



Tutorial Links

A screenshot of a web browser window titled "QT4 Tutorial". The address bar shows the URL "johnlumley.github.io/DA2025/QT4.xhtml". The page content is titled "QT4 Tutorial" with a lightbulb icon. It includes sections for "Links to Browser-based Examples and Workbenches" (with links to XPath, XQuery, XPath Functions, and XSLT), "Links to Slides" (with links to Top-level, XPath, XQuery slides, Functions & Operators PDF, and XSLT PDF), and "Links to Community Group & (Current) Specifications" (with links to various XSLT, XPath, and XQuery specifications).

(All links open in a new tab)

Links to Browser-based Examples and Workbenches

- [XPath](#)
- [XQuery](#)
- [XPath Functions](#)
- [XSLT](#)

Many thanks to Christian Grün and colleagues for helping make access to the [BaseX Fiddle](#) for XPath and XQuery examples possible

Links to Slides

- [Top-level, XPath, XQuery](#) (slides.com)
- [Functions & Operators \(PDF\)](#) ([LibreOffice](#))
- [XSLT \(PDF\)](#) ([LibreOffice](#))

Links to Community Group & (Current) Specifications

[QT4 Community Group](#)

- [XSLT Transformations \(XSLT\) Version 4.0](#)
- [XSLT Streaming Version 4.0](#)
- [XPath and XQuery Functions and Operators 4.0](#)
- [XML Path Language \(XPath\) 4.0](#)
- [XQuery 4.0: An XML Query Language](#)
- [XQuery and XPath Data Model 4.0](#)
- [XSLT and XQuery Serialization 4.0](#)
- [EXPath Binary Module 4.0](#)
- [EXPath File Module 4.0](#)

<https://johnlumley.github.io/DA2025/QT4.xhtml>



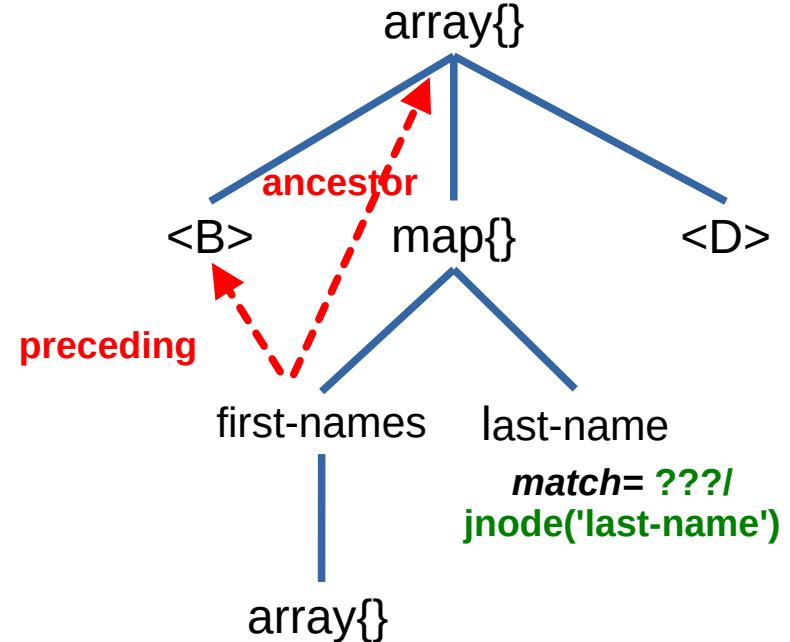
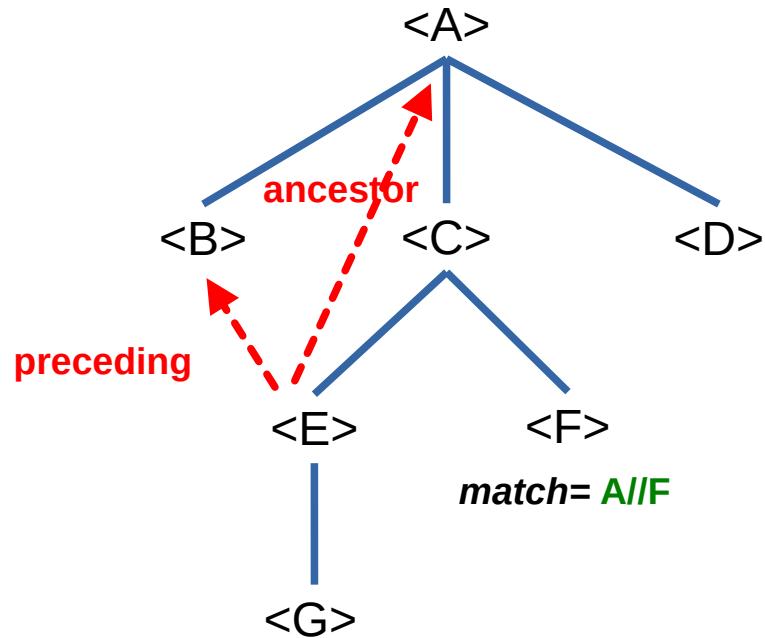
QT4CG team



+ several other valuable members



Navigating the Tree





XPath/XQuery workbench

--Select XPath/XQuery--

- General
 - argument keywords
- CSV Processing
 - csv1
 - csv2
 - csv3
- Higher-Order
 - filter() - positional
 - do-until() - Squares
 - do-until() - Fibonacci
 - partition() - group-together
- Problem: partition() - line-wrapping
- Solution: partition() - line-wrapping
- transitive-closure() - Reporting
- JSON
 - lookup
 - element-to-map()
 - element-to-map() - options
- Maps
 - map-build()

The screenshot shows a browser window titled "QT4 XPath Functions Examples" with the URL "localhost/mine/DA2025/QT4XPath-Functions.xhtml".
The "Problem" section contains the following text:
One wrap each of the sentences using the `partition()` function. The input to `$line-wrap()` for each sentence is supplied as a non-empty normalized string.
The "Code" section shows the XQuery code:

```
let $line-wrap := function($n,$length as xs:integer) {
    partition(
        tokenize($n),
        $partition, $next) {
            sum((($partition, $next) ! string-length()) + count($partition)) gt $length
        } => string-join(" ")
    }
let $sentences := normalize-space(.)
=> tokenize(".\s*")
=> filter(matches(?, "\$"))
return
for $s in $sentences
    return $line-wrap($s,30)
```


The "Input" section contains the input text:

In the beginning was the Word, and the Word was with God, and the Word was God.
The same was in the beginning with God.
All things were made by him; and without him was not any thing made that was made.
In him was life; and the life was the light of men.
And the light shineth in darkness; and the darkness comprehended it not.
There was a man sent from God, whose name was John.
The same came for a witness, to bear witness of the Light, that all men through

The "Result" section shows the output:

10 items

In the beginning was the Word,
and the Word was with God,
and the Word was God.

The same was in the beginning
with God.

All things were made by him;
and without him was not any
thing made that was made.

In him was life; and the life
was the light of men.

And the light shineth in
darkness; and the darkness
comprehended it not.

Problem statement & hints

CODE

INPUT

RESULT(s)

CODE & INPUT
can be edited and loaded by:

- Example drop-down
- Local file chooser
- Drag-and-drop (not Firefox)

Run uses
BaseX Fiddle
to process the
expression
(Many thanks!)