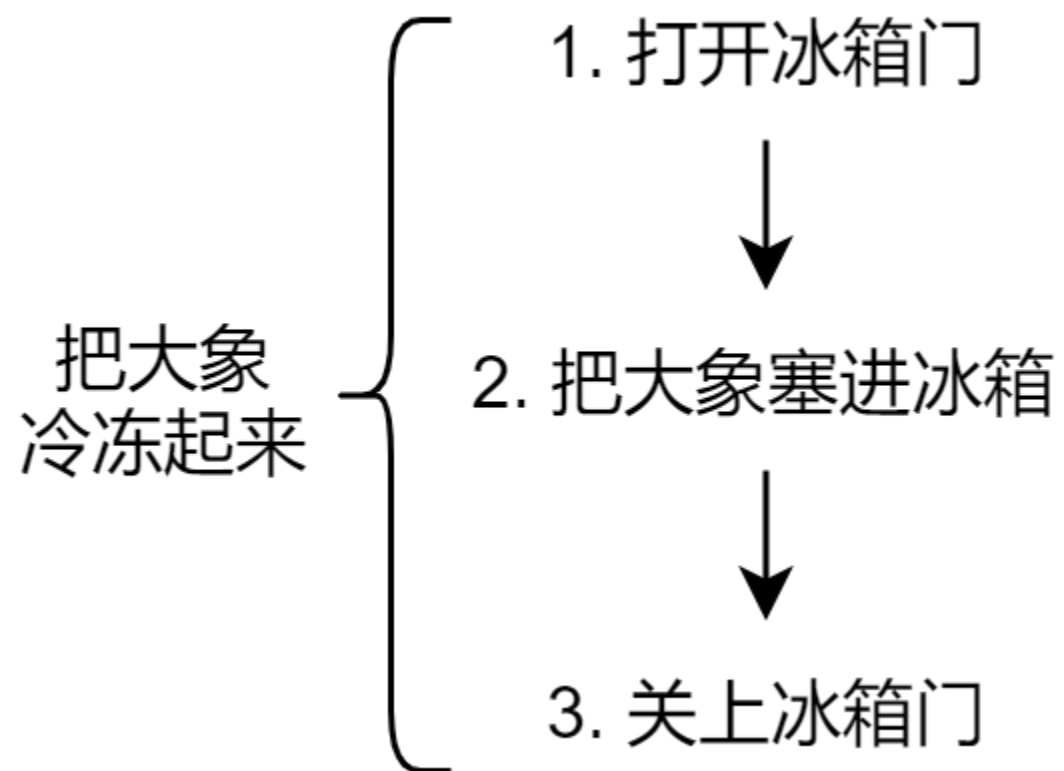


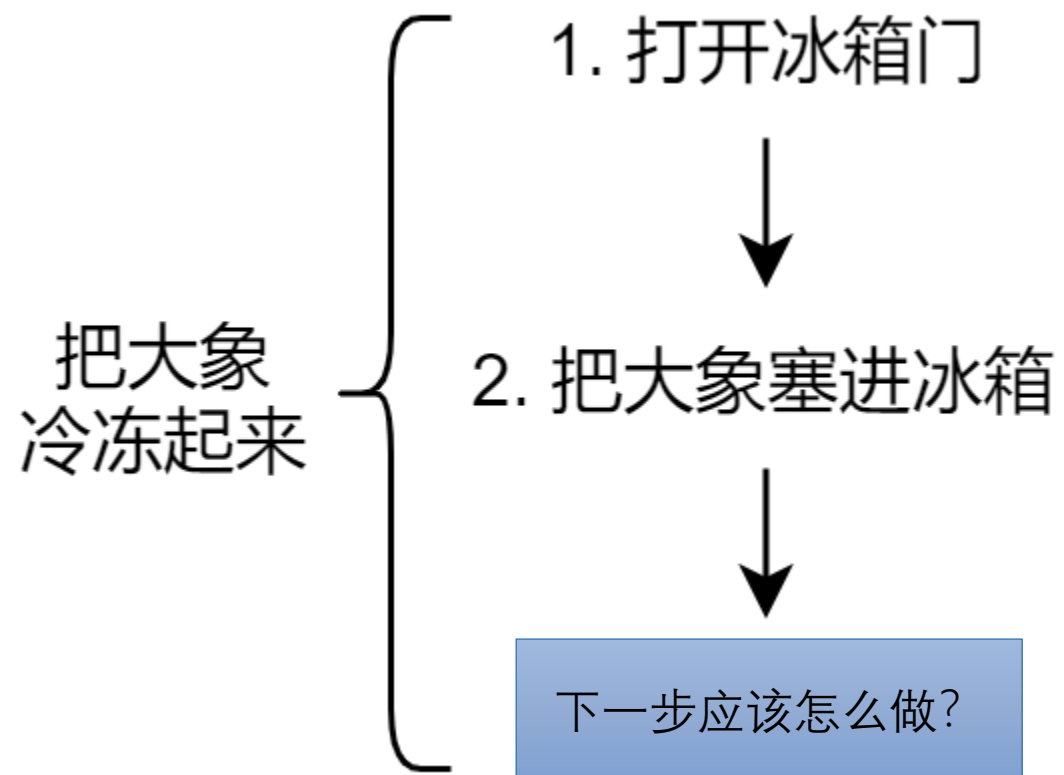
# 如何把大象放进冰箱里？事件过程预测简介

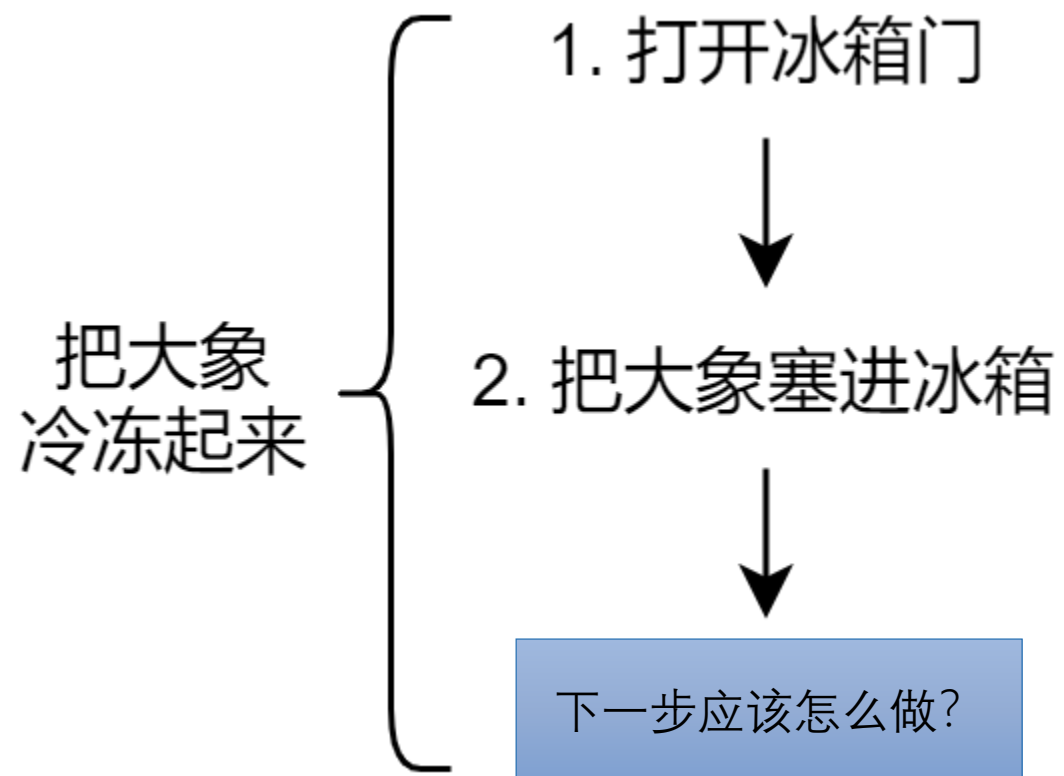


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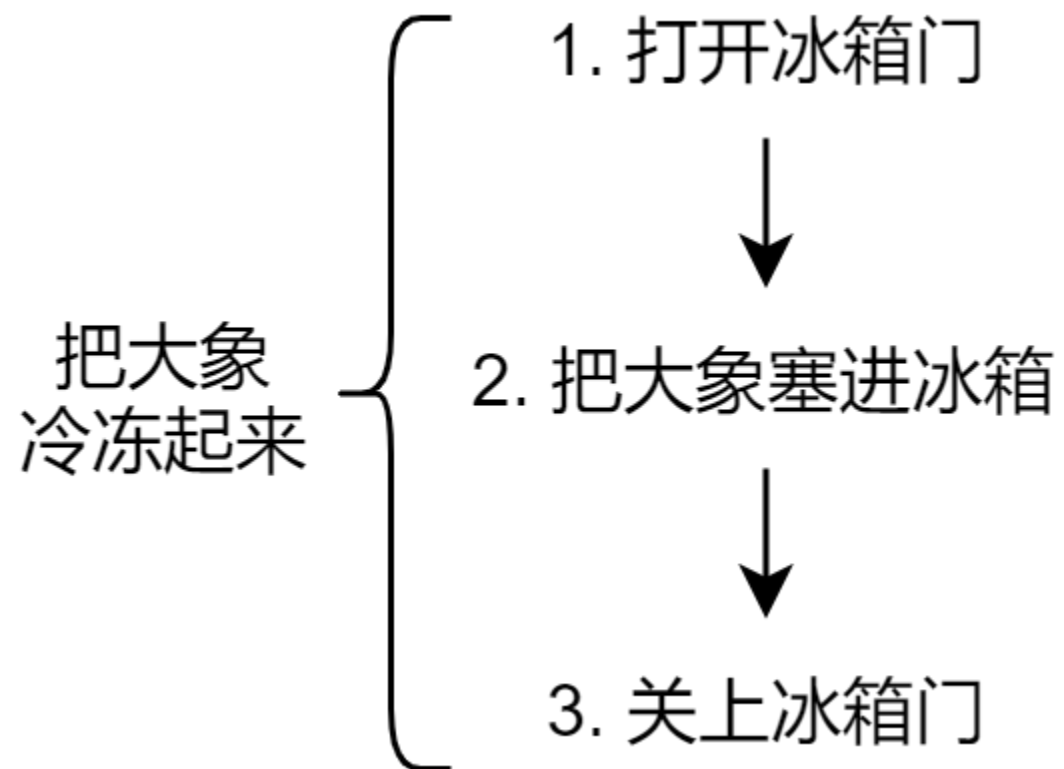
[tzhu7@stu.suda.edu.cn](mailto:tzhu7@stu.suda.edu.cn)

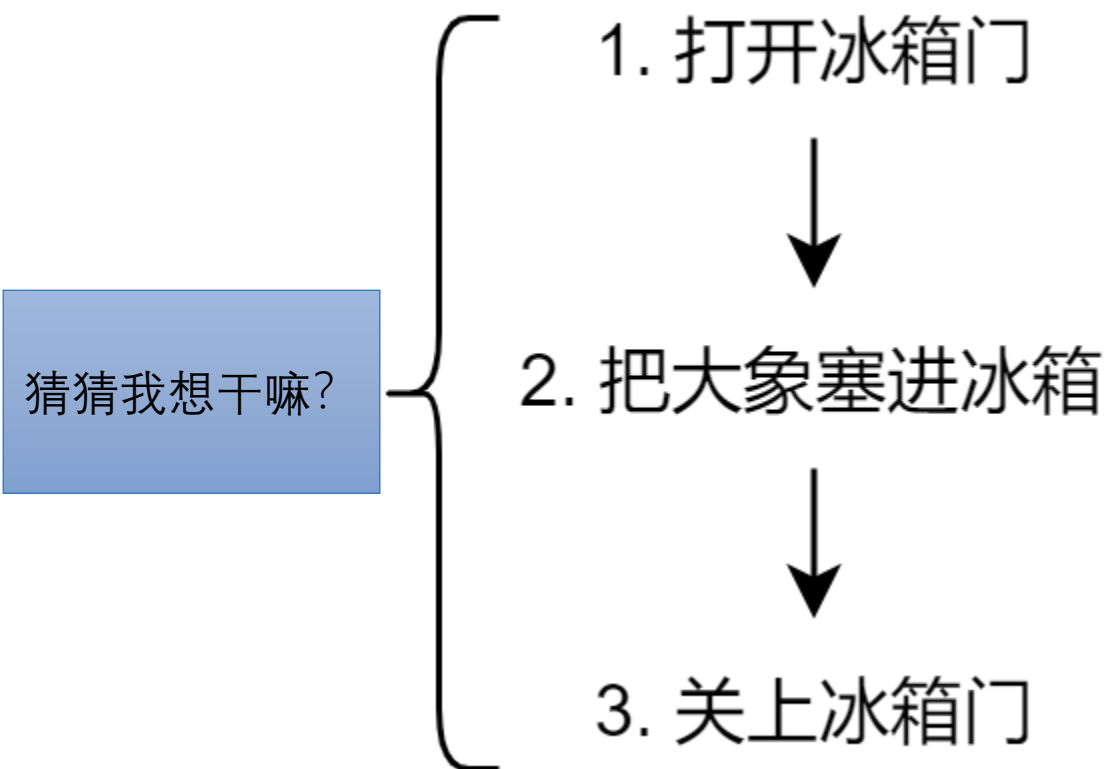


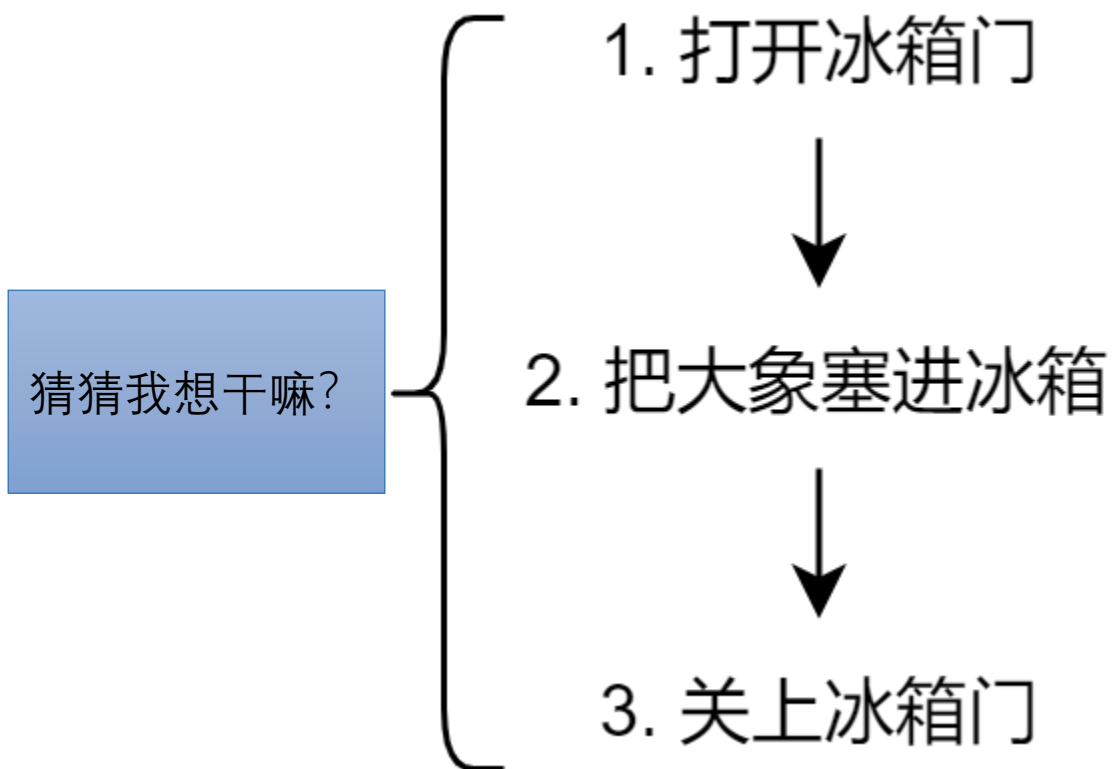




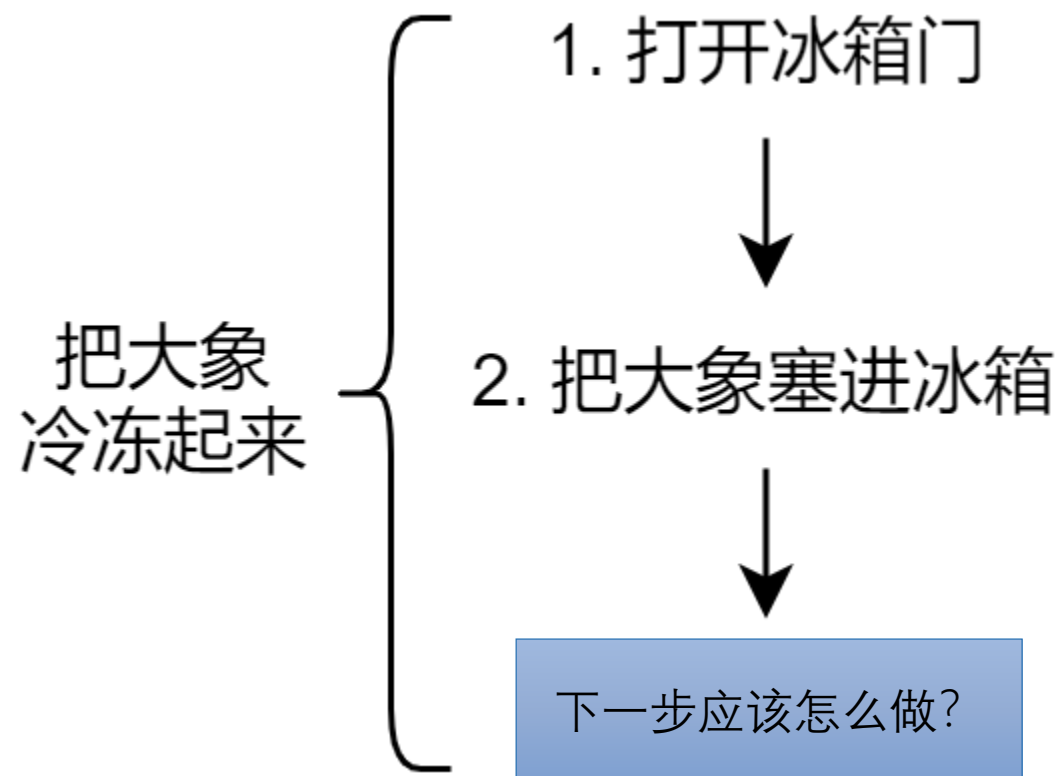
Event Process Completion







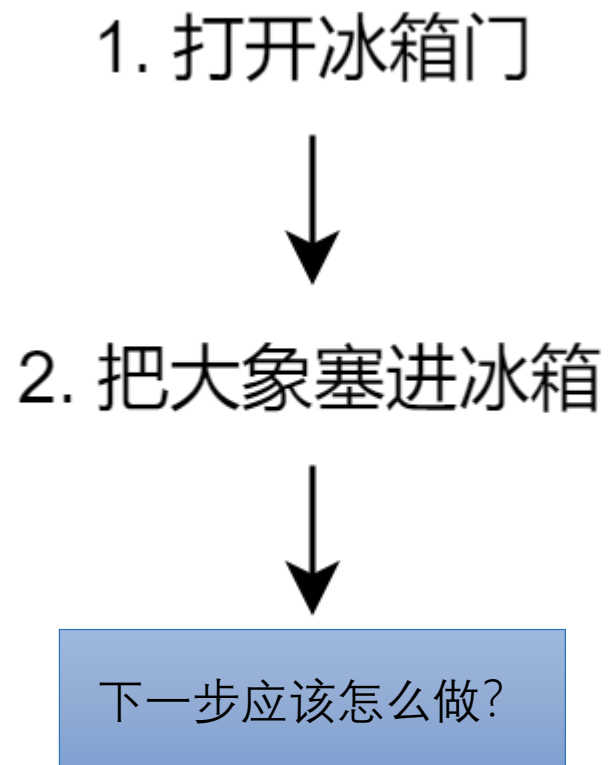
Event Intent Prediction



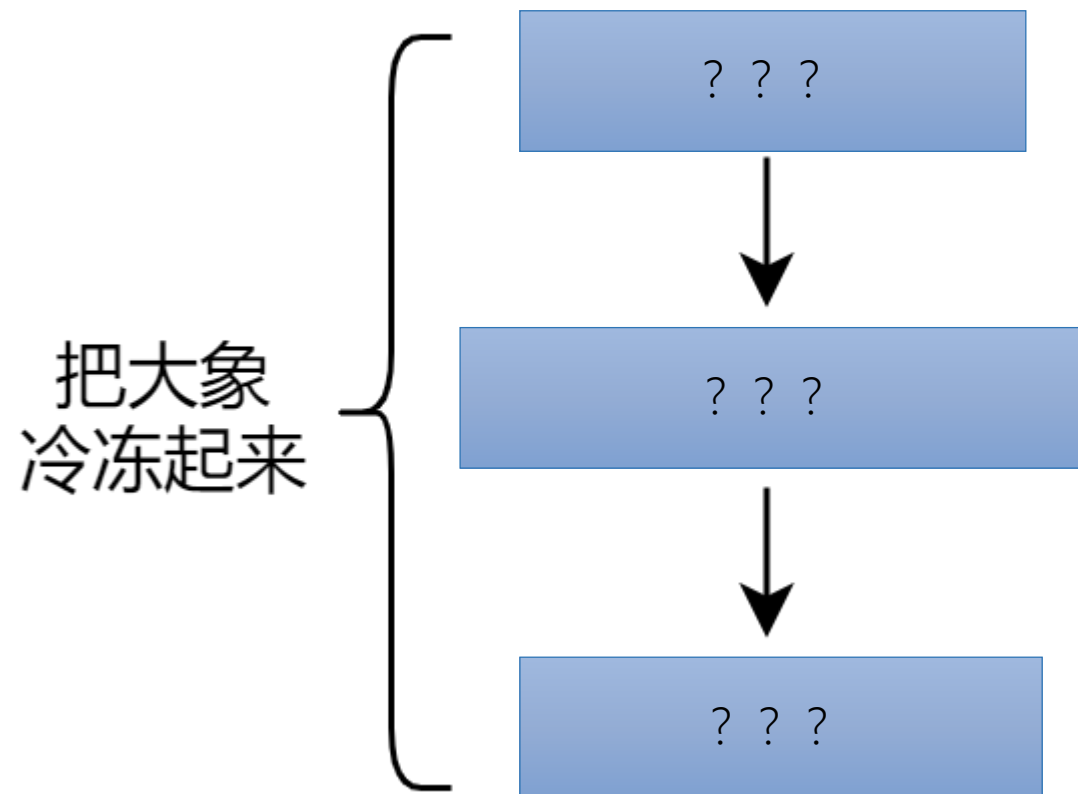
Event Process Completion



- 预测过程中的某个步骤



- 我应该怎么做



- 预测过程中的某个步骤

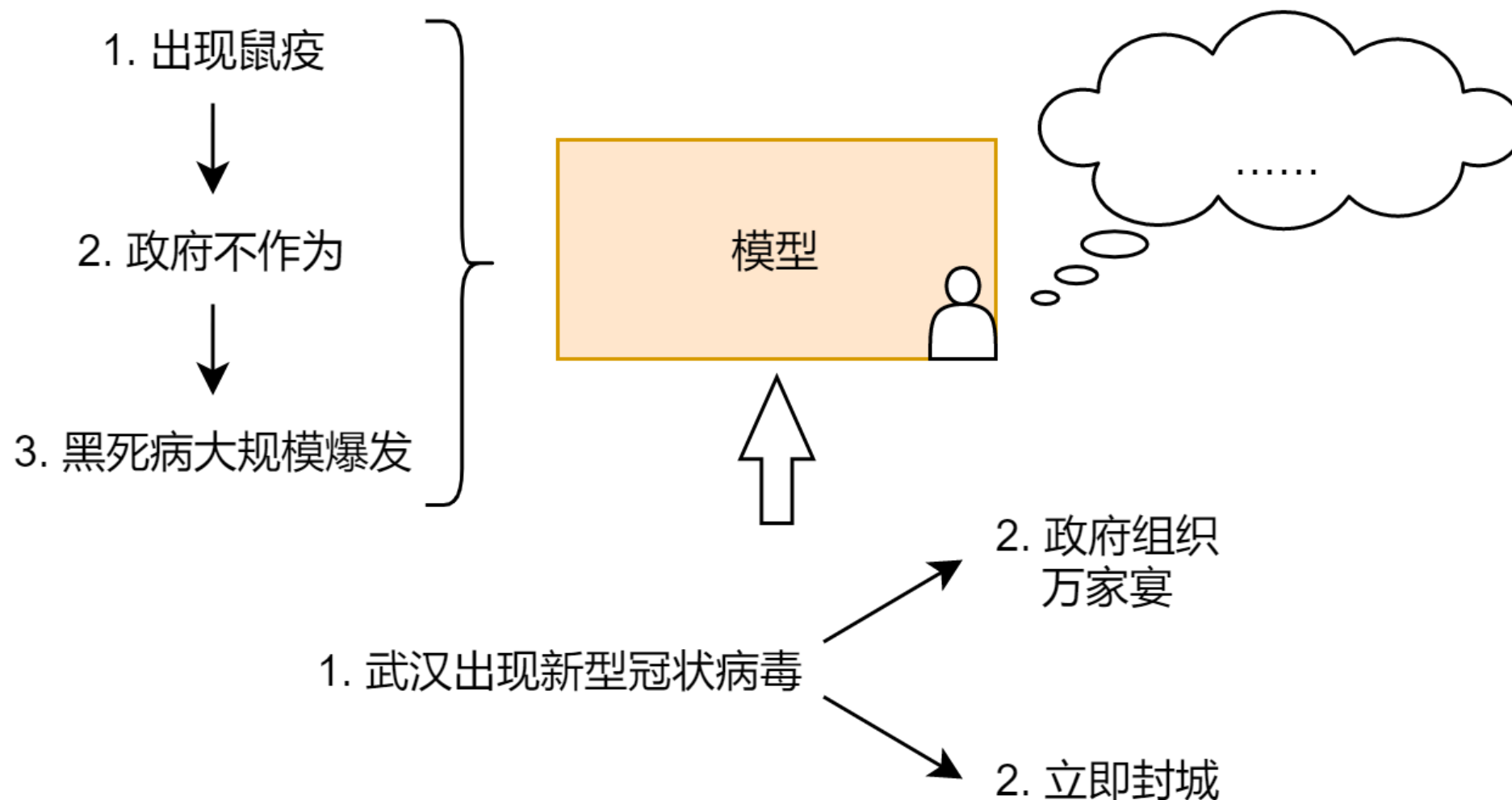
1. 打开冰箱门



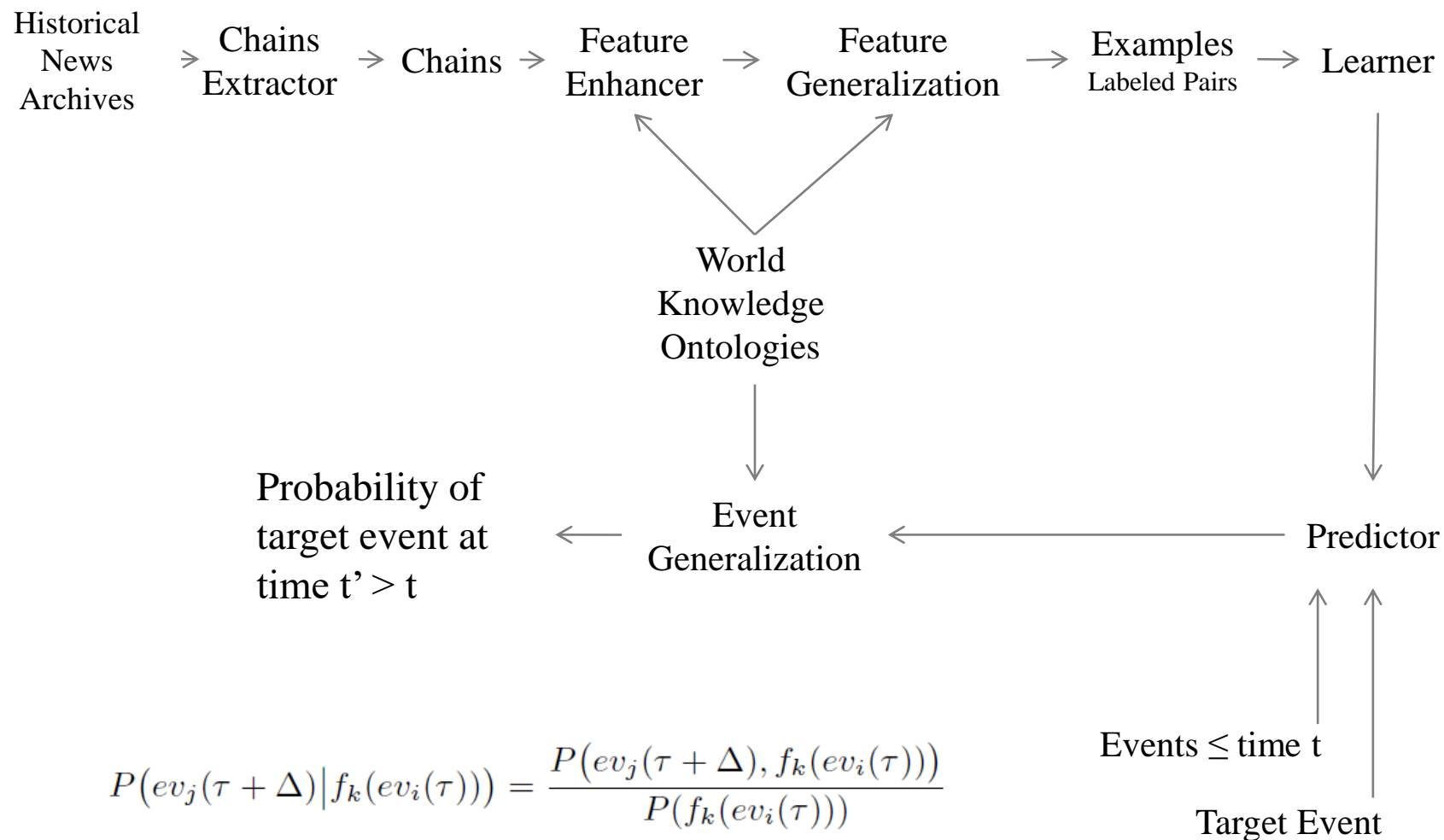
2. 把大象塞进冰箱



下一步应该怎么做?



## Prediction Learning

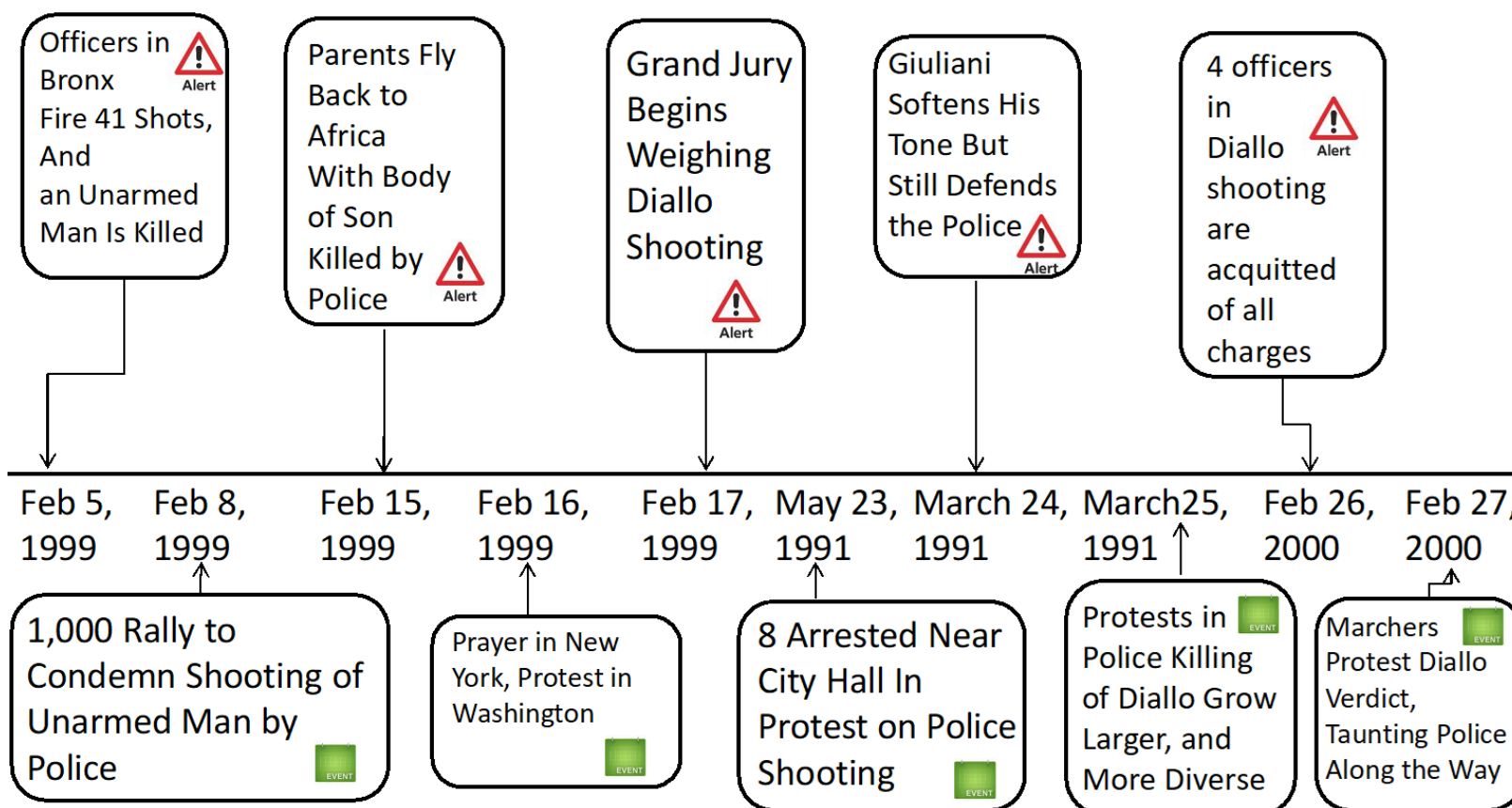


Kira Radinsky and Eric Horvitz. 2013. Mining the web to predict future events. In *Proceedings of the sixth ACM international conference on Web search and data mining - WSDM '13*, page 255, Rome, Italy. ACM Press.

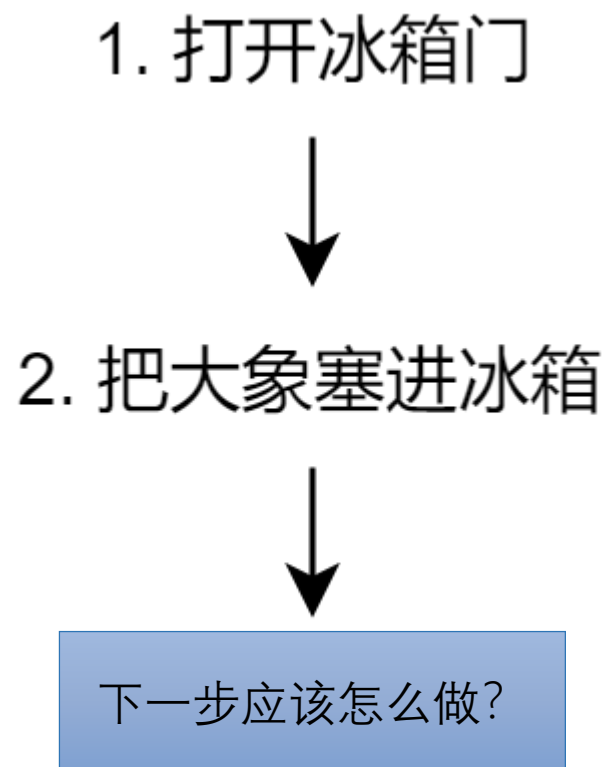
	General Predictions		Death		Disease Outbreak		Riots	
	Prec.	Recall	Prec.	Recall	Prec.	Recall	Prec.	Recall
Full model	24%	100%	83%	81%	61%	33%	91%	51%
Frequency	<1%	100%	59%	<1%	13%	3%	50%	1%
Co-occurrence	7%	100	46%	61%	40%	<1%	61%	14%

		Predicted		
		Few	Tens	Hundreds
Real	Few	40%	6%	1%
	Tens	4%	32%	1%
	Hundreds	1%	6%	9%

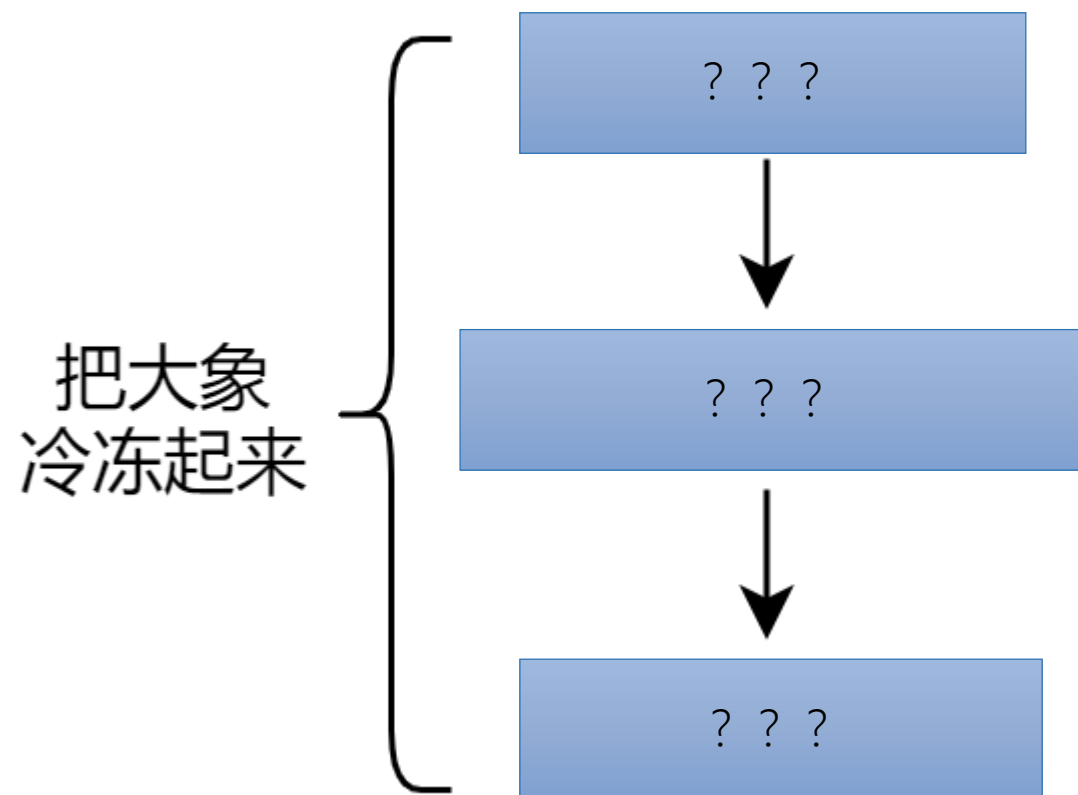
General Predictions		Death		Disease Outbreak		Riots	
Med.	Avg.	Med.	Avg.	Med.	Avg.	Med.	Avg.
9	21	8	41	12	273	18	30



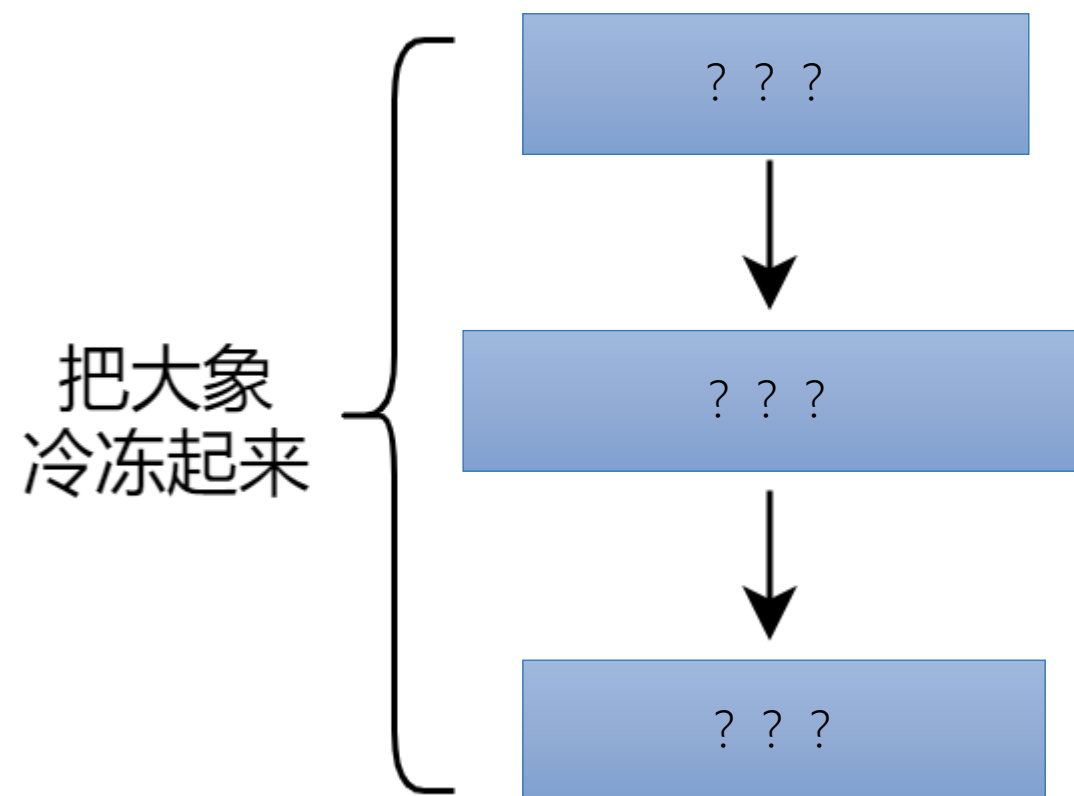
- 预测过程中的某个步骤



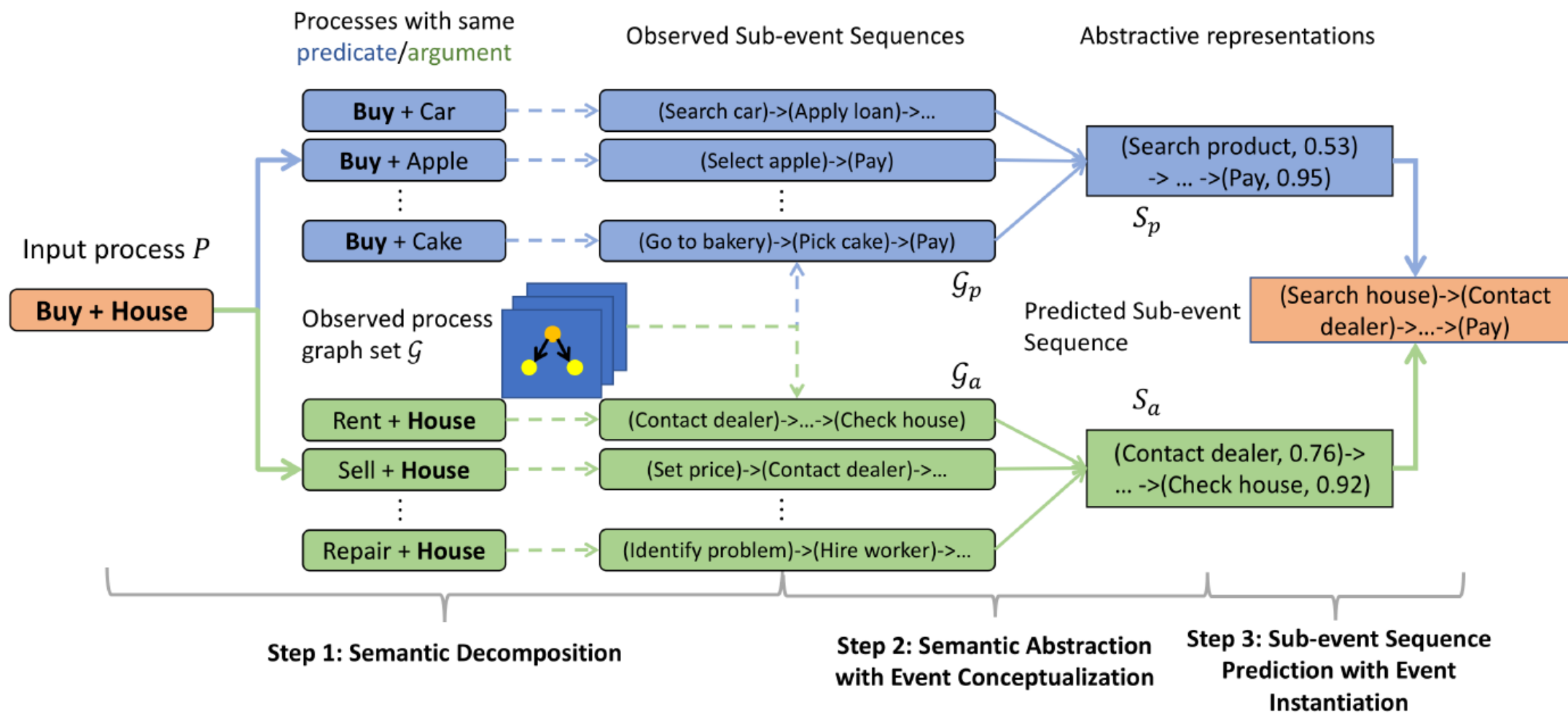
- 我应该怎么做




- 我应该怎么做










Hongming Zhang, Muhao Chen, Haoyu Wang, Yangqiu Song, and Dan Roth. 2020. Analogous Process Structure Induction for Sub-event Sequence Prediction. *EMNLP, 2020*.



to do anything...



PRO







EDIT



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BUYING PROPERTY » BUYING A HOUSE

## How to Buy a House

Co-authored by **Nathan Miller**   
 Last Updated: June 23, 2021  References  Approved

Purchasing a house is an incredible accomplishment and one of the biggest steps you'll take during your life. Though the process may seem overwhelming, breaking everything down will help you keep your head straight while hunting for the house of your dreams.





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### PARTS

- 1 Getting Your Financials in Order
- 2 Shopping for a Home
- 3 Making an Offer
- 4 Finalizing the Deal

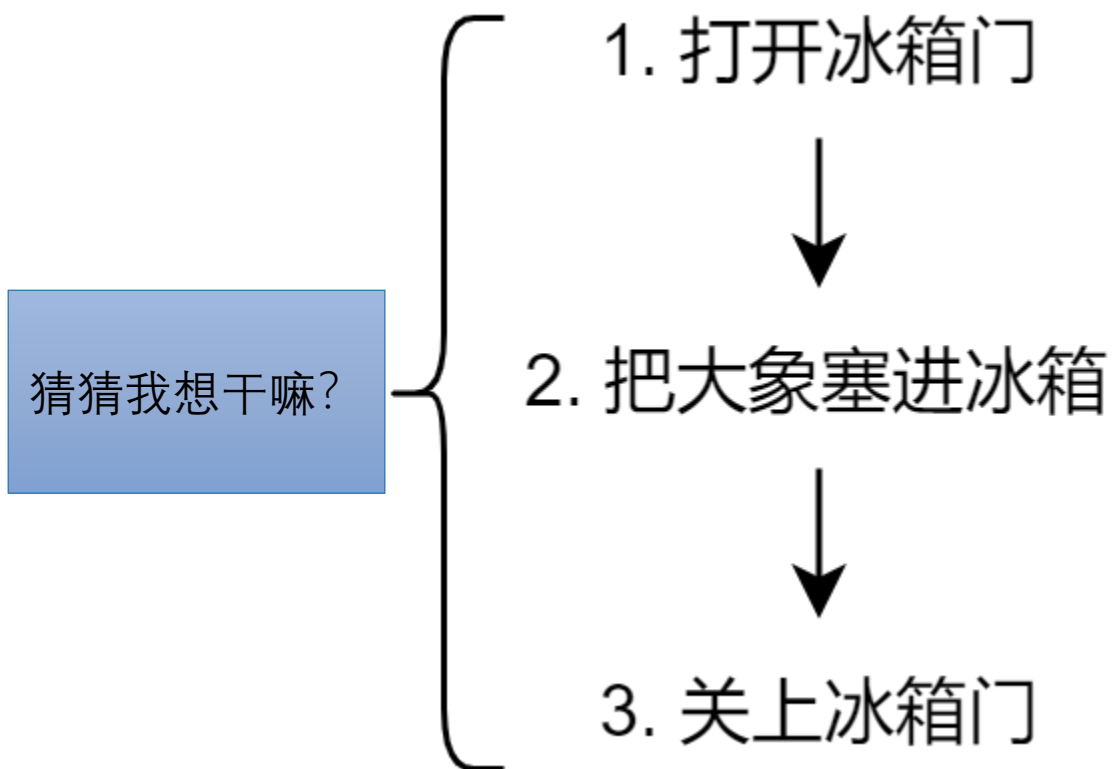
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-  Expert Q&A
-  Related Articles
-  References
-  Article Summary

## PARTS

- 1 Getting Your Financials in Order
- 2 Shopping for a Home
- 3 Making an Offer
- 4 Finalizing the Deal



Event Intent Prediction

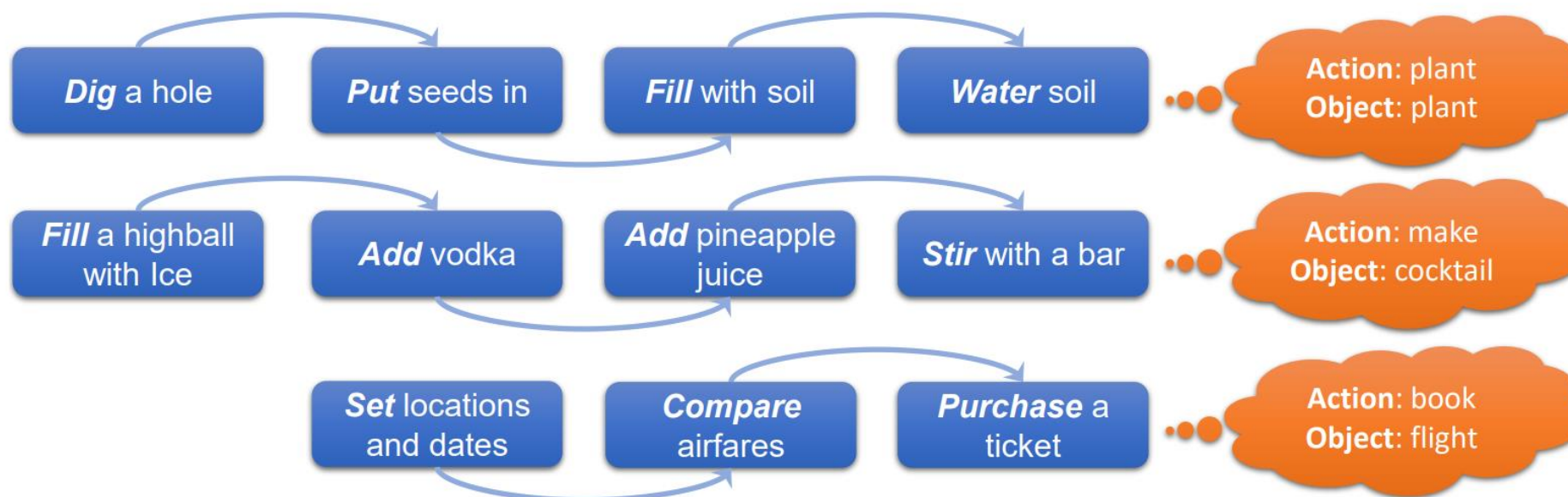
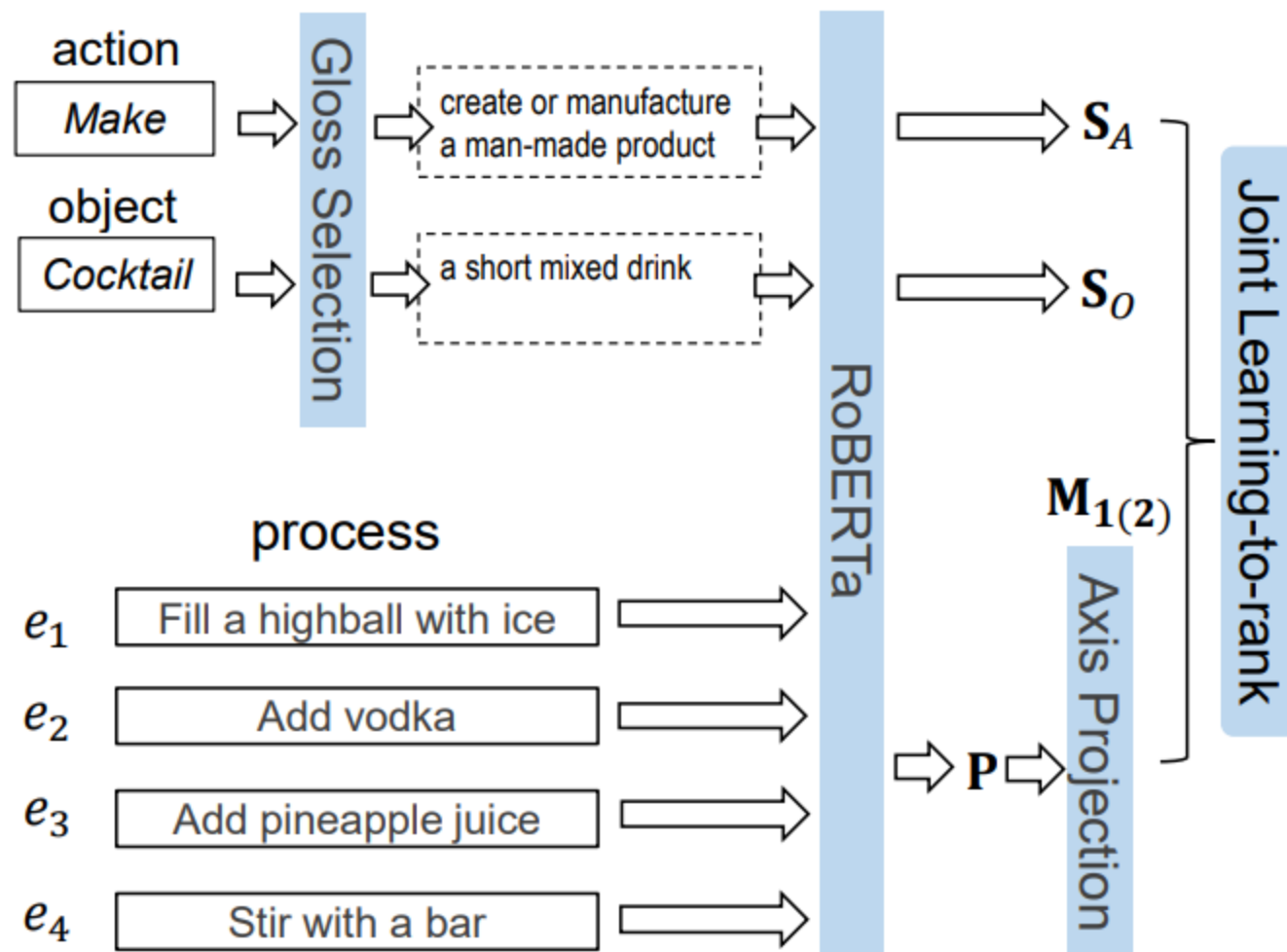


Figure 1: Examples of type inference for event processes.



Muhao Chen, Hongming Zhang, Haoyu Wang, and Dan Roth. 2020. What Are You Trying to Do? Semantic Typing of Event Processes. In *Proceedings of the 24th Conference on Computational Natural Language Learning*, pages 531–542, Online. Association for Computational Linguistics.

Examples

Crime



Event process (choose an example or write the subevents of a process separated by '@' to get its intention)

make explosive materials @ obtain a container @ obtain shrapnel @ install a trigger

Get intention &gt;

detonate detonator

Cosine similarity	Action	Object	Cosine similarity
0.713	detonate	detonator	0.660
0.596	nuke	percussion	0.633
0.470	kill	mine	0.605
0.414	blow	grenade	0.587
0.375	storm	blaster	0.528

[https://cogcomp.seas.upenn.edu/page/demo\\_view/step](https://cogcomp.seas.upenn.edu/page/demo_view/step)

Event process (choose an example or write the subevents of a process separated by '@' to get its intention)

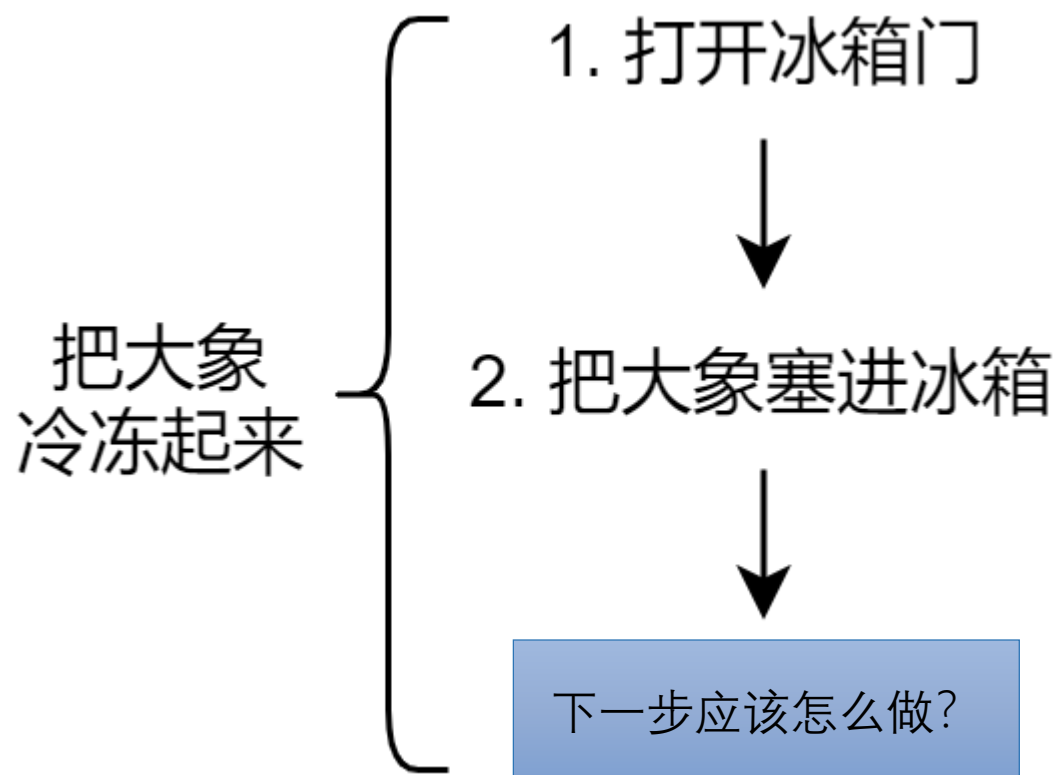
girlfriend cannot sleep @ she wanted accompany @ I was sleepy @ I fell asleep

Get intention >

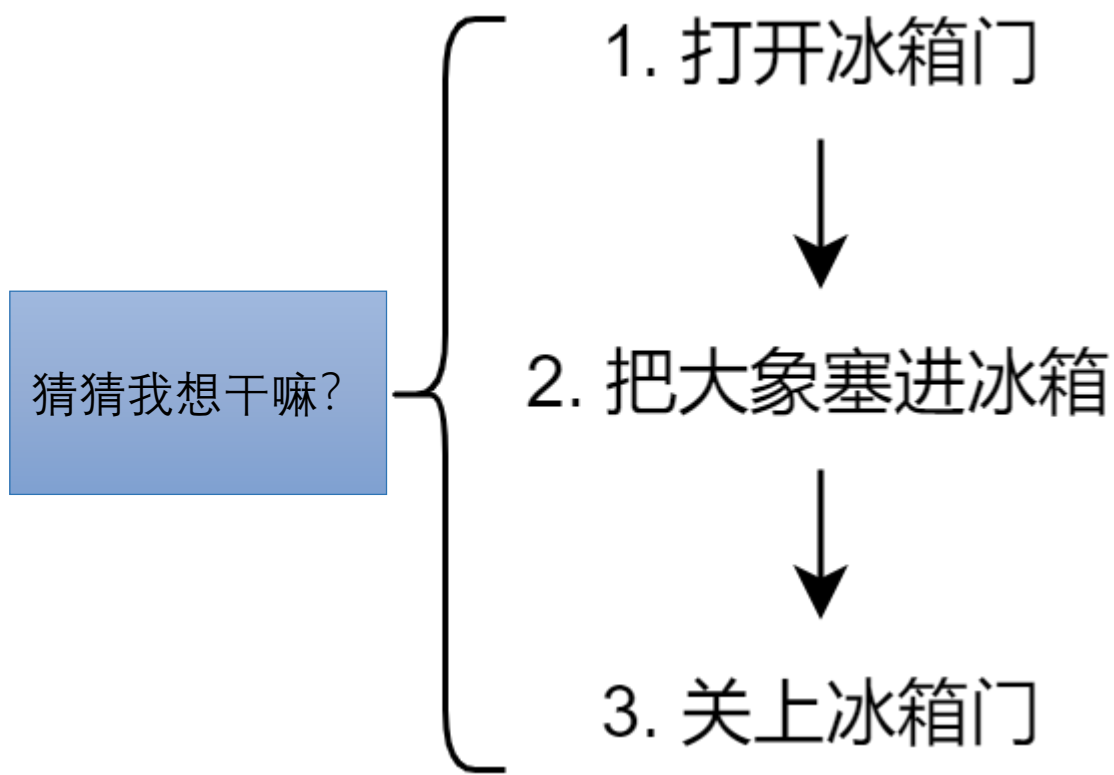
rekindle mom

Cosine similarity	Action	Object	Cosine similarity
0.477	rekindle	mom	0.526
0.441	affect	loving	0.503
0.424	want	love	0.492
0.424	reinvent	girlfriend	0.488
0.417	seduce	boyfriend	0.482

[https://cogcomp.seas.upenn.edu/page/demo\\_view/step](https://cogcomp.seas.upenn.edu/page/demo_view/step)



Event Process Completion



Event Intent Prediction



# Thanks

## Q&A

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