

# Recap: Query Execution

1. SQL → Query Execution Plan (algebraic expression)
2. Logical transformation QEP to equivalent but ‚faster‘ QEP
3. Transformation QEP in choosing physical operators

Transformation with rules, decision (‚faster‘, which operators)  
on cost model with use of statistics

# Recap: New Developments

- Main Memory Database Systems:  
no access gap, different data structures, but volatile memory
- Column Store Database Systems:  
good for wide tuples, read-mostly applications
- NoSQL – schema-free, web-scale, distributed, specific data, CAP theorem

# Possible exam assignments

1. Give two possible physical operators of one logical operator (short explanation of the different implementations)
2. What does the acronym CAP (in the context of NoSQL) mean?

C \_\_\_\_\_  
A \_\_\_\_\_  
P \_\_\_\_\_