

# MongoDB Indizes

## Sneak Preview

Intro zu MongoDB Indizes und Compass



Eine **Sneak Preview** oder kurz **Sneak** ist eine unangekündigte Filmvorführung (Vorschau) vor dem offiziellen Release [...].

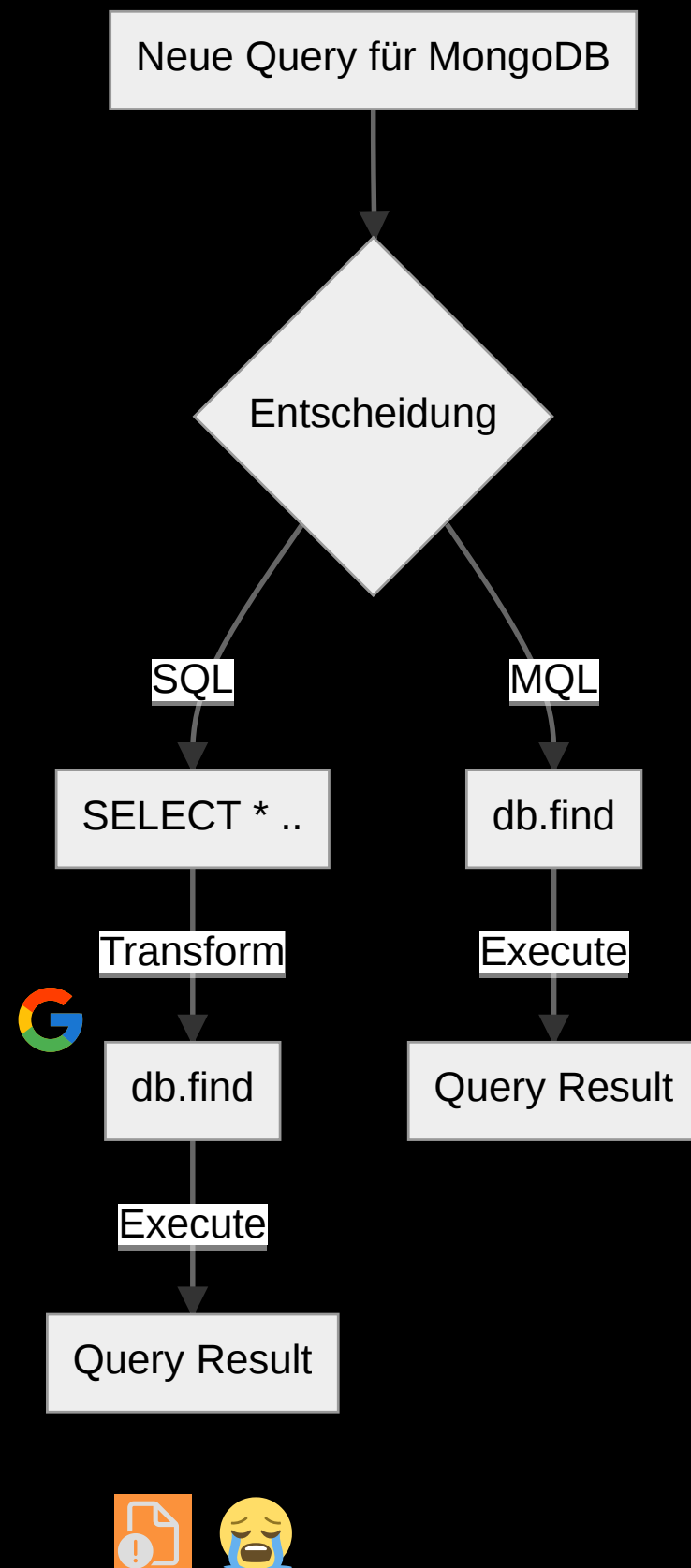
”

---

*[Wikipedia: Sneak Preview](#)*



# SQL Bias





- MQL: MongoDB Query Language MQL

# Plan

- Features von MongoDB Compass vorstellen
- Single Field Indizes
- Compound Indizes
- Covered Queries 💡 🚀 ✨
- 📺



# MongoDB Compass

- GUI für den Zugriff auf MongoDB
- Vollversion frei verfügbar [\[1\]](#)
- Realtime Performance Tab [\[2\]](#) 
- CRUD Funktionalität [\[3\]](#)
- Aggregation Pipeline Builder [\[4\]](#) 

---

1. [MongoDB Compass is now free for all!](#)

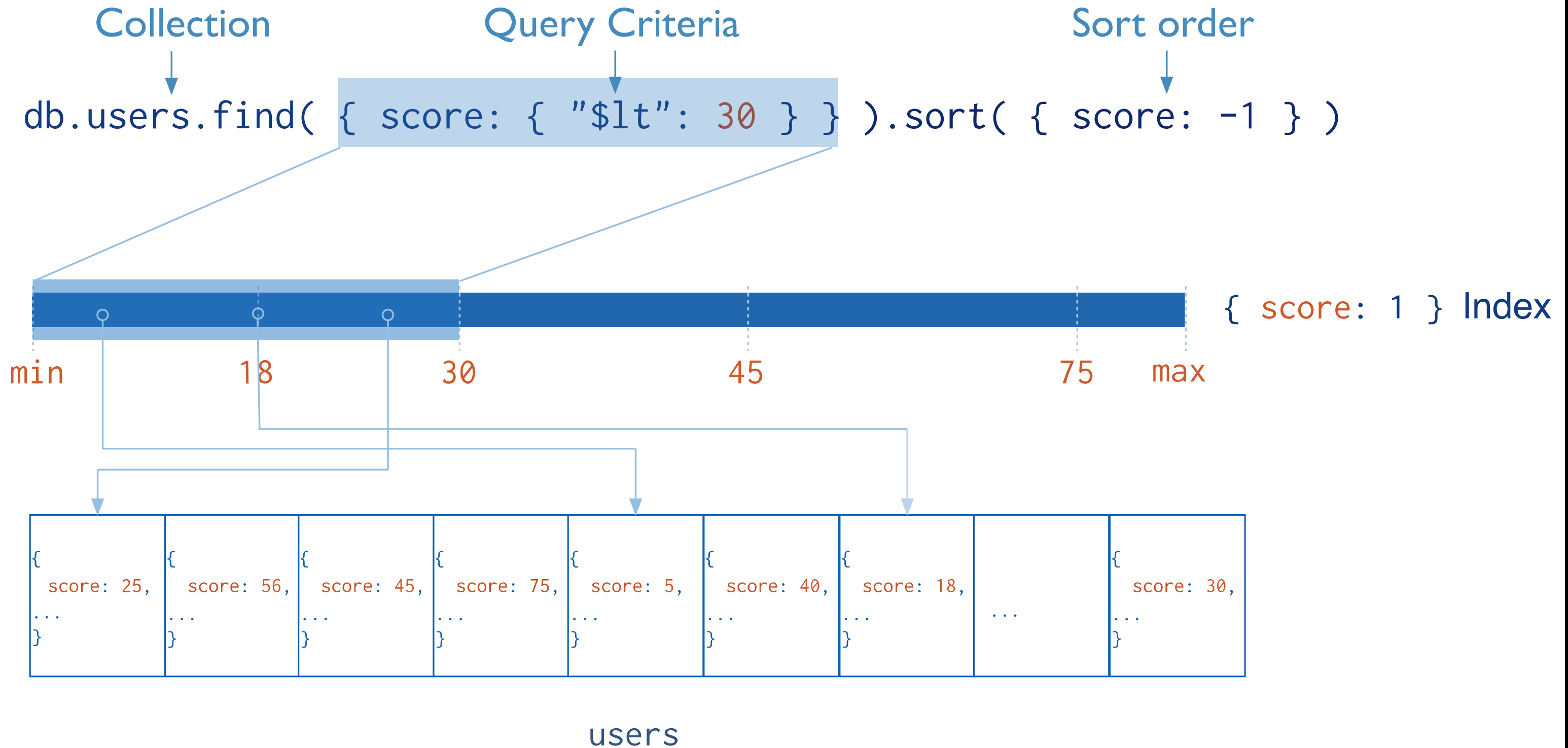
2. [MongoDB Compass Performance Tab](#)

3. [Capabilities of Compass Editions](#)

4. [Aggregation Pipeline Builder](#)



# Datenbankindex kurz erklärt <sup>[1]</sup>



1. ["index-for-sort" - MongoDB Documentation](#), License: CC BY 3.0

## Nutzt die Query den Index ?

- schnelle Ausführung
- geringe Ressourcenauslastung (Disk, CPU, ...)
- Performance Advisor zeigt keine ⚠
- Query Plan analysieren 🕵
  - explain()

```
"queryPlanner" : {  
  "parsedQuery" : {},  
  "winningPlan" : {  
    "stage" : <STAGE1>,  
    ...  
    "inputStage" : {  
      "stage" : <STAGE2>,  
      ...  
    }  
  },  
  "rejectedPlans" : []  
}
```

js

## Explain results



# AirBnB Dataset [\[1\]](#)

```
{
  "_id": "10006546",
  "listing_url": "https://www.airbnb.com/rooms/10006546",
  "name": "Ribeira Charming Duplex",
  "property_type": "House",
  "room_type": "Entire home/apt",
  "bed_type": "Real Bed",
  "minimum_nights": "2",
  "cancellation_policy": "moderate",
  "last_scraped": {
    "$date": {
      "$numberLong": "1550293200000"
    }
  },
  "address": {
    "country": "Portugal",
  }
}
```

json





# Demo



- [demo](#)

```
query(
  "SELECT * FROM marks WHERE subject = " + subject + "
  function (datasetsWithSubject) {
    if (datasetsWithSubject.length > 0) {
      subjectAverage = 0;
      datasetsWithSubjectLength = datasetsWithSubject.length;
      datasetsWithSubject.forEach((dataset) => {
        subjectAverage += parseFloat(dataset["marks"]);
      });
      subjectAverage = subjectAverage / datasetsWithSubjectLength;
    }
  }
);
```

# Danke! 🚀

- [!\[\]\(467d80e979964f7f8c752fb22248b5b7\_img.jpg\) Sample AirBnB Listings Dataset - Daten von Inside Airbnb](#)
- [!\[\]\(b71552d33dbf62adf5e5199a70ee02bf\_img.jpg\) github.com/Felixel42/mongodb-indexes-sneak-preview](#)
- [!\[\]\(03134b765d1473836ff001925b1b0550\_img.jpg\) Set up database & demo](#)
- [!\[\]\(aed6947356668967079310026052edc0\_img.jpg\) Erklärvideo zum Verständnis von explain\(\)](#) 🍃

