

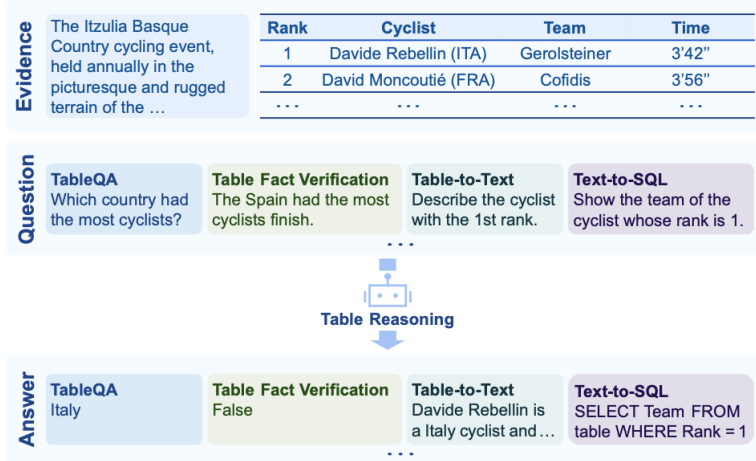
# A Survey of Table Reasoning with Large Language Models

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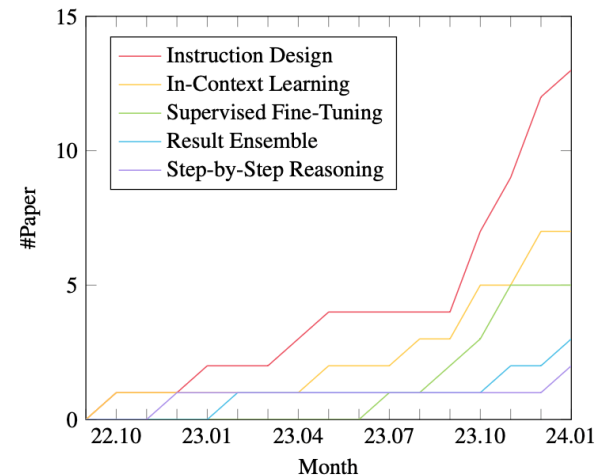
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# Problems & Ideas

- Existing research lacks a summary of LLM-based table reasoning works:
  - Which techniques** can improve table reasoning in the era of LLMs?
  - How to enhance** table reasoning abilities **in the future**?
- Ideas: We analyze the mainstream techniques used to improve table reasoning in the LLM era and discuss the potential future directions of table reasoning.



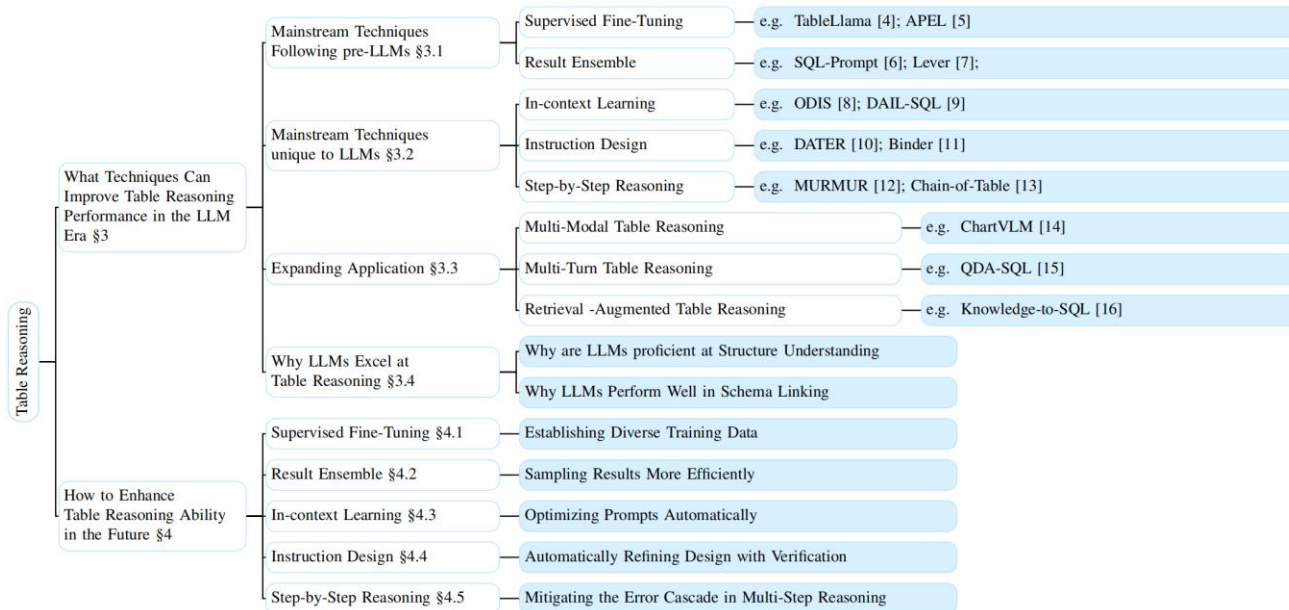
The illustration of various table reasoning tasks.



In the LLM era, the trend in research on the table reasoning task has evolved over several months. #Paper denotes the number of papers.

# Main Contributions

- Contributions:
  - We introduce the mainstream techniques used for table reasoning in the LLM era: **supervised fine-tuning, result ensemble, in-context learning, instruction design, and step-by-step reasoning**;
  - We analyze how to further improve table reasoning performance from the aspect of these mainstream techniques.



The structure overview of our paper, taking the most representative works as an example.