

Ficha Prática 4

a)

The screenshot shows the XML Editor interface with the file `bookstore.xml` open. The XML content is as follows:

```
<?xml version="1.0" encoding="UTF-8"?>
<bookstore>
  <book category="WEB">
    <title lang="en-us">XQuery Kick Start</title>
    <author>James McGovern</author>
    <year>2003</year>
    <price>49.99</price>
  </book>
  <book category="WEB">
    <title lang="en-us">Learning XML</title>
    <author>Erik T. Ray</author>
    <year>2003</year>
    <price>39.95</price>
  </book>
</bookstore>
```

The XPath query `1 /bookstore:book/title[@lang = "en-us"]` is entered in the XPath/XQuery Builder. The Results pane shows 4 items:

| Description - 4 Items | XPath location | Resource | System ID | Location |
|-------------------------------|--------------------------------|---------------|--|----------|
| XQuery Kick Start | /bookstore[1]/book[3]/title[1] | bookstore.xml | C:\Users\hugo\Desktop\Faculdade\ESTG Felgueiras\1º Semestre do 2º Ano\PEI\Exercícios PEI\Ficha prática 4\Parte 1\bookstore.xml | 16:9 |
| Learning XML | /bookstore[1]/book[4]/title[1] | bookstore.xml | C:\Users\hugo\Desktop\Faculdade\ESTG Felgueiras\1º Semestre do 2º Ano\PEI\Exercícios PEI\Ficha prática 4\Parte 1\bookstore.xml | 22:9 |
| MongoDB: The Definitive Guide | /bookstore[1]/book[5]/title[1] | bookstore.xml | C:\Users\hugo\Desktop\Faculdade\ESTG Felgueiras\1º Semestre do 2º Ano\PEI\Exercícios PEI\Ficha prática 4\Parte 1\bookstore.xml | 28:9 |
| XML In A Nutshell | /bookstore[1]/book[6]/title[1] | bookstore.xml | C:\Users\hugo\Desktop\Faculdade\ESTG Felgueiras\1º Semestre do 2º Ano\PEI\Exercícios PEI\Ficha prática 4\Parte 1\bookstore.xml | 37:9 |

b)

The screenshot shows the XML Editor interface with the file `bookstore.xml` open. The XML content is as follows:

```
<?xml version="1.0" encoding="UTF-8"?>
<bookstore>
  <book category="COOKING">
    <title lang="en">Everyday Italian</title>
    <author>Giada De Laurentiis</author>
    <year>2005</year>
    <price>30.00</price>
  </book>
  <book category="CHILDREN">
    <title lang="en">Harry Potter</title>
    <author>J. K. Rowling</author>
    <year>2005</year>
    <price>29.99</price>
  </book>
</bookstore>
```

The XPath query `1 count(/bookstore:book/title[@lang = "en-us"])` is entered in the XPath/XQuery Builder. The Results pane shows 1 item:

| Description - 1 Item | XPath location | Resource | System ID | Location |
|----------------------|--------------------------------|---------------|--|----------|
| 4 | XPath location - Not available | bookstore.xml | C:\Users\hugo\Desktop\Faculdade\ESTG Felgueiras\1º Semestre do 2º Ano\PEI\Exercícios PEI\Ficha prática 4\Parte 1\bookstore.xml | |

c)

bookstore.xml [C:\Users\hugo\Desktop\Faculdade\Faculdade ESTG Felgueiras\1º Semestre do 2º Ano\PEI\Exercícios PEI\Ficha prática 4\Parte 1\bookstore.xml] - <Oxygen/> XML Editor (Academic use only)

File Edit Find Project Options Tools Document Window Help

XPath 2.0 Execute XPath on "Current File"

bookstore.xml

```
<?xml version="1.0" encoding="UTF-8"?>
<bookstore>
  <book category="COOKING">
    <title lang="en">Everyday Italian</title>
    <author>Giada De Laurentiis</author>
    <year>2005</year>
    <price>30.00</price>
  </book>
  <book category="CHILDREN">
    <title lang="en">Harry Potter</title>
    <author>J. K. Rowling</author>
    <year>2005</year>
    <price>29.99</price>
  </book>
</bookstore>
```

XPath/XQuery Builder

Scope: Current File

1 //author[ends-with(., 'Laurentiis')]

Results

| Description - 1 item | XPath location | Resource | System ID | Location |
|----------------------|---------------------------------|---------------|--|----------|
| Giada De Laurentiis | /bookstore[1]/book[1]/author[1] | bookstore.xml | C:\Users\hugo\Desktop\Faculdade\Faculdade ESTG Felgueiras\1... | 5:9 |

XPath - cd_catalog.xml XPath - bookstore.xml

Search Next Previous All Incremental Case sensitive Close

C:\Users\hugo\Desktop\Faculdade\Faculdade ESTG Felgueiras\1º Semestre do 2º Ano\PEI\Exercícios PEI\Ficha prática 4\Parte 1\bookstore.xml XPath - successful (0.0s) U+000A 57 : 13

d)

bookstore.xml [C:\Users\hugo\Desktop\Faculdade\Faculdade ESTG Felgueiras\1º Semestre do 2º Ano\PEI\Exercícios PEI\Ficha prática 4\Parte 1\bookstore.xml] - <Oxygen/> XML Editor (Academic use only)

File Edit Find Project Options Tools Document Window Help

XPath 2.0 CA/ALOG

bookstore.xml

```
<?xml version="1.0" encoding="UTF-8"?>
<bookstore>
  <book category="WEB">
    <title lang="en-us">XQuery Kick Start</title>
    <author>James McGovern</author>
    <year>2003</year>
    <price>49.99</price>
  </book>
  <book category="WEB">
    <title lang="en-us">Learning XML</title>
    <author>Erik T. Ray</author>
    <year>2003</year>
    <price>39.95</price>
  </book>
  <book category="WEB">
    <title lang="en-us">MongoDB: The Definitive Guide</title>
    <author>Gregory R. Miller</author>
    <year>2009</year>
    <price>49.99</price>
  </book>
</bookstore>
```

XPath/XQuery Builder

Scope: Current File

1 //book[price > 30]/title

Results

| Description - 3 items | XPath location | Resource | System ID | Location |
|-------------------------------|--------------------------------|---------------|--|----------|
| XQuery Kick Start | /bookstore[1]/book[3]/title[1] | bookstore.xml | C:\Users\hugo\Desktop\Faculdade\Faculdade ESTG Felgueiras\1... | 16:9 |
| Learning XML | /bookstore[1]/book[4]/title[1] | bookstore.xml | C:\Users\hugo\Desktop\Faculdade\Faculdade ESTG Felgueiras\1... | 22:9 |
| MongoDB: The Definitive Guide | /bookstore[1]/book[5]/title[1] | bookstore.xml | C:\Users\hugo\Desktop\Faculdade\Faculdade ESTG Felgueiras\1... | 28:9 |

XPath - cd_catalog.xml XPath - bookstore.xml

Search Next Previous All Incremental Case sensitive Close

C:\Users\hugo\Desktop\Faculdade\Faculdade ESTG Felgueiras\1º Semestre do 2º Ano\PEI\Exercícios PEI\Ficha prática 4\Parte 1\bookstore.xml XPath - successful (0.0s) U+000A 9 : 31

e)

bookstore.xml [C:\Users\hugo\Desktop\Faculdade\Faculdade ESTG Felgueiras\1º Semestre do 2º Ano\PEI\Exercícios PEI\Ficha prática 4\Parte 1\bookstore.xml] - <Oxygen/> XML Editor (Academic use only)

File Edit Find Project Options Tools Document Window Help

XPath 2.0 CATALOG

bookstore.xml

```
<?xml version="1.0" encoding="UTF-8"?>
<bookstore>
  <book>
    <title lang="pt-pt">30 Dias para Mudar de Vida, Detox Paleo</title>
    <author>Jcana Moura</author>
    <year>2016</year>
    <price>12.79</price>
  </book>
  <book category="CHILDREN">
    <title lang="en">I Wish You More</title>
    <author>Amy Krouse Rosenthal</author>
    <year>2015</year>
    <price>12.95</price>
  </book>
</bookstore>
```

XPath/XQuery Builder

XPath 2.0

Scope: Current File

bookstore.xml

1 /bookstore/book[8]

Results

| Description - 1 item | XPath location | Resource | System ID | Location |
|----------------------|-----------------------|---------------|---|----------|
| category="CHILDREN" | /bookstore[1]/book[8] | bookstore.xml | C:\Users\hugo\Desktop\Faculdade\Faculdade ESTG Felgueiras\1... 51:5 | |

XPath - cd_catalog.xml XPath - bookstore.xml

Search Next Previous All Incremental Case sensitive Close

C:\Users\hugo\Desktop\Faculdade\Faculdade ESTG Felgueiras\1º Semestre do 2º Ano\PEI\Exercícios PEI\Ficha prática 4\Parte 1\bookstore.xml XPath - successful (0.0s) U+000A 9 : 11

f)

bookstore.xml [C:\Users\hugo\Desktop\Faculdade\Faculdade ESTG Felgueiras\1º Semestre do 2º Ano\PEI\Exercícios PEI\Ficha prática 4\Parte 1\bookstore.xml] - <Oxygen/> XML Editor (Academic use only)

File Edit Find Project Options Tools Document Window Help

XPath 2.0 CATALOG

bookstore.xml

```
<?xml version="1.0" encoding="UTF-8"?>
<bookstore>
  <book category="COOKING">
    <title lang="en">Everyday Italian</title>
    <author>Giada De Laurentiis</author>
    <year>2005</year>
    <price>30.00</price>
  </book>
  <book category="CHILDREN">
    <title lang="en">Harry Potter</title>
    <author>J. K. Rowling</author>
    <year>2005</year>
    <price>29.99</price>
  </book>
</bookstore>
```

XPath/XQuery Builder

XPath 2.0

Scope: Current File

bookstore.xml

1 /bookstore/book[position() < 4]

Results

| Description - 1 item | XPath location | Resource | System ID | Location |
|----------------------|-----------------------|---------------|--|----------|
| category="COOKING" | /bookstore[1]/book[1] | bookstore.xml | C:\Users\hugo\Desktop\Faculdade\Faculdade ESTG Felgueiras\1... 3:5 | |

XPath - cd_catalog.xml XPath - bookstore.xml

Search Next Previous All Incremental Case sensitive Close

C:\Users\hugo\Desktop\Faculdade\Faculdade ESTG Felgueiras\1º Semestre do 2º Ano\PEI\Exercícios PEI\Ficha prática 4\Parte 1\bookstore.xml XPath - successful (0.0s) U+000A 9 : 11

g)

bookstore.xml [C:\Users\hugo\Desktop\Faculdade\Faculdade ESTG Felgueiras\1º Semestre do 2º Ano\PEI\Exercícios PEI\Ficha prática 4\Parte 1\bookstore.xml] - <Oxygen/> XML Editor (Academic use only)

File Edit Find Project Options Tools Document Window Help

XPath 2.0 CATALOG

bookstore.xml

```
<?xml version="1.0" encoding="UTF-8"?>
<bookstore>
  <book category="COOKING">
    <title lang="en">Everyday Italian</title>
    <author>Giada De Laurentiis</author>
    <year>2005</year>
    <price>30.00</price>
  </book>
  <book category="CHILDREN">
    <title lang="en">Harry Potter</title>
    <author>J K. Rowling</author>
    <year>2005</year>
    <price>29.99</price>
  </book>
</bookstore>
```

XPath/XQuery Builder

XPath 2.0

count(Sarg as item()) as xs:integer

1 count(/bookstore/book)

Results

| Description - 1 item | XPath location | Resource | System ID | Location |
|----------------------|--------------------------------|---------------|--|----------|
| 8 | XPath location - Not available | bookstore.xml | C:\Users\hugo\Desktop\Faculdade\Faculdade ESTG Felgueiras\1... | |

XPath - catalog.xml XPath - bookstore.xml

Search Next Previous All Incremental Case sensitive Close

h)

bookstore.xml [C:\Users\hugo\Desktop\Faculdade\Faculdade ESTG Felgueiras\1º Semestre do 2º Ano\PEI\Exercícios PEI\Ficha prática 4\Parte 1\bookstore.xml] - <Oxygen/> XML Editor (Academic use only)

File Edit Find Project Options Tools Document Window Help

XPath 2.0 Execute XPath on "Current File"

bookstore.xml

```
<?xml version="1.0" encoding="UTF-8"?>
<bookstore>
  <book category="COOKING">
    <title lang="en">Everyday Italian</title>
    <author>Giada De Laurentiis</author>
    <year>2005</year>
    <price>30.00</price>
  </book>
  <book category="CHILDREN">
    <title lang="en">Harry Potter</title>
    <author>J K. Rowling</author>
    <year>2005</year>
    <price>29.99</price>
  </book>
</bookstore>
```

XPath/XQuery Builder

XPath 2.0

Scope: Current File

1 //book[1]/author[1]

Results

| Description - 1 item | XPath location | Resource | System ID | Location |
|----------------------|---------------------------------|---------------|--|----------|
| Giada De Laurentiis | /bookstore[1]/book[1]/author[1] | bookstore.xml | C:\Users\hugo\Desktop\Faculdade\Faculdade ESTG Felgueiras\1... 5:9 | |

XPath/XQuery Builder - Saxon-HE XQuery 12.3 XPath - bookstore.xml

Search Next Previous All Incremental Case sensitive Close

C:\Users\hugo\Desktop\Faculdade\Faculdade ESTG Felgueiras\1º Semestre do 2º Ano\PEI\Exercícios PEI\Ficha prática 4\Parte 1\bookstore.xml XPath - successful (0.0s) U+000A 8:12

i)

bookstore.xml [C:\Users\hugo\Desktop\Faculdade\Faculdade ESTG Felgueiras\1º Semestre do 2º Ano\PEI\Exercícios PEI\Ficha prática 4\Parte 1\bookstore.xml] - <Oxygen/> XML Editor (Academic use only)

File Edit Find Project Options Tools Document Window Help

XPath 2.0 C:\A\LOG

bookstore.xml

```
<?xml version="1.0" encoding="UTF-8"?>
<bookstore>
  <book category="COOKING">
    <title lang="en">Everyday Italian</title>
    <author>Giada De Laurentiis</author>
    <year>2005</year>
    <price>30.00</price>
  </book>
  <book category="CHILDREN">
    <title lang="en">Harry Potter</title>
    <author>J. K. Rowling</author>
    <year>2005</year>
    <price>29.99</price>
  </book>

```

XPath/XQuery Builder

XPath 2.0 Current File bookstore.xml

1 //book[contains(., 'a') or contains(., 'r')]/title

Results

| Description - 4 items | XPath location | Resource | System ID | Location |
|-----------------------|--------------------------------|---------------|---|----------|
| Everyday Italian | /bookstore[1]/book[1]/title[1] | bookstore.xml | C:\Users\hugo\Desktop\Faculdade\Faculdade ESTG Felgueiras\1... 4:9 | |
| Harry Potter | /bookstore[1]/book[2]/title[1] | bookstore.xml | C:\Users\hugo\Desktop\Faculdade\Faculdade ESTG Felgueiras\1... 10:9 | |
| XQuery Kick Start | /bookstore[1]/book[3]/title[1] | bookstore.xml | C:\Users\hugo\Desktop\Faculdade\Faculdade ESTG Felgueiras\1... 16:9 | |
| Learning XML | /bookstore[1]/book[4]/title[1] | bookstore.xml | C:\Users\hugo\Desktop\Faculdade\Faculdade ESTG Felgueiras\1... 22:9 | |

XPath - cd_catalog.xml XPath - bookstore.xml

Search Next Previous All Incremental Case sensitive Close

C:\Users\hugo\Desktop\Faculdade\Faculdade ESTG Felgueiras\1º Semestre do 2º Ano\PEI\Exercícios PEI\Ficha prática 4\Parte 1\bookstore.xml XPath - success! (0.0s) U+000A 57 / 13