

FIRELAB

CONSTRUCTION PHASE

Projeto em Informática
DETI LEI 2020/21

Group 2

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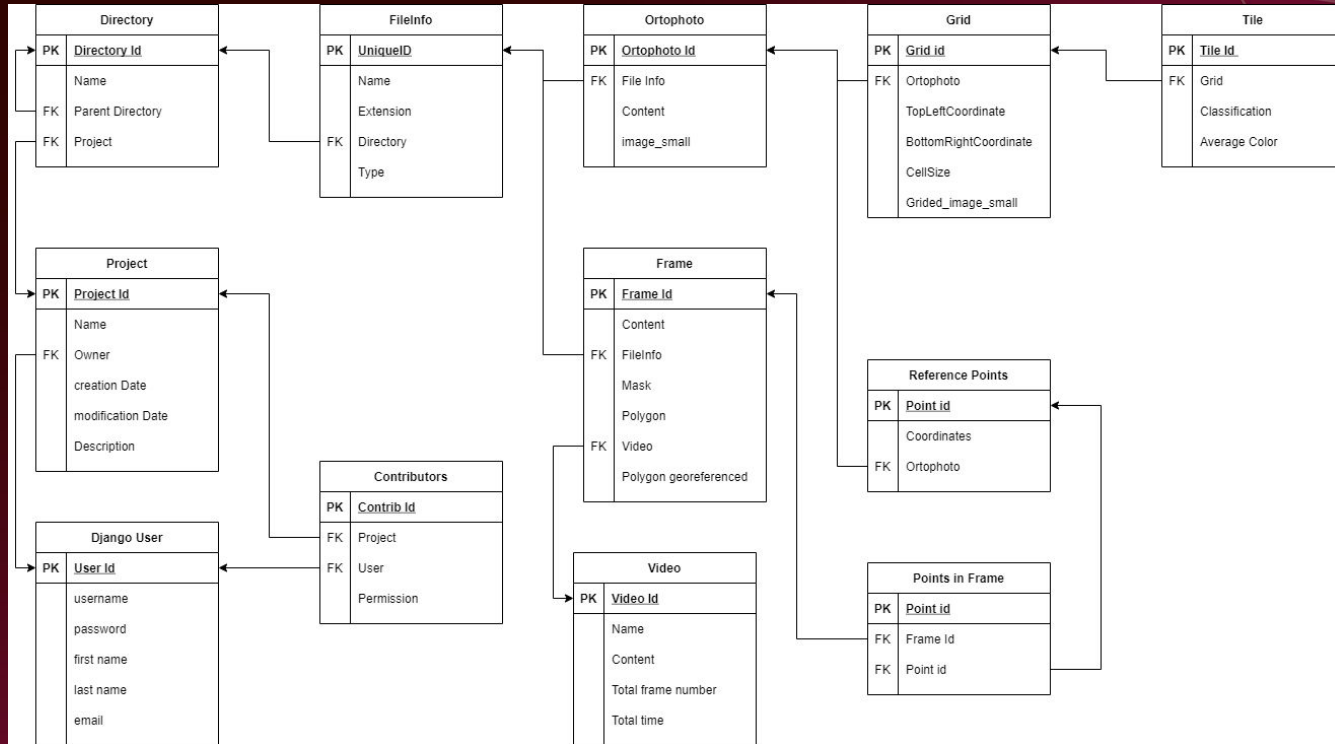
Advisors:

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DATABASE DIAGRAM



WORK DEVELOPED

- Orthophotomap Processing [80%]
 - Creating grid
 - Segmenting orthophotomap
 - Automated classification
 - User Input

No Vegetation (1-20%)	Red	👁
Low Vegetation (21-50%)	Yellow	👁
Medium Vegetation (50-80%)	Green	👁
High Vegetation (81-100%)	Dark Green	👁



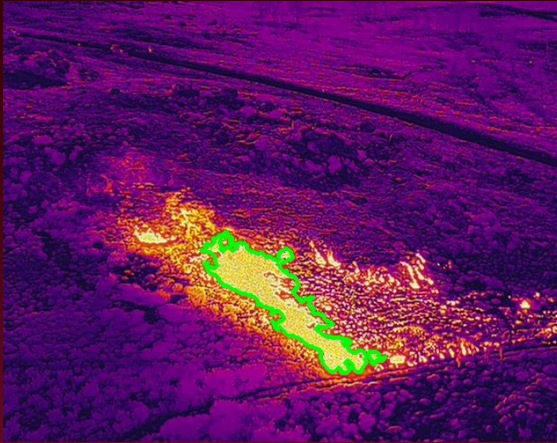
Automated classification using Euclidean Distance



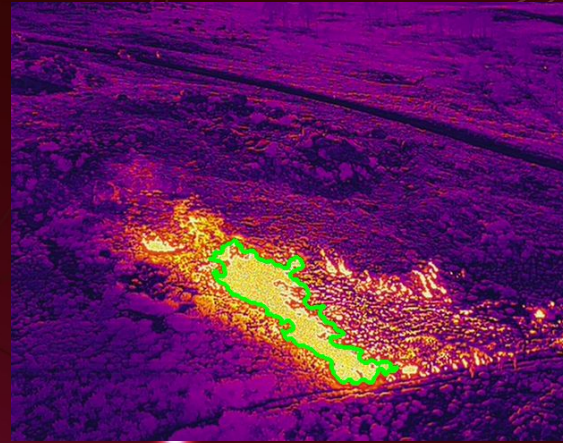
Automated classification using CIE2000 color conversion

WORK DEVELOPED

- Web application that integrates all the modules [85%]
- Recognition and Extraction of the shape of the Burnt Area [90%]



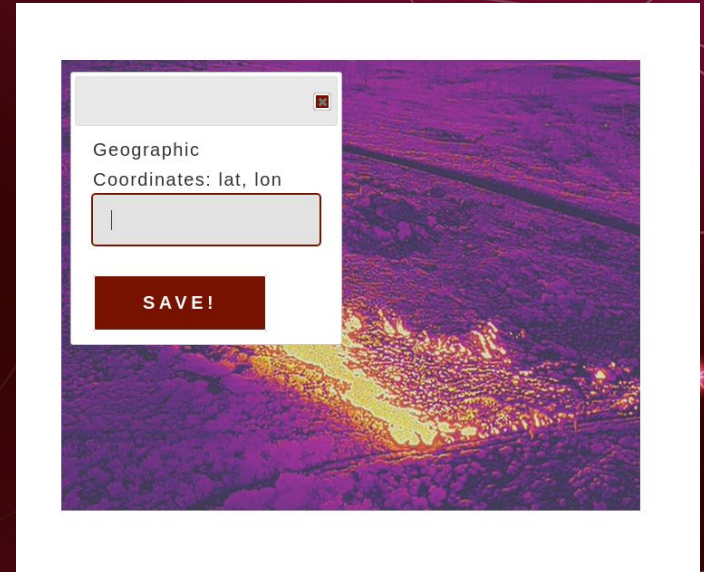
Segmented polygon without dilate followed by erode



Segmented polygon with dilate followed by erode

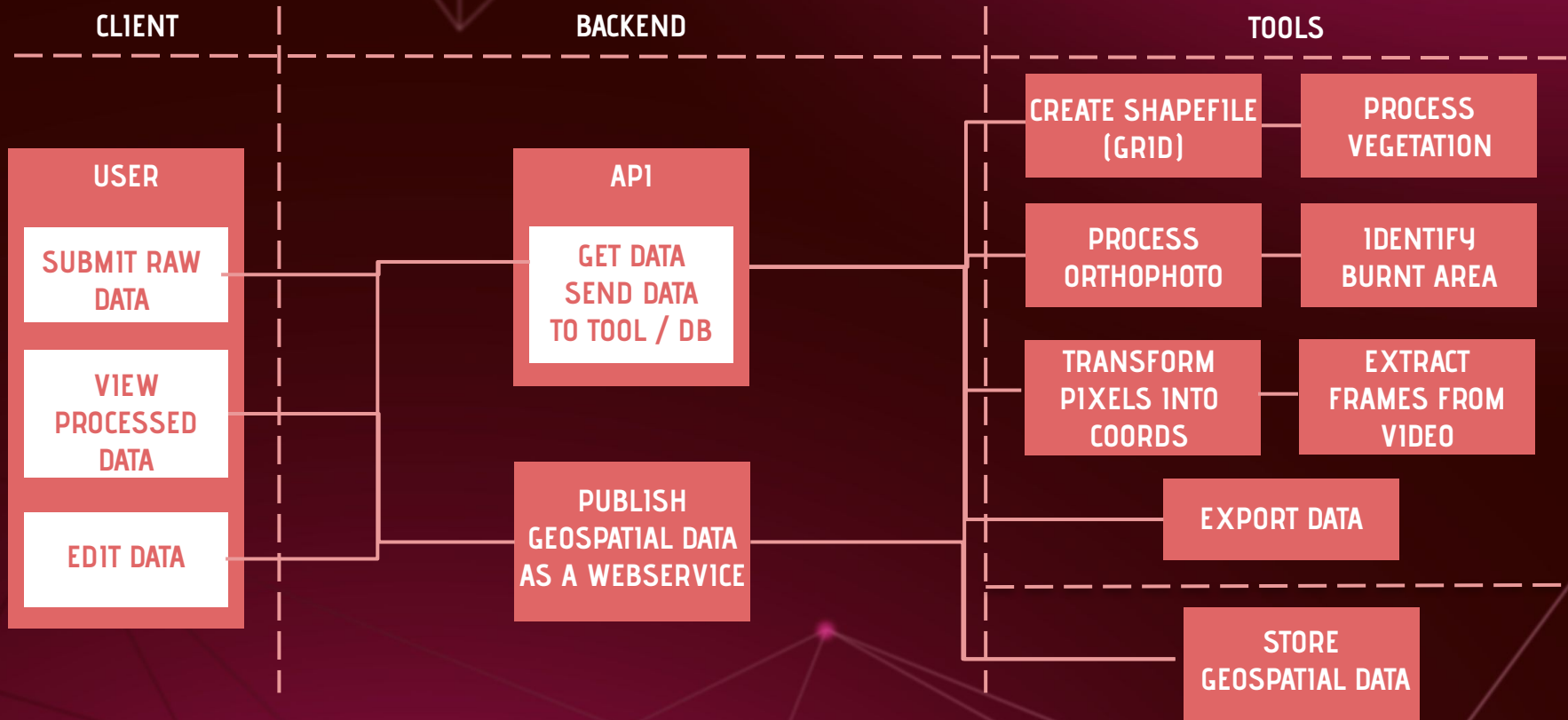
WORK DEVELOPED

- Georeferencing [65%]
 - Assign corresponding longitude and latitude to pixels in a frame
 - Import file with polygon coords
 - Georeferencing polygon
- Visualization of the firefront evolution [80%]
 - GIF-Style animation with the corresponding polygons



Assigning lat, lon to the clicked pixel

[UPDATED] MODULAR ARCHITECTURE VIEW



CALENDAR PROGRESSION

MILESTONE 1 22/03/21		MILESTONE 2 12/04/21 & 19/04/21		MILESTONE 3 10/05/21 & 17/05/21		MILESTONE 4 14/06/21 & 21/06/21		STUDENTS @DETI
✓	1 week	✓	3 week	✓	4 week		5 week	
	Context & Calendar Lifecycle Objectives Website		Project Architecture Requirements analysis, use-cases, user stories Task 1 #1 + Task 3 #1 + Task 5 #1 + Task 4 #1		Product development. Initial prototype and experimentations. Task 2 #1 + Task 3 #2 + Task 5 #2		Complete development of all functionalities. Technical Report. Task 4 #2 + Task 5 #3	
							Product Release Public version available Small fixes to ensure stability.	

Task 1 → Vegetation Processing

Task 2 → Burnt-Area Segmentation Task 4 → Data visualization and export

Task 3 → Georeferencing Task 5 → User-Friendly Interface

SITE DEMO

NEXT STEPS



Implement tool to export
data into the specific formats



Implement system
administration mechanisms



Improve the already
implemented modules

THANK YOU FOR YOUR TIME!

QUESTIONS?