

## objectives

① Common Table Expression ✓



Reuse that query somewhere else  
with + CTE ✓

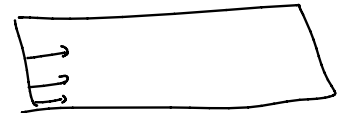
②

Block Data → Search the data  
↓ → Attribute → Record  
→ No Data Found



1.5 minutes

1.2 minutes →



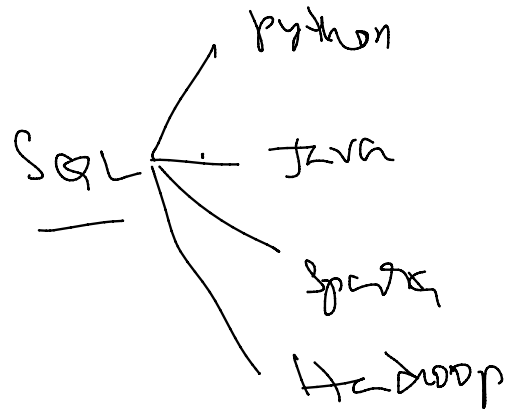
Printers → Fetch the data  
less amount of the time

✓ Indexes → power lines ✓

③

## Window Functions

DE / DA / DS / VBEK



pySpark → DE / DA

- ✓ a) Analytical capabilities ✓
- b) window functions ✓

MySQL → analytical →

Data → Information

→ Insights of the

→ Data ✓

Year	Product	Sale	Total_Sales
2017	Computer	15000.00	45000.00
2017	Laptop	10000.00	45000.00
2017	Mobile	20000.00	45000.00
2018	Computer	10000.00	26500.00
2018	Laptop	15000.00	26500.00
2018	Calculator	1500.00	26500.00
2019	TV	20000.00	65000.00

Year	Product	Total_Sales
2017	Computer	45000.00
2018	Computer	26500.00
2019	TV	65000.00

2018	Laptop	15000.00	26500.00
2018	Calculator	1500.00	26500.00
2019	TV	20000.00	65000.00
2019	TV	20000.00	65000.00
2019	Mobile	25000.00	65000.00

Partition / window

20172018

Group by

⇒ Analytical functions

Key take aways

① Common table Expression (CTE)

- Reusability
- Faster execution
- Readability.

a) table

b) table container order thing

②

Index

— pointer to the table

PK/unique → Primary (clustered Index)

IN/Random — Secondary (non-clustered)

1-4/ Branch - Secondary (non-clustered),  
Index

- less time  
- ~~\*\*\*~~ more space

Student → Branch

~~Index~~ → Branch

✓ performance → logical

③ window / analytical functions  
in mysql

- partitioning }  
- over }

- They are giving the  
Analysis of the Data about

from the group & aggregation  
like focus if on each  
→ record.