



Technology Project: Toy Ecommerce

Group 2 (Ruth, Precious, Rian, Delia, Evelyn)

Project Goals

- + Create a dataset that emulates e-commerce website transaction logs, specifically for toy & gaming stores.
- + Visually represent data to efficiently analyze, using Tableau.
- + Create queries using PySpark to answer marketing questions.

Contributions

+ Ruth

Ecommerce website portion of data generator, tied together different portions of data generator, query statements for questions 1, 2, 7

+ Precious

Shell of data generator, products, prices, categories, times, ids and query 5

+ Rian

Payment failure and transaction ID portion of the data generator. Query statements 4 & 6. created 2 extra marketing questions.

+ Delia

Tableau Visualization and Trello Workspace

City and Country Portion of Data Generator

Queried Question 3 and Created an Extra Marketing Question

+ Evelyn

Researched Toy Product Categories

Searched for Modules

Tech Stack

- + Git/GitHub
- + VS Code
- + Python3
 - CSV, Pandas, Random,
 - Faker, PySpark
- + Apache Spark
- + Tableau
- + Trello



Public Data used in Data Generator

- + Location (city, country)
- + Ecommerce Websites (domain tied to location of transaction)
- + Product Names
- + Prices
- + Payment Methods

Marketing Questions

- + What is the top selling category of items? Per Country?
- + How does the popularity of products change throughout the year? Per Country?
- + Which locations see the highest traffic of sales?
- + What times have the highest traffic of sales? Per Country?

Marketing Questions cont.

- + Which is the most common form of payment failure?
- + Which is the most common form of payment method?
- + Which website had the most sales?

Interesting Features

Being able to create a heat map for one of the marketing questions.

Being able to show the trends of sales by using an animation feature.



Desired Changes and Improvements

- To be able to create unique visual objects in Tableau. For instance, using toy icons instead of a simple solid bar graph.
- To be able to connect Tableau to Spark SQL.