
WORKOUT
TOOLS
PROJECT

1. Data Extraction

• Objective: Gather data from Amazon product listings.
• Method: Utilize Python and REST APIs to extract relevant information.

2. Data Transformation

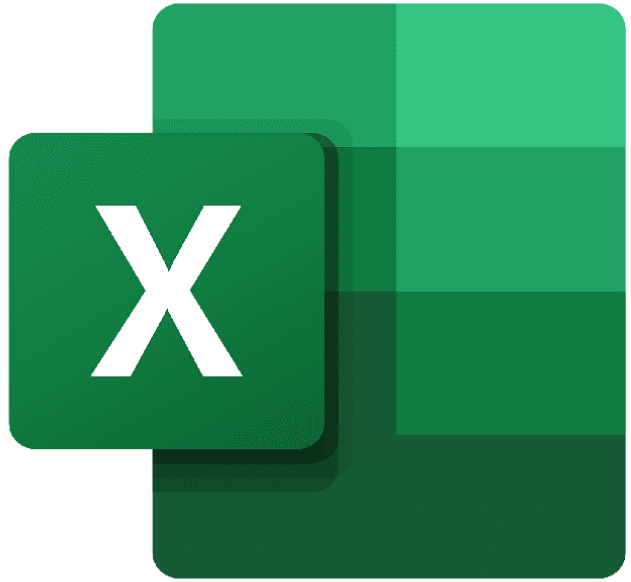
• Tools: Employ Pandas and Excel for data cleaning and processing.
• Focus: Ensure data quality and readiness for analysis.

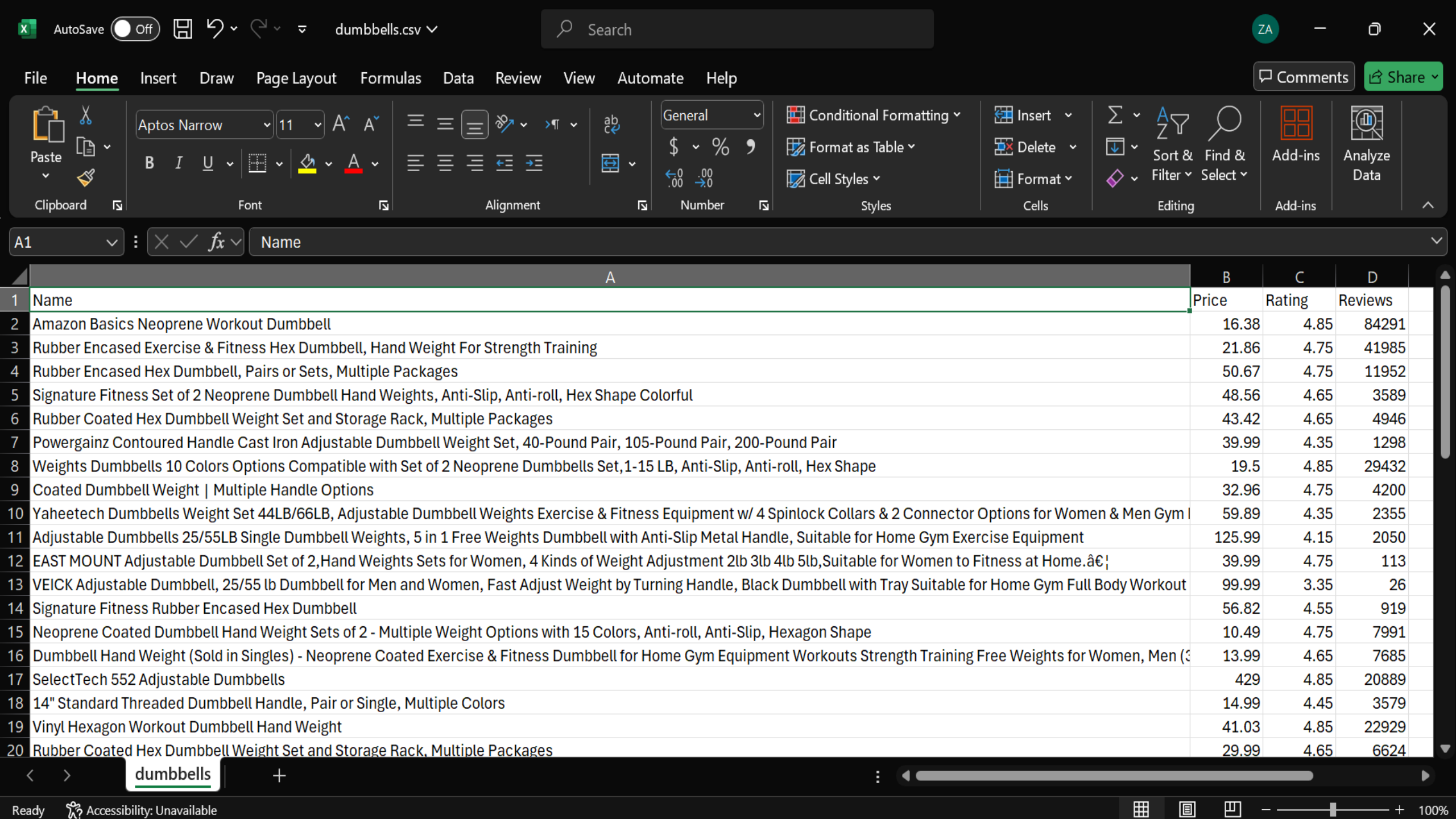
3. Data Visualization

• Goal: Develop an advanced Power BI dashboard.
• Outcome: Visualize insights related to workout tools, enhancing decision-making.

4. Categories Analyzed

• Dumbbells
• Push-Up Bars
• Pull-Up Bars





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A1 Name

	A	B	C	D
1	Name	Price	Rating	Reviews
2	Amazon Basics Neoprene Workout Dumbbell	16.38	4.85	84291
3	Rubber Encased Exercise & Fitness Hex Dumbbell, Hand Weight For Strength Training	21.86	4.75	41985
4	Rubber Encased Hex Dumbbell, Pairs or Sets, Multiple Packages	50.67	4.75	11952
5	Signature Fitness Set of 2 Neoprene Dumbbell Hand Weights, Anti-Slip, Anti-roll, Hex Shape Colorful	48.56	4.65	3589
6	Rubber Coated Hex Dumbbell Weight Set and Storage Rack, Multiple Packages	43.42	4.65	4946
7	Powergainz Contoured Handle Cast Iron Adjustable Dumbbell Weight Set, 40-Pound Pair, 105-Pound Pair, 200-Pound Pair	39.99	4.35	1298
8	Weights Dumbbells 10 Colors Options Compatible with Set of 2 Neoprene Dumbbells Set,1-15 LB, Anti-Slip, Anti-roll, Hex Shape	19.5	4.85	29432
9	Coated Dumbbell Weight | Multiple Handle Options	32.96	4.75	4200
10	Yaheetech Dumbbells Weight Set 44LB/66LB, Adjustable Dumbbell Weights Exercise & Fitness Equipment w/ 4 Spinlock Collars & 2 Connector Options for Women & Men Gym I	59.89	4.35	2355
11	Adjustable Dumbbells 25/55LB Single Dumbbell Weights, 5 in 1 Free Weights Dumbbell with Anti-Slip Metal Handle, Suitable for Home Gym Exercise Equipment	125.99	4.15	2050
12	EAST MOUNT Adjustable Dumbbell Set of 2,Hand Weights Sets for Women, 4 Kinds of Weight Adjustment 2lb 3lb 4lb 5lb,Suitable for Women to Fitness at Home.â€¦	39.99	4.75	113
13	VEICK Adjustable Dumbbell, 25/55 lb Dumbbell for Men and Women, Fast Adjust Weight by Turning Handle, Black Dumbbell with Tray Suitable for Home Gym Full Body Workout	99.99	3.35	26
14	Signature Fitness Rubber Encased Hex Dumbbell	56.82	4.55	919
15	Neoprene Coated Dumbbell Hand Weight Sets of 2 - Multiple Weight Options with 15 Colors, Anti-roll, Anti-Slip, Hexagon Shape	10.49	4.75	7991
16	Dumbbell Hand Weight (Sold in Singles) - Neoprene Coated Exercise & Fitness Dumbbell for Home Gym Equipment Workouts Strength Training Free Weights for Women, Men (3	13.99	4.65	7685
17	SelectTech 552 Adjustable Dumbbells	429	4.85	20889
18	14" Standard Threaded Dumbbell Handle, Pair or Single, Multiple Colors	14.99	4.45	3579
19	Vinyl Hexagon Workout Dumbbell Hand Weight	41.03	4.85	22929
20	Rubber Coated Hex Dumbbell Weight Set and Storage Rack, Multiple Packages	29.99	4.65	6624

dumbbells

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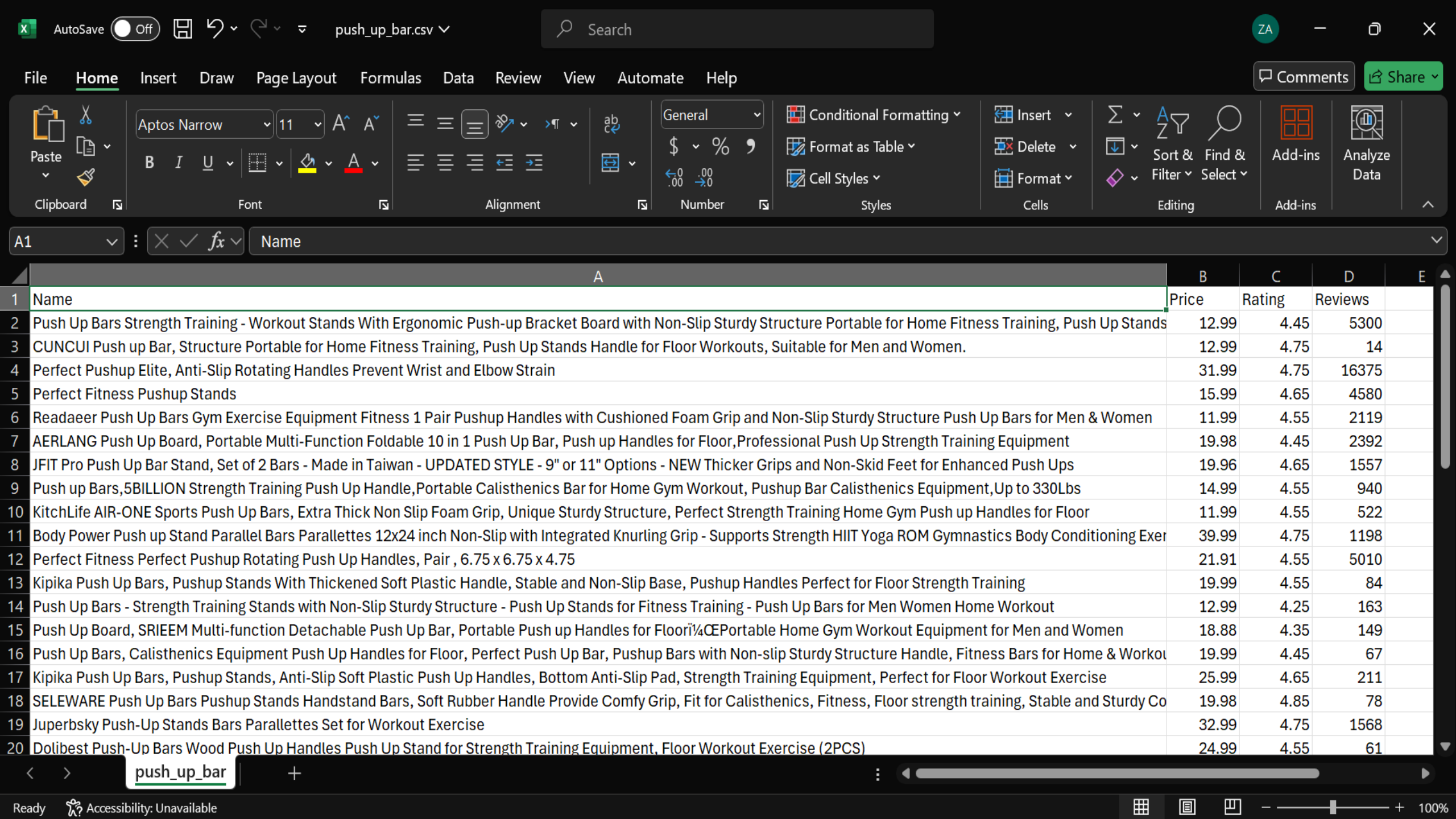

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A1 Name

	A	B	C	D	E
1	Name	Price	Rating	Reviews	
2	Push Up Bars Strength Training - Workout Stands With Ergonomic Push-up Bracket Board with Non-Slip Sturdy Structure Portable for Home Fitness Training, Push Up Stands	12.99	4.45	5300	
3	CUNCUI Push up Bar, Structure Portable for Home Fitness Training, Push Up Stands Handle for Floor Workouts, Suitable for Men and Women.	12.99	4.75	14	
4	Perfect Pushup Elite, Anti-Slip Rotating Handles Prevent Wrist and Elbow Strain	31.99	4.75	16375	
5	Perfect Fitness Pushup Stands	15.99	4.65	4580	
6	Readaeer Push Up Bars Gym Exercise Equipment Fitness 1 Pair Pushup Handles with Cushioned Foam Grip and Non-Slip Sturdy Structure Push Up Bars for Men & Women	11.99	4.55	2119	
7	AERLANG Push Up Board, Portable Multi-Function Foldable 10 in 1 Push Up Bar, Push up Handles for Floor,Professional Push Up Strength Training Equipment	19.98	4.45	2392	
8	JFIT Pro Push Up Bar Stand, Set of 2 Bars - Made in Taiwan - UPDATED STYLE - 9" or 11" Options - NEW Thicker Grips and Non-Skid Feet for Enhanced Push Ups	19.96	4.65	1557	
9	Push up Bars,5BILLION Strength Training Push Up Handle,Portable Calisthenics Bar for Home Gym Workout, Pushup Bar Calisthenics Equipment,Up to 330Lbs	14.99	4.55	940	
10	KitchLife AIR-ONE Sports Push Up Bars, Extra Thick Non Slip Foam Grip, Unique Sturdy Structure, Perfect Strength Training Home Gym Push up Handles for Floor	11.99	4.55	522	
11	Body Power Push up Stand Parallel Bars Parallettes 12x24 inch Non-Slip with Integrated Knurling Grip - Supports Strength HIIT Yoga ROM Gymnastics Body Conditioning Exer	39.99	4.75	1198	
12	Perfect Fitness Perfect Pushup Rotating Push Up Handles, Pair , 6.75 x 6.75 x 4.75	21.91	4.55	5010	
13	Kipika Push Up Bars, Pushup Stands With Thickened Soft Plastic Handle, Stable and Non-Slip Base, Pushup Handles Perfect for Floor Strength Training	19.99	4.55	84	
14	Push Up Bars - Strength Training Stands with Non-Slip Sturdy Structure - Push Up Stands for Fitness Training - Push Up Bars for Men Women Home Workout	12.99	4.25	163	
15	Push Up Board, SRIEEM Multi-function Detachable Push Up Bar, Portable Push up Handles for Floorï¼ŒPortable Home Gym Workout Equipment for Men and Women	18.88	4.35	149	
16	Push Up Bars, Calisthenics Equipment Push Up Handles for Floor, Perfect Push Up Bar, Pushup Bars with Non-slip Sturdy Structure Handle, Fitness Bars for Home & Workou	19.99	4.45	67	
17	Kipika Push Up Bars, Pushup Stands, Anti-Slip Soft Plastic Push Up Handles, Bottom Anti-Slip Pad, Strength Training Equipment, Perfect for Floor Workout Exercise	25.99	4.65	211	
18	SELEWARE Push Up Bars Pushup Stands Handstand Bars, Soft Rubber Handle Provide Comfy Grip, Fit for Calisthenics, Fitness, Floor strength training, Stable and Sturdy Co	19.98	4.85	78	
19	Juperbsky Push-Up Stands Bars Parallettes Set for Workout Exercise	32.99	4.75	1568	
20	Dolibest Push-Up Bars Wood Push Up Handles Push Up Stand for Strength Training Equipment, Floor Workout Exercise (2PCS)	24.99	4.55	61	

push_up_bar

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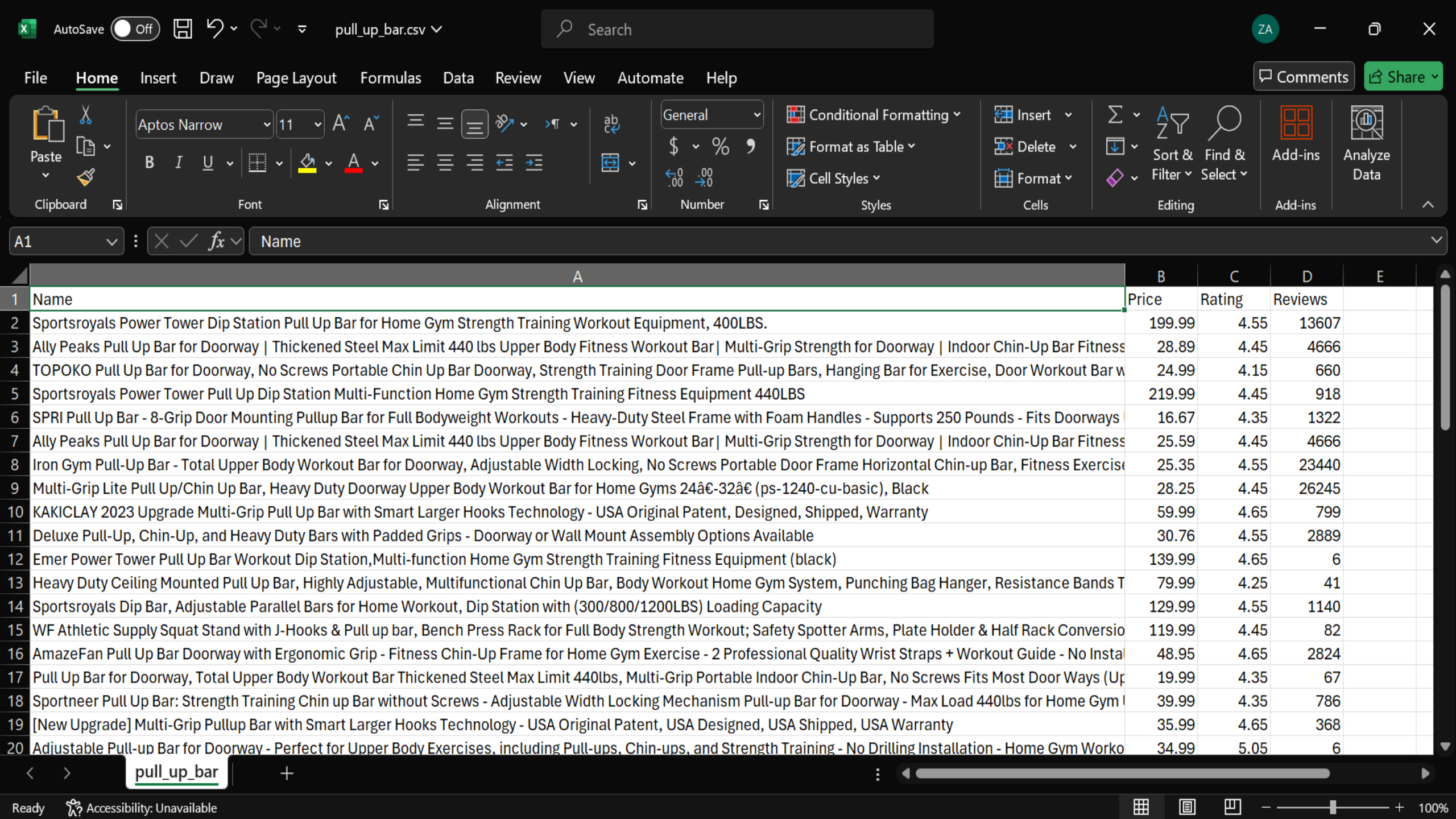
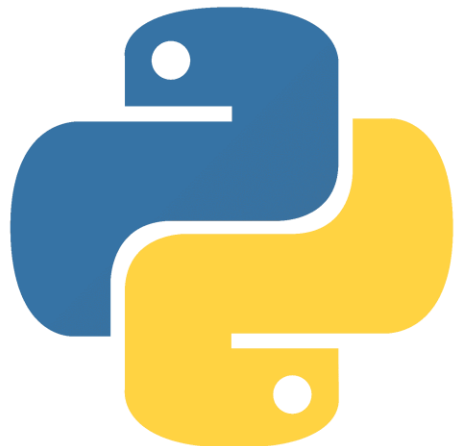


	A	B	C	D	E
1	Name	Price	Rating	Reviews	
2	Sportsroyals Power Tower Dip Station Pull Up Bar for Home Gym Strength Training Workout Equipment, 400LBS.	199.99	4.55	13607	
3	Ally Peaks Pull Up Bar for Doorway | Thickened Steel Max Limit 440 lbs Upper Body Fitness Workout Bar| Multi-Grip Strength for Doorway | Indoor Chin-Up Bar Fitness	28.89	4.45	4666	
4	TOPOKO Pull Up Bar for Doorway, No Screws Portable Chin Up Bar Doorway, Strength Training Door Frame Pull-up Bars, Hanging Bar for Exercise, Door Workout Bar w	24.99	4.15	660	
5	Sportsroyals Power Tower Pull Up Dip Station Multi-Function Home Gym Strength Training Fitness Equipment 440LBS	219.99	4.45	918	
6	SPRI Pull Up Bar - 8-Grip Door Mounting Pullup Bar for Full Bodyweight Workouts - Heavy-Duty Steel Frame with Foam Handles - Supports 250 Pounds - Fits Doorways	16.67	4.35	1322	
7	Ally Peaks Pull Up Bar for Doorway | Thickened Steel Max Limit 440 lbs Upper Body Fitness Workout Bar| Multi-Grip Strength for Doorway | Indoor Chin-Up Bar Fitness	25.59	4.45	4666	
8	Iron Gym Pull-Up Bar - Total Upper Body Workout Bar for Doorway, Adjustable Width Locking, No Screws Portable Door Frame Horizontal Chin-up Bar, Fitness Exercise	25.35	4.55	23440	
9	Multi-Grip Lite Pull Up/Chin Up Bar, Heavy Duty Doorway Upper Body Workout Bar for Home Gyms 24â€-32â€ (ps-1240-cu-basic), Black	28.25	4.45	26245	
10	KAKICLAY 2023 Upgrade Multi-Grip Pull Up Bar with Smart Larger Hooks Technology - USA Original Patent, Designed, Shipped, Warranty	59.99	4.65	799	
11	Deluxe Pull-Up, Chin-Up, and Heavy Duty Bars with Padded Grips - Doorway or Wall Mount Assembly Options Available	30.76	4.55	2889	
12	Emer Power Tower Pull Up Bar Workout Dip Station,Multi-function Home Gym Strength Training Fitness Equipment (black)	139.99	4.65	6	
13	Heavy Duty Ceiling Mounted Pull Up Bar, Highly Adjustable, Multifunctional Chin Up Bar, Body Workout Home Gym System, Punching Bag Hanger, Resistance Bands T	79.99	4.25	41	
14	Sportsroyals Dip Bar, Adjustable Parallel Bars for Home Workout, Dip Station with (300/800/1200LBS) Loading Capacity	129.99	4.55	1140	
15	WF Athletic Supply Squat Stand with J-Hooks & Pull up bar, Bench Press Rack for Full Body Strength Workout; Safety Spotter Arms, Plate Holder & Half Rack Conversio	119.99	4.45	82	
16	AmazeFan Pull Up Bar Doorway with Ergonomic Grip - Fitness Chin-Up Frame for Home Gym Exercise - 2 Professional Quality Wrist Straps + Workout Guide - No Instal	48.95	4.65	2824	
17	Pull Up Bar for Doorway, Total Upper Body Workout Bar Thickened Steel Max Limit 440lbs, Multi-Grip Portable Indoor Chin-Up Bar, No Screws Fits Most Door Ways (Up	19.99	4.35	67	
18	Sportneer Pull Up Bar: Strength Training Chin up Bar without Screws - Adjustable Width Locking Mechanism Pull-up Bar for Doorway - Max Load 440lbs for Home Gym	39.99	4.35	786	
19	[New Upgrade] Multi-Grip Pullup Bar with Smart Larger Hooks Technology - USA Original Patent, USA Designed, USA Shipped, USA Warranty	35.99	4.65	368	
20	Adjustable Pull-up Bar for Doorway - Perfect for Upper Body Exercises, including Pull-ups, Chin-ups, and Strength Training - No Drilling Installation - Home Gym Worko	34.99	5.05	6	



python™

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Push_up_bar.py | Pull_up_bar.py | Dumbbells.py

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```python
import csv
import requests

url = "https://amazon-web-scraping-api.p.rapidapi.com/products/search"

querystring = {"criteria":"Dumbbells","page":"1","countryCode":"US","languageCode":"EN"}

headers = {
    "X-RapidAPI-Key": "72a341395bmsh2e5269750798dd4p19ed89jsne851274a515e",
    "X-RapidAPI-Host": "amazon-web-scraping-api.p.rapidapi.com"
}

response = requests.get(url, headers=headers, params=querystring)
data = response.json()

with open("dumbbells.csv", "w", newline="", encoding="utf-8") as f:
    writer = csv.writer(f)
    writer.writerow(["Name", "Price", "Rating", "Reviews"])
    for item in data["products"]:
        name = item["name"]
        price = item["price"]["currentPrice"]
        rating = item["rating"]
        reviews = item["totalReviews"]
        writer.writerow([name, price, rating, reviews])

```

Push_up_bar.py

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```python
import csv
import requests

url = "https://amazon-web-scraping-api.p.rapidapi.com/products/search"

headers = {
    "X-RapidAPI-Key": "98de7e6d1bmsh37dd9ec9c9f6ed0p1db168jsn44120b8d5b28",
    "X-RapidAPI-Host": "amazon-web-scraping-api.p.rapidapi.com",
}

with open("push_up_bar.csv", "w", newline="", encoding="utf-8") as f:
    writer = csv.writer(f)
    writer.writerow(["Name", "Price", "Rating", "Reviews"])  # Write header row

    for page in range(10):  # Request first 10 pages
        querystring = {
            "criteria": "push up bar",
            "countryCode": "US",
            "languageCode": "EN",
            "pageSize": "50000",
        }

        response = requests.get(url, headers=headers, params=querystring)
        try:
            data = response.json()
        except ValueError:
            print(f"Error parsing JSON on page {page}")
            continue

        if not data:
            break

        for product in data["products"]:
            name = product.get("name")
            price = product.get("price", {}).get("currentPrice")
            rating = product.get("rating")
```

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Push_up_bar.py | Pull_up_bar.py | Dumbbells.py

D: > Un_Uploaded Projects > Amazon_Workout_Tools-main > Pull_up_bar.py > {} csv

```python
import csv
import requests

url = "https://amazon-web-scraping-api.p.rapidapi.com/products/search"

querystring = {"criteria":"pull up bar","page":"1","countryCode":"US","languageCode":"EN"}

headers = {
    "X-RapidAPI-Key": "72a341395bmsh2e5269750798dd4p19ed89jsne851274a515e",
    "X-RapidAPI-Host": "amazon-web-scraping-api.p.rapidapi.com"
}

response = requests.get(url, headers=headers, params=querystring)
data = response.json()

with open("pull_up_bar.csv", "w", newline="", encoding="utf-8") as f:
    writer = csv.writer(f)
    writer.writerow(["Name", "Price", "Rating", "Reviews"])
    for item in data["products"]:
        name = item["name"]
        price = item["price"]["currentPrice"]
        rating = item["rating"]
        reviews = item["totalReviews"]
        writer.writerow([name, price, rating, reviews])

```

Power BI

Amazon_Workout_Tools

Category

- Dumbbells
- Pull up bars
- Push up bars

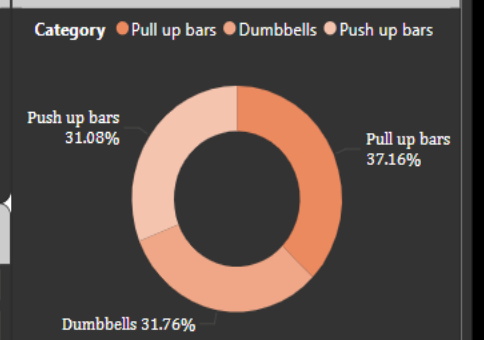
Price

- 0-50
- 100-150
- 150-200
- 50-100
- Greater than 200

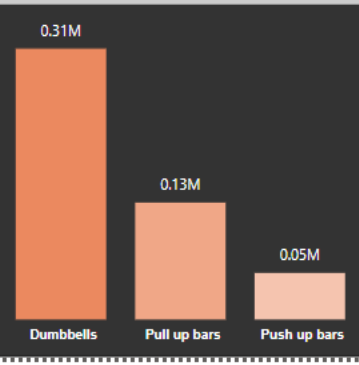
Rating

- 1
- 2
- 3
- 4
- 5

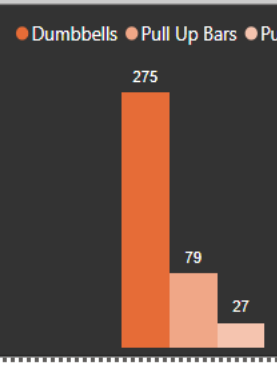
Category Contribution



Total Reviews



The Average Prices



Product_Name	Sum of Price	Sum of Rating	Sum Revi
[New Upgrade] Multi-Grip	36	5	
10 Colors Options Compati			
14" Standard Threaded Dum	15	4	
150 LB Dumbbell Set with			
25/55 lbs Pair Adjustable	120	5	
56-in-1 Push Up Board, Mu			
Adjustable Dumbbell 25/55	220	4	
Adjustable Dumbbell Set,			
Adjustable Dumbbell Weigh	67	5	
Adjustable Dumbbell, 22lb			
Adjustable Dumbbells 25/5	126	4	
Adjustable Pull-up Bar fo			
Adjustable Weight Dumbbel	60	5	
AERLANG Push Up Board, Po			
airogym Push-up Stand, 2	38	5	
Ally Peaks Pull Up Bar fo			
AmazeFan Pull Up Bar Door	49	5	
Amazon Basics Neoprene Wo			
BalanceFrom Rubber Encase	67	5	
BangTong&Li Power Tower,			
Berleng Push Up Board, Fo	20	4	
Body Power Push up Stand			
Body Sport Rubber Encased	36	5	
Body Sport Vinyl Dumbbell			
BODYTECH Push up Bars Str	13	4	
Total	18479	665	492

THANK YOU