

PROJECT DESCRIPTION

Global Trade Visualizer

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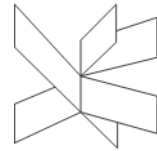
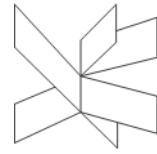


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1. Background description

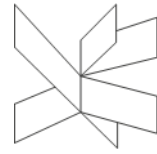
In today's world, free trade stands as the main building block of a modern society. "Free trade is a trade policy that does not restrict imports or exports. It can also be understood as the free market idea applied to international trade." (Wikipedia: The Free Encyclopedia, 2020)

"Most nations are today members of the World Trade Organization multilateral trade agreements." (Wikipedia: The Free Encyclopedia, 2020)

People working in international trade and supply chain, focus on analyzing these kinds of agreements to draw insights that can be helpful in both private business' and government's future endeavors. (Carr, 2019)

"International trade is the exchange of goods and services between countries. It gives rise to a world economy, in which supply and demand, and therefore prices, both affect and are affected by global events." (Heakal, 2019)

Therefore, all accounts of imports and exports within international trade are important to them, however due to the global scale of trade, the data generated from these transactions are hard to decipher because they are too detailed. For something as simple as tracing how a specific product was traded, they must sift through a lot of information, and often it is hard to "read".



“A product that is sold to the global market is called an export, and a product that is bought from the global market is an import. Imports and exports are accounted for in a country’s current account in the balance of payments.” (Heakal, 2019)

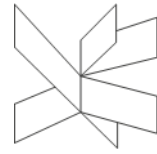
Having a way to visualize the trade of products without dedicating too much time in gathering and processing the required data can be of use to all parties involved.

An interactable top-down map view of the world that allows users to select countries and then present the data about imports and exports through visually displayed links to other countries, on that same map, would be more user-friendly and intuitive to use than providing only the usual graphical representation of data by symbols, lines, bars and pie charts used in most programs that deal with such data.

Furthermore, the parties will be provided with easy to understand means of interaction with the data, as for example being able to select certain products, certain years or both.

The map view would then be updated according to the filters applied by the user.

Exploring imports and exports data can be made easier and more enjoyable by combining different technologies to create intuitive and interactable visualizations.



2. Definition of purpose

The purpose of the product is to give a person the opportunity to draw insights from detailed information about international imports and exports.

3. Problem Statement

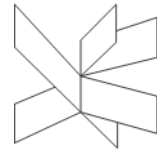
Below, there are some overall questions that encompass the final goal of the project.

Overall Question: How to present, in a user-friendly manner, trade information between countries?

Sub-Question: How to select relevant data provided by external provider?

Sub-Question: How will the relevant data be stored?

Sub-Question: How will the components communicate between each other?

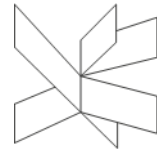


4. Delimitation

- The system will not make predictions on current data
- The system will not handle planning of supply chain
- The system will not contain all internationally recognized countries

5. Choice of models and methods

What?	Why?	Which?
How to select relevant data provided by external provider?	To programmatically access online information.	Any officially recognized source of information on the subject (ex: WITS)
How will the relevant data be stored?	To reduce strain on information providers.	Import and Export data between countries
How will the components communicate between each other?	To ensure scalability and maintainability.	REST APIs with rendering application primarily.



5.1. Project Management

Methodology: lightweight version of SCRUM

- Flexible Sprint duration
- Burndown Chart
- Backlog
- Sprint Planning Meeting

Task Management: Azure DevOps

Version Control: GIT

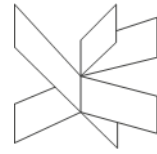
Group Communication: Discord

Reference Control: Mendeley

Documentation: Microsoft Word, LaTeX

5.2. Test Strategy

- Unit Tests
 - Individual classes are tested to ensure no existing feature is broken.
- Usability Tests
 - Success of specific scenario



6. Time schedule

6.1. Milestone Description

Milestones	September		October		November		December	
	Sprint1	Sprint2	Sprint3	Sprint4	Sprint5	Sprint6	Sprint7	Sprint8
1								
2								
3								
4								
5								

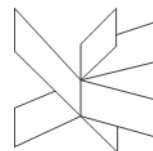
1. Project Analysis Section done by the whole team by the end of September because it is part of the project report that must be handed in.

2. Project Design Section done by the whole team by the middle of November because it is part of the project report that must be handed in.

3. Proof of Concept showcasing the visualization of trade data between multiple countries by the end of October to ensure the goal of the project is attainable.

4. Project Implementation and Testing by the middle of December because it is part of the project report that must be handed in.

5. Project Report and Process Report by the middle of December because it is a part of the final hand in.



6.2. Important Dates

25 ECTS = 687.5 Hours per Student

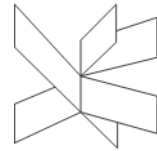
2062.5 hours in total (3 students)

Project Period start: 7th of September 2020

Project Deadline: 18th of December 2020

7. Risk assessment

Risks	Description	Likelihood Scale 1-5 5 = high risk	Severity Scale 1-5 5 = high risk	Risk mitigation e.g. Preventive & Responsive actions	Identifiers	Responsible
Risk not to meet the requirements	Lack of time, poorly made schedule, insufficient knowledge;	2	5	Preventive: Proper management of the requirements; Respect the schedule; Responsive: Accomplish what was agreed on;	Being behind the schedule;	Andrei
Technical issues	Software crashes, broken computers, unsaved files;	3	5	Preventive: Having everything backed up on GitHub; Responsive: Restore data from GitHub;	Corrupt data;	Claudiu
Group conflicts	Fights and disagreements between members;	1	4	Preventive: Follow Group Contract; Responsive: Try to compromise;		Stefan



8. Bibliography

Carr, W., 2019. '*Imports and Exports: The Benefits of Utilizing Trade Data*'. [online] Available at: <<https://blog.marketresearch.com/imports-and-exports-the-benefits-of-utilizing-trade-data>> [Accessed 19 Mar. 2020].

Heakal, R., 2019. *What Is International Trade?* [online] Available at: <<https://www.investopedia.com/insights/what-is-international-trade/>> [Accessed 19 Mar. 2020].

Wikipedia: The Free Encyclopedia, 2020. '*Free trade.*' [online] Available at: <https://en.wikipedia.org/wiki/Free_trade> [Accessed 19 Mar. 2020]