

Sneaker Shoe Inventory Sourcing System with Redis Integration

Problem:

Many shoe resellers face challenges in sourcing a sufficient volume of shoes to meet customer demand. The current manual process of searching through online marketplaces such as eBay and OfferUp is time-consuming and inefficient, leading to missed opportunities and a limited inventory.

Objective:

The objective is to develop a web scraping tool that automates the process of searching and compiling listings of designated shoes from eBay and OfferUp. This tool will enable the reseller to quickly identify potential inventory, thereby increasing the volume and variety of shoes available for sale.

Database Requirements:

Rules:

1. The system's architecture is only allowed for one reseller.
2. The system allows the reseller to specify search criteria for shoes, location, and quality indicator criteria, including shoe name (with brand name), size of shoe, price range, zip code, and quality indicator range from 0-100.
3. The reseller can create at least 1 search criteria and max 5 search criteria.
4. The system should only scrape listings that match the reseller's specified criteria to ensure efficiency.
5. The system should filter and store the scraped listing information:
 - a. Format: Columns: date scraped, time scraped, shoe name, size of shoe, price range, zip code, quality indicator.

Redis Implementation:

1. Implement Redis to store and quickly access the reseller's search criteria.
2. Use Redis for managing user sessions, allowing for efficient maintenance of reseller preferences and login states.
3. Use Redis to queue scraping tasks, allowing for a systematic processing of scraping actions based on the reseller's criteria.

Nouns and Verbs:

- Nouns: shoe, listing, search criteria, brand, size, price, marketplace, reseller, inventory, potential inventory
- Verbs: specify, scrape, filter, store, track, maintain

Conclusion:

This document outlines the foundational requirements for a database system designed to streamline the process of sourcing shoes for resale. The system will leverage web scraping technology to automate the collection of shoe listings from online marketplaces, providing the reseller with a tool to enhance their inventory management capabilities.