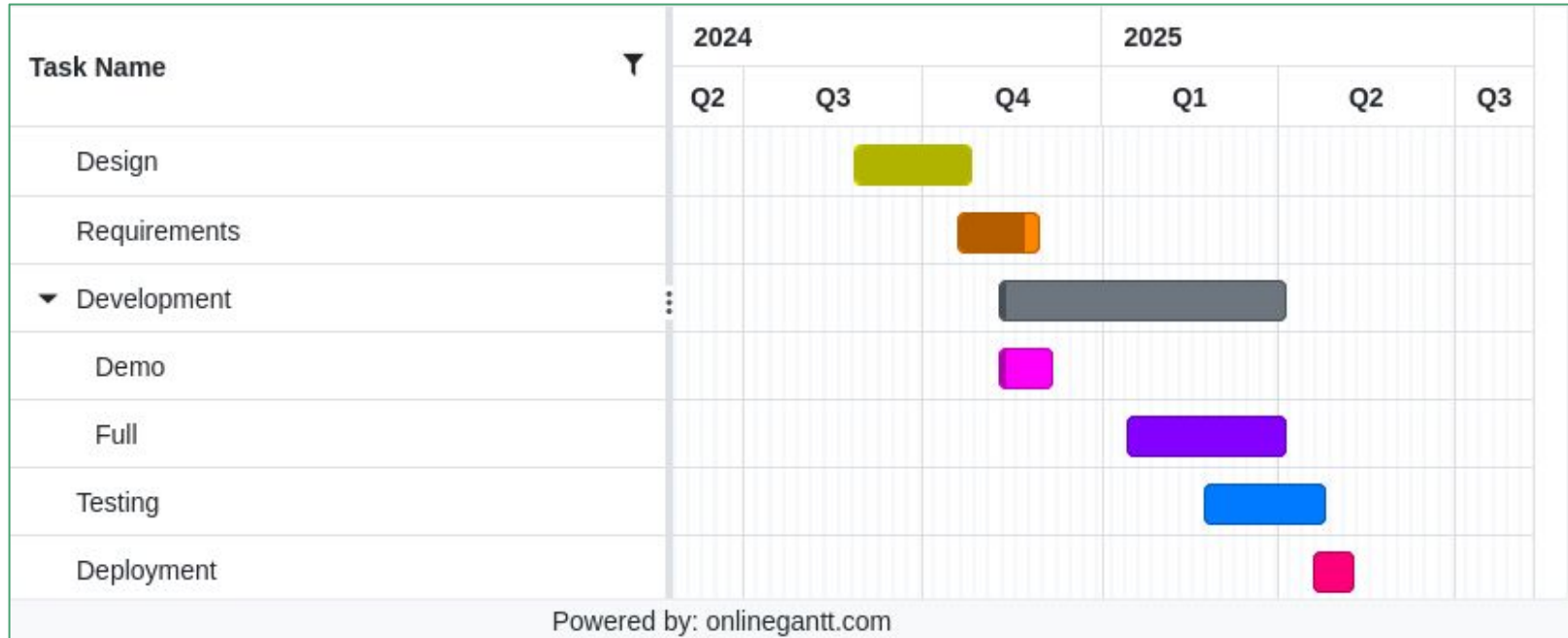
Key Requirement Breakdown

Collect visual and audio data natively

- Data needs to be collected natively on a users camera and microphone

- Optimize data to be stored locally on user device using minimal storage

- Encrypt data to prevent data tampering

Risks and feasibility

- Failures of verification
  - False positive - Data that was fraudulent was deemed authentic and reliable and passed verification checks
  - False negative - Data was authentic and reliable but failed our verification tests
- Mitigation
  - Significant testing of the verification will be done to ensure that our algorithm is accurate
  - Using these tests an optimal "verification threshold" will be established
- Feasibility
  - It is impossible to completely prevent these errors from occurring but reducing the frequency of these errors can be done through the use of accurate outside services

Schedule

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Completed: Design Phase
In Progress: Requirements & Development (Demo)

Closing

- Our app will improve the accessibility of ecological citizen science to many areas unable to participate in it previously

- We look forward to how this project will evolve over development

- Currently in Requirements/Demo phase

Thank you for listening to our presentation