

Final Project: Amazon Search Interface

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Project Code:

Link to Github Repository: <https://github.com/munjotks/FinalProject-Munjotks.git>

- On the Repository, you will find the Amazon.Txt file that will outline the appropriate user commands that are allowed in the user interface.

Link to Demo Video: <https://youtu.be/mCGK7L8HVIk>

Data Sources:

- Scraping and crawling the amazon search results page is what the program is built from.
- I extracted the product names, product prices, number of stars and number of reviews of each product corresponding to a specific search term.
- Each time a user looks up another product on the interface, the 'results.csv' and 'AmazonProductInfo.sqlite' files get updated with the current search term results.

	Id	SearchTermCategory	ProductName	ProductPrice	NumStars	NumReviews	ProductURL
	Filter	Filter	Filter	Filter	Filter	Filter	Filter
1	1	smart tv	Hisense 32-Inch...	139.99	4.6	3,181	https://www.a...
2	2	smart tv	Hisense 32-Inch...	139.99	4.3	1,987	https://www.a...
3	3	smart tv	TCL 40S325 40...	199.99	4.6	29,966	https://www.a...
4	4	smart tv	SAMSUNG 50-in...	397.99	4.7	13,169	https://www.a...
5	5	smart tv	Sony X800H 49...	548	4.6	1,791	https://www.a...
6	6	smart tv	All-New Toshiba...	179.99	4.6	6,877	https://www.a...

Database:

- Search queries were used to extract the data from the database to display the information the user specifically asked for in a table or a graph.

▼ Tables (2)		
▼ Products		CREATE TABLE "Products" ("Id" INTEGER PRIMARY KEY AUTOIN
Id	INTEGER	`Id` INTEGER PRIMARY KEY AUTOINCREMENT
SearchTermCategory	TEXT	`SearchTermCategory` TEXT NOT NULL
ProductName	TEXT	`ProductName` TEXT NOT NULL
ProductPrice	NUMERIC	`ProductPrice` NUMERIC
NumStars	NUMERIC	`NumStars` NUMERIC
NumReviews	NUMERIC	`NumReviews` NUMERIC
ProductURL	TEXT	`ProductURL` TEXT
▶ sqlite_sequence		CREATE TABLE sqlite_sequence(name,seq)

- Only a products table was created.
- Many queries followed the same structure with a difference in some values.

Example Query: `price_query = cursor.execute("SELECT ProductName, ProductPrice, SearchTermCategory, ProductURL FROM Products GROUP BY ProductURL ORDER BY ProductPrice DESC LIMIT ?", (numresults,))`

Interaction and Presentation Options:

Commands:

- [SearchTerm]
 - Type a product into the command line that you would like to search on Amazon.
- Parameters:
 - [lowest|highest], default = lowest
 - determines if you would like to sort ProductPrice, NumStars and NumReviews by descending(highest) or ascending(lowest) order.
 - [price|reviews|stars], default=price
 - Whether to sort/aggregate by ProductPrice, NumStars, or NumReviews
 - You may sort by 1 or 2 parameters. (Ex: SearchTerm lowest price highest reviews OR SearchTerm lowest stars)
 - <integer>, default=10
 - List <limit> matches.
 - [graph], default=none
 - Creates a scatter plot or bar plot for whichever parameter you list.

Example Commands:

- watches lowest price highest reviews 10
- iPhone cases lowest price highest stars 20
- microwave highest reviews highest stars 15
- bar stool lowest price 10
- cake stand highest reviews 20
- rug highest stars 5

Default Command:

- SearchTerm lowest price 10