Software, Systems and Applications - Advanced Databases

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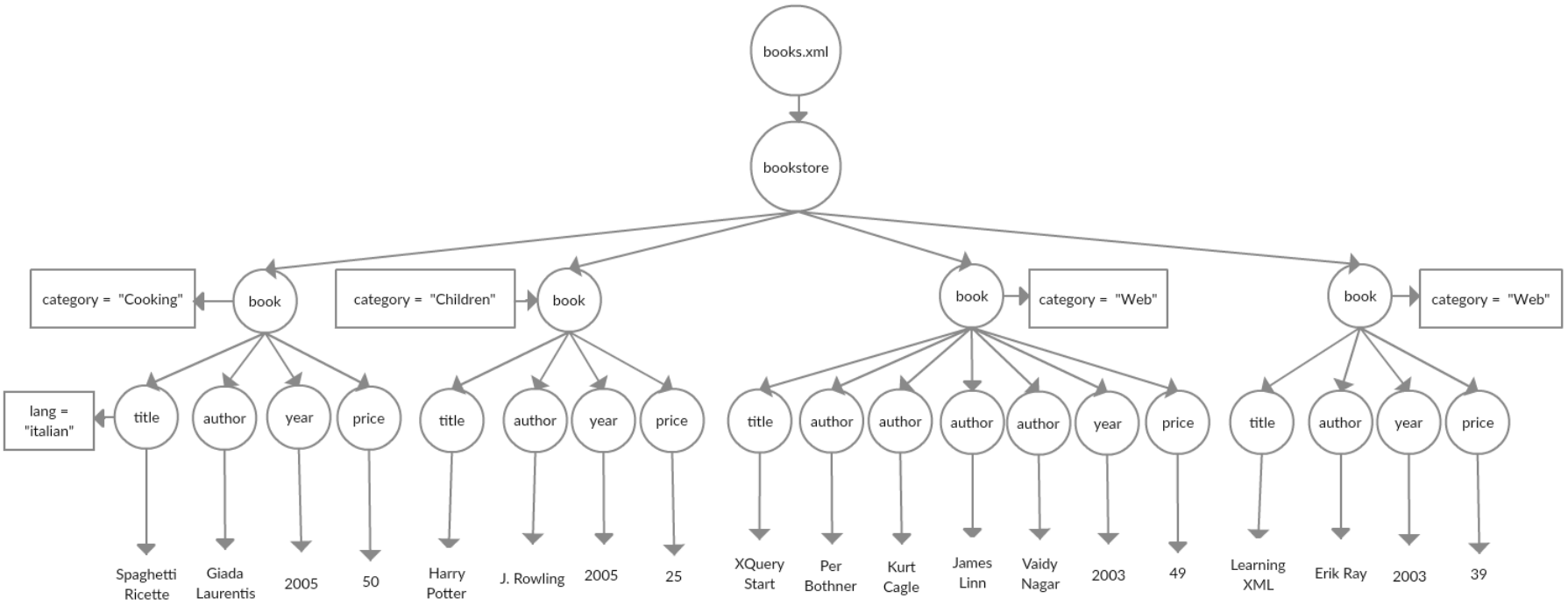

Figure 1: Directed Tree

Select the title nodes of the books that have a price higher than 35

Query

```
/bookstore/book[price>35]/title
```

Result

```
<title lang="italian"> Spaghetti Ricette </title>
<title> XQuery Start </title>
<title> Learning XML </title>
```

Select the first author of each book with category "Web"

Query

```
/bookstore/book[@category = "Web"]/author[1]
```

Result

```
<author> Per Bothner </author>
<author> Erik Ray </author>
```

Find the second author of the books of year 2003 with price more than 40

Query

```
for $i in doc("books.xml")/bookstore/book
where $i/price>40 and $i/year=2003
order by $i/author[2]
return $i/author[2]
```

Result

```
<author> Kurt Cagle </author>
```

Find the authors of all books that have price higher than the average price of the books of year 2005

Query

```
let $average := avg(doc("books.xml")/bookstore/book[year=2005]/price)
for $i in doc("books.xml")/bookstore/book
where $i/price > $average
return $i/author[$i]
```

Result

```
<author> Giada Laurentis </author>
<author> Per Bothner </author>
<author> Kurt Cagle </author>
<author> James Linn </author>
<author> Vaidy Nagar </author>
<author> Erik Ray </author>
```

Find the book categories that correspond to more than one book

Query

```
let $cats := fn:distinct-values(doc("books.xml")bookstore/book/[@category])
for $category in $cats
let $count := fn:count(doc("books.xml")bookstore/book[@category=$category])
order by $count
where $count > 1
return ($category)
```

Result

Web