APACHE SOLR TASKS

Assignment - Apache Solr: Build a Product Search Engine for an E-commerce Platform

Overview:

You are tasked with building a product search engine for an e-commerce platform using Apache Solr. The platform has a large catalog of products, and customers need to search through these products efficiently. The main requirements are indexing product data, querying search results, and automating the data import process with DIH.

Task I - Indexing Product Data: Setting Up and Importing Product Catalog into Solr

Indexing Product Data

Product _id	Name	Description	Price	Category	Availability
1	Wireless Mouse	Ergonomic wireless mouse	29.99	Electronics	In Stock
2	LED Monitor	27-inch LED monitor	199.99	Electronics	Out of Stock
3	Running Shoes	Comfortable running shoes for men	49.99	Fashion	In Stock
4	Smartphone	Latest model with 64GB storage	699.99	Electronics	In Stock
5	Winter Jacket	Insulated winter jacket	129.99	Fashion	Out of Stock

Creating a Solr Core for Product Catalog

```
C:\solr-9.8.0\bin>solr start

"Solr will start in Solrcloud mode by default in version 10, and you will have to provide --user-managed if you want to stay on the user-managed (aka. standalone) mode."

Java 17 detected. Enabled workaround for SolR-16463

Java HotSpot(TM) 64-Bit Server VM warning: JVM cannot use large page memory because it does not have enough privilege to lock pages in memory.

WARNING: A command line option has enabled the Security Manager

WARNING: No Security Manager is deprecated and will be removed in a future release

Waiting up to 180 seconds to see Solr running on port 8983

Started Solr server on port 8983. Happy searching!

C:\solr-9.8.0\bin>solr create -c product_catalog

Neither --2k-host or --solr-url parameters provided so assuming solr url is http://localhost:8983.

MARNING: Using_default configset. Data driven schema functionality is enabled by default, which is

NOT RECOMMENDED for production use.

To turn it off:

curl http://localhost:8983/solr/product_catalog/config -d '{"set-user-property": {"update.autoCreateFields":"false"}}'

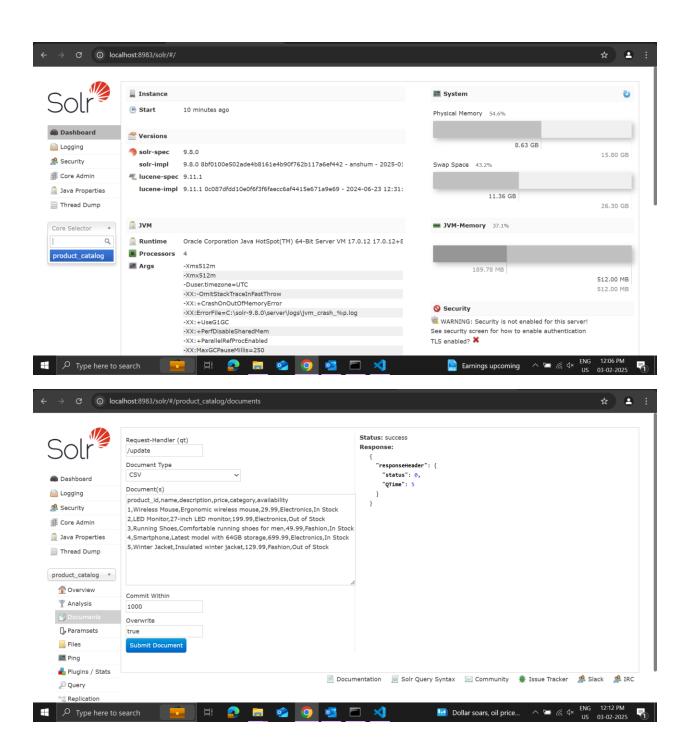
On:

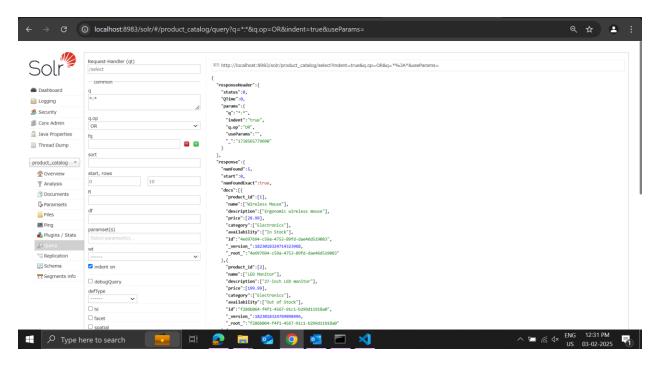
bin/solr config -c product_catalog -s http://localhost:8983 --action set-user-property --property update.autoCreateFields --value false

Created new core 'product_catalog'

P Type here to search

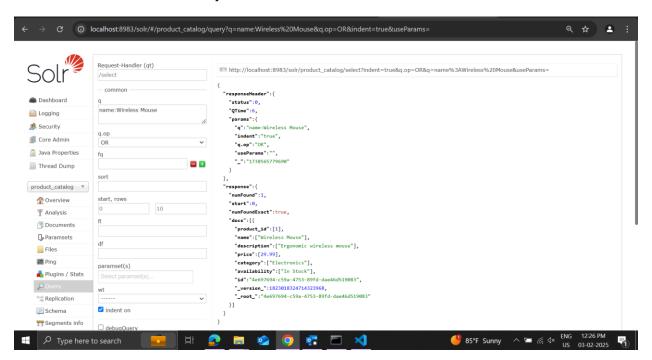
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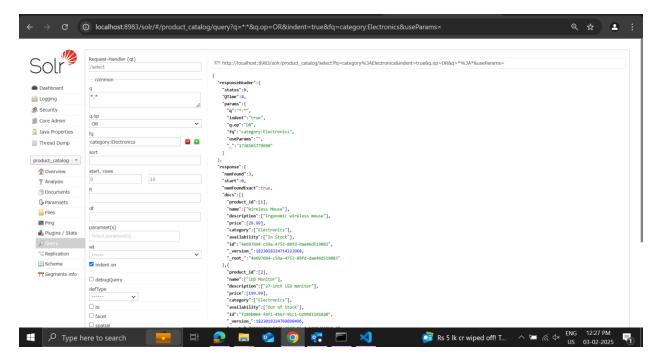


Task II - Querying Solr

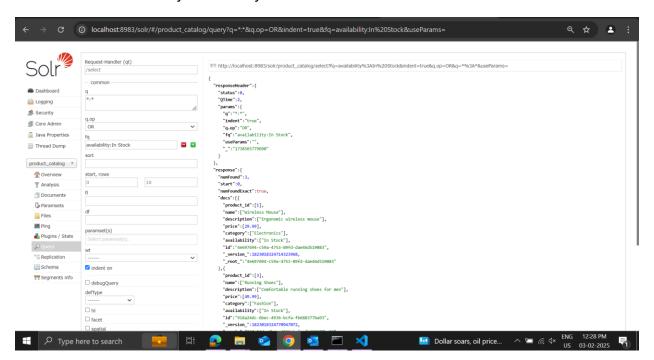
Search for a Product by Name



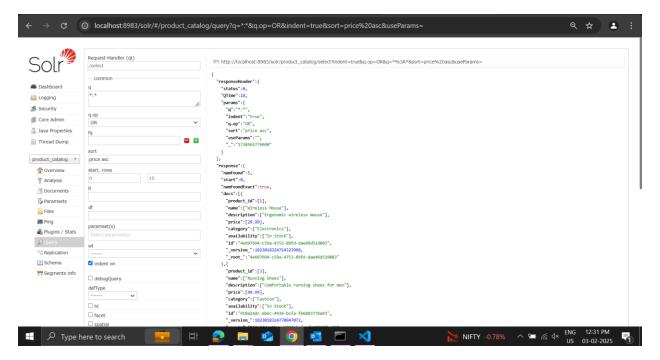
Filter Products by Category



> Filter Products by Availability



Sort Products by Price



Combine Filters for Complex Queries

