NPRG036: **XML Technologies**

Practical Classes 11 and 12:

SAX, DOM: Exercises

11. 5. 2020

Jiří Helmich
helmich@ksi.mff.cuni.cz

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

Exercise 1 (SAX)

- Print an input XML document on the standard output (console)
  - The hierarchy of elements must be preserved
  - Achieve indentation using white spaces
  - Transform (print) all the attributes as elements
  - Make the string data upper cased

Exercise 2 (SAX)

- Implement proprietary XML document validation
  - IDs must start with the following letters:
    - owners: o, agencies: a, properties: p, flats: f
  - Every *property* must have at least 2 and at most 5 particular features when a list of *features* is provided
  - Value of element *numberOfFlats* must be nonnegative
- Print error messages in a new element *errors* at the end of the output XML document
  - For every *error* include its position (line, column) and textual description

Exercise 3 (SAX)

- Change the output to HTML

- The output document will now contain a table, in every row there will be:

  - Flat name

  - Monthly rate

  - Comfort level

  - Features

- Put the overall number of all specified features across all the flats at the end of the table

Exercise 4 (DOM)

- Transform *rate* elements of flats to attributes

Exercise 5 (DOM)

- Remove flats with *rate >= 20000*

Exercise 6 (DOM)

- Create a new *owner* record with all respective data

    ▪ Your program must run even if…

      – Element *owners* is empty

      – Element *owners* does not exist at all