### **Web Scraping Task**

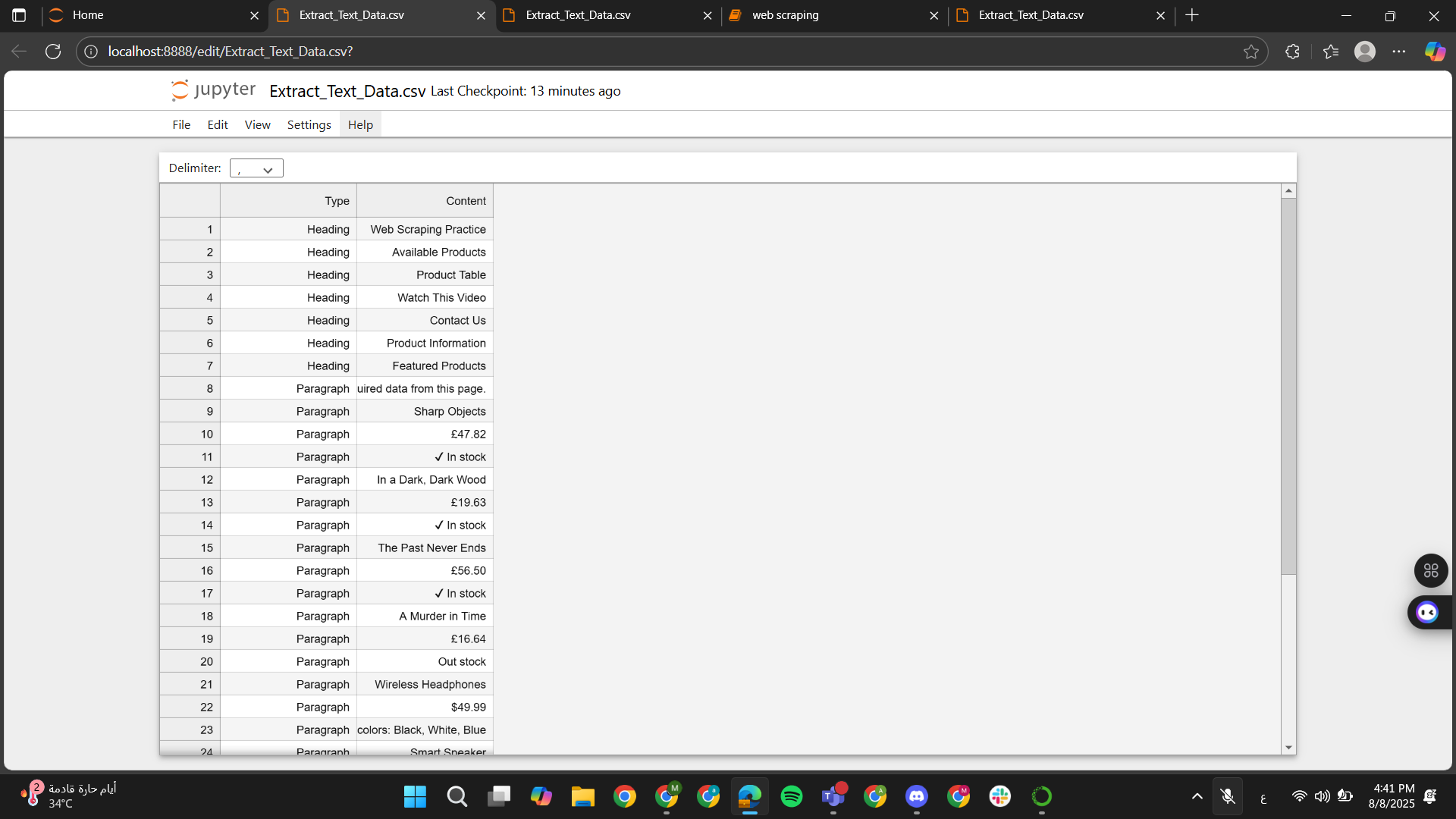
#### **Task Description:**

You are tasked to perform web scraping on a provided HTML page that contains different types of elements. The goal is to extract specific data from the page and process it into structured formats such as CSV or JSON.

### [**https://baraasalout.github.io/test.html**](https://baraasalout.github.io/test.html)

### **Steps to Complete the Task pip install beautifulsoup4**

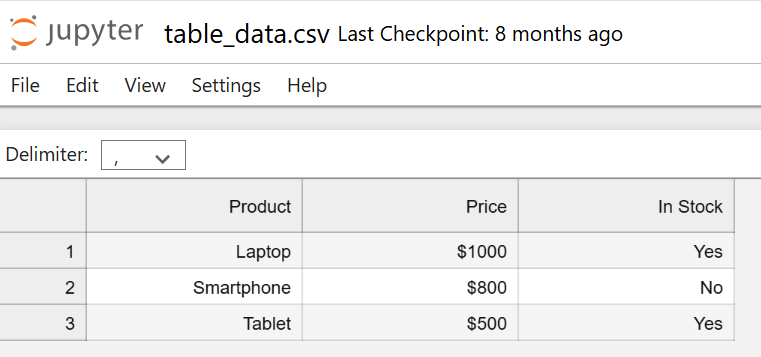
#### **1. Extract Text Data:**

* Extract all headings (<h1>, <h2>).
* Extract all text content inside <p> and <li> tags.
* Save this data into a **Extract\_Text\_Data.CSV** file.  
  <https://www.pythontutorial.net/python-basics/python-write-csv-file/>



#### **2. Extract Table Data:**

* Extract data from the table, including:
  + Product Name.
  + Price.
  + Stock Status.
* Save this data into a **Extract\_Table\_Data.CSV** file.
* <https://www.pythontutorial.net/python-basics/python-write-csv-file/>
* <https://www.geeksforgeeks.org/pandas/saving-a-pandas-dataframe-as-a-csv/>



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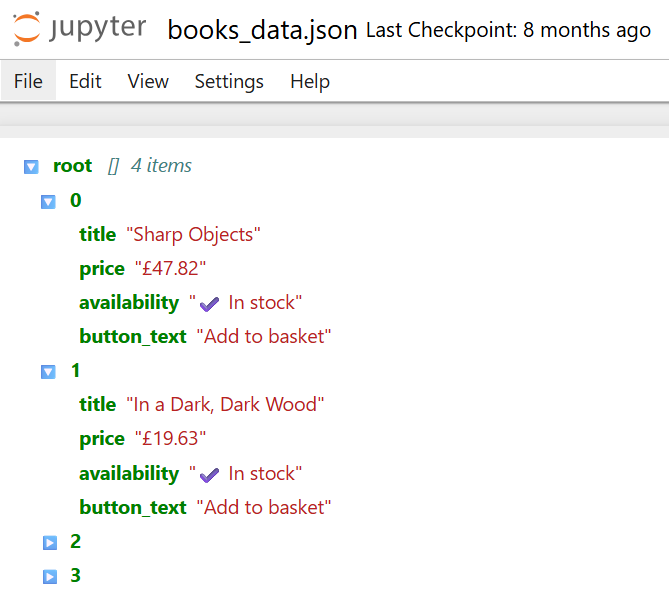
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#### **3. Extract Product Information (Cards Section):**

* Extract data from the book cards at the bottom of the page, including:
  + Book Title.
  + Price.
  + Stock Availability.
  + Button text (e.g., "Add to basket").
* Save the data into a  **books\_data.**JSON file.
* <https://www.geeksforgeeks.org/how-to-convert-python-dictionary-to-json/>



#### **4. Extract Form Details:**

* Extract all input fields from the form, including:
  + Field name (e.g., username, password).
  + Input type (e.g., text, password, checkbox, etc.).
  + Default values, if any.
  + Save the data into a JSON file.
  + <https://www.geeksforgeeks.org/how-to-convert-python-dictionary-to-json/>

#### **5. Extract Links and Multimedia:**

* Extract the video link from the <iframe> tag.
* Save the data into a JSON file.
* <https://www.geeksforgeeks.org/how-to-convert-python-dictionary-to-json/>

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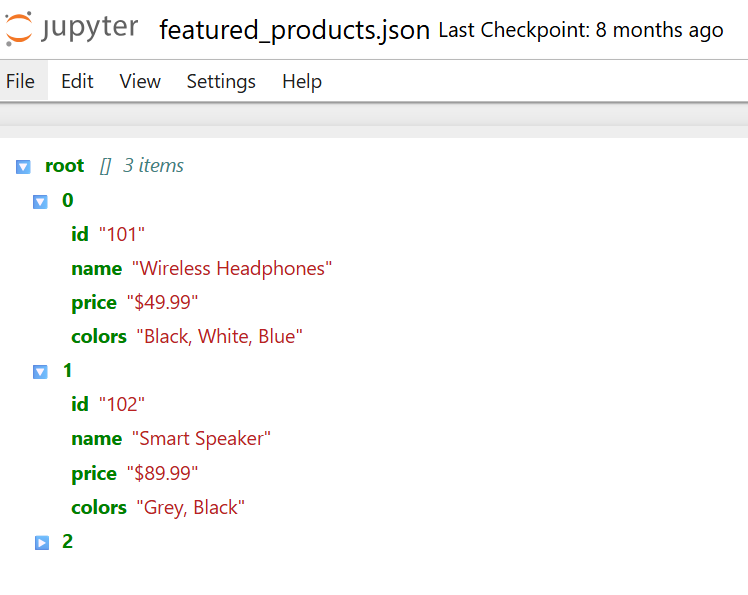
#### **6. Scraping Challenge:**

Students must write a script to extract data from the **Featured Products** section with the following requirements:

* Product Name: Located within <span class="name">.
* Hidden Price: Located within <span class="price">, which has style="display: none;".
* Available Colors: Located within <span class="colors">.
* Product ID: The value stored in the data-id attribute.

##### **Example Output:**

[ {'id': '101', 'name': 'Wireless Headphones', 'price': '$49.99', 'colors': 'Black, White, Blue'}, …, ]

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## **Deliverables**

1. **CSV Files**
   * Extract\_Text\_Data.csv
   * Extract\_Table\_Data.csv
2. **JSON Files**
   * Product\_Information.json
   * Form\_Details.json
   * Multimedia.json
   * Featured\_Products.json
3. **Python Script**
   * Well-commented scraping script.
4. **Documentation**
   * Short explanation of approach, libraries used (e.g., BeautifulSoup, requests), and challenges faced.
5. **GitHub Repo**
   * Upload all files & script, then **submit a repo link.**