MONGODB

DOCUMENT STRUCTURE

JSON

- Javascript Object Notation
- Key/value pairs
- www.json.org

JSON EXAMPLE

```
{
    "SKU": “13245",                          <-- String
    "Cost": 123,                             <-- Number
    "Version": 1,
    “IsActive”: true,                        <-- Boolean
    "SupplierId": 123456,
    "CreatedAt": "2012-03-19T07:22Z",
    "Description": "My product”,
    "Variants": [                            <-- Array
        {                                    <-- Object
            "Price": 123,
            "Colour": "Red",
            "Size": 122
        },
        {
            "Price": 250,
            "Colour": "Red",
            "Size": 122
        }
    ],
    “Secret”: null                           <-- Null
}
```

DOCUMENT STRUCTURE

- MongoDB documents are represented using BSON
- https://en.wikipedia.org/wiki/BSON
- https://docs.mongodb.com/manual/reference/bson-types/
- https://www.mongodb.com/blog/post/the-top-12-bson-data-types-you-wont-find-in-json
- https://bsonspec.org/

BSON

- Binary JSON
- Expands on JSON with additional types
- Binary format
  - Parsing is faster
    - Numbers are fixed length
    - String are prefixed with length
  - Uses less disk space
  - Uses less bandwidth

BSON EXAMPLE

```
{
    SKU: "13245",
    Cost: NumberDecimal('123.45'),                          <-- Decimal
    Version: 1,
    IsActive: true,                                         <-- Boolean
    SupplierId: 123456,
    CreatedAt: new Date("2012-03-19T07:22Z"),               <-- Date
    Description: "My product”,
    Variants: [                                             <-- Array
        {                                                   <-- Object
            Price: NumberDecimal('123'),
            Colour: "Red",
            Size: 122
        },
        {
            Price: NumberDecimal('250'),
            Colour: "Red",
            Size: 122
        }
    ],
    “Secret”: null                                          <-- Null
}
```

PRACTICAL

- In groups, model a receipt as a MongoDB document
- Determine what information should be captured
- Decide what data types you will use to model the data
- Use arrays for any repeating data
- Use objects (sub-documents) for any properties that should be grouped

MONGODB

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Gullkragen

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Tel: 033-41 25 65

KVITTO

Vår referens: 1
2021-11-25 13:46 Nr:106538 Kassa:1

KAFFE - CAFE
1 X st 28,00 28,00
Total pris: 28,00Kr (1x st)
WIENERÄTTA/SPANDAUER
1 X st 22,00 22,00
Total pris: 22,00Kr (1x st)
LUSSEKÄTT - SAFFRAN
1 X st 19,00 19,00
Total pris: 19,00Kr (1x st)

ATT BETALA 69,00Kr
VARAV MOMS 7,39Kr
KORT 69,00Kr
VÄXEL 0,00Kr

Moms %	Moms	Netto	Värde
12%	7,39	61,61	69,00

Kontrollenhet:
RIHTT144301076073

Butiksnr: 30276034
Term.ID : 17325PP83646446
2021-11-25 13:46
KÖP 69,00 SEK GODKÄNT, PSN: 02
**** **** **** 9196, MASTERCARD
K/1 5 000 SHB 752 759698 00 0
REF-NR: 306179031855
TellusPayID: 65710274, OrderNr: 097001
Term. RefNr: 211125134610
AID:A0000000041010, TVR:0000008001
CONTACTLESS
Orgnr: 556542-2150
Transaktion: 106569
Tack för besöket!
Ha en bra dag.

SPARA KVITTOT. KUNDENS!