SQL - Window functions and query optimisation

Agenda

- Window fn
  - OVER
    - RANK vs DENSE_RANK
- Query execution
- Query optimisation
  - EXPLAIN

Aggregation

∫ Row → DB
↓

BATCH → GROUP BY

↓

ORG → AVG , COUNT , MIN , MAX

Select ID, Avg(Sal)
From e

Select `batch_id`, `batch_no`
From Group by

↳ Window functions

↳ Aggregate + more level

① OVER Clause

(SID N BID DSN

OVER (PARTITION BY `Dept`)

AVG(`Psd`)

AVG(`Psd`) OVER (

Order By

OVER (PB batch_id ORDER BY)
DSD

Sat - Schema Design } Doubt

Sun

Monday - Hackerrank

Sat + Sun

Doubts

Monday — 27

Contest — 30

- Saturday — Schema Design
- Sunday — 2m
- Monday — 9 - 12
- Tuesday — Contest

| 6:10 — 6:15 |

- Wish S

BREAK

Client Server

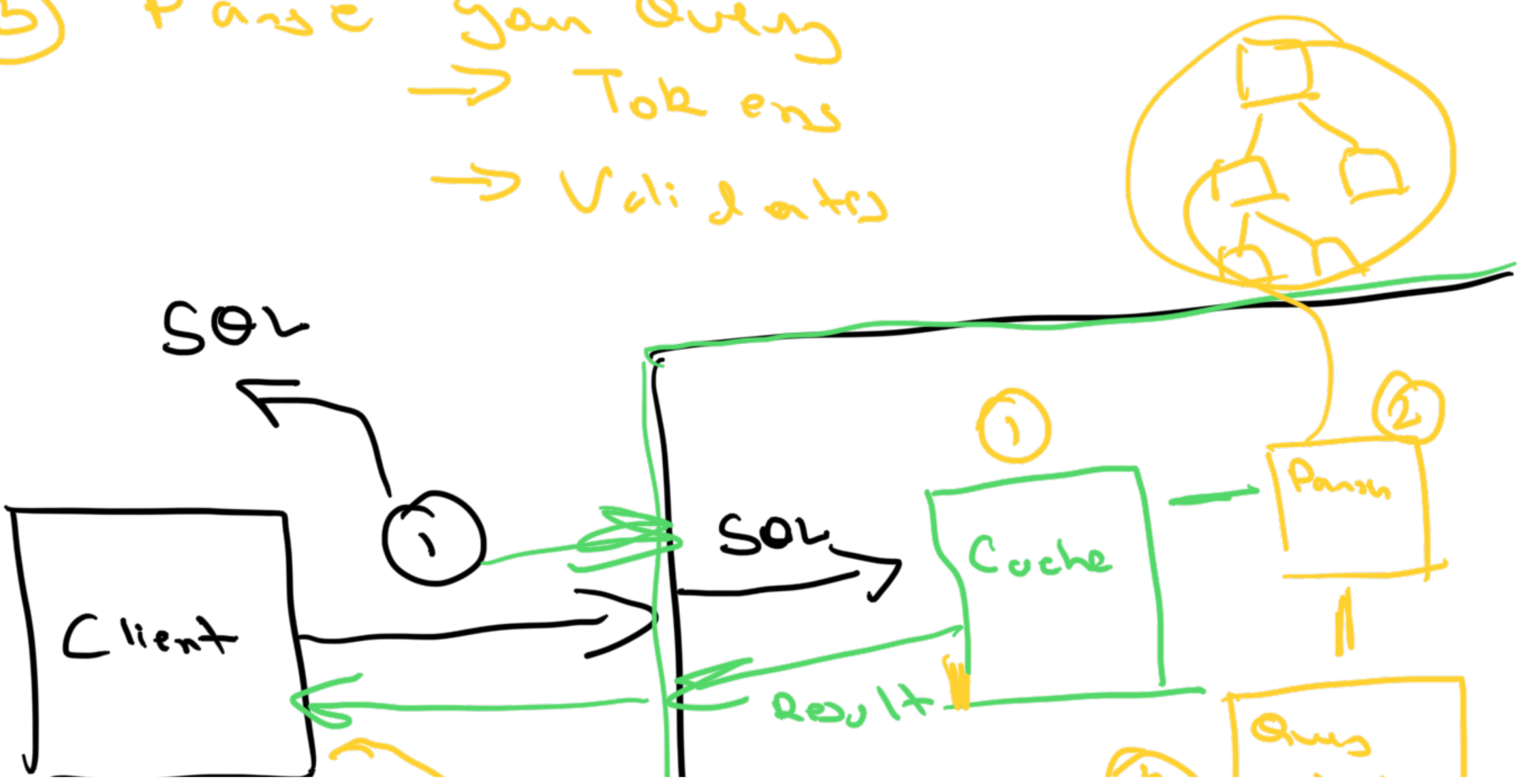
C
S
Request
Response
B
TR
S

ls

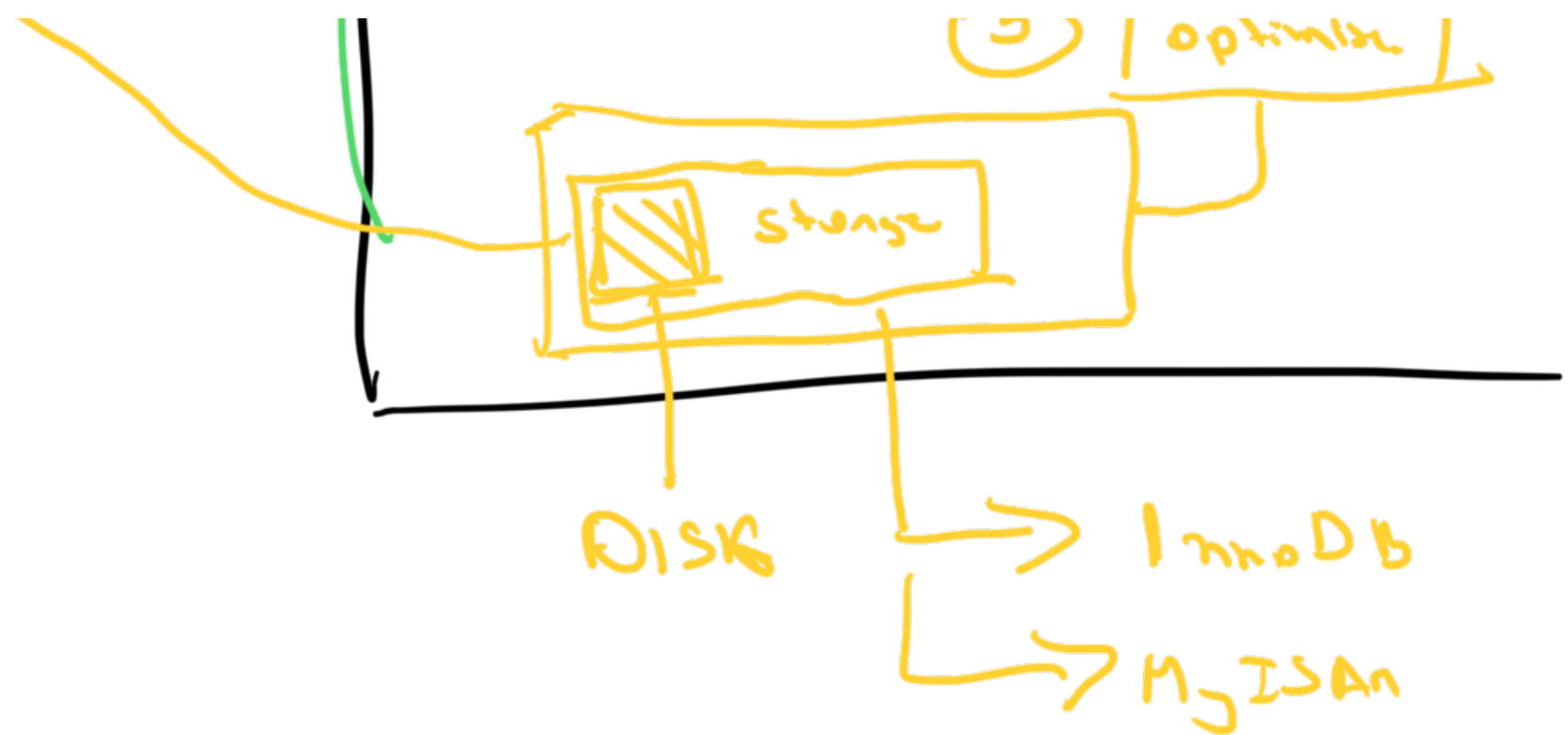
S1
S2

Get the streams
S1
S2
S3
Select
from
Stud.

1. Client - Sends SQL query to the DBMS
2. Checks the cache
3. Parse your Query
   → Tokens
   → Validates



- App
- MB



Q

'SQL': [Data, ...]

Execution plan

FROM

Execution

A + B

Cost

Scans

O(N) - Full table scan

↓

Sequential scm

↳ Full index

scm