Prof. Dr. Agnès Voisard
Nicolas Lehmann

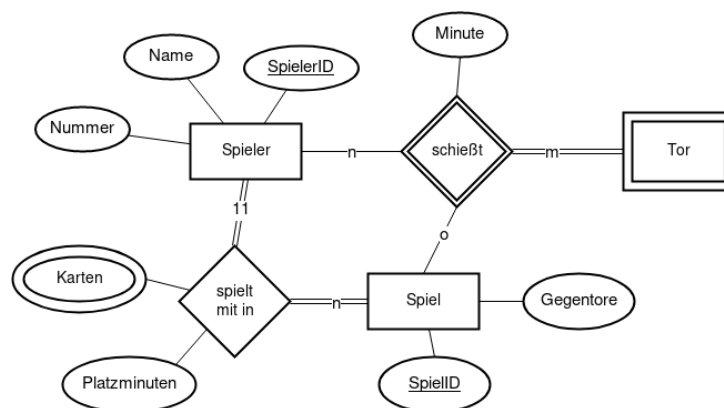# Datenbanksysteme, SoSe 18

Übung 014

TutorIn: Toni Draßdo
Tutorium 03

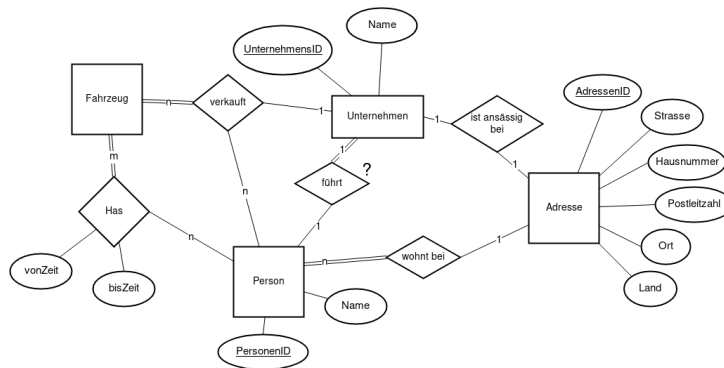Eduard Beiline, Mark Niehues, Antoen Oehler

6. Mai 2018

Task 1: ER-Modellierung

Task 2: Relationales Modell

- Zimmer(<u>ZNummer</u>, Etage)

- Gast(<u>GName</u>, Kreditkartennumer)

- Buchung(ZNummer, GName, Von, Bis)

- Reinigungskraft(<u>RName</u>, Personalnummer)

- Reinigung(RName, ZNummer, Tag)

Task 3: Reverse Engineering

Task 4: Apple Aktienchart

Listing 1: Apple Actionchart

```html
<!doctype html>
<html>

<head>
    <meta charset="utf-8">
    <title>Apple Aktie</title>
    <script language="javascript" type="text/javascript" src="jquery.js"></script>
    <script language="javascript" type="text/javascript" src="jquery.flot.js"></script>
    <script language="javascript" type="text/javascript" src="jquery.flot.time.js"></script>
    <script type="text/javascript">
        $(function () {
            var tief     = [ ["31.01.17", 111.78], ["30.01.17", 112.90], ["27.01.17",
113.70], ["26.01.17", 113.20], ["25.01.17", 111.70], ["24.01.17", 110.90], ["23.01.17",
 111.04], ["20.01.17", 112.14], ["19.01.17", 111.99], ["18.01.17", 112.00], ["17.01.17"
, 110.00], ["16.01.17", 111.72], ["13.01.17", 111.60], ["12.01.17", 110.94], ["11.01.17
", 111.83], ["10.01.17", 111.80], ["09.01.17", 111.60], ["06.01.17", 109.80], ["
05.01.17", 109.40], ["04.01.17", 110.53], ["03.01.17", 110.11], ["02.01.17", 109.30] ];
            var hoch     = [ ["31.01.17", 113.50], ["30.01.17", 113.99], ["27.01.17",
114.46], ["26.01.17", 114.38], ["25.01.17", 113.65], ["24.01.17", 111.73], ["23.01.17",
 112.50], ["20.01.17", 113.10], ["19.01.17", 113.09], ["18.01.17", 112.70], ["17.01.17"
, 112.29], ["16.01.17", 112.45], ["13.01.17", 112.50], ["12.01.17", 112.60], ["11.01.17
", 113.86], ["10.01.17", 112.90], ["09.01.17", 113.10], ["06.01.17", 112.00], ["
05.01.17", 110.73], ["04.01.17", 111.70], ["03.01.17", 112.09], ["02.01.17", 110.80] ];
            var tageswert = [ ["31.01.17", 110.30], ["30.01.17", 110.68], ["27.01.17",
111.03], ["26.01.17", 110.00], ["25.01.17", 111.61], ["24.01.17", 112.46], ["23.01.17",
 112.75], ["20.01.17", 112.17], ["19.01.17", 111.76], ["18.01.17", 111.76], ["17.01.17"
, 112.00], ["16.01.17", 112.08], ["13.01.17", 112.35], ["12.01.17", 112.71], ["11.01.17
", 112.14], ["10.01.17", 111.74], ["09.01.17", 111.51], ["06.01.17", 113.65], ["
05.01.17", 114.00], ["04.01.17", 114.03], ["03.01.17", 113.35], ["02.01.17", 111.91] ];
            var handelsvolumen = [ ["31.01.17", 2330417], ["30.01.17", 882614], ["27.01.17"
, 449615], ["26.01.17", 746100], ["25.01.17", 700163], ["24.01.17", 1297576], ["
23.01.17", 1691504], ["20.01.17", 1521071], ["19.01.17", 1073743], ["18.01.17",
1149538], ["17.01.17", 861942], ["16.01.17", 848050], ["13.01.17", 528968], ["12.01.17"
, 778900], ["11.01.17", 610841], ["10.01.17", 366744], ["09.01.17", 734456], ["06.01.17
", 1221101], ["05.01.17", 1302214], ["04.01.17", 739897], ["03.01.17", 1268146], ["
02.01.17", 988174] ];

            function mapfn(x) {
                var date_parsed = Date.parse(x[0].replace(/(\d{2})\.(\d{2})\.(\d{2})/, "20
$3-$2-$1"));
                return [date_parsed, x[1]];
            }
```

```
21            var d1 = [
22                {label: "Tagestief"   , color: "red"   , data: tief     .map(mapfn)},
23                {label: "Tageshoch"   , color: "green" , data: hoch     .map(mapfn)},
24                {label: "Tagesendwert", color: "yellow", data: tageswert.map(mapfn)},
25            ];
26            var d2 = [{
27                label: "Handelsvolumen",
28                data: handelsvolumen.map(mapfn),
29                bars: {show: true, barWidth: 24*60*60*1000, align: "center"}
30            }];

32            $.plot("#linechart", d1, {xaxis: {mode: "time"}});
33            $.plot("#barchart" , d2, {xaxis: {mode: "time"}});
34        });
35    </script>
36    <style>
37        .chart {
38            width: 600px;
39            height: 400px;
40            float: left;
41        }
42    </style>
43 </head>

45 <body>
46    <div class="chart" id="linechart"></div>
47    <div class="chart" id="barchart"></div>
48 </body>

50 </html>
```

Für die JavaScript-Dateien, siehe https://github.com/flot/flot.