Project Proposal: Easy Buy Recommendation System

[AI Saturday Lagos Cohort- Team Machel]

Introduction

E-commerce, in full means **electronic commerce**, maintaining relationships and conducting business transactions that include selling information, services, and goods by means of computer telecommunications networks. And we can also say an eCommerce is the buying and selling of goods and services online.

With rapid growth being recorded yearly in the eCommerce industry, businesses across various sectors are progressively making presence and waves online. Initially, it was the case of major players in the eCommerce industries, such as Amazon, Ali-baba, Jumia, Jiji and Konga. However, the story is changing rapidly as the development in tech industries has opened doors for anyone and everyone to set up an eCommerce website for goods stores or services.

Problem Description

While this is a great development for the commerce of the nation, as it diversifies the use of eCommerce making a variety of goods and services available, it takes the power away from monopoly firms, allowing for intense competition, and also forcing the price of commodities to be decided by forces of these competitions. However, the assurance on goods ordered is rapidly depleting, as stated by the common trend "what I ordered vs what I got". Therefore, there arises a need to put in place measures to help consumers identify eCommerce sites that offer the best value for their money as well as restore confidence in online purchases.

This is why this project is set up, as it will try to analyze data from eCommerce websites and make necessary recommendations on where best to order desired commodities. This will force the hands of eCommerce websites to stay on quality commodities while offering the most reasonable prices.

Proposed Method

Webscraping: data is intended to be scraped from different e-commerce websites like Jumia and Konga.

Data Cleaning: the scraped data would be cleaned using the pandas library.

Modelling: the price and rating across various site will be compared and a simple regression model will be used to help chose the best shopping site, recommending the link to the desired commodity from the best ecommerce sites offering the products.

Model Deployment: basically, the model takes in inputs of different products and best classifies the product with deference to the most similar algorithm and delivers an output (a prescriptive model). Hence, the model would be deployed using Flask and hosted on Heroku.

Proposed Split

For effectiveness in this project, the tasks will be assigned to team members taking into consideration of their strength. The table below gives a summary of the grouping for each phase of the project.

Project Phases	Description of Work	Sub-Team Grouping
Phase One	Data Sourcing sub team	Ms. Gloria, Ms. Martha, Mr. Temitayo
Phase Two	Data Cleaning and Prep sub team	Ms. Gloria, Mr. Akolade, Mr. Temitayo
Phase Three	Model sub team	Mr. Temitayo, Mr. Akolade, Mr Demi, Ms. Martha
Phase Four	Model Deployment sub team (Front End and Backend skills required)	Mr. Demi, Ms. Martha, Mr. Temitayo, Mr. Akolade

Conclusion

The project will assist buyers to get the best product at a reasonable price by linking them to a reliable online store or platform, where the products are being sold or dispensed at the most affordable and reliable rate. Thereby reducing the buyer's stress or time spent in searching for their desired product.

References

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