From Students…
…to Professionals

MICHIGAN STATE UNIVERSITY

Project Plan
Maestro

The Capstone Experience

Team Amazon

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Functional Specifications

• Reducing inaccurate product descriptions on Amazon.com
• Collecting descriptions from alternative sources
• Compare various descriptions to Amazon’s description
• Flag inaccurate descriptions to allow Amazon employee to make updates
Design Specifications

• New listings can be reviewed before publishing
• Current listings are reviewed and flagged if necessary
• Flagged products are reviewed by Amazon employee and inaccuracies are highlighted
• Changes are approved by employee
• Any changes are reflected in the final product description on the retail site
Screen Mockup: Employee Dashboard
Screen Mockup: Review Product

Adidas Real Madrid T-Shirt

Product Description:
Brand new, official Real Madrid Adizero Authentic Home Shirt for the 2018-2019 La Liga season. This authentic football kit is available in adult sizes S, M, L, XL, XXL, XXXL and is manufactured by Adidas. For the first time in 10 years the Real shirt has a purely white and black design, giving the team a classic Blancos look with Adidas signature twist in the three-stripe shoulder detailing, sleeve trim and single button collar. The technical construction of the kit uses Climachill fabric, developed for cool performance in the hottest weather.

Missing Specifications:
- FABRIC_TYPE: Climachill fabric
- POCKET_DESCRIPTION: None
- MATERIAL: Polyester DoubleKnit

Suggested Update:
- Wrong Description:
  - A purely white and black design: A few shades darker than the club's traditional white
  - Single button collar: Ribbed henley collar.

Additional Product Description to be added:
- Regular fit is a slightly looser cut than what players wear on the field is wider in the shoulders and body
Screen Mockup: Seller Dashboard
Screen Mockup: New Seller Listing

Product Title: Lozeguyc iPhone XR Credit Case | 6.1 inch | Brown

Product Description: Precise alignment hole of camera will help you record every beautiful moment

ASIN: B07H9S1BFY

BRAND NAME: Lozeguyc

DIMENSIONS: 6.02 x 3.19 x 0.71 inches

MATERIAL TYPE: Faux Leather

COMPATIBLE PHONE MODEL: iPhone XR 6.1 Inch

ITEM WEIGHT: 1.09 ounces
Technical Specifications

• AWS DynamoDB to store data from Amazon and natively
• AWS API Gateway to handle interaction between front and back end
• AWS Lambda to perform web scraping, Natural Language Processing (NLP), and saving to database
• React JS handle front end user interface (UI)
System Components

• Software Platforms / Technologies
  ▪ Amazon Web Services
    o Lambda
    o Gateway
    o DynamoDB
    o SageMaker
  ▪ React JS
  ▪ Python Packages
    o BeautifulSoup
    o GoogleSearch
Risks

• Ensuring Comparison of Identical Products
  ▪ Lack of a universal product identifier among retailers requires alternative methods to guarantee product matching
  ▪ Use NLP text similarity technologies to verify product matching

• Delivering Accurate Metrics from Product Comparator Algorithm
  ▪ Multiple variables can cause NLP model to fail in delivering accurate output
  ▪ Consult with NLP experts at MSU and Amazon to line out efficient models

• Generalizing Algorithm to Work Across Product Categories and Sources
  ▪ NLP model needs to generalize well to different product lines
  ▪ Start development with single product type and generalize outward
Questions?