

# Problem Solving

Tools

- Excel
- BI

Languages

- SQL
- Python



# # Excel

## ① Interface



② Cell → R & C

- Fixed (Absolute)
- Dynamic (Relative) (change)

A1 → Both are changeable

\$A1 → Column fixed, row change

\$A\$1 → Both fixed

A\$1 → Column change, Row fixed

## ③ Sheet

- Add
- Delete
- Rename
- Hide/Unhide
- Color
- protect



## ② Raw data (small)

### Basics

- Ⓐ Font : size, type, color
- Ⓑ Border
- Ⓒ Color
- Ⓓ Alignment
- Ⓔ Eraser (clears formatting)  
or  
value
- Ⓕ wrap text }  
Merge } → for longer  
text

## Data Analysis

- ① Data
  - ↳ locally (within workbook)
  - ↳ Get data (import data)
    - ↳ Data Sources → csv, excel  
link, cloud database

CSV → comma separated values

- ↳ flat/text file
- ↳ mainly used for storage purpose
- ↳ Can't save analysis/formatting



## # Loading Data

Data tab → Get Data → Select Data Source → Choose Data/Table

a) Load

- Table
- Pivot table

b) Transform → Open Power Query Editor (Power BI)

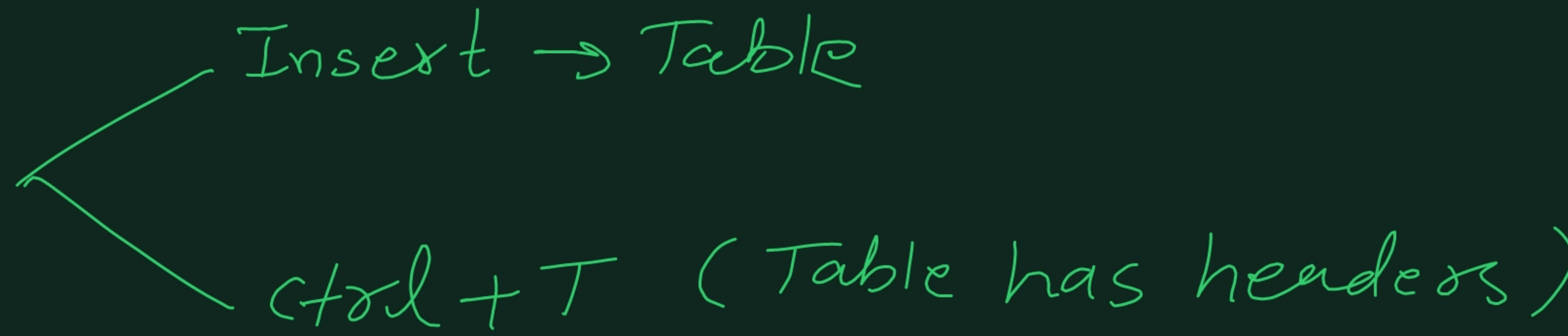
## # Analysis

a) Working with table

b) Working with pivot table



## ① Working with table

① Raw Data → Table   
Insert → Table  
ctrl + T (Table has headers)

② Sorting/Filtering

③ Conditional Formatting → (Highlighting data based on condition/Rule)

④ Functions/Formula



# # Function / Formula

## ④ <sup>(Numeric)</sup> Aggregate function

sum(), count()

max(), min()

average()

Aggregate with conditions → sumif(), countif()

## ⑤ Text function

lower(), upper()

proper(), len()

left(), right()

mid(), strip()

trim()

## ⑥ Date functions

date(), month(), year()

DateDiff(), Text(date, Format)

eodmonth()



