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# WORKSHEET3-XPATH AND XSLT

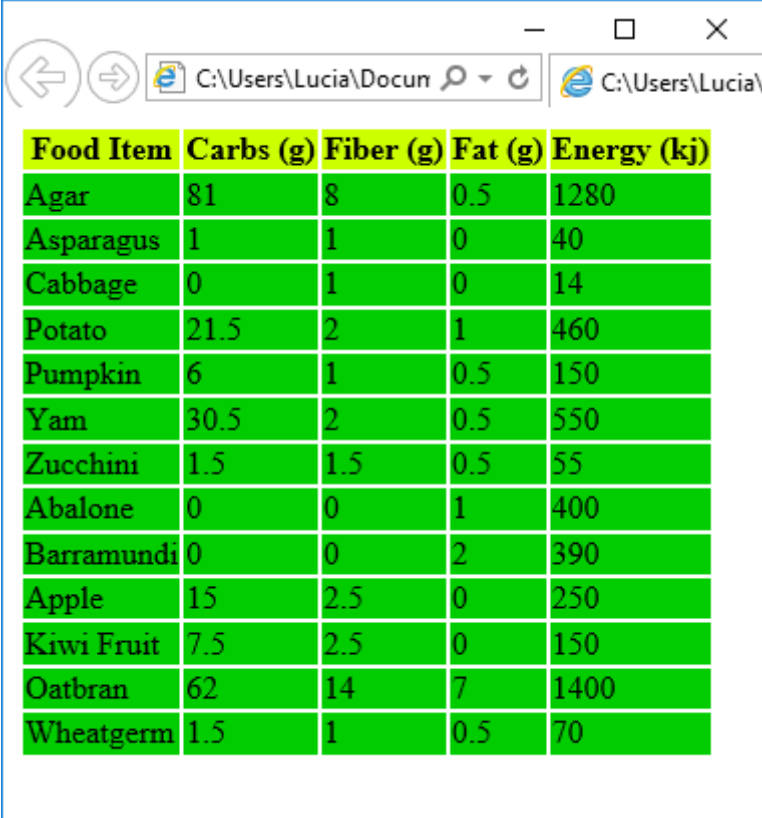
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## 1. With the following XML document:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<bookShop>
  <book category="cooking">
    <title language="en">Everyday Italian</title>
    <author>Giada De Laurentiis</author>
    <year>2005</year>
    <price>30.00</price>
  </book>
  <book category="children">
    <title language="en">Harry Potter</title>
    <author>J K. Rowling</author>
    <year>2005</year>
    <price>29.99</price>
  </book>
  <book category="web" cover="paperback">
    <title language="en">XQuery Kick Start</title>
    <author>James McGovern</author>
    <author>Per Bothner</author>
    <author>Kurt Cagle</author>
    <author>James Linn</author>
    <author>Vaidyanathan Nagarajan</author>
    <section par="1">
      <chapter num="1">
        <title>XML The foundation of XQuery</title>
        <npages>14</npages>
      </chapter>
      <chapter num="2">
        <title>Understanding the XPath specification</title>
        <npages>15</npages>
      </chapter>
    </section>
    <year>2003</year>
    <price>49.99</price>
  </book>
  <book category="web" cover="paperback">
    <title language="en">Learning XML</title>
    <author>Erik T. Ray</author>
    <chapter num="1">
      <title>Introduction</title>
      <npages>24</npages>
    </chapter>
    <chapter num="2">
      <title>Markup and Core Concepts</title>
      <npages>34</npages>
    </chapter>
    <year>2003</year>
    <price>39.95</price>
  </book>
</bookShop>
```

Use XPath to obtain (in more than one way if possible):

- a. All titles of the document
  - b. All titles of a book of the document
  - c. All elements of a chapter
  - d. All elements of a chapter in a section
  - e. All elements
  - f. Titles that have a chapter 1
  - g. The third book with all its information
  - h. All elements with attributes
  - i. All elements with a *category* attribute
  - j. Books with no *cover* attribute
  - k. Elements with two *chapters*
  - l. Book's about markup languages
  - m. Titles whose author's name value has more than 15 characters
  - n. Title of paperback books with more than 30 pages in any chapter
2. Create an XSL document for transforming the food.xml document into a webpage of the image:



Food Item	Carbs (g)	Fiber (g)	Fat (g)	Energy (kj)
Agar	81	8	0.5	1280
Asparagus	1	1	0	40
Cabbage	0	1	0	14
Potato	21.5	2	1	460
Pumpkin	6	1	0.5	150
Yam	30.5	2	0.5	550
Zucchini	1.5	1.5	0.5	55
Abalone	0	0	1	400
Barramundi	0	0	2	390
Apple	15	2.5	0	250
Kiwi Fruit	7.5	2.5	0	150
Oatbran	62	14	7	1400
Wheatgerm	1.5	1	0.5	70

3. Modify exercise one for obtaining a table showing only the Vegetables
4. Modify exercise one for obtaining a table showing the Vegetables in green and fruit in pink, ordered by quantity of fiber.
5. Modify exercise 3: Use Apply templates

6. Create an XSL document for transforming the *bookshop* XML document from the previous exercise into a webpage with:
  - a. A list with the titles of all books
  - b. A header for each section and a table with the titles and the number of pages of the chapters included in the section