Semi-structured Data

8 - XPath (further examples)
Further Examples

```
ROOT
  boxes
    box
      item color="blue"
      item color="green"
      item color="yellow"
    box
      item color="blue"
      item color="yellow"
```
Further Examples

select all items in a box

//box/item
Further Examples

select yellow items in a box

//box/item[@color="yellow"]
Further Examples

```
//box[item]
```

select all boxes with at least one item
select all boxes with at least one yellow item

//box[item[@color="yellow"]]
select all items that appear first in a box

//item[1]
Further Examples

```
select the first item in the document
```
```
/descendant::*item[1]
```
select all items that appear first in a box and are blue

//item[1][@color="blue"]
select the first occurrence of a blue item in a box

//item[@color="blue"][1]
Further Examples

select the first item of the first non-empty box

//box[item][1]/item[1]
select all empty boxes

//box[not(*)]
Further Examples

select all boxes with more than two items

//box[count(item) > 2]
in each box, select all items that follow a blue item

//item[@color="blue"]/following-sibling::item
select all items in the document that appear after a blue item

//item[@color="blue"]/following::item
select the first item that follows a blue item

//item[@color="blue"]/following::item[1]
select the first blue item in the document

//box[item[@color="blue"]][1]/item[@color="blue"][1]
Further Examples
//dir[@name="B"]//file

select all files under directory B
//dir[@name="B"]/((file | dir)

select all files and directories under directory B
Further Examples

count(//dir[@name="B"]//(file | dir)) 3

give me the number of files and directories under directory B
//dir[@name=//link/@refers]

select all directories that are being referred by a link
//file[@name="C"]/preceding::dir[count(*) >= 2]

select all directories with more than one child that appear before the file C
Further Examples

/*file

select all files under disc
Further Examples

//dir[not(link)]

select all directories without a link
//*[@name=//link[@name="K"]/@refers]

select all elements that are being referred by the link K
//file[@name="F"]/..//@name

give me the name of the parent directory of file F
//file[@name="C"]/../@name  EMPTY

give me the name of the parent directory of file C
//file[@name="F"]/ancestor::dir[last()]/@name

give me the name of the top directory of file F
give me the name of the top directory of the file that is being referred by link K
give me the names of the parent directories of files H and I

//file[@name="H"]/../@name | //file[@name="I"]/../@name
Further Examples

//file[@name="H" or @name="I"]/..//@name

give me the names of the parent directories of files H and I