PYTHON

Assignment

1. **Extract Email Addresses: Write a Python script to extract all email addresses from a web page using regular expressions.**
2. **Find Phone Numbers: Create a regular expression to find all phone numbers in the format `123-456-7890` from the HTML content of a web page.**
3. **Validate URLs: Write a Python function using regular expressions to check if the URLs found on a web page are valid.**
4. **Extract Date Formats: Scrape a website and use regular expressions to extract all date formats like `DD/MM/YYYY` or `MM-DD-YYYY`.**
5. **Find Social Media Links: Use regular expressions to extract all social media profile links (Facebook, Twitter, Instagram, etc.) from a given web page.**
6. **Extract IP Addresses: Write a script to extract all IPv4 addresses from the HTML content of a website.**
7. **Find Hashtags in Text: Scrape social media posts from a webpage and extract all hashtags using regular expressions.**
8. **Extract Prices: Scrape a product page and use regular expressions to extract all prices listed on the page (e.g., `$25.99`).**
9. **Identify File Extensions: Extract all links that point to files with `.pdf`, `.docx`, or `.zip` extensions using a regex pattern.**
10. **Clean HTML Tags: Use regular expressions to remove all HTML tags from the content of a scraped webpage and extract only the plain text.**
11. **Scrape Article Titles: Write a web scraper that extracts all article titles from a news website and uses regular expressions to clean any unwanted characters.**
12. **Find Usernames in URLs: Scrape a webpage and extract usernames from URLs that follow a specific pattern, such as `https://website.com/@username`.**
13. **Extract Product Codes: From an e-commerce website, extract product codes or SKUs using regular expressions.**
14. **Find Dates in Free-Text Content: Write a regular expression to find dates hidden in free-text sections of a blog post (e.g., "on March 14th, 2023").**
15. **Validate Form Inputs: Use regular expressions to validate form inputs like email, phone numbers, and postal codes scraped from a website.**