

michał weiser

data**ba**ze

aneb ukládáme data na webu





CouchDB



document



graph

NoSQL



key-value



redis



cassandra



Amazon DynamoDB

columnar



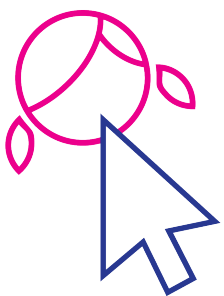
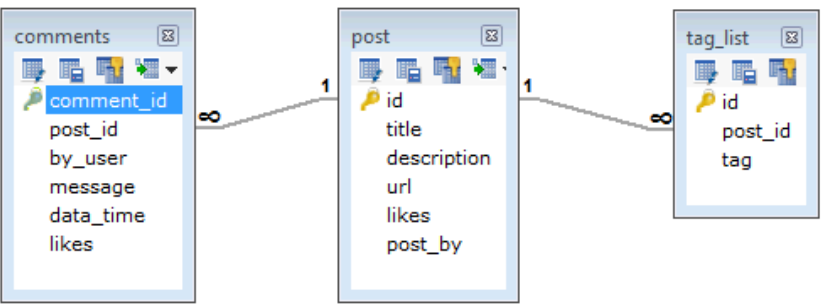
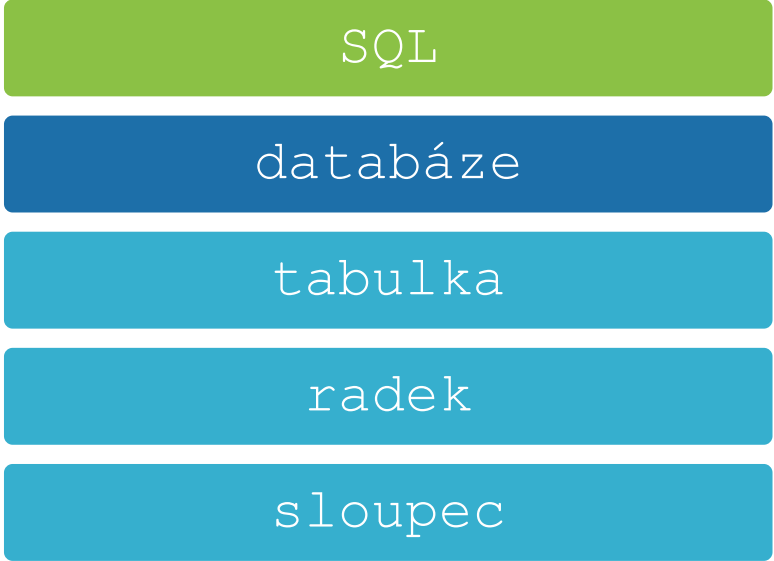
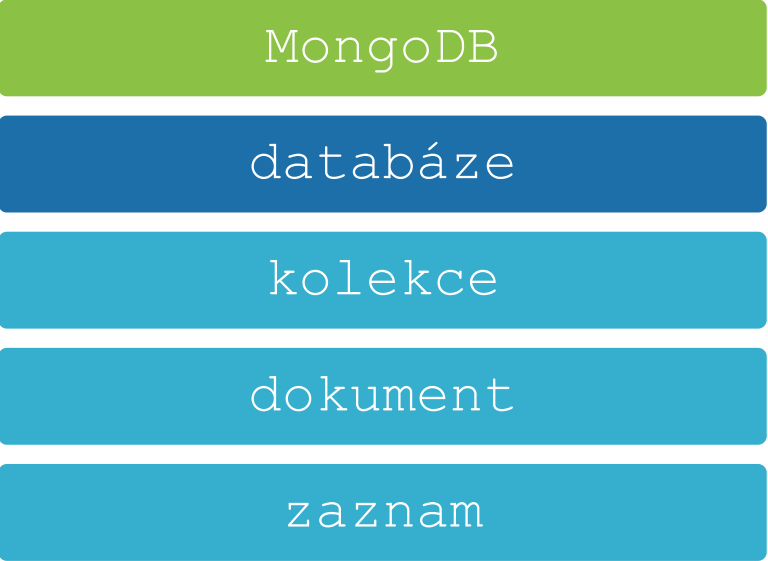
ORACLE[®]
DATABASE

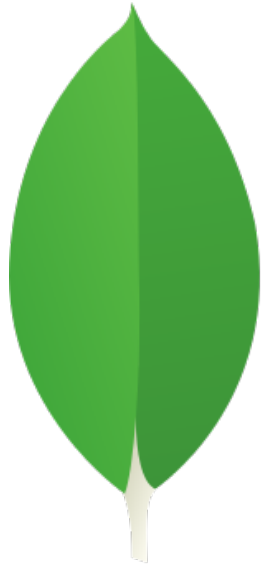


RDBMS



```
{
  name: Joe,
  url: '...',
  stream:
  [{
    user: {name: Jane, url: '...'},
    title: 'today',
    body: 'go fly a kite',
    likes: [
      {user: {name: Lu, url: '...'}},
      {user: {name: Joe, url: '...'}}
    ],
  }]
}
```





proč

mongoDB

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C:\Windows\system32>

> mongod --dbpath ./data/db

otevete nove okno

> mongoimport --host=127.0.0.1 --db test
--collection restaurants --drop --file
./data/primer-dataset.json

> mongo

a muzeme zacit :)

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C:\Windows\system32>_

> show dbs

ukaze existujici databaze

> db

zjistime, ve ktere databazi jsme

> use test

pouzijeme databazi test

> show collections

ukaze nam kolekce ve vybrane databazi

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C:\Windows\system32>_

tyto prikazy nespoustejte

> db.dropDatabase()

smaze databazi, kterou jsme si vybrali
pomoci use

> db.restaurants.drop()

smaze kolekci, kterou jsme si uspesne
nahrali ze souboru

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C:\Windows\system32>_

```
> db.restaurants.find().limit(1)
# a nebo lepe
> db.restaurants.find().limit(1).pretty()
```

datove typy

```
string, integer, boolean, double,
min/max keys, arrays, timestamp,
object, null, symbol, date, object_id,
binary_data, code, regular expression
```



```
Administrator: C:\Windows\System32\cmd.exe
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C:\Windows\system32>

> db.restaurants.find({"cuisine":
"Bakery"}).limit(2).pretty()

> db.restaurants.find({"address.building":
"120"}).limit(2).pretty()

> db.restaurants.find({ "grades.score": {$gt:
50}}).limit(2).pretty()

# $lt:50, $lte:50, $gt:50, $gte:50, ne:50
```



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C:\Windows\system32>

```
> db.restaurants.find({ "name": "Polish National  
Home", "cuisine": "Polish" }).limit(2).pretty()
```

```
# .find({ $or: [ {key1: value1}, {key2:value2} ] })
```

```
# .find({ $or: [ {key1: value1}, {key2:value2} ],  
        {key3:value3} })
```

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C:\Windows\system32>_

```
# vkladani zaznamu
```

```
# db.name.insert({document}) === db.name.save({})
```

```
> db.restaurants.insert({ "name": "Moje restaurace",  
"cuisine": "Czech" })
```

```
# podivame se na nas zaznam
```

```
> db.restaurants.find({ "name": "Moje restaurace",  
"cuisine": "Czech" }).limit(2).pretty()
```

```
# vlozime si stejnou restauraci jeste jednou
```

```
Administrator: C:\Windows\System32\cmd.exe
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C:\Windows\system32>

# update zaznamu
> db.restaurants.update({"name": "Moje restaurace"},
  { $set: {"name": "Czechitas restaurace"} },
  {multi: true})

# projekce hledani
> db.restaurants.find({ "name": "Czechitas
restaurace", "cuisine": "Czech"}, {"_id": 0, "name":
1}).limit(2).pretty()

# preskoceni zaznamu
> db.restaurants.find({ "name": "Czechitas
restaurace"}).skip(1).pretty()
```



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C:\Windows\system32>

```
# razeni vysledku
```

```
> db.restaurants.find({}, { "name": 1, "_id": 0  
}).limit(10).sort({ "name": 1 }).pretty()
```

```
# vytvorime indexy pro rychle hledani
```

```
> db.restaurants.ensureIndex({  
  "name": 1, "cuisine": -1 })
```


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C:\Windows\system32>_





agregace


```
> db.restaurants.aggregate([{$group : {_id :  
"$name", avg_score : {$avg :  
"$grades.score"}}}]) .pretty()
```


agregacni funkce


```
$sum, $avg, $min, $max, $push,  
$addToSet, $first, $last
```


...  Debug gulpfile.js 

 3

 VARIABLES

 WATCH

 CALL STACK

 BREAKPOINTS

☐ All exceptions

☒ Uncaught exceptions

☒ gulpfile.babel.js 1

now some
code

