

Uncovering Logistics Opportunities in the EU

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<https://github.com/willhendrickk/sql-project>

- **To** Leverage supply chain inefficiencies
- **For** global e-commerce businesses
- **By** analyzing logistics indexes and costs



From Job Posting to Project

Full job description

Planetart is looking for a talented, driven, and highly analytical, Logistics Data Analyst to join our Operations and Supply Chain team. The candidate will have strong analytical skills and using data to drive business decisions and reduce cost. The candidate will have knowledge and experience with major Carrier ship options and packaging guidelines. The candidate should have experience with international freight (UK/EU) as well as domestic shipping for international territories.

Key Responsibilities:

- Execute analysis to uncover areas of opportunity and present business recommendations
- Develop tool to monitor worldwide ship method
- Develop automation for freight cost reporting
- Discover the most cost-effective shipping modes

The logo for PlanetART, featuring the word "Planet" in a black script font and "ART" in a black serif font, with a registered trademark symbol (®) to the upper right of the "T".

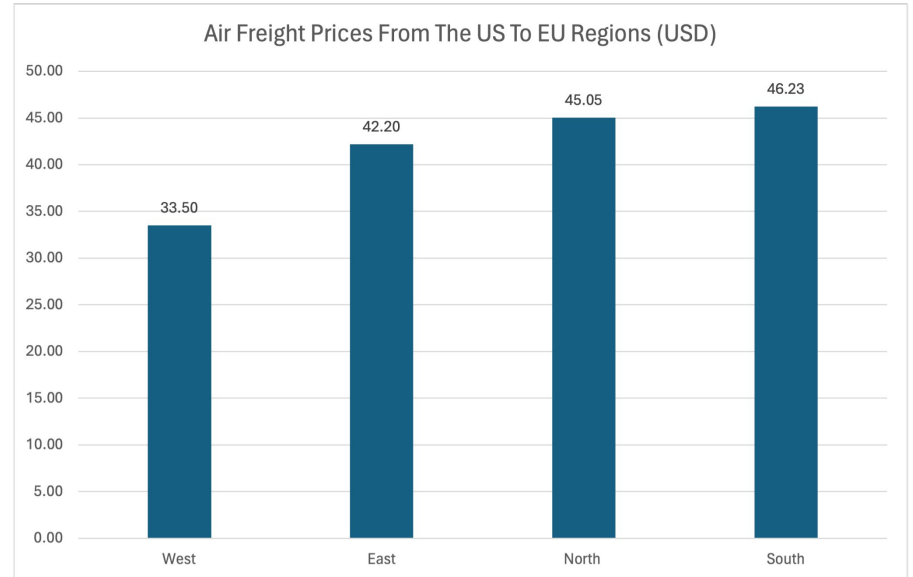
PlanetART®

OpenAI API and Freightos API

- Use OpenAI completions API to answer knowledge base questions
- Obtain multiple data in a few seconds by looping the subject of the prompt
- Use Freightos freight rate estimator API
- Data collected from OpenAI API is used as the inputs to the Freightos API

API Descriptive Analytics SQL Query

Business Question: Which EU region (not including Cyprus) has the lowest average air freight price estimate according to Freightos?



API Descriptive Analytics SQL Query

Insight: Air freights to the west region of EU has the lowest average price estimate.

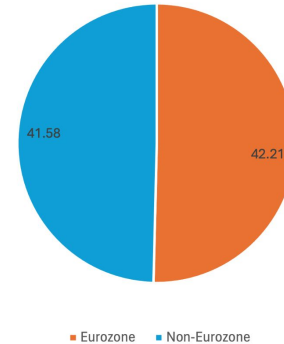
Recommendation: Target customers in the west region of the EU.

Prediction: Lower cost = more margins.

API Diagnostic Analytics SQL Query

How does the price of air freight in non_Eurozone countries compared to those in the Eurozone (not including Cyprus)?

Air Freight Prices From The US (USD):
Eurozone Vs. Non-Eurozone Countries



API Diagnostic Analytics SQL Query

Insight: Eurozone does not impact air freight prices.

Recommendation: Focus on other factors that affect costs.

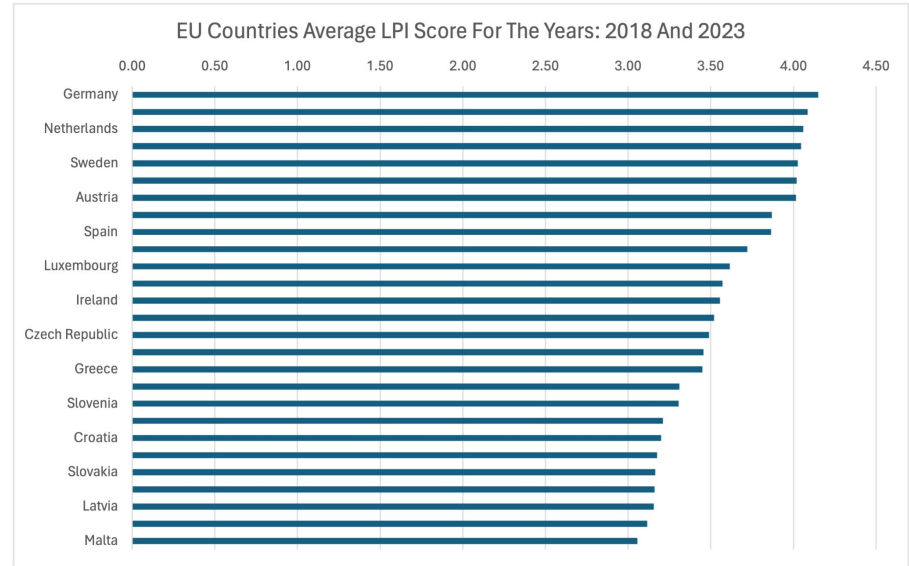
Prediction: More cost-saving opportunities.

Web Scraping with BeautifulSoup

- Scraped a list of the EU countries
 - <https://www.britannica.com/topic/European-Union>
- Scraped the GDP of the EU countries
 - [https://en.wikipedia.org/wiki/List_of_sovereign_states_in_Europe_by_GDP_\(nominal\)](https://en.wikipedia.org/wiki/List_of_sovereign_states_in_Europe_by_GDP_(nominal))
- BeautifulSoup allows HTML parsing

Web Scraped Descriptive Analytics SQL Query

What is the average Logistics Performance Index score for each EU country for the years 2018 and 2023, and how do they rank against each other?



Web Scraped Descriptive Analytics SQL Query

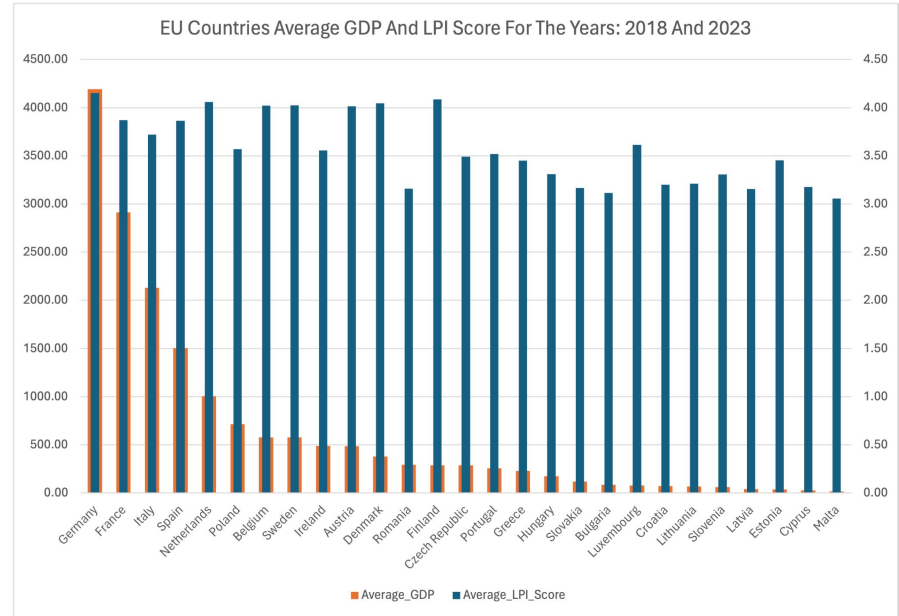
Insight: Germany has the highest LPI score among all the countries in the EU.

Recommendation: Establish Germany as the logistics center for product distribution in the EU.

Prediction: By strategically positioning logistics center in a country with a high LPI score, overall costs related to poor shipment handling should decrease. This could lead to improve margins and customer satisfaction.

Web Scraped Diagnostic Analytics SQL Query

How does the average GDP of EU countries correlate with their average LPI score for the years 2018 and 2023?



Web Scraped Diagnostic Analytics SQL Query

Insight: Germany stays on top in terms of GDP and LPI.

Recommendation: Capitalize on Germany's economy and logistics for business growth and expansion.

Prediction: Increase presence in the EU.



Germany is recommended as a
central logistics hub to optimize
product distribution within the EU

