2021

IMPACT WEATHER

Proposal of project

ImpactWeather

Mobile/Web Software of environment monitoring, and climatic.

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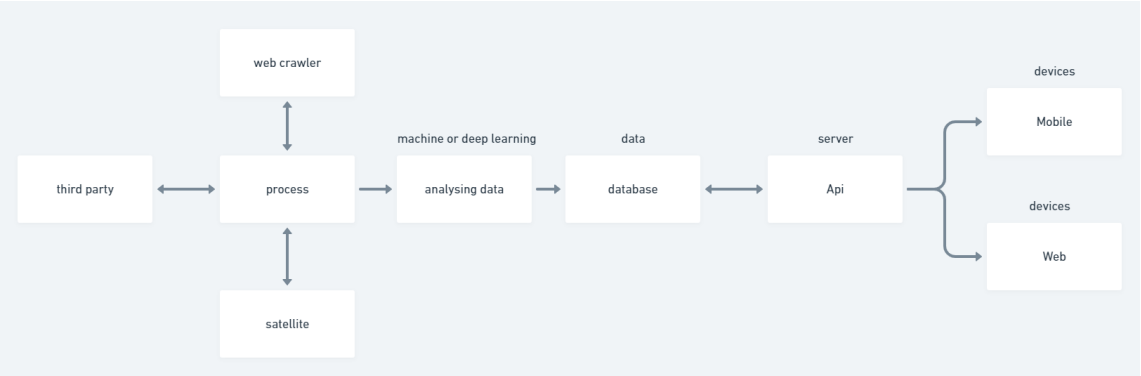
WARNING: THINGS ARE HEATING UP!

Heat stress intensity duration levels, nearby forest fires (according to the region registered in the user login), nearby storms, floods, air pollution/quality, damage to crops, shortage of water, energy, and estimates of human/environmental potentials and impacts;
Warnings and notifications (alert and risk events) about potential impacts next, according to location, guidance on intuitive and didactic mitigation measures, and awareness of global warming and disasters. The impacts of climate change and natural disasters are evident globally. Heatwaves, storms, lack of rain, and droughts are increasing frequency and intensity, due to pollution, deforestation, and global warming, thus causing impacts to billions of dollars in societies, and, becoming increasingly worrying, because of the downfall and damage to social and economic structures.
In addition to the scarcity of concise information and simple to residents of regions/cities/counties at risk, who are not readily accessible in the form of notices and events. The solution to this problem is the development of a global mobile and web software, of environmental and climate monitoring, which enjoys Earth Observations (EO), with the analytical analysis of satellite data, sensors (metrics), and crowdsourcing data (information and opinions posted by users in the application's open community), where each user, in your region (registered at login), shares information about environmental conditions and weather, returned to users in the software dashboard, in the form of graphics, with forecasts and statistics, which can mediate in the decision of prevention/mitigation measures for ensuring safety and well-being during natural disasters and related climate change to heat/air that affects human health and environmental and ecological systems

Flowchart and business rule



Information on the software dashboard, updated in real-time:

- Heat stress intensity duration levels, nearby forest fires (according to the region registered in the user login), nearby storms, floods, air pollution/quality, damage to crops, shortage of water, energy, and estimates of human/environmental potentials and impacts;

- Warnings and notifications (alert and risk events) about potential impacts next, according to location, guidance on intuitive and didactic mitigation measures, and awareness of global warming and disasters

DESCRIPTION OF THE ARCHITECTURE AND TECHNICAL CHARACTERISTICS OF THE PROJECT

UI/UX PROTOTYPE:
- FIGMA

ARCHITECTURE DESCRIPTIONS:
- CLEAN ARCHITECTURE
- MICRO SERVICES (SEPARATE RESPONSIBILITIES)

TECHNOLOGIES:
- JAVASCRIPT
- REACT.JS (SINGLE PAGE APPLICATION)
- NODEJS
- PYTHON

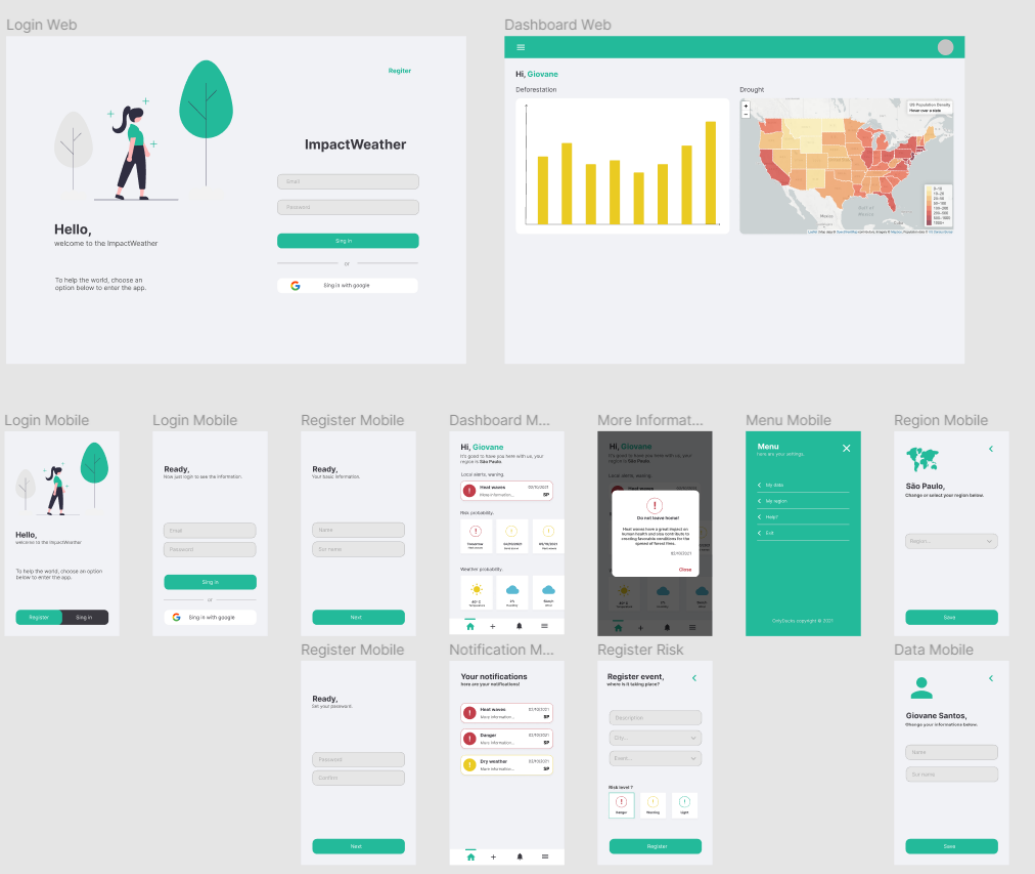
DATABASE:
- RELATIONAL - MYSQL: USER DATA
- NON-RELATIONAL - MONGODB: PROCESS DATA

SERVICE:
- ONLINE

Technical Characteristics:

Ui/Ux application prototype in Figma, software in JavaScript, using the React.JS framework, by the account of its large-scale economy, and high-performance rendering, where will it be possible what several users access simultaneously, as the user will not need to storage space on a mobile device or desktop will also be used Node.Js - API of customer response and real-time update. You processes will be developed in Python for being a great backend development language of processes, Machine, Deep Learning, and Web Crawler.

Prototype Ui/Ux - Figma



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