Data Analysis Internship Assignment: Web Scraping Project

Objective:

Your task is to scrape product specifications from the webpage https://www.acemicromatic.net/product_cat/milling/. This assignment will test your ability to collect, structure, and present data in a meaningful manner.

Specific Instructions:

Web Scraping:

Access the mentioned webpage.

Extract specifications for each product listed under milling.

For each product, extract the TRAVELS (X/Y/Z). They will typically appear in the format:

TRAVELS (X/Y/Z)   mm   1000 / 600/ 600

Break down these values to capture **x_travel, y_travel,** and **z_travel** separately.

Focus specifically on capturing the following data fields for every product: param_1, param_2, model_name, x_travel, y_travel, and z_travel.

Data Structuring:

Organize the data in the following tabulated format:

param_1	param_2	model_name	x_travel	y_travel	z_travel
Milling	Vertical Machining Centers	1060V	1000	600	600
Milling	Vertical Machining Centers	1260V	1250	600	600

... and so on

Documentation:

Alongside the structured data, provide a brief documentation:

Tools or libraries used for the scraping process.

Challenges faced and how you overcame them.

Any assumptions made during the process.

Ethical Consideration:

Ensure your web scraping activity is respectful to the website's robots.txt and does not overwhelm or cause harm to the site.

Submission:

Submit the structured data in a CSV file along with the code file.

Include your documentation in a PDF format.

Evaluation:

Your submission will be evaluated based on:

Accuracy of scraped data.

The quality and organization of the structured data.

Clarity and depth of the documentation.

Important Note:

Web scraping may be subjected to legal and ethical restrictions. Always respect the website's terms of service, robots.txt, and refrain from making excessive requests in a short span of time. Make sure your activities adhere to the best practices of web scraping.

Good luck!