Learning objectives of Lecture 3 (14.11.2016)

General Instruction: After the third lecture of big data course, you should be able to answer the following questions.

1. What is JSON and what types of values can be included in JSON documents?

2. The key/value pairs in JSON are ordered or unordered?

3. The values in an array of JSON are ordered or unordered?

4. See the following JSON schema and three JSON documents. Check whether each of document satisfies the schema.

    JSON schema:
```
{
  "$schema": "http://json-schema.org/schema#",
  "title": "Product",
  "type": "object",
  "required": ["id", "name", "price"],
  "properties": {
   "id": {
     "type": "number",
     "description": "Product identifier"
    },
   "name": {
     "type": "string",
     "description": "Name of the product"
    },
   "price": {
     "type": "number",
     "minimum": 0
    },
   "tags": {
     "type": "array",
     "items": {
       "type": "string"
      }
    },
   "stock": {
     "type": "object",
     "properties": {
       "warehouse": {
         "type": "number"
```

```
        },
        "retail": {
          "type": "number"
        }
      }
    }
  }
}
```

JSON 1,

{ "id": 1, "name": "Foo", "price": 123, "tags": ["Bar", "Eek"], "stock": { "warehouse": 300, "retail": 20 } }

JSON 2,

{ "id": 2, "name": "Soo", "price": 12.3, "tags": ["Bar"], "stock": { "warehouse": 300, "retail": 20 } }

JSON 3

{ "id": 3, "name": null, "price": 123, "tags": [ ], "stock": { "warehouse": 300 } }

5. Convert the following relational model into a graph model