

## Episodic Memory

Task: HRB-PEK Travel Plan (5,000 RMB Budget)

Tool: Web Search, Code Execution, ...

Trajectory: Flight Price Research -> ...

...



**Query:** Help me plan a 3-day trip from Harbin to Beijing with a budget of 5,000 RMB.



**Thought:** I need to search for flight information first, to check the ticket prices.

**Act:** <search> Round-trip flight prices from Harbin to Beijing. </search>

**Obs:** Economy class round-trip costs approximately 1,000-1,500 RMB.

**Thought:** Next, I need to check accommodation information.

**Act:** <search> Check Beijing accommodation prices. </search>

**Obs:** Hotels cost approximately 300~500 RMB per night, and homestays/guesthouses cost about ...

**Thought:** I need to calculate budget allocation.

**Act:** <python> budget = 5000 .... </python>

**Obs:** If staying at a hotel, the daily available balance range would be about 750~950 RMB. If staying at a ...

...

## Semantic Memory

**Fact:** The user is a vegetarian

**Impact:** He will choose vegetarian dishes

**Condition:** Restaurant recommendations, ...

...



I'm a **vegetarian** and have been for three years. I feel this lifestyle makes me feel healthier and aligns better with my values.



I'm glad to learn about your dietary choice! Vegetarianism indeed brings many benefits, including positive impacts on health and the environment. Three years of commitment is not easy, you must have accumulated quite a bit of experience along the way.

...

Could you help me with some **recommendations for what I should eat** for dinner tonight?

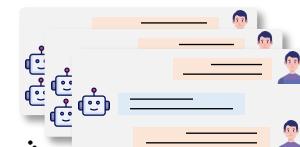


Sure! Since you mentioned you're a **vegetarian**, I'd like to recommend some nutritious and delicious options for you:

1. Quinoa Buddha Bowl.
2. Tofu Vegetable Curry.
3. Italian Tomato Lentil Pasta.
4. Mexican Vegetarian Burrito.

...

Past tasks or sessions



Memory Extraction

## Cross-trail Memory

Episodic / Semantic Memory  
Episodic / Semantic Memory  
Ta Task: ...      Fact: ...  
To Tool: ...      Impact: ...  
Tr Trajectory: ...      Condition: ...

...

Provide Experience or Information



Memory Context

...

History within the current session or task

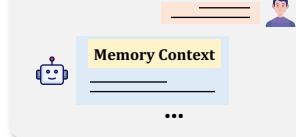


Memory Extraction

## Inside-trail Memory

Episodic / Semantic Memory  
Task: ...      Fact: ...  
Tool: ...      Impact: ...  
Trajectory: ...      Condition: ...

Provide Experience or Information



Memory Context

...

(a) Nature-Based Memory Classification

(b) Scope-Based Memory Classification