#### B4M36DS2, BE4M36DS2: Database Systems 2

http://www.ksi.mff.cuni.cz/~svoboda/courses/181-B4M36DS2/

**Practical Class 2** 

# **XPath**

Martin Svoboda martin.svoboda@fel.cvut.cz

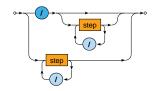
15. 10. 2018

**Charles University**, Faculty of Mathematics and Physics **Czech Technical University in Prague**, Faculty of Electrical Engineering

# **Path Expressions**

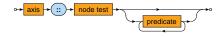
#### Path expression

Absolute / relative paths



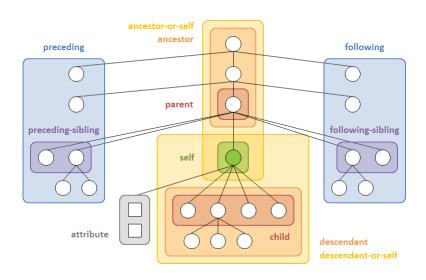
# **Path Expressions**

#### **Steps** of path expressions



- Axis
  - Specifies the relation of nodes to be selected for a given node
- Node test
  - Basic condition the selected nodes must further satisfy
- Predicates
  - Advanced conditions the selected nodes must further satisfy

# **Path Expressions: Axes**



#### Express the following XPath queries

- Names of all airline companies (whole airline elements)
- Full names of all airports (just text content)
- Codes of all airports (their values)
- The last ticket of the third flight (in the document order)
- Distinct codes of flight ticket classes (without duplicities)

Express the following XPath query

Flight numbers operated by A6-EOQ aircraft on 2017-10-13

Express the following XPath query

 Flights with at least one first class ticket (F) or business class ticket (C)

### Express the following XPath query

- Flights without any first class ticket (F) as well as any business class ticket (C)
  - Include only flights with at least one ticket

Express the following XPath query

 Numbers of flights that depart on 2017-10-18 or any date later and that have no aircraft assigned yet

Express the following XPath query

• Lines with duration above the overall average



#### Express the following XPath query

 Overall number of flights heading to any airport in Germany (DEU) on 2017-10-18

Express the following XPath query

Passenger name on the very last ticket in the entire file