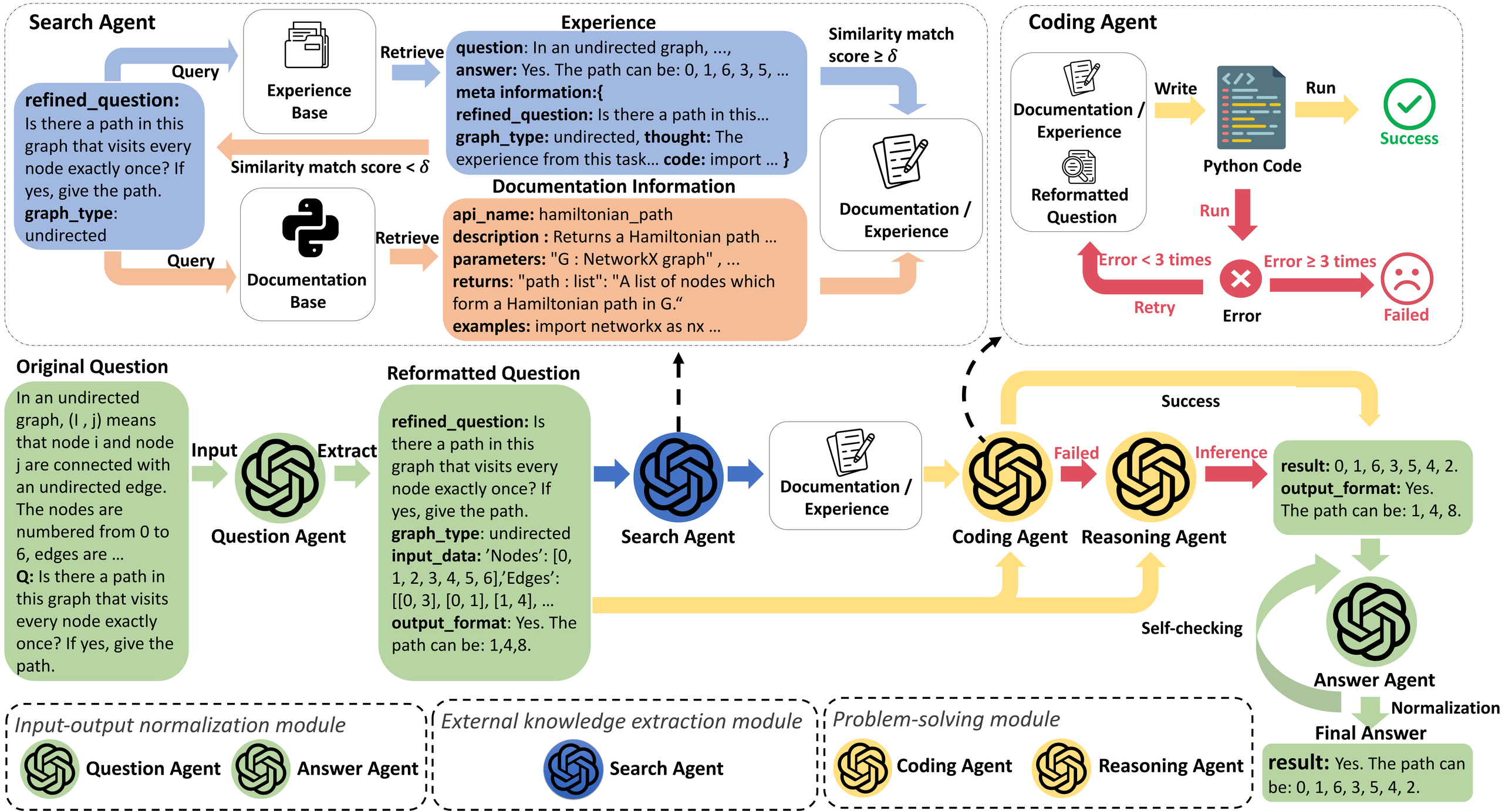
Search Agent
Query
Experience Base
Retrieve
Experience
question: In an undirected graph, ...,
answer: Yes. The path can be: 0, 1, 6, 3, 5, ...
meta information:{
refined_question: Is there a path in this...
graph_type: undirected, thought: The experience from this task... code: import ... }
Similarity match score ≥ δ
refined_question:
Is there a path in this graph that visits every node exactly once? If yes, give the path.
graph_type: undirected
Similarity match score < δ
Query
Documentation Base
Retrieve
Documentation Information
api_name: hamiltonian_path
description : Returns a Hamiltonian path ...
parameters: "G : NetworkX graph" , ...
returns: "path : list": "A list of nodes which form a Hamiltonian path in G."
examples: import networkx as nx ...
Documentation / Experience
Coding Agent
Documentation / Experience
Reformatted Question
Write
Python Code
Run
Success
Run
Error < 3 times
Retry
Error
Error ≥ 3 times
Failed
Original Question
In an undirected graph, (I , j) means that node i and node j are connected with an undirected edge. The nodes are numbered from 0 to 6, edges are ...
Q: Is there a path in this graph that visits every node exactly once? If yes, give the path.
Input
Question Agent
Extract
Reformatted Question
refined_question: Is there a path in this graph that visits every node exactly once? If yes, give the path.
graph_type: undirected
input_data: 'Nodes': [0, 1, 2, 3, 4, 5, 6],'Edges': [[0, 3], [0, 1], [1, 4], ...
output_format: Yes. The path can be: 1,4,8.
Search Agent
Documentation / Experience
Coding Agent
Failed
Reasoning Agent
Inference
Success
result: 0, 1, 6, 3, 5, 4, 2.
output_format: Yes.
The path can be: 1, 4, 8.
Self-checking
Answer Agent
Normalization
Final Answer
result: Yes. The path can be: 0, 1, 6, 3, 5, 4, 2.
Input-output normalization module
Question Agent
Answer Agent
External knowledge extraction module
Search Agent
Problem-solving module
Coding Agent
Reasoning Agent