MadKudu Work sample - Full-stack Engineer

Project description

Create a Node.js dataviz web app that displays statistics about antelopes species.

Use case: We Kudus want to compare ourselves to other antelopes species. And because we love data and software, we want to use a web app for this.

Why this project

The objective is to discover how it would look like working together on a project. This project is close to the kind of things you would be tackling at MadKudu. Feel free to use the JS libraries you want.

Instructions

We will follow a simplified development lifecycle:

1. Discussion on the PRD (Product Requirement Document)
2. Creation of a lightweight Spec (a.k.a Technical Requirement Document)
3. Proof of Concept (POC) implementation with possible iteration over the PRD or TRD

The goal of this project is to get to know each other. We don't need to do the full lifecycle, ie. there is no need for pushing the end-code to production.

Please do as much or as little as you want. **Expectations is to spend between 2 and 4 hours** of work to document a TRD (1-2 pages) and build a functional POC.

How to make this project fun and effective

Here are some tips:

- This documentation is a starting point and we've deliberately left gaps. So feel free to ask clarifying questions and communicate regularly, the same way you would do in a team.
- Iterate often and fast. Throw your notes in your spec. The idea of using a spec is to explore quickly different technical design ideas and communicate on them.

Product Requirements

Input data

Use the dataset of antelopes species available here:

https://s3-us-west-2.amazonaws.com/team.madkudu.com/species.json

Page components

- **Table containing the antelopes data**

- **Graphical charts:** represent the data as you think it's the most relevant. Don't hesitate to manipulate or aggregate the data, be creative! You can also propose user actions (with buttons, dropdowns, fields, etc.) if you think it's important.

This is an exercise

The code you will produce is part of our technical interview process. You obviously own full property on everything you produce.