



Book Topic Sales Validation

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MFG 598: Computing with Python



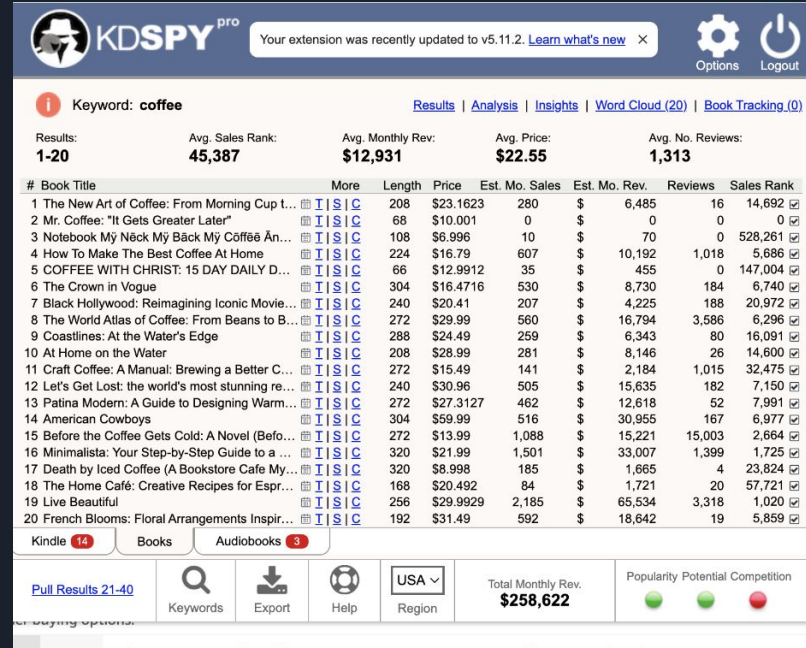
Background

- Masters Engineering Student (Focus in Mechanical and Automotive Systems)
- Undergrad in Mechanical Systems Engineering
- Previous coding experience includes Excel and Arduino
- Have never used python before this class
- Am very excited to use python to automate simple repetitive tasks in product development and project engineering in my future roles

- I am also starting a side business as a publisher

Pre-existing Solution

- When publishing books you need to determine if your topic would sell or not
- There is a pre-existing tool that tells you how much each book makes per month
- I wanted to recreate this tool and create more of a visual to determine if it is a good topic faster



The screenshot displays the KDSPY PRO web application interface. At the top, there's a navigation bar with the KDSPY PRO logo, a notification about a recent update to v5.11.2, and links for Options and Logout. Below the navigation bar, the main content area shows search results for the keyword "coffee".

Keyword: coffee

Results: 1-20 **Avg. Sales Rank:** 45,387 **Avg. Monthly Rev:** \$12,931 **Avg. Price:** \$22.55 **Avg. No. Reviews:** 1,313

Links: [Results](#) | [Analysis](#) | [Insights](#) | [Word Cloud \(20\)](#) | [Book Tracking \(0\)](#)

#	Book Title	More	Length	Price	Est. Mo. Sales	Est. Mo. Rev.	Reviews	Sales Rank
1	The New Art of Coffee: From Morning Cup t...	I I S C	208	\$23.1623	280	\$ 6,485	16	14,692
2	Mr. Coffee: "It Gets Greater Later"	I I S C	68	\$10.001	0	\$ 0	0	0
3	Notebook Mỹ Nêck Mỹ Bắck Mỹ Cồffêe Ân...	I I S C	108	\$6.996	10	\$ 70	0	528,261
4	How To Make The Best Coffee At Home	I I S C	224	\$16.79	607	\$ 10,192	1,018	5,686
5	COFFEE WITH CHRIST: 15 DAY DAILY D...	I I S C	66	\$12.9912	35	\$ 455	0	147,004
6	The Crown in Vogue	I I S C	304	\$16.4716	530	\$ 8,730	184	6,740
7	Black Hollywood: Reimagining Iconic Movie...	I I S C	240	\$20.41	207	\$ 4,225	188	20,972
8	The World Atlas of Coffee: From Beans to B...	I I S C	272	\$29.99	560	\$ 16,794	3,586	6,296
9	Coastlines: At the Water's Edge	I I S C	288	\$24.49	259	\$ 6,343	80	16,091
10	At Home on the Water	I I S C	208	\$28.99	281	\$ 8,146	26	14,600
11	Craft Coffee: A Manual: Brewing a Better C...	I I S C	272	\$15.49	141	\$ 2,184	1,015	32,475
12	Let's Get Lost: the world's most stunning re...	I I S C	240	\$30.96	505	\$ 15,635	182	7,150
13	Patina Modern: A Guide to Designing Warm...	I I S C	272	\$27.3127	462	\$ 12,818	52	7,991
14	American Cowboys	I I S C	304	\$59.99	516	\$ 30,955	167	6,977
15	Before the Coffee Gets Cold: A Novel (Befo...	I I S C	272	\$13.99	1,088	\$ 15,221	15,003	2,664
16	Minimalista: Your Step-by-Step Guide to a ...	I I S C	320	\$21.99	1,501	\$ 33,007	1,399	1,725
17	Death by Iced Coffee (A Bookstore Cafe My...	I I S C	320	\$8.998	185	\$ 1,665	4	23,824
18	The Home Café: Creative Recipes for Espr...	I I S C	168	\$20.492	84	\$ 1,721	20	57,721
19	Live Beautiful	I I S C	256	\$29.9929	2,185	\$ 65,534	3,318	1,020
20	French Blooms: Floral Arrangements Inspir...	I I S C	192	\$31.49	592	\$ 18,642	19	5,859

Kindle 14 Books Audiobooks 3

[Pull Results 21-40](#) [Keywords](#) [Export](#) [Help](#) [USA](#) [Region](#) **Total Monthly Rev. \$258,622** **Popularity Potential Competition**



Step 1: Getting HTML from Amazon

- First step is to navigate to Amazon and get the HTML code of the search page for a given topic



Step 2: Getting information from HTML

- Next step is to get that information from the HTML



Step 3: Finding Monthly Revenue

- The monthly revenue is found by using another website that takes the book rank and determines how many sales the book makes per month
- The code then multiplies the book price by the sales per month to determine the monthly revenue



Step 4: Analyzing data to show plausibility

- In order for the book topic to have plausibility it must have at least 5 books that have over 150 reviews and make \$500 in revenue a month
- The code goes through and if the book satisfies these criteria it puts a 'yes' in the plausible column and if not it puts a 'no'
- From there it turns the row green if it is plausible and red if it is not
 - This gives an easy visualization of if there are at least 5 books that show plausibility



Step 5: Plotting Results

- A bar graph can be made to show if there are at least 5 yeses and make it easy for the user to determine what book topics are plausible
- Another easy way to show plausibility is to plot the revenue and reviews on a graph and draw lines at 150 reviews and \$500 revenue to visually see if both are above those lines



Step 6: Statistically analyzing data

- Another way to compare how good book topics are, the average revenue and reviews can be taken
- The median and standard deviation can also be used to determine outliers
- To determine the relationship between high reviews and high revenue, a correlation analysis can be used and displayed to determine what topics have a high correlation