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**Dataset:**

[https://www.kaggle.com/datasets/olistbr/brazilian-ecommerce?select=olist\\_order\\_payments\\_dataset.csv](https://www.kaggle.com/datasets/olistbr/brazilian-ecommerce?select=olist_order_payments_dataset.csv)

**Carbon Footprint of Online Shopping in Brazil: A Geospatial Analysis**

This analysis delves into the complex dynamics concerning the reduction of carbon footprints within the online shopping industry, with a focus on illuminating critical inquiries while utilizing the Brazilian E-Commerce Public Dataset obtained from Kaggle, this dataset contains information on 100,000 orders made at an Olist store in Brazil between 2016 and 2018. It goes beyond just payments, encompassing details like order status, customer and seller location, and even product attributes.

Variable	Description
customers	DataFrame containing information about customers
sellers	DataFrame containing information about sellers
geolocation	DataFrame containing geolocation data
order_items	DataFrame containing information about items in orders
orders	DataFrame containing information about orders
products	DataFrame containing information about products

final_merged_data	DataFrame containing merged data from orders, order items, customers, products, sellers, and geolocation
selected_columns	List of columns selected for analysis
population_size	Total size of the population (total number of records in the final merged dataset)
stratified_sample	Stratified sample extracted from the population dataset

**Case/Scenario:** Amidst this digital revolution lies a growing concern: the environmental ramifications of our online purchases. As the frequency of e-commerce transactions rises, so does the carbon footprint associated with packaging, transportation, and energy consumption.

**Question:** What is the distribution of carbon footprint in online shopping across different regions of Brazil, and how does it vary by state?