Datenbanken und Web-Techniken
Exercise 3:
XML Access Techniques 1: SAX

SAX
Simple API for XML

- No formal specification
  - Java implementation is de facto standard
- Provides a set of methods to access XML documents with an applicable parser
- Features:
  - event driven
  - pipeline concept
  - independent events
  - events fired by recognizing syntactic structures
- Usage:
  - read-only access
  - no structure change
  - large XML files

Tasks
Hints and more description follow on the following pages

SAX Test Task:

1. Load the provided SAXTest-Project in your IDE
2. Modify SAXTest.java to write pizza information from pizzenExample.xml to console log

SAX Usage Task:

3. Load the provided PizzaSAX-Project in your IDE
4. Modify the project to load the pizza data from pizzenExample.xml by using SAX

SAX Test Task 1: Load the provided SAXTest-Project in your IDE

- If you don’t have a running NetBeans IDE, follow the Preparation Task 2 from exercise 2
- Download and extract the provided **`SAXTest.zip`**
- Open your NetBeans IDE
- Select **`File → Open Project…`** and choose the **`SAXTest`** folder
  - there should be a different folder icon (brown coffee pot icon or NetBeans project icon)

SAX Test Task 2: Modify SAXTest.java to write pizza information from pizzenExample.xml to console log

- Open the file **`SAXTest.java`** in the editor
- Read through the code (and the comments) and try to understand, what is done
- Modify the **`PizzaHandler.startElement()`** to print the attributes of all pizzas from **`pizzenExample.xml`**
  - XML file is located in **`resources`** folder
- Compile and run your project and check the console log
  - take a look at the XML file to verify your output

SAX Usage Task 3: Load the provided PizzaSAX-Project in your IDE

- Download and extract the provided **`PizzaSAX.zip`**
- Open the **PizzaSAX** project in your NetBeans IDE
  - there should be a different folder icon (blue globe icon or NetBeans project icon)
  - if the project is not recognized, go back to Preparation Task 2 from exercise 2 and activate Java EE in NetBeans
- The project is basically the same like PizzaJDBC task from exercise 2
  - compile and run it, if you don’t believe

SAX Usage Task 4: Modify the project to load the pizza data from pizzenExample.xml by using SAX

- Open the file **`PizzaList.java`** in the editor
- Go to method **`parseXMLList()`**
- Add some code, to read the pizza data from the XML file using SAX and fill the **`pizzas`** object
  - Hint: see SAX Test task for some helpful code
- Compile and run your project and check the result at the **`Bestellen`** page