LEARNING

xquery

#xquery

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About

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Chapter 1: Getting started with xquery

Remarks

This section provides an overview of what xquery is, and why a developer might want to use it.

It should also mention any large subjects within xquery, and link out to the related topics. Since the Documentation for xquery is new, you may need to create initial versions of those related topics.

Examples

Installation or Setup

Detailed instructions on getting xquery set up or installed.

Sum over values

Given the following XML document :

```
<?xml version="1.0" encoding="UTF-8"?>
<values>
  <value>1</value>
  <value>3</value>
  <value>5</value>
</values>
```

We can produce an XML document describing the sum of the values with the following XQuery :

```
<total>{sum(/values/value)}</total>
```

Which will result in the following document :

```
<?xml version="1.0" encoding="UTF-8"?>
<total>9</total>
```

Writing static XML

XML Data can be written as is in XQuery and will be found in the output.
The following code can be considered valid XQuery :

```
<application>
  <id>MyApp</id>
  <name>My Application</name>
  <version>1.0</version>
</application>
```

Note that your XQuery code must produce a valid XML document and as such is restricted to

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output all its data in a single root tag.

Moreover, by default most XQuery implementations will add the XML header if you omit it. By example, the above code would produce this result :

```
<?xml version="1.0" encoding="UTF-8"?>
<application>
  <id>MyApp</id>
  <name>My Application</name>
  <version>1.0</version>
</application>
```

Extracting XML Data

To address data from an XML input, XQuery uses XPath.
It makes it easy to filter data and restructure it.

Given the following XML input

```
<?xml version="1.0" encoding="UTF-8"?>
<applications>
  <application>
    <id>MyApp</id>
    <name>My Application</name>
    <version>1.0</version>
  </application>
  <application>
    <id>SomeApp</id>
    <name>Some Application</name>
    <version>4.2</version>
  </application>
  <application>
    <id>TheOtherApp</id>
    <name>That one</name>
    <version>13.37</version>
  </application>
</applications>
```

The following XQuery code will extract the application whose id is `MyApp` :

```
/applications/application[id='MyApp']
```

It produces the following XML document :

```
<?xml version="1.0" encoding="UTF-8"?>
<application>
  <id>MyApp</id>
  <name>My Application</name>
  <version>1.0</version>
</application>
```

And this code will extract the applications whose version is lower than 10, outputting them in a `<oldApplications>` tag :

```
    <oldApplications>{/applications/application[version < 10]}</oldApplications>
```

It procudes the following XML document :

```
<?xml version="1.0" encoding="UTF-8"?>
<oldApplications>
  <application>
    <id>MyApp</id>
    <name>My Application</name>
    <version>1.0</version>
  </application>
  <application>
    <id>SomeApp</id>
    <name>Some Application</name>
    <version>4.2</version>
  </application>
</oldApplications>
```

Read Getting started with xquery online: https://riptutorial.com/xquery/topic/3687/getting-started-with-xquery

Credits

S. No	Chapters	Contributors
1	Getting started with xquery	Aaron, Community