

DBMS: Misc.

Agenda

- ① Window functions
 - vs. agg. functions
 - Examples

- ② Indexes
 - how to create
 - Full text index

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M...

Monitoring

③

Query execution

- cost based opt.
- EXPLAIN
- Scans
- guide lines

Window functions

Agg. functions

- SUM

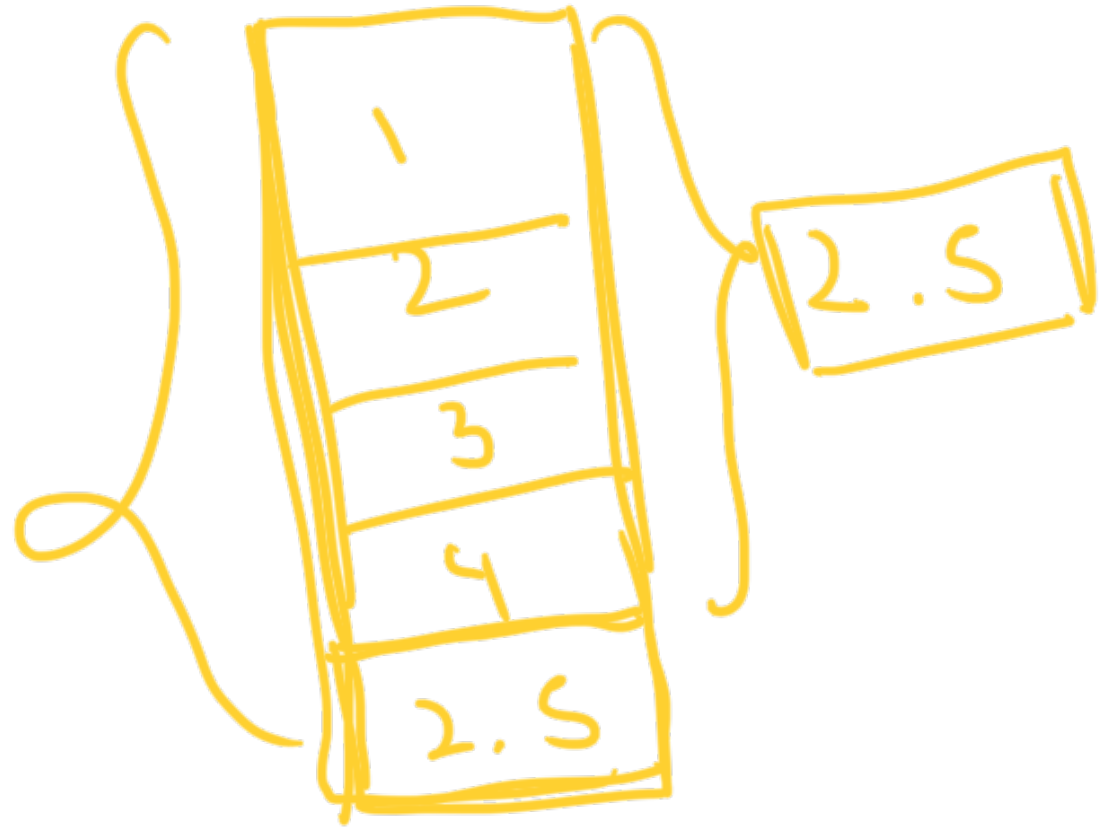
- AVG

- MIN

- MAX



oc



} agg function



change the input

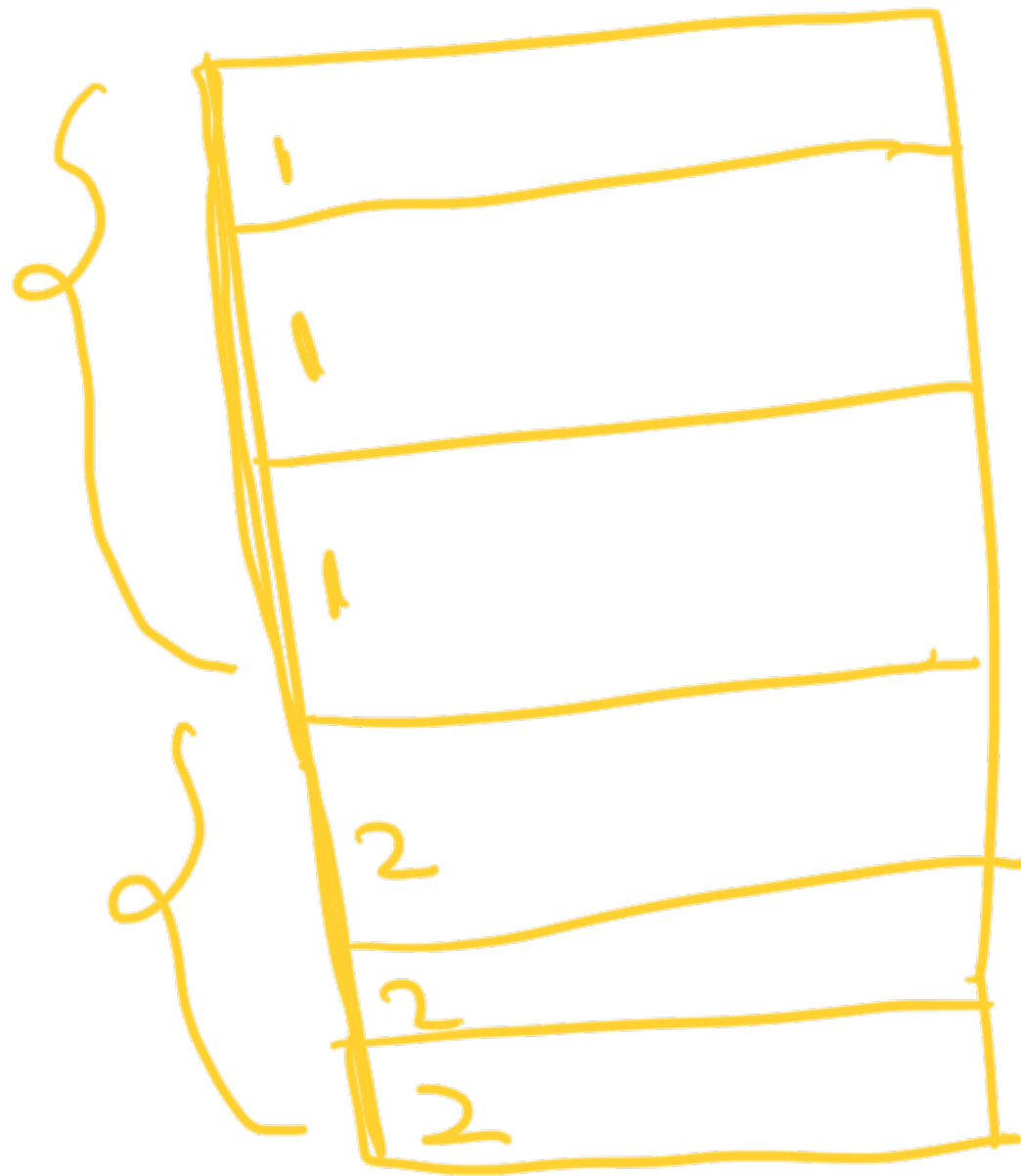
id, name, avg

Window function

- aggregate

- don't change the input

- report complex queries



WF() OVER()

Date

WHERE

1 July	3.7
10 July	4.7
1 August	5
10 August	10

Group by
HAVING

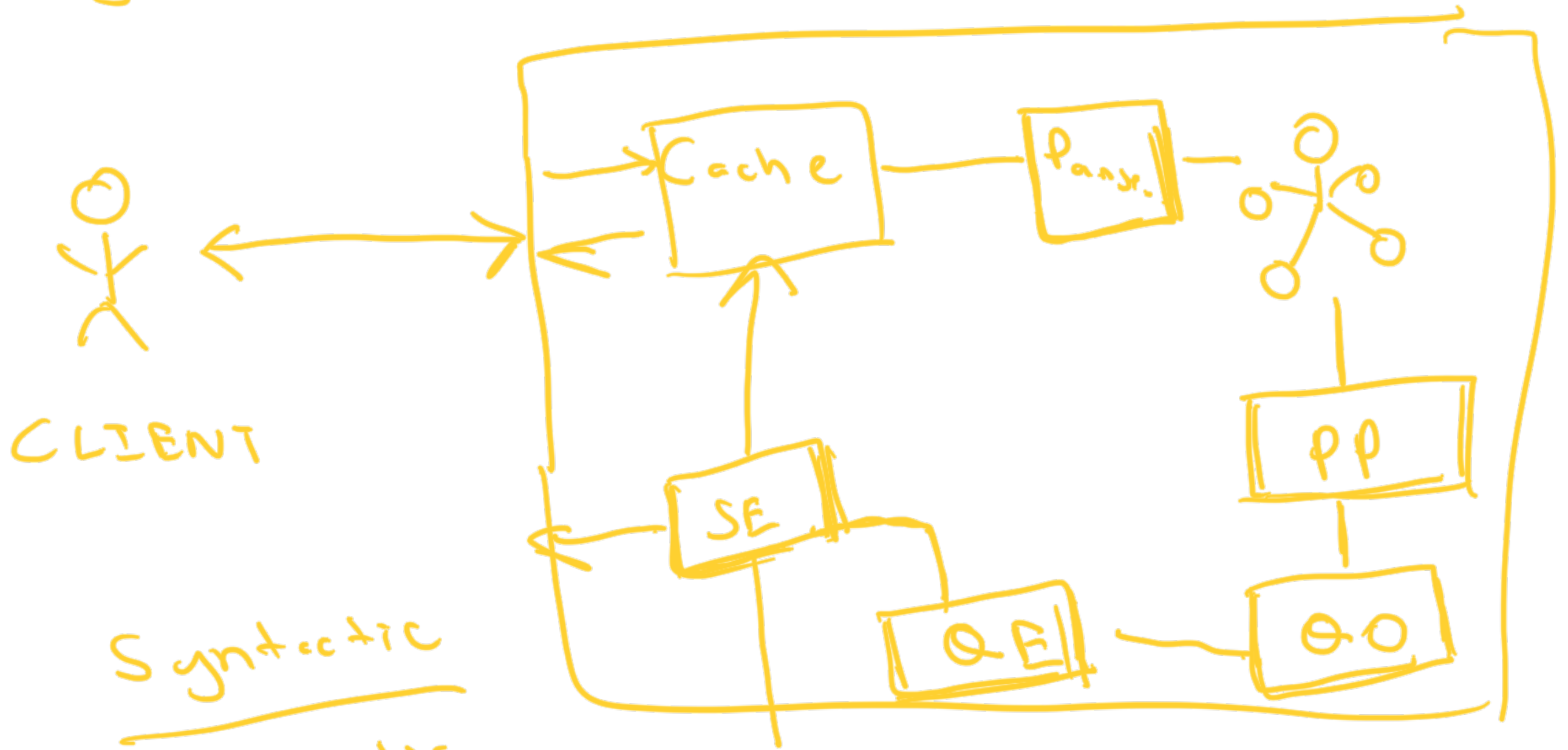
AVG()
Group by month

6:02 6:06

10:32 10:36

Query execution

MySQL



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INNOV

MySQL

① Checks the cache

② Parser - query parser,

query - parse tree

- tokens

checks syntax

③ Pre-processor

- data validation

④ Query optimizer.

Execution plan

SELECT *

FROM

TABLE1

JOIN

TABLE2

WHERE

Cost base optimizer

→ Get Data from T1

→ " " T2

Cost

T2

T1

cost'

decide the lowest cost plan.

Execution Plans

→ EXPLAIN

id = 1 10000

①

→ id = 10
→ id = 1
→ id = 1
→

Full Table Scan
Sequential

10000 10000
20000

②

Index Full Index Scan

FI Scan > FT

③

id > 9 → id < 20

Range sum

•••

Index

④

Seek - lookup

10000

- non-unique
- unique



Const.