

PRICE COMPARISON WEBSITE USING WEB SCRAPING ALGORITHM

MINOR PROJECT REPORT

By

**Sanyog Dani [Reg No.: RA2211031010087]
Arush Sirotiya [Reg No.: RA2211031010092]**

Under the guidance of

Dr. M. Manickam

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BONAFIDE CERTIFICATE

Certified that this minor project report for the course **21CSC203P ADVANCED PROGRAMMING PRACTICE** entitled in "**Price Comparison Website Using Web-scraping Algorithm**" is the bonafide work of **Sanyog Dani (RA2211031010087)** and **Arush Sirotiya (RA2211031010092)** who carried out the work under my supervision.

SIGNATURE

Dr. Manickam. M
Assistant Professor,
Department of
Networking and Communication,
School of Computing,
SRM Institute of Science and Technology
Kattankulathur

SIGNATURE

Dr. Annapurani. K
Head of the Department,
Department of
Networking and Communication,
School of Computing,
SRM Institute of Science and Technology
Kattankulathur

Signature of the Internal Examiner

Signature of the External Examiner

ABSTRACT

Price comparison platforms are specifically designed to assess the cost of commodities and services from a variety of providers, aiding customers in their selection of products that offer the most savings when shopping online. Given the fast-paced lives of urban residents, a significant portion of consumers favor online purchases as a means to conserve time.

They can conveniently peruse these price comparison websites and determine the best source for the items they require. Optimal deals are prominently showcased. While not all consumers exclusively shop online, it remains an effective method for enhancing consumer price awareness.

Consequently, this benefits consumers who are consistently informed about the prevailing prices of particular items, safeguarding them from potentially misleading claims made by physical stores. In addition, this platform provides a valuable opportunity for grocers and retailers to promote their merchandise. This project seeks to empower consumers with the knowledge and tools needed to make informed purchasing decisions, ultimately improving their financial well-being and shopping experiences.

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1. INTRODUCTION

1.1 Motivation

In the contemporary digital landscape, it's become a common practice for every internet user to seek out the most advantageous bargains when contemplating a purchase. Among the paramount determinants that sway the decision to acquire a product is its price or cost. Prospective buyers habitually engage in a comprehensive price evaluation prior to making a purchase. Nevertheless, the process of scouring multiple price comparison websites for a specific item can be quite laborious. Hence, a compelling solution to streamline and automate this entire procedure is imperative.

Enter the necessity for an automated system that expedites this intricate task, saving users valuable time and effort in their pursuit of the best deals. This innovative solution is poised to revolutionize the online shopping experience, enabling consumers to effortlessly access and compare prices across a multitude of platforms, rendering their purchasing decisions more informed and economically advantageous. By harnessing the power of automation and cutting-edge technology, this project aims to redefine the way consumers engage with e-commerce and empower them to make savvy financial choices with ease and efficiency.

1.2 Objective

This platform serves as a valuable tool for comparing prices across diverse E-commerce websites. It caters specifically to the needs of frequent online shoppers, offering the convenience of centralized price comparisons from a multitude of online retailers. This system efficiently aggregates pricing data from various sellers, enabling users to pinpoint the most cost-effective source for their desired products. Once the data from these websites is collected, it is presented on the platform in the form of an easily navigable price comparison.

In the realm of E-commerce, applications consist of several essential components, including a database server, a web application server, and the Payment Gateway Interface (PGI) for facilitating online transactions. The pervasive influence of the internet has fundamentally transformed the way individuals and businesses approach their operations and decision-making processes. This project embodies the fusion of technology and consumer empowerment in the ever-evolving world of online shopping.

1.3 Problem Statement

An individual is seeking to purchase a Titan watch, but he's encountering varying price listings on different websites. Additionally, he's frustrated by intrusive ads and the risk of stumbling upon fraudulent websites, resulting in a significant waste of 15 to 30 minutes.

Develop an open-source software tool that helps users avoid intrusive ads, identify counterfeit and fraudulent websites, and obtain up-to-date, accurate prices for authentic and high-quality products from online retailers.

1.4 Challenges

Price comparison website developers encounter several challenges while creating and maintaining their platforms:

1. **Data Aggregation:** Gathering and updating links of different ecommerce and their classes can be challenging due to differences in data formats.
2. **Data Accuracy:** Ensuring the accuracy of price and product information is crucial to gain user trust, and this requires continuous data validation and cleansing.
3. **Scalability:** As the number of products and retailers increases, the platform needs to scale efficiently to handle the growing data volume and user traffic.
4. **Website Performance:** Maintaining a responsive and fast loading website, especially when dealing with large datasets, can be a technical challenge.
5. **User Experience:** Designing an intuitive and user-friendly interface is crucial for retaining and attracting users. This involves addressing navigation, search functionality, and overall usability.
6. **Monetization:** Finding a sustainable revenue model, such as affiliate marketing, sponsored listings, or premium subscriptions, is important to support the platform's operation.
7. **Data Privacy and Security:** Handling sensitive user data and adhering to privacy regulations is essential. Developers must implement strong security measures to protect both user data and the platform itself from cyber threats.
8. **Competition:** Staying competitive in the crowded price comparison website market and differentiating from other platforms can be challenging.
9. **SEO and Marketing:** Attracting users to the platform requires effective search engine optimization (SEO) and marketing strategies to increase visibility and drive organic traffic.

10. Legal Compliance: Adhering to copyright, trademark, and data usage laws when scraping data from third-party websites is essential to avoid legal issues.
11. Continuous Maintenance: Keeping the platform up-to-date with changing retailer websites, adding new features, and fixing bugs is an ongoing challenge.
12. Mobile Responsiveness: Ensuring the platform is mobile-friendly is increasingly important as more users access price comparison websites through smartphones and tablets.
13. Price Tracking: Implementing price tracking features to alert users when the price of a product drops or when a deal becomes available can be complex.
14. Handling User Reviews and Feedback: Incorporating user reviews and feedback effectively while maintaining their credibility and authenticity can be challenging.
15. Price Discrepancies: Dealing with situations where retailers provide different prices for the same product or have outdated information requires careful handling.
16. Web Scraping Challenges: Overcoming website structure changes and implementing efficient scraping techniques.
17. Database Management: Designing an optimized schema and maintaining data consistency.
18. User Experience: Ensuring the website is user-friendly and responsive.

Overcoming these challenges requires a combination of technical expertise, effective data management, user-centric design, and a commitment to maintaining data accuracy and user trust.

2. LITERATURE SURVEY

1. Intelligent Online Shopping using ML-based Product Comparison Engine

This research work summarizes the product comparison website that implements intelligent web scraping. The website has a processing model that uses the Machine Learning (ML)-based product comparison engine. The simulation analysis for model training and testing uses the GitHub dataset and the Support Vector Machine (SVM) algorithm. The SVM classifies the product from various websites based on the rank value, assigned based on the selected features of the product. The proposed model is compared with other ML algorithms such as Decision Tree, Naïve Bayes, and Random Forest. The comparative analysis shows that the SVM algorithm can classify the best products with the highest accuracy ratio of 94.71% over other algorithms.

2. Comparative Study Of Various Scraping Tools: Pros And Cons

In this paper, we cover the most powerful known web scraping tools available to date and study them. We have compared these tools and clarified their benefits as well as drawbacks concerning various applications.

3. Co-Mart - A Daily Necessity Price Comparison Application

This paper focuses on a web application called Co-Mart, where one can compare prices of various products on different E-commerce websites and thus save one's Time, Efforts and Money. The methods that will be used for identifying the best deals will be web crawling and web scraping. The web scraping scripts will be written using python libraries and web crawling works on HTML labels. The framework will be designed using HTML (Hypertext markup language), CSS (Cascading style sheet), and JavaScript as front-end and Python and Django will be used for back-end support with SQLite as the Database Management System.

4. Web Scraping based Product Comparison Model for E-Commerce Websites

The objective of this paper is to propose a web application that identifies those basic details for any product from different e-commerce websites. These details are compared, and the result is displayed to the user graphically for the final decision. The proposed web application uses the web-scraping methodology with selenium and is implemented on the python framework using various algorithms and techniques which are discussed in the paper. As an outcome, the system will give the simulation results, so that the user can get the recommendations on purchasing the relevant product with better user satisfaction and in minimum clicks and time.

3. REQUIREMENTS

Hardware Requirements:

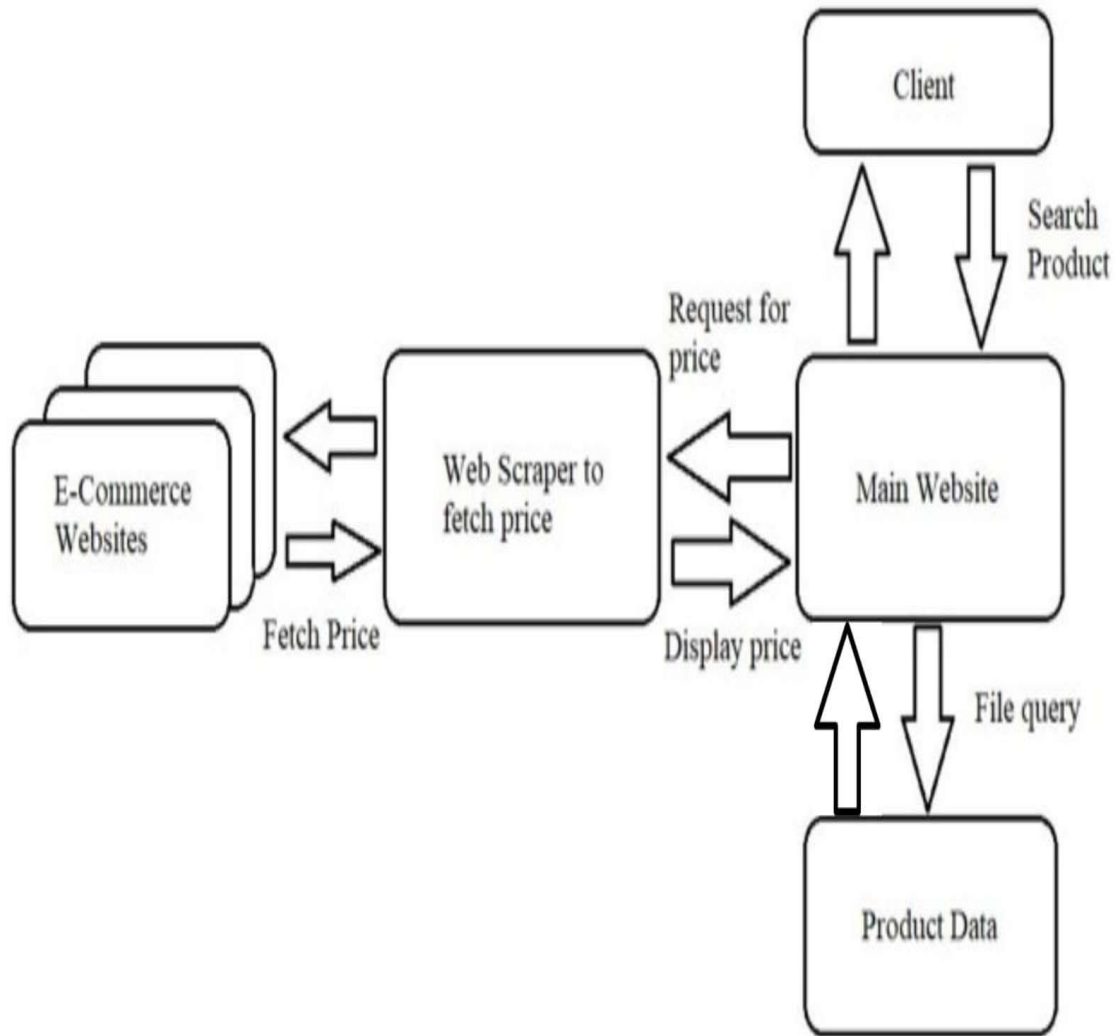
- A server with a fast processor and at least 8GB of RAM. This is necessary to handle the load of web scraping and serving the website to users.
- A large hard drive or SSD, depending on the amount of data you need to store.
- A reliable internet connection.
- A dedicated server from a reputable provider such as Amazon Web Services (AWS) or Google Cloud Platform (GCP).
- A Linux operating system such as Ubuntu or Debian.
- A reliable internet connection with at least 100 Mbps bandwidth.

Software Requirements:

- Python 3
- BeautifulSoup: A Python library for parsing HTML and XML documents.
- Requests: A Python library for making HTTP requests.
- A database management system (DBMS) such as MySQL or PostgreSQL to store the links and classes of a particular attribute.
- A web server such as Apache or Nginx to serve the website to users.

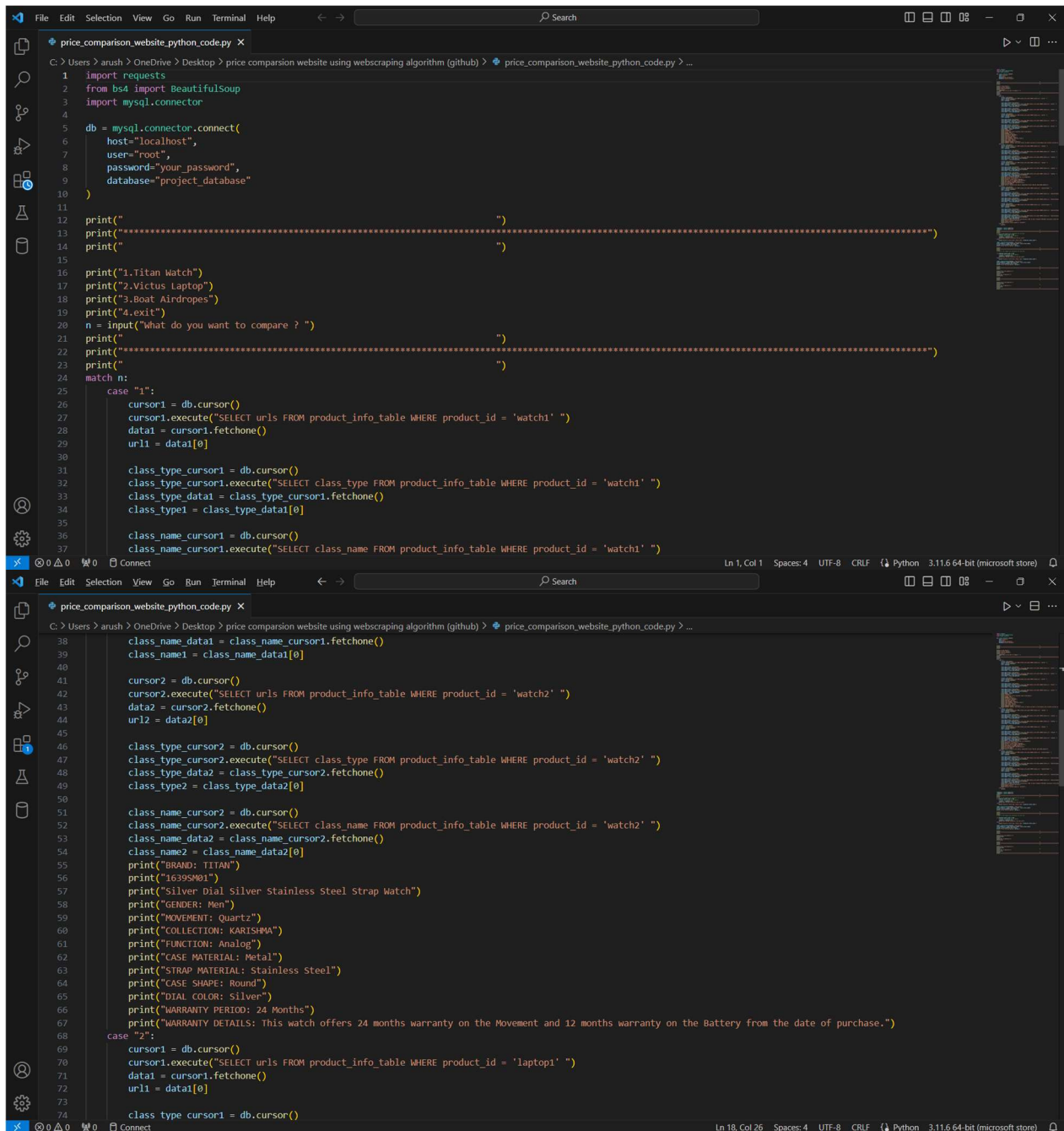
In addition to these requirements, it is also recommended to use a virtual private network (VPN) to protect your privacy when web scraping.

4. ARCHITECTURE AND DESIGN



5. IMPLEMENTATION

PYTHON CODE:



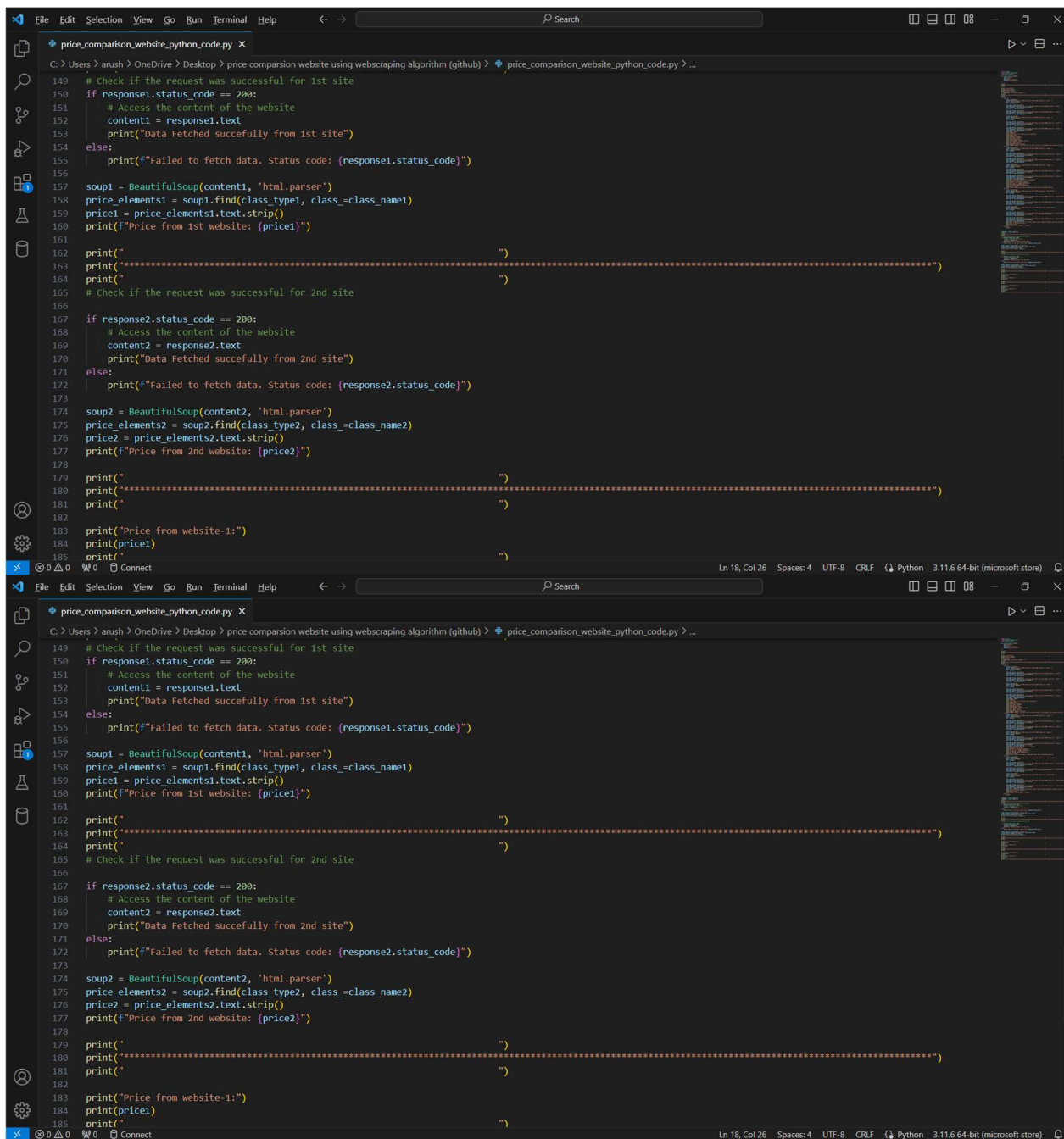
```

1  import requests
2  from bs4 import BeautifulSoup
3  import mysql.connector
4
5  db = mysql.connector.connect(
6      host="localhost",
7      user="root",
8      password="your_password",
9      database="project_database"
10 )
11
12 print(" ")
13 print("=====")
14 print(" ")
15
16 print("1.Titan Watch")
17 print("2.Victus Laptop")
18 print("3.Boat Airdropes")
19 print("4.exit")
20 n = input("What do you want to compare ? ")
21 print(" ")
22 print("=====")
23 print(" ")
24 match n:
25     case "1":
26         cursor1 = db.cursor()
27         cursor1.execute("SELECT urls FROM product_info_table WHERE product_id = 'watch1' ")
28         data1 = cursor1.fetchone()
29         url1 = data1[0]
30
31         class_type_cursor1 = db.cursor()
32         class_type_cursor1.execute("SELECT class_type FROM product_info_table WHERE product_id = 'watch1' ")
33         class_type_data1 = class_type_cursor1.fetchone()
34         class_type1 = class_type_data1[0]
35
36         class_name_cursor1 = db.cursor()
37         class_name_cursor1.execute("SELECT class_name FROM product_info_table WHERE product_id = 'watch1' ")
38
39         class_name_data1 = class_name_cursor1.fetchone()
40         class_name1 = class_name_data1[0]
41
42         cursor2 = db.cursor()
43         cursor2.execute("SELECT urls FROM product_info_table WHERE product_id = 'watch2' ")
44         data2 = cursor2.fetchone()
45         url2 = data2[0]
46
47         class_type_cursor2 = db.cursor()
48         class_type_cursor2.execute("SELECT class_type FROM product_info_table WHERE product_id = 'watch2' ")
49         class_type_data2 = class_type_cursor2.fetchone()
50         class_type2 = class_type_data2[0]
51
52         class_name_cursor2 = db.cursor()
53         class_name_cursor2.execute("SELECT class_name FROM product_info_table WHERE product_id = 'watch2' ")
54         class_name_data2 = class_name_cursor2.fetchone()
55         class_name2 = class_name_data2[0]
56         print("BRAND: TITAN")
57         print("16395M01")
58         print("Silver Dial Silver Stainless Steel Strap Watch")
59         print("GENDER: Men")
60         print("MOVEMENT: Quartz")
61         print("COLLECTION: KARISHMA")
62         print("FUNCTION: Analog")
63         print("CASE MATERIAL: Metal")
64         print("STRAP MATERIAL: Stainless Steel")
65         print("CASE SHAPE: Round")
66         print("DIAL COLOR: Silver")
67         print("WARRANTY PERIOD: 24 Months")
68         print("WARRANTY DETAILS: This watch offers 24 months warranty on the Movement and 12 months warranty on the Battery from the date of purchase.")
69     case "2":
70         cursor1 = db.cursor()
71         cursor1.execute("SELECT urls FROM product_info_table WHERE product_id = 'laptop1' ")
72         data1 = cursor1.fetchone()
73         url1 = data1[0]
74
75         class_type_cursor1 = db.cursor()

```

```

File Edit Selection View Go Run Terminal Help
price_comparison_website_python_code.py X
C:\Users> arush > OneDrive > Desktop > price comparison website using webscraping algorithm (github) > price_comparison_website_python_code.py > ...
38 class_name_data1 = class_name_cursor1.fetchone()
39 class_name1 = class_name_data1[0]
40
41 cursor2 = db.cursor()
42 cursor2.execute("SELECT urls FROM product_info_table WHERE product_id = 'watch2' ")
43 data2 = cursor2.fetchone()
44 url2 = data2[0]
45
46 class_type_cursor2 = db.cursor()
47 class_type_cursor2.execute("SELECT class_type FROM product_info_table WHERE product_id = 'watch2' ")
48 class_type_data2 = class_type_cursor2.fetchone()
49 class_type2 = class_type_data2[0]
50
51 class_name_cursor2 = db.cursor()
52 class_name_cursor2.execute("SELECT class_name FROM product_info_table WHERE product_id = 'watch2' ")
53 class_name_data2 = class_name_cursor2.fetchone()
54 class_name2 = class_name_data2[0]
55 print("BRAND: TITAN")
56 print("1639SM01")
57 print("Silver Dial Silver Stainless Steel Strap Watch")
58 print("GENDER: Men")
59 print("MOVEMENT: Quartz")
60 print("COLLECTION: KARISHMA")
61 print("FUNCTION: Analog")
62 print("CASE MATERIAL: Metal")
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65 print("DIAL COLOR: Silver")
66 print("WARRANTY PERIOD: 24 Months")
67 print("WARRANTY DETAILS: This watch offers 24 months warranty on the Movement and 12 months warranty on the Battery from the date of purchase.")
68
69 case "2":
70 cursor1 = db.cursor()
71 cursor1.execute("SELECT urls FROM product_info_table WHERE product_id = 'laptop1' ")
72 data1 = cursor1.fetchone()
73 url1 = data1[0]
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75 class_type_cursor1 = db.cursor()
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112 class_type_cursor1 = db.cursor()
113 class_type_cursor1.execute("SELECT class_type FROM product_info_table WHERE product_id = 'boatairdropes1' ")
114 class_type_data1 = class_type_cursor1.fetchone()
115 class_type1 = class_type_data1[0]
116
117 class_name_cursor1 = db.cursor()
118 class_name_cursor1.execute("SELECT class_name FROM product_info_table WHERE product_id = 'boatairdropes1' ")
119 class_name_data1 = class_name_cursor1.fetchone()
120 class_name1 = class_name_data1[0]
121
122 cursor2 = db.cursor()
123 cursor2.execute("SELECT urls FROM product_info_table WHERE product_id = 'boatairdropes2' ")
124 data2 = cursor2.fetchone()
125 url2 = data2[0]
126
127 class_type_cursor2 = db.cursor()
128 class_type_cursor2.execute("SELECT class_type FROM product_info_table WHERE product_id = 'boatairdropes2' ")
129 class_type_data2 = class_type_cursor2.fetchone()
130 class_type2 = class_type_data2[0]
131
132 class_name_cursor2 = db.cursor()
133 class_name_cursor2.execute("SELECT class_name FROM product_info_table WHERE product_id = 'boatairdropes2' ")
134 class_name_data2 = class_name_cursor2.fetchone()
135 class_name2 = class_name_data2[0]
136 print("boAt Airdopes 121V2 On Ear True Wireless (TWS) 14 Hours Playback IPX7(Water Resistant) Active Noise cancellation -Bluetooth V 5.0 Black")
137 print("Wired or Wireless:Wireless")
138 print("COLOR: Black")
139 print("BIS/ISI License number:R - 41171557")
140
141 case "4":
142 exit(0);
143
144 response1 = requests.get(url1)
145 response2 = requests.get(url2)
146 print(" ")
147 print("*****")
148 print(" ")
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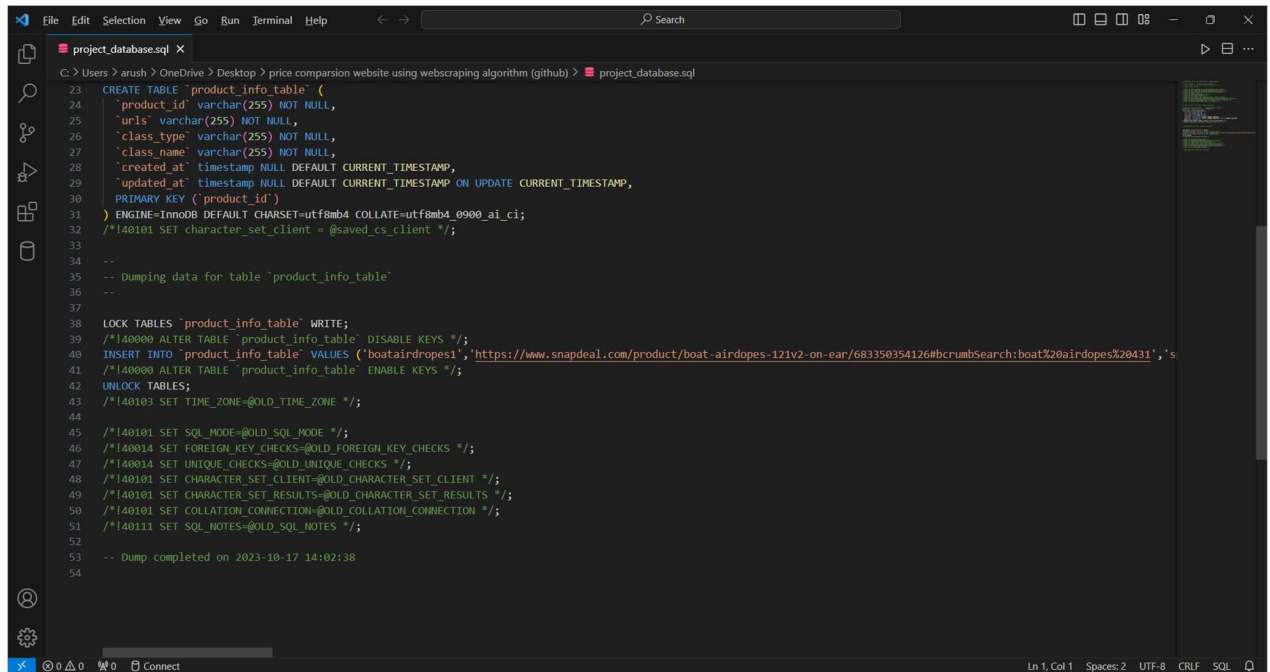
```

149 # Check if the request was successful for 1st site
150 if response1.status_code == 200:
151     # Access the content of the website
152     content1 = response1.text
153     print("Data Fetched successfully from 1st site")
154 else:
155     print(f"Failed to fetch data. Status code: {response1.status_code}")
156
157 soup1 = BeautifulSoup(content1, 'html.parser')
158 price_elements1 = soup1.find(class_type1, class_name1)
159 price1 = price_elements1.text.strip()
160 print(f"Price from 1st website: {price1}")
161
162 print(" ")
163 print("=====")
164 print(" ")
165 # Check if the request was successful for 2nd site
166
167 if response2.status_code == 200:
168     # Access the content of the website
169     content2 = response2.text
170     print("Data Fetched successfully from 2nd site")
171 else:
172     print(f"Failed to fetch data. Status code: {response2.status_code}")
173
174 soup2 = BeautifulSoup(content2, 'html.parser')
175 price_elements2 = soup2.find(class_type2, class_name2)
176 price2 = price_elements2.text.strip()
177 print(f"Price from 2nd website: {price2}")
178
179 print(" ")
180 print("=====")
181 print(" ")
182
183 print("Price from website-1:")
184 print(price1)
185 print(" ")

```

Ln 18, Col 26 Spaces: 4 UTF-8 CRLF Python 3.11.6 64-bit (microsoft store)

MySQL DATABASE:



```
23 CREATE TABLE `product_info_table` (  
24   `product_id` varchar(255) NOT NULL,  
25   `urls` varchar(255) NOT NULL,  
26   `class_type` varchar(255) NOT NULL,  
27   `class_name` varchar(255) NOT NULL,  
28   `created_at` timestamp NULL DEFAULT CURRENT_TIMESTAMP,  
29   `updated_at` timestamp NULL DEFAULT CURRENT_TIMESTAMP ON UPDATE CURRENT_TIMESTAMP,  
30   PRIMARY KEY (`product_id`)  
31 ) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4_0900_ai_ci;  
32 /*!40101 SET character_set_client = @saved_cs_client */;  
33  
34 --  
35 -- Dumping data for table `product_info_table`  
36 --  
37  
38 LOCK TABLES `product_info_table` WRITE;  
39 /*!40000 ALTER TABLE `product_info_table` DISABLE KEYS */;  
40 INSERT INTO `product_info_table` VALUES ('boatairdropes1','https://www.snapdeal.com/product/boat-airdropes-121v2-on-ear/683350354126#breadcrumbSearch:boat%20airdropes%20431','s  
41 /*!40000 ALTER TABLE `product_info_table` ENABLE KEYS */;  
42 UNLOCK TABLES;  
43 /*!40103 SET TIME_ZONE=@OLD_TIME_ZONE */;  
44  
45 /*!40101 SET SQL_MODE=@OLD_SQL_MODE */;  
46 /*!40014 SET FOREIGN_KEY_CHECKS=@OLD_FOREIGN_KEY_CHECKS */;  
47 /*!40014 SET UNIQUE_CHECKS=@OLD_UNIQUE_CHECKS */;  
48 /*!40101 SET CHARACTER_SET_CLIENT=@OLD_CHARACTER_SET_CLIENT */;  
49 /*!40101 SET CHARACTER_SET_RESULTS=@OLD_CHARACTER_SET_RESULTS */;  
50 /*!40101 SET COLLATION_CONNECTION=@OLD_COLLATION_CONNECTION */;  
51 /*!40111 SET SQL_NOTES=@OLD_SQL_NOTES */;  
52  
53 -- Dump completed on 2023-10-17 14:02:38  
54
```

GUI:

[Best Price](#) [Real Time Update](#) [Best Rating](#) [Trusted Sites](#)

Login For Best Deals

Username:


Password:

Login

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[Best Price](#) [Real Time Update](#) [Best Rating](#) [Trusted Sites](#)

Price Comparision



Best Value For You !!

Ipnone 13
Black Colour 256gb
Price: \$584.99
Rating: 9.8



Ipnone 13
Blue Colour 256gb.
Price: \$610.00
Rating: 9.2

6. RESULTS AND DISCUSSION

```

PS C:\Users\arush> python -u "d:\python program\price comparison website using webscraping algorithm\price_comparison_website_python_code.py"

=====
1.Titan Watch
2.Victus Laptop
3.Boat Airdrops
4.exit
What do you want to compare ? 1

=====

BRAND: TITAN
1639SM01
Silver Dial Silver Stainless Steel Strap Watch
GENDER: Men
MOVEMENT: Quartz
COLLECTION: KARISHMA
FUNCTION: Analog
CASE MATERIAL: Metal
STRAP MATERIAL: Stainless Steel
CASE SHAPE: Round
DIAL COLOR: Silver
WARRANTY PERIOD: 24 Months
WARRANTY DETAILS: This watch offers 24 months warranty on the Movement and 12 months warranty on the Battery from the date of purchase.

=====

Data Fetched successfully from 1st site
Price from 1st website: ₹ 1,596.00

=====

Data Fetched successfully from 2nd site
Price from 2nd website: ₹1,595

=====

Price from website-1:
₹ 1,596.00

URL of website-1:
https://rameshwatch.com/products/titan-1639sm01

=====

```

```

PS C:\Users\arush> python -u "d:\python program\price comparison website using webscraping algorithm\price_comparison_website_python_code.py"

=====
1.Titan Watch
2.Victus Laptop
3.Boat Airdrops
4.exit
What do you want to compare ? 2

=====

BRAND: TITAN
1639SM01
Silver Dial Silver Stainless Steel Strap Watch
GENDER: Men
MOVEMENT: Quartz
COLLECTION: KARISHMA
FUNCTION: Analog
CASE MATERIAL: Metal
STRAP MATERIAL: Stainless Steel
CASE SHAPE: Round
DIAL COLOR: Silver
WARRANTY PERIOD: 24 Months
WARRANTY DETAILS: This watch offers 24 months warranty on the Movement and 12 months warranty on the Battery from the date of purchase.

=====

Data Fetched successfully from 1st site
Price from 1st website: ₹ 1,596.00

=====

Data Fetched successfully from 2nd site
Price from 2nd website: ₹1,595

=====

Price from website-1:
₹ 1,596.00

URL of website-1:
https://rameshwatch.com/products/titan-1639sm01

=====

Price from website-2:
₹1,595

URL of website-2:
https://www.price-hunt.com/watches/titan-karishma-analog-multi-colour-dial-mens-watch-1639-sm-01.php

=====

```

```

D:\> python program > price comparison website using webscraping algorithm > price_comparison_website_python_code.py > ...
1 import requests

PS C:\Users\arush> python -u "d:\python program\price comparison website using webscraping algorithm\price_comparison_website_python_code.py"

=====
1.Titan Watch
2.Victus Laptop
3.Boat Airdropes
4.exit
What do you want to compare ? 3
=====

boat Airdropes 121v2 On Ear True Wireless (TWS) 14 Hours Playback IPX7(Water Resistant) Active Noise cancellation -Bluetooth V 5.0 Black
Wired or Wireless:Wireless
COLOR: Black
BIS/ISI license number:R - 41171557

=====

Data Fetched successfully from 1st site
Price from 1st website: 1299

=====

Data Fetched successfully from 2nd site
Price from 2nd website: ₹2,990

=====

Price from website-1:
1299

URL of website-1:
https://www.snapdeal.com/product/boat-airdropes-121v2-on-ear/683359354126#breadcrumbSearch:boat%20airdropes%20431

=====

Price from website-2:
₹2,990

```

```

D:\> python program > price comparison website using webscraping algorithm > price_comparison_website_python_code.py > ...
1 import requests

PS C:\Users\arush> python -u "d:\python program\price comparison website using webscraping algorithm\price_comparison_website_python_code.py"

=====
2.Victus Laptop
3.Boat Airdropes
4.exit
What do you want to compare ? 2
=====

boat Airdropes 121v2 On Ear True Wireless (TWS) 14 Hours Playback IPX7(Water Resistant) Active Noise cancellation -Bluetooth V 5.0 Black
Wired or Wireless:Wireless
COLOR: Black
BIS/ISI license number:R - 41171557

=====

Data Fetched successfully from 1st site
Price from 1st website: 1299

=====

Data Fetched successfully from 2nd site
Price from 2nd website: ₹2,990

=====

Price from website-1:
1299

URL of website-1:
https://www.snapdeal.com/product/victus-laptop-121v2-on-ear/683359354126#breadcrumbSearch:victus%20laptop%20431

=====

Price from website-2:
₹2,990

URL of website-2:
https://www.ohlocal.in/product?detail-product_details&product_id=EA13188980

=====

PS C:\Users\arush>

```



```

D:\> python program > price comparison website using webscraping algorithm > price_comparison_website_python_code.py > ...
1 import requests

PS C:\Users\arush> python -u "d:\python program\price comparison website using webscraping algorithm\price_comparison_website_python_code.py"

=====
1.Titan Watch
2.Victus Laptop
3.Boat Airdrops
4.exit
What do you want to compare ? 2
=====

HP Victus Gaming Laptop 39.62 cm 15-fb0147AX
AMD Ryzen™ 5 processor
Windows 11 Home Single Language
39.6 cm (15.6) diagonal FHD display
AMD Radeon™ RX 6500M Graphics
512 GB PCIe® NVMe™ SSD Hard drive
8 GB RAM DDR4
Backlit keyboard with numeric keypad/wide Vision 720p HD camera/B&O Speakers
=====

Data Fetched succesfully from 1st site
Price from 1st website: Rs. 55,999.00
=====

Data Fetched succesfully from 2nd site
Price from 2nd website: ₹47,990
=====

Price from website-1:
Rs. 55,999.00

URL of website-1:
https://myitworld.com/products/victus-gaming-laptop-15-fb0147ax?_pos=2&_sid=3726e1da7&_ss=r
=====

```

```

=====

Data Fetched succesfully from 1st site
Price from 1st website: Rs. 55,999.00
=====

Data Fetched succesfully from 2nd site
Price from 2nd website: ₹47,990
=====

Price from website-1:
Rs. 55,999.00

URL of website-1:
https://myitworld.com/products/victus-gaming-laptop-15-fb0147ax?_pos=2&_sid=3726e1da7&_ss=r
=====

Price from website-2:
₹47,990

URL of website-2:
https://www.smartprix.com/laptops/hp-victus-15-fb0147ax-gaming-laptop-amd-ryzen-ppd1naisspur
=====

PS C:\Users\arush>

```

7. CONCLUSION

our price comparison website project is a significant achievement, demonstrating our skills in web scraping, database management, and web development. It provides a valuable service to users by simplifying their product research and saving them time and money. As we continue to work on this project and make improvements, it has the potential to become a popular destination for online shoppers seeking the best deals. It showcases our ability to create practical, data-driven solutions and opens the door to various opportunities for expansion and monetization. Keep refining and enhancing our project to stay competitive in the dynamic e-commerce landscape.

8. REFERENCES

- Comparative Study Of Various Scraping Tools: Pros And Cons

[Comparative Study Of Various Scraping Tools: Pros And Cons | IEEE Conference Publication | IEEE Xplore](#)

- Intelligent Online Shopping using ML-based Product Comparison Engine

[Intelligent Online Shopping using ML-based Product Comparison Engine | IEEE Conference Publication | IEEE Xplore](#)

- Co-Mart - A Daily Necessity Price Comparison Application

[Co-Mart - A Daily Necessity Price Comparison Application | IEEE Conference Publication | IEEE Xplore](#)

- Web Scraping based Product Comparison Model for E-Commerce Websites

[Web Scraping based Product Comparison Model for E-Commerce Websites | IEEE Conference Publication | IEEE Xplore](#)