

**NPRG036: XML Technologies**

Practical Classes 9 and 10:

# **XQuery**

27. 4. 2020

**Martin Svoboda**

svoboda@ksi.mff.cuni.cz

<http://www.ksi.mff.cuni.cz/~svoboda/courses/192-NPRG036/>

# Expressions

- XQuery expressions
  - **XPath** path expressions
  - Computed and direct **constructors**
  - **FLWOR** expressions
  - **Conditional expressions**
  - Universal and existential **quantifiers**

# Constructors

- **Direct constructors**

```
<element>  
  <element attribute="value">  
    text  
    { nested XQuery expression }  
  </element>  
  <!-- comment -->  
  <?target data?>  
</element>
```

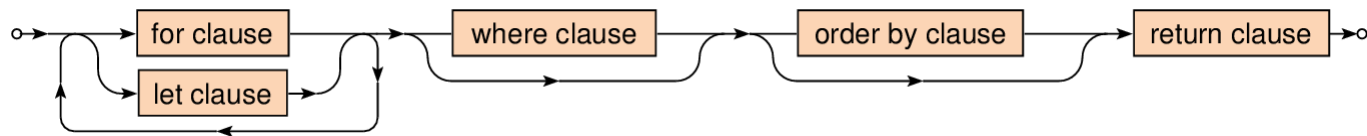
# Constructors

- **Computed constructors**

- `document { content }`
- `element name { content }`
- `attribute name { value }`
- `text { text }`
- `comment { text }`
- `processing-instruction { target } { content }`

# FLWOR Expressions

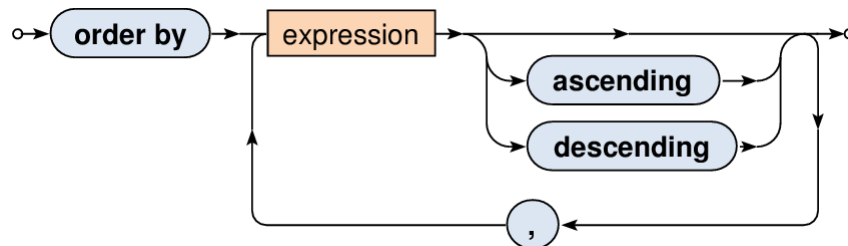
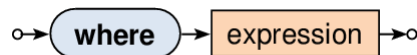
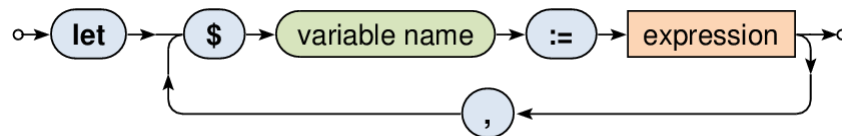
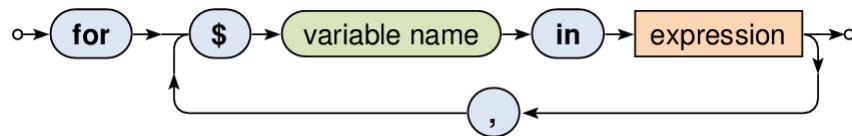
- **FLWOR** clauses



- **FOR** clause: items selection
- **LET** clause: auxiliary assignments
- **WHERE** clause: filtering conditions
- **ORDER BY** clause: result ordering
- **RETURN** clause: result construction

# FLWOR Expressions

- **FLWOR** clauses



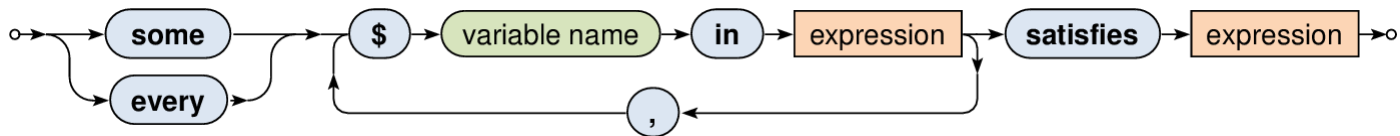
# Other Constructs

- **Conditional expressions**



- **Quantified expressions**

- Existential / universal quantifier



# Comparisons

- **Value comparison**
  - eq, ne, lt, le, ge, gt
- **General comparison**
  - =, !=, <, <=, >=, >
- **Node comparison**
  - is, <<, >>

