

```
In [81]: from typing import Annotated, Sequence, TypedDict
from dotenv import load_dotenv
from langchain_core.messages import BaseMessage, SystemMessage, HumanMessage
from langchain_openai import ChatOpenAI
from langchain_core.tools import tool
from langgraph.graph import StateGraph, END
from langgraph.graph.message import add_messages
from langgraph.prebuilt import ToolNode
from IPython.display import Image, display
import json
import requests

load_dotenv()
```

```
Out[81]: True
```

```
In [82]: class AgentState(TypedDict):
    messages: Annotated[Sequence[BaseMessage], add_messages]
    initial_route: str | None
    route: list[str] | None
    sql_results: list[str] | None
    vector_results: list[str] | None
    question_results: list[str] | None
    plan: list[dict] | None
    current_task: dict | None
```

```
In [83]: main_llm = ChatOpenAI(model="gpt-4o")
planner_llm = ChatOpenAI(model="gpt-4o-mini")
sql_llm = ChatOpenAI(model="gpt-4o-mini")
vect_llm = ChatOpenAI(model="gpt-4o-mini")
question_llm = ChatOpenAI(model="gpt-4o-mini")
```

```
In [84]: @tool
def run_sql_query(query: str):
    """Perform a sql query search."""
    API_URL = "http://127.0.0.1:8000/query"

    response = requests.get(API_URL, params={"q": query})

    if response.status_code == 200:
        data = response.json()
        print("Run SQL Tool call Results raw:", data)
        return data
    else:
        print("Run SQL Tool call Error:", response.text)
        return f"Database query failed with status code {response.status_code}."

@tool
def search_vector_db(query: str):
    """Perform a semantic vector search."""
    return f"Search results for '{query}' (vector-based)."

@tool
def perform_internet_search(query: str):
    """Perform an internet search."""
```

```

API_URL = "http://127.0.0.1:8000/search"

response = requests.get(API_URL, params={"q": query})

if response.status_code == 200:
    data = response.json()
    print("Internet Search Tool call Results raw:", data)
    return data
else:
    print("Internet Search Tool call Error:", response.text)
    return f"Internet search failed with status code {response.status_code}."

```

In [85]:

```

sql_llm_bound = sql_llm.bind_tools([run_sql_query])
vect_llm_bound = vect_llm.bind_tools([search_vector_db])
question_llm_bound = question_llm.bind_tools([perform_internet_search])

```

In [86]:

```

def main_agent(state: AgentState) -> AgentState:
    """The coordinator decides whether to answer directly or hand off to another
    system = SystemMessage(content="""
    You are a coordinator. Decide if the user's request requires:
    a lookup by another agent for more information, or if you can answer directly.
    Use the following guidelines:
    - You can only answer directly if the request is simple and factual.
    - If you choose lookup by another agent, answer explicitly with the phrase '"""
    """

    response = main_llm.invoke([system] + state["messages"])
    text = response.content.lower()
    print("Coordinator decision:", text)

    # Decision
    if "agent lookup" in text:
        # Tell the graph to send this to another agent (like a planner)
        state["initial_route"] = "agent_lookup"
        return state
    else:
        # The coordinator can answer directly
        return {
            **state,
            "messages": state["messages"] + [response],
            "route": [],
        }

```

In [87]:

```

def planner_agent(state: AgentState) -> AgentState:
    system = SystemMessage(content="""
    You are a task planning agent that converts the user's request into an explicit,
    ### Your Goal:
    Break the user's request into **atomic, executable subtasks**.
    Each subtask should have:
    - a short `task` description,
    - a `type` (which determines the next agent),
    - a unique `id`,
    - and a `done` flag (initially false).

    ### Rules for deciding the `type`:
    - Use `sql_agent` for anything involving structured or numeric data (calls, sa
    - Use `vector_agent` for anything involving semantic or fuzzy searches (compla

```

```

- If the user just asks a direct question that doesn't require a tool, make a simple response.

### Output Format:
You must respond **only in valid JSON**, no explanation or commentary.

Example output for a simple SQL question:
```json
{
  "plan": [
    {"id": 1, "task": "Get the number of calls made yesterday", "type": "sql_agent"}
  ]
}
```
response = planner_llm.invoke([system] + state["messages"])
print("Planner output:", response.content)

try:
    plan = json.loads(response.content)["plan"]
except Exception:
    plan = []
print("Final plan:", plan)

return {
    **state,
    "messages": state["messages"] + [response],
    "plan": plan
}

```

```

In [88]: def agent_router(state: AgentState) -> AgentState:
    plan = state.get("plan") or []

    # Find the next unfinished task
    for task in plan:
        if not task.get("done"):
            next_route = task["type"] # Like "sql_agent" or "vector_agent"
            current_task = task
            print("Routing to next task:", next_route, "with task:", current_task)
            return {
                **state,
                "route": [next_route],
                "current_task": task
            }

    # If all tasks are done, go to summarizer
    return {
        **state,
        "route": ["summarizer_agent"],
        "current_task": None
    }

```

```

In [89]: def agent_router_helper(state: AgentState) -> str:
    plan = state.get("plan") or []

    # Find the next unfinished task
    for task in plan:
        if not task.get("done"):
            next_route = task["type"] # "sql_agent" or "vector_agent"

```

```

        return next_route

# If all tasks are done, go to summarizer
return "summarizer_agent"

```

```

In [90]: def sql_agent(state: AgentState) -> AgentState:
    system = SystemMessage(content=
        "You are an SQL search agent. Your only task is to run the tool call with va
        "Follow these rules at all times: "
        "Database Schema: "
        "You can query only the following table and columns: "
        "The database contains a single table named \"calls\" with the following col
        "Valid Categories: "
        "You may reference only these values when filtering by category: "
        "\"Shipping Issue\", \"Product Inquiry\", \"Account / Data Issue\", \"Return
        "Your Capabilities: "
        "You may only output SQL SELECT queries. "
        "You must not modify data. No INSERT, UPDATE, DELETE, DROP, or other DDL/DML
        "You must not assume any table or column that is not explicitly listed. "
        "You may filter, sort, search text (via LIKE), limit results, or aggregate.
        "You may use boolean logic (AND, OR, NOT) and MySQL functions (e.g., COUNT,
        "Output Rules: "
        "Output only raw SQL, without backticks, explanations, or conversation. "
        "The SQL must be fully executable as-is when calling the tool. "
        "If the user asks for something impossible with the given schema, run a SELE
        "SELECT * FROM calls WHERE 1 = 0; "
        "Examples: "
        "If the user asks: \"Find refund calls about batteries\" → "
        "You run: "
        "SELECT * FROM calls WHERE category = 'Return / Refund' AND Transcript LIKE
        "If the user asks: \"How many calls were in 2024?\" → "
        "You run something like: SELECT COUNT(*) FROM calls WHERE YEAR(Date) = 2024;
    )

    # get current task
    plan = state["plan"]
    current = next(t for t in plan if not t["done"])

    # send task as a message, not a dict
    task_msg = HumanMessage(content=current["task"])

    response = sql_llm_bound.invoke([system, task_msg])
    print("SQL Agent response:", response.content)

    # store result
    sql_results = list(state.get("sql_results") or [])
    sql_results.append(response.content)

    # mark task done
    for t in plan:
        if t["id"] == current["id"]:
            t["done"] = True

    return {
        **state,
        "messages": state["messages"] + [response],
        "sql_results": sql_results,
        "plan": plan
    }

```

```
In [91]: def vector_agent(state: AgentState) -> AgentState:
    system = SystemMessage(content="You perform expert semantic vector searches.
    plan = state["plan"]

    # Get next unfinished task
    current = next(t for t in plan if not t["done"])

    task_msg = HumanMessage(content=current["task"])

    response = vect_llm_bound.invoke([system, task_msg])
    print("Vector Agent response:", response.content)

    # Save vector search results
    vector_results = list(state.get("vector_results") or [])
    vector_results.append(response.content)

    # Mark done
    for t in plan:
        if t["id"] == current["id"]:
            t["done"] = True
            break

    return {
        **state,
        "messages": state["messages"] + [response],
        "vector_results": vector_results,
        "plan": plan
    }
```

```
In [92]: def question_agent(state: AgentState) -> AgentState:
    system = SystemMessage(content="You answer direct questions clearly and conc
    plan = state["plan"]

    current = next(t for t in plan if not t["done"])

    task_msg = HumanMessage(content=current["task"])

    response = question_llm_bound.invoke([system, task_msg])
    print("Question Agent response:", response.content)

    # Save the answer
    question_results = list(state.get("question_results") or [])
    question_results.append(response.content)

    # Mark done
    for t in plan:
        if t["id"] == current["id"]:
            t["done"] = True
            break

    return {
        **state,
        "messages": state["messages"] + [response],
        "question_results": question_results,
        "plan": plan
    }
```

```
In [93]: def summarizer_agent(state: AgentState) -> AgentState:
    print("Summarizer Agent state:", state)
```

```

# Get initial user prompt
initial_user_prompt = next(
    (msg.content for msg in state["messages"] if getattr(msg, "type", None) == "text")
)

# Collect tool results with their queries
tool_results_with_context = []

# Build a mapping from tool_call_id -> ToolMessage
tool_messages = {
    msg.tool_call_id: msg for msg in state["messages"]
    if getattr(msg, "type", None) == "tool"
}

# Look for AI messages that called tools
for msg in state["messages"]:
    if getattr(msg, "type", None) == "ai" and hasattr(msg, "tool_calls") and
        for call in msg.tool_calls:
            tool_msg = tool_messages.get(call["id"])
            if tool_msg and str(tool_msg.content).strip():
                tool_results_with_context.append(
                    f"[Tool: {call['name']}] Query: {call['args'].get('query')}"
                )

# Also include any non-tool results (from sql_results, vector_results, question_results)
sql_results = state.get("sql_results") or []
vector_results = state.get("vector_results") or []
question_results = state.get("question_results") or []

all_results = sql_results + vector_results + question_results + tool_results_with_context

# Combine for LLM
combined_info = (
    f"The user asked: {initial_user_prompt}\n\n"
    "And this was found:\n"
    + "\n".join(f"- {result}" for result in all_results)
)

print("Summarizer combining info:", combined_info)

# Produce summary
system = SystemMessage(content="Summarize the following tool results clearly")
response = main_llm.invoke([system, HumanMessage(content=combined_info)])

print("Summarizer final summary:", response.content)

return {
    "messages": state["messages"] + [response],
    "route": [END],
}

```

In [94]:

```

def initial_route(state: AgentState):
    """Decide next node after main_agent."""
    if state.get("initial_route") == "agent_lookup":
        return "planner_agent"
    return END

```

```
In [95]: workflow = StateGraph(AgentState)

workflow.add_node("main_agent", main_agent)
workflow.add_node("planner_agent", planner_agent)
workflow.add_node("agent_router", agent_router)
workflow.add_node("sql_agent", sql_agent)
workflow.add_node("vector_agent", vector_agent)
workflow.add_node("question_agent", question_agent)
workflow.add_node("summarizer_agent", summarizer_agent)
workflow.add_node("sql_tools", ToolNode([run_sql_query]))
workflow.add_node("vector_tools", ToolNode([search_vector_db]))
workflow.add_node("question_tools", ToolNode([perform_internet_search]))


workflow.set_entry_point("main_agent")

workflow.add_conditional_edges(
    "main_agent",
    initial_route,
    {"planner_agent": "planner_agent", END: END}
)

workflow.add_edge("planner_agent", "agent_router")

workflow.add_conditional_edges(
    "agent_router",
    agent_router_helper,
    {
        "sql_agent": "sql_agent",
        "vector_agent": "vector_agent",
        "direct_answer": "question_agent",
        "summarizer_agent": "summarizer_agent"
    }
)

workflow.add_edge("sql_agent", "sql_tools")
workflow.add_edge("vector_agent", "vector_tools")
workflow.add_edge("question_agent", "question_tools")

workflow.add_edge("sql_tools", "agent_router")
workflow.add_edge("vector_tools", "agent_router")
workflow.add_edge("question_tools", "agent_router")
workflow.add_edge("summarizer_agent", END)

graph = workflow.compile()
```

```
In [100... initial_state = AgentState(
    messages=[HumanMessage(content="I want to know which date had the most calls
initial_route=None,
route=None,
sql_result=None,
vector_result=None,
)

result = graph.invoke(initial_state)

# Print results
```

```
print("== Final State ==")
print(result["route"])
print("== Messages ==")
for m in result["messages"]:
    role = m.__class__.__name__.replace("Message", "")
    print(f"\n[{role.upper()}]\n{m.content}")
```

Coordinator decision: agent lookup  
Planner output: {  
  "plan": [  
    {"id": 1, "task": "Find the date with the most calls", "type": "sql\_agent", "done": false},  
    {"id": 2, "task": "List all calls about product inquiries", "type": "sql\_agent", "done": false},  
    {"id": 3, "task": "Explain what LangGraph is", "type": "direct\_answer", "done": false}  
  ]  
}  
Final plan: [{"id": 1, "task": "Find the date with the most calls", "type": "sql\_agent", "done": false}, {"id": 2, "task": "List all calls about product inquiries", "type": "sql\_agent", "done": false}, {"id": 3, "task": "Explain what LangGraph is", "type": "direct\_answer", "done": false}]  
Routing to next task: sql\_agent with task: {"id": 1, "task": "Find the date with the most calls", "type": "sql\_agent", "done": false}  
SQL Agent response:  
Run SQL Tool call Results raw: [{"Date": "2025-03-10", "CallCount": 2}]  
Routing to next task: sql\_agent with task: {"id": 2, "task": "List all calls about product inquiries", "type": "sql\_agent", "done": false}  
SQL Agent response:  
Run SQL Tool call Results raw: [{"CallID": 4, "Date": "2025-04-05", "Duration": 29400.0, "Transcript": "Caller: Hi, I'm shopping for wireless earbuds and need some recommendations for ones under \$50 that have decent sound quality for everyday use like commuting and workouts. Agent: We have the SoundPro model priced at \$45, which has excellent reviews for battery life and comfort during activities. Caller: Does it come with noise cancellation, or is that only on higher-end models? Also, are they sweat-resistant? Agent: No noise cancellation on this one, but it does have good passive isolation and is IPX4 sweat-resistant. Would you like me to add it to your cart? Caller: Yes, please do that. One more thing, what's the return policy if they don't fit well? Agent: You have 30 days to return for a full refund. I've added it; you can proceed to checkout now."}, {"CallID": 8, "Date": "2025-08-14", "Duration": 26100.0, "Transcript": "Caller: Hi, I noticed the same product is cheaper on Amazon. Do you guys offer price matching to keep things competitive? Agent: We do price match within 7 days of purchase if you provide a link to the competitor's listing. Caller: Great, here's the link: amazon.com/product. It's \$10 less there. Agent: Let me verify, yes, it qualifies. I'll adjust your order and refund the difference. Caller: Awesome, that saves me some money. Thanks for being flexible about this."}, {"CallID": 9, "Date": "2025-09-25", "Duration": 19800.0, "Transcript": "Caller: My promotional code isn't working on the sale items in my cart. Is there a restriction I'm missing? Agent: Some codes exclude sale items. Which code are you trying to use? Caller: It's WELCOME10. Maybe there's another one I can use instead? Agent: That one is for full-price only. Try NEWUSER15, which should work on everything. Caller: It applied! Thanks for the tip."}, {"CallID": 12, "Date": "2024-12-18", "Duration": 27300.0, "Transcript": "Caller: Hi, can I get a discount if I bundle a shirt and pants together? I'm shopping for work clothes. Agent: Yes, we have bundle deals, 10% off for matching sets like that. Caller: Sounds good. Can you help add them to my cart? The navy shirt and black pants. Agent: Added, and the discount applied automatically. Ready to check out? Caller: Yes, thanks. One more, do you have sizing guides? Agent: Absolutely, check the product pages or I can email them."}, {"CallID": 13, "Date": "2025-01-15", "Duration": 30000.0, "Transcript": "Caller: Hi, I'm looking for a new laptop. Can you recommend something? Agent: Sure, I can help with that. What's your budget? Caller: Around \$1000. Agent: How important is screen size? Caller: Medium, around 15 inches. Agent: I found a great option for you. It's a 15.6-inch screen, Intel i5 processor, 8GB RAM, and 512GB SSD. It's currently on sale for \$999. Caller: That sounds good. Can I get a discount? Agent: I can try. Let me check. Caller: Please do. Agent: I got it! You're getting a 10% discount. Total price is \$899.90. Caller: Great! I'll take it. Agent: Excellent choice! Any other questions or concerns?"}]

'allID': 14, 'Date': '2024-02-21', 'Duration': 33000.0, 'Transcript': "Caller: Hello, I'm curious if your products are eco-friendly. Specifically, the clothing line, what materials do you use? Agent: Our clothing is made from recycled fabrics and organic cotton, with certifications for sustainability. Caller: That's impressive. Do you have any third-party verifications I can look up? Agent: Yes, we're GOTS certified. I can send links if you'd like. Caller: Please do. I'm going to buy a couple of shirts now. Thanks! Agent: Email sent. Happy shopping!", 'summary': 'The caller inquired about the eco-friendliness and sustainability of the clothing line, specifically asking about materials and certifications.', 'category': 'Product Inquiry'}, {'CallID': 18, 'Date': '2024-06-26', 'Duration': 26700.0, 'Transcript': "Caller: My coupon code expired yesterday, but I just found out about it. Can you make an exception and honor it? Agent: As a one-time courtesy, yes. What's the code? Caller: SUMMER20. It's for 20% off. Agent: Applied to your cart. Proceed when ready. Caller: You're a lifesaver. Thanks!", 'summary': 'Caller requested an exception to honor an expired coupon code, which was granted as a one-time courtesy.', 'category': 'Product Inquiry'}, {'CallID': 21, 'Date': '2024-09-16', 'Duration': 23400.0, 'Transcript': "Caller: Hi, I need some help understanding your size chart for jeans. The measurements are confusing. Agent: For jeans, measure your waist and inseam. Which style are you looking at? Caller: The slim fit ones. My waist is 32 inches. Agent: That would be size 32. Inseam options are 30 or 32. Caller: I'll take 32/32. Thanks for clarifying.", 'summary': 'The caller needed help understanding the size chart for slim fit jeans and was having trouble with the measurements.', 'category': 'Product Inquiry'}, {'CallID': 22, 'Date': '2024-10-31', 'Duration': 25800.0, 'Transcript': "Caller: My product review isn't showing up on the site even after a few days. Agent: Reviews go through moderation, but it shouldn't take long. Let me check. Caller: It's been over a week now. Agent: Found it, approved now. It should appear shortly. Caller: Great, I appreciate the feedback system. Thanks.", 'summary': 'The caller had an issue with their product review not being displayed on the site despite waiting several days, and the agent helped to resolve the issue by checking and approving it.', 'category': 'Product Inquiry'}, {'CallID': 25, 'Date': '2023-01-10', 'Duration': 17400.0, 'Transcript': "Caller: Hi, can I use PayPal as a payment method on your checkout page? Agent: Yes, it's available at checkout. Caller: It's not showing up for me. What could be wrong? Agent: Try refreshing the page or clearing your cache. Caller: That worked. Thanks!", 'summary': 'The caller had trouble seeing PayPal as a payment option on checkout, but was able to resolve the issue by refreshing the page and clearing their cache.', 'category': 'Product Inquiry'}, {"CallID": 27, "Date": "2023-03-19", "Duration": 22500.0, "Transcript": "Caller: Hello, is there any recall information on the toy set I bought last month? Agent: Let me check, which specific set? Caller: The building blocks for kids aged 3-5. Agent: No recalls on that one. It's safe. Caller: Good to hear. Thanks for confirming.", "summary": "The caller inquired about recall information on a toy set purchased last month and was assured it is safe with no recalls."}, {"CallID": 31, "Date": "2023-07-26", "Duration": 23100.0, "Transcript": "Caller: Hello, are there vegan options in your skincare products? I'm looking for something gentle. Agent: Many are vegan, look for the label. I recommend the aloe-based cream. Caller: Does it have any animal testing? Agent: No, we're cruelty-free. Caller: Adding it now. Thanks!", "summary": "The caller asked about vegan options in skincare products and was recommended an aloe-based cream that is both vegan and cruelty-free."}, {"CallID": 37, "Date": "2025-01-27", "Duration": 23700.0, "Transcript": "Caller: Hi, does your website have accessibility features for visually impaired users? Agent: Yes, it's compatible with screen readers, and we have alt text on all images. Caller: Great, that's important to me. Agent: If you need more help, let us know. Caller: Will do. Thanks.", "summary": "The caller asked about accessibility features for visually impaired users on our website."}, {"CallID": 40, "Date": "2025-04-06", "Duration": 29400.0, "Transcript": "Caller: I need the assembly instructions for the desk I bought, they weren't in the box. Agent: No problem. I can email a PDF version. Caller: Yes, please. My email is deskbuyer@email.com. Agent: Sent. If you have questions during assembly, call back. Caller: Received it. Thanks so much."}]

uch!", 'summary': 'Caller needed assembly instructions for their purchased desk and agent emailed a PDF version.', 'category': 'Product Inquiry'}, {'CallID': 43, 'Date': '2025-07-18', 'Duration': 18300.0, 'Transcript': "Caller: Hello, do you carry pet-friendly cleaning products that won't harm my dog? Agent: Yes, our non-toxic line is safe for pets. Caller: Specifically for floors? Agent: Absolutely, the floor cleaner is pet-safe. Caller: I'll order some. Thanks!", 'summary': 'Customer inquired about pet-friendly cleaning products, specifically for floors, and placed an order.', 'category': 'Product Inquiry'}, {'CallID': 45, 'Date': '2025-09-12', 'Duration': 17100.0, 'Transcript': "Caller: Hi, can you compare two phone models for me? Battery life is key. Agent: Model A has 12 hours, B has 8. Caller: What about camera quality? Agent: A is better there too. Caller: I'll go with A.", 'summary': 'The caller compared battery life and camera quality of two phone models.', 'category': 'Product Inquiry'}, {'CallID': 51, 'Date': '2024-03-18', 'Duration': 22200.0, 'Transcript': 'Caller: Hello, do you have a student discount program? Agent: 10% off with valid ID. Caller: How do I apply it online? Agent: Upload ID at checkout. Caller: Easy enough. Thanks!', 'summary': 'The caller inquired about the student discount program and how to apply it online.', 'category': 'Product Inquiry'}, {'CallID': 53, 'Date': '2024-05-17', 'Duration': 19500.0, 'Transcript': 'Caller: Hi, are there eco-friendly shipping options available? Agent: We offer carbon-neutral shipping at no extra cost. Caller: Does it slow down delivery? Agent: No, same speed. Caller: Select that for my order.', 'summary': 'The caller inquired about eco-friendly shipping options and was informed that they offer carbon-neutral shipping at no extra cost.', 'category': 'Product Inquiry'}, {'CallID': 57, 'Date': '2024-09-08', 'Duration': 23100.0, 'Transcript': "Caller: Hi, do your food products have allergy information? Agent: Yes, detailed on labels and site. Caller: Any with nuts? Agent: This snack is nut-free. Caller: I'll take it.", 'summary': 'Caller inquired about allergy information for food products, specifically looking for nut-free options.', 'category': 'Product Inquiry'}, {'CallID': 59, 'Date': '2024-11-05', 'Duration': 20100.0, 'Transcript': "Caller: Hello, is there a virtual try-on feature for glasses? Agent: Yes, via our app. Caller: How do I access it? Agent: Download and upload photo. Caller: Sounds fun. Thanks!", 'summary': 'The caller inquired about the virtual try-on feature for glasses and was provided with instructions on how to access it.', 'category': 'Product Inquiry'}, {"CallID": 61, "Date": "2023-01-02", "Duration": 21600.0, "Transcript": "Caller: Hi, can I customize a product like engraving on a mug? Agent: Yes, for \$5 extra. Caller: What font options? Agent: Several, script or block. Caller: Script please. Add it.", "summary": "The caller inquired about customizing a product with engraving and font options.", "category": "Product Inquiry"}, {"CallID": 65, "Date": "2023-05-28", "Duration": 24300.0, "Transcript": "Caller: Hi, can I bundle a camera with accessories for a deal? Agent: Yes, 20% savings bundle. Caller: Include tripod? Agent: Added to cart. Caller: Ready to buy. Thanks!", "summary": "The caller is interested in purchasing a camera and bundled accessories with a 20% discount.", "category": "Product Inquiry"}, {"CallID": 67, "Date": "2023-07-25", "Duration": 18300.0, "Transcript": "Caller: Hello, what about import duties for international orders? Agent: Customers pay any duties. Caller: Can you estimate for a \$100 order? Agent: Varies by country, around 10-20%. Caller: Okay, thanks.", "summary": "The caller inquired about import duties for international orders and asked the agent to estimate the cost for a \$100 order.", "category": "Product Inquiry"}, {"CallID": 71, "Date": "2023-11-19", "Duration": 23700.0, "Transcript": "Caller: Hello, military discount available? Agent: 15% with ID verification. Caller: Online code? Agent: Use MIL15. Caller: Applied successfully. Thanks!", "summary": "The caller inquired about a military discount and successfully applied online using the code MIL15.", "category": "Product Inquiry"}, {"CallID": 72, "Date": "2023-12-01", "Duration": 25800.0, "Transcript": "Caller: Your site is loading really slowly today. Agent: High traffic, sorry. Order by phone? Caller: Yes, let's do that. Agent: What items? Caller: Two books and a mug.", "summary": "A customer experienced slow website load times and wanted to place an order over the phone.", "category": "Product Inquiry"}, {"CallID": 73, "Date": "2025-01-14", "Duration": 20400.0, "Transcript": "Caller: Hi, hypoallergenic jewelry options? Agent: Nickel-free earrings and more. Caller: Specific for sensitive ears? Agent: Ye", "summary": "Nickel-free earrings and more. Caller: Specific for sensitive ears? Agent: Ye", "category": "Product Inquiry"}]

s, titanium posts. Caller: I'll take a pair.", 'summary': 'The caller inquired about hypoallergenic jewelry options, specifically seeking nickel-free earrings with titanium posts suitable for sensitive ears.', 'category': 'Product Inquiry'}, {'CallID': 75, 'Date': '2025-03-10', 'Duration': 22500.0, 'Transcript': "Caller: Hello, do you rent out products like formal dresses for events? Agent: Yes, select dresses available for rent. Caller: Sizes and styles? Agent: Sizes 2-16, various colors. Caller: Book a red one in size 8.", 'summary': 'Customer is looking to rent a red formal dress, size 8, for an event.', 'category': 'Product Inquiry'}, {'CallID': 76, 'Date': '2025-04-25', 'Duration': 27000.0, 'Transcript': "Caller: The product manual came in Spanish, but I need English. Agent: Apologies, I'll send the English PDF. Caller: Email to manualneed@email.com. Agent: Sent. Check inbox. Caller: Got it. Thanks!", 'summary': 'The caller received a Spanish product manual and needed an English version, which was resolved by sending the English PDF to their email.', 'category': 'Product Inquiry'}, {'CallID': 77, 'Date': '2025-05-07', 'Duration': 19500.0, 'Transcript': "Caller: Hi, teacher discount program? Agent: 10% off with school ID. Caller: How to submit proof? Agent: Email it to us. Caller: Sending now.", 'summary': 'The caller inquired about submitting proof for a teacher discount program and was advised on how to do so.', 'category': 'Product Inquiry'}, {'CallID': 80, 'Date': '2025-08-19', 'Duration': 26400.0, 'Transcript': "Caller: My promo codes aren't stacking on the order. Agent: Only one per order allowed. Caller: Can I use the better one? Agent: Yes, apply the highest discount. Caller: Done. Thanks!", 'summary': 'The caller was having trouble using multiple promo codes on their order and was assisted by the agent.', 'category': 'Product Inquiry'}, {'CallID': 81, 'Date': '2025-09-01', 'Duration': 18600.0, 'Transcript': "Caller: Hi, is your coffee sustainably sourced? Agent: Yes, fair trade certified. Caller: Great for ethics. Agent: We prioritize that. Caller: Ordering now.", 'summary': 'The caller inquired about the sustainability of a product and received confirmation from the agent.', 'category': 'Product Inquiry'}, {'CallID': 83, 'Date': '2024-11-28', 'Duration': 24000.0, 'Transcript': "Caller: Hello, do you have an affiliate program I can join? Agent: Yes, sign up on our site for 5% commissions. Caller: Sounds good. Agent: Approval in 24 hours. Caller: Joining now.", 'summary': 'The caller asked about joining the affiliate program and was informed of the process.', 'category': 'Product Inquiry'}, {'CallID': 84, 'Date': '2024-12-10', 'Duration': 25500.0, 'Transcript': "Caller: This item is discontinued, any similar alternatives? Agent: Yes, upgraded model with better features. Caller: Compare specs? Agent: Improved camera and battery. Caller: Switch to that. Thanks.", 'summary': 'The caller was looking for an alternative to a discontinued product, and the agent suggested an upgraded model with improved features.', 'category': 'Product Inquiry'}, {"CallID": 87, "Date": "2024-03-22", "Duration": 23100.0, "Transcript": "Caller: Hello, is there a buy-one-get-one deal on socks? Agent: Yes, mix and match. Caller: How does it apply? Agent: Auto in cart. Caller: Awesome.", "summary": "The caller inquired about a buy-one-get-one deal on socks and was informed about the promotion's application."}, {"CallID": 89, "Date": "2024-05-19", "Duration": 18900.0, "Transcript": "Caller: Hi, are snacks gluten-free? Agent: Marked on packaging. Caller: This one? Agent: Yes, certified. Caller: Adding to cart.", "summary": "The caller inquired about the gluten-friendliness of a specific snack product and was assured it is certified gluten-free."}, {"CallID": 91, "Date": "2024-07-16", "Duration": 23400.0, "Transcript": "Caller: Hello, can you extend the flash sale? I missed it. Agent: Unfortunately not, but another soon. Caller: Set an alert? Agent: Yes, subscribed you. Caller: Thanks.", "summary": "The caller asked to extend a flash sale they missed, and was informed that it's not possible, but another one will be available soon."}, {"CallID": 95, "Date": "2024-11-07", "Duration": 21900.0, "Transcript": "Caller: Hello, what color options for this bag? Agent: Red, blue, black. Caller: Green available? Agent: Out, sorry. Caller: Blue it is.", "summary": "The caller inquired about the available colors of a product and specifically asked if green was an option."}, {"CallID": 96, "Date": "2024-12-22", "Duration": 28200.0, "Transcript": "Caller: Site isn't optimized for mobile, hard to navigate. Agent: Try our app for better experience. Caller: Link please. Agent: Sent"}, {"CallID": 97, "Date": "2025-01-15", "Duration": 20400.0, "Transcript": "Caller: Hello, how can I help you today? Agent: I'm trying to make a purchase but keep getting errors. Caller: Let me check. Agent: It looks like your payment method is declined. Caller: I've tried several times. Agent: I'm sorry about that. Caller: Is there anything else I can do? Agent: Let's try a different payment method or contact support for further assistance. Caller: Okay, thanks for your help."}, {"CallID": 98, "Date": "2025-02-28", "Duration": 19800.0, "Transcript": "Caller: Hello, I'm trying to place an order but it's not saving. Agent: I see the issue. Caller: It's been happening a lot lately. Agent: Let's troubleshoot. Caller: I've tried restarting my device. Agent: That might help. Caller: Okay, thanks for your help."}, {"CallID": 99, "Date": "2025-03-22", "Duration": 21000.0, "Transcript": "Caller: Hello, I'm trying to log in but it's not working. Agent: I'm sorry to hear that. Caller: It's been happening a lot lately. Agent: Let's troubleshoot. Caller: I've tried restarting my device. Agent: That might help. Caller: Okay, thanks for your help."}, {"CallID": 100, "Date": "2025-04-15", "Duration": 20700.0, "Transcript": "Caller: Hello, I'm trying to log in but it's not working. Agent: I'm sorry to hear that. Caller: It's been happening a lot lately. Agent: Let's troubleshoot. Caller: I've tried restarting my device. Agent: That might help. Caller: Okay, thanks for your help."}]

via text. Caller: Downloading. Thanks.", 'summary': 'The caller had difficulty navigating the website on their mobile device, but was directed to a mobile app as an alternative solution.', 'category': 'Product Inquiry'}], {'CallID': 97, 'Date': '2023-01-04', 'Duration': 19200.0, 'Transcript': 'Caller: Hi, policy on reselling your products? Agent: No issues, go ahead. Caller: Good to know. Agent: Happy selling. Caller: Thanks!', 'summary': 'The caller asked about the policy on reselling products and was informed that there are no issues with doing so.', 'category': 'Product Inquiry'}], {'CallID': 99, 'Date': '2023-03-03', 'Duration': 22200.0, 'Transcript': "Caller: Hello, what's included in VIP membership? Agent: Free shipping, early access. Caller: Cost per year? Agent: \$99. Caller: Signing up.", 'summary': 'The caller inquired about the benefits of a VIP membership and was informed that it includes free shipping and early access.', 'category': 'Product Inquiry'}]

Routing to next task: direct\_answer with task: {'id': 3, 'task': 'Explain what LangGraph is', 'type': 'direct\_answer', 'done': False}

Question Agent response:

Internet Search Tool call Results raw: {'query': 'LangGraph', 'results': [ {'title': 'LangGraph - LangChain', 'url': '//duckduckgo.com/l/?uddg=https%3A%2F%2Fwww.langchain.com%2Flanggraph&rut=1ed7185c85dab06a192c2fa5506e8b7458d14ba0b3f510451788dcf9bd851475', 'snippet': "LangGraph'slow-level primitives provide the flexibility needed to create fully customizable agents. Design diverse control flows – single, multi-agent, hierarchical – all using one framework.LangGraph'sbuilt-in memory stores conversation histories and maintains context over time, enabling rich, personalized interactions across sessions."}, {'title': 'GitHub - langchain-ai/langgraph: Build resilient language agents as graphs.', 'url': '//duckduckgo.com/l/?uddg=https%3A%2F%2Fgithub.com%2Flangchain%2Dai%2Flanggraph&rut=7ba3994fa3604ac82fc669cd5aa3dac45e2c1931048e242bf8f9a346040551e', 'snippet': 'Build resilient language agents as graphs. Contribute to langchain-ai/langgraphdevelopment by creating an account on GitHub.'}, {'title': 'What is LangGraph? - IBM', 'url': '//duckduckgo.com/l/?uddg=https%3A%2F%2Fwww.ibm.com%2Fthink%2Ftopics%2Flanggraph&rut=4517814b9d7e41b43c9fa54df59c9fa23482933f53d6923a31ce1037ed11d2db', 'snippet': 'LangGraph, created by LangChain, is an open source AI agent framework designed to build, deploy and manage complex generative AI agent workflows. It provides a set of tools and libraries that enable users to create, run and optimize large language models (LLMs) in a scalable and efficient manner. At its core,LangGraphuses the power of graph-based architectures to model and manage the ...'}, {'title': 'What is LangGraph? - GeeksforGeeks', 'url': '//duckduckgo.com/l/?uddg=https%3A%2F%2Fgeeksforgeeks.org%2Fmachine%2Dlearning%2Fwhat%2Dis%2Dlanggraph%2F&rut=24ef91e8f393f35f28e2cd40bcd5b879e40517654f6bea0fe4c226971bdd6bee', 'snippet': 'LangGraphis an open-source framework built by LangChain that streamlines the creation and management of AI agent workflows. At its core,LangGraphcombines large language models (LLMs) with graph-based architectures allowing developers to map, organize and optimize how AI agents interact and make decisions.'}, {'title': 'How to Build AI Agents with LangGraph: A Step-by-Step Guide', 'url': '//duckduckgo.com/l/?uddg=https%3A%2F%2Fmedium.com%2F%40lorenoudenhove%2Fhow%2Dto%2Dbuild%2Dai%2Dagents%2Dwith%2Dlanggraph%2Da%2Dstep%2Dby%2Dstep%2Dguide%2D5d84d9c7e832&rut=0998de18a257fbda9d2e7507223decd4d9f58151ec908705d4ad71cd67911370', 'snippet': 'LangGraph, a powerful extension of the LangChain library, is designed to help developers build these advanced AI agents by enabling stateful, multi-actor applications with cyclic computation ...'}, {'title': 'LangGraph: Build Stateful AI Agents in Python', 'url': '//duckduckgo.com/l/?uddg=https%3A%2F%2Frealpython.com%2Flanggraph%2Dpython%2F&rut=32e31aa7edad630714d6b5c049ce3ddab36d2cdace8cd6d8c40705f7977be568', 'snippet': 'LangGraphis a Python library that lets you build complex workflows with state graphs, conditional edges, and cycles for LLM applications. Learn how to useLangGraphto create a state graph agent that can parse and respond to emails using OpenAI LLMs.'}, {'title': 'langgraph · PyPI', 'url': '//duckduckgo.com/l/?uddg=https%3A%2F%2Fpypi.org%2Fproject%2Flanggraph%2F&rut=4b9eb369d985c655ae566fca21b567b155a84f0b4be8e17aafb1a51fa82e7699', 'snippet': "LangGraph'secosystem WhileLangGraph can be used standalone, it also integrates seamlessly with any LangChain product, giving developers a full suite of tools for building agents. To improve your LLM

application development, pairLangGraphwith: LangSmith – Helpful for agent evals and observability."}, {'title': 'LangGraph overview - Docs by LangChain', 'url': '//duckduckgo.com/l/?uddg=https%3A%2F%2Fdocs.langchain.com%2Foss%2Fpython%2Flangraph%2Foverview&rut=17dda4b0444d10370eff9bf30645c97240c1d0a76dfcceea3d2225cf6b56e0abb', 'snippet': 'Trusted by companies shaping the future of agents– including Klarna, Replit, Elastic, and more–LangGraph is a low-level orchestration framework and runtime for building, managing, and deploying long-running, stateful agents. LangGraph is very low-level, and focused entirely on agent orchestration.'}, {'title': 'Introduction to LangGraph - Hugging Face Agents Course', 'url': '//duckduckgo.com/l/?uddg=https%3A%2F%2Fhuggingface.co%2Flearn%2Fagents%2Dcourse%2Funit2%2FLanggraph%2Fintroduction&rut=b795910c133f8ecfac0c780b2234a420ef34051e3835aefa8aa8db560e49122c', 'snippet': "Welcome to this next part of our journey, where you'll learn how to build applications using the LangGraph framework designed to help you structure and orchestrate complex LLM workflows. LangGraph is a framework that allows you to build production-ready applications by giving you control tools over the flow of your agent."}, {'title': 'LangGraph Tutorial: What Is LangGraph and How to Use It?', 'url': '//duckduckgo.com/l/?uddg=https%3A%2F%2Fwww.datacamp.com%2Ftutorial%2Flanggraph%2Dtutorial&rut=71a6f16af02bec6b524df7b3bbf1c7675282b1fc8955b22e8e7ef60e3b60b154', 'snippet': 'LangGraph is a library within the LangChain ecosystem that provides a framework for defining, coordinating, and executing multiple LLM agents (or chains) in a structured and efficient manner.'}]}

Summarizer Agent state: {'messages': [HumanMessage(content='I want to know which date had the most calls, and i want you to list me all the calls about product inquiries. also tell me what langgraph is, I heard about it during lunch.', additional\_kwargs={}, response\_metadata={}, id='2a16bc05-f609-47d9-a3d0-0c05004d6d0e'), AIMessage(content='{\\n \"plan\": [\\n {\\"id\\": 1, \"task\": \"Find the date with the most calls\", \"type\": \"sql\_agent\", \"done\": false}, \\n {\\"id\\": 2, \"task\": \"List all calls about product inquiries\", \"type\": \"sql\_agent\", \"done\": false}, \\n {\\"id\\": 3, \"task\": \"Explain what LangGraph is\", \"type\": \"direct\_answer\", \"done\": false}\\n ]\\n}', additional\_kwargs={'refusal': None}, response\_metadata={'token\_usage': {'completion\_tokens': 99, 'prompt\_tokens': 287, 'total\_tokens': 386, 'completion\_tokens\_details': {'accepted\_prediction\_tokens': 0, 'audio\_tokens': 0, 'reasoning\_tokens': 0, 'rejected\_prediction\_tokens': 0}, 'prompt\_tokens\_details': {'audio\_tokens': 0, 'cached\_tokens': 0}}, 'model\_provider': 'openai', 'model\_name': 'gpt-4o-mini-2024-07-18', 'system\_fingerprint': 'fp\_aa07c96156', 'id': 'chatcmpl-Ck8UpM0KcOAYI57GzjTBsxdTRt4BH', 'service\_tier': 'default', 'finish\_reason': 'stop', 'logprobs': None, id='lc\_run--e14ec81d-2e74-4ac2-9206-dc693d466396-0', usage\_metadata={'input\_tokens': 287, 'output\_tokens': 99, 'total\_tokens': 386, 'input\_token\_details': {'audio': 0, 'cache\_read': 0}, 'output\_token\_details': {'audio': 0, 'reasoning': 0}}, AIMessage(content='', additional\_kwargs={'refusal': None}, response\_metadata={'token\_usage': {'completion\_tokens': 36, 'prompt\_tokens': 429, 'total\_tokens': 465, 'completion\_tokens\_details': {'accepted\_prediction\_tokens': 0, 'audio\_tokens': 0, 'reasoning\_tokens': 0, 'rejected\_prediction\_tokens': 0}, 'prompt\_tokens\_details': {'audio\_tokens': 0, 'cached\_tokens': 0}}, 'model\_provider': 'openai', 'model\_name': 'gpt-4o-mini-2024-07-18', 'system\_fingerprint': 'fp\_aa07c96156', 'id': 'chatcmpl-Ck8UssXJynK55S9ohIIcHZOnS7YVX', 'service\_tier': 'default', 'finish\_reason': 'tool\_calls', 'logprobs': None, id='lc\_run--dedf2337-5ba3-4556-83d7-95e59944fba9-0', tool\_calls=[{'name': 'run\_sql\_query', 'args': {'query': 'SELECT Date, COUNT(\*) as CallCount FROM calls GROUP BY Date ORDER BY CallCount DESC LIMIT 1;'}}, 'id': 'call\_v20zoFWZeQeQRnyfljR7IEAv', 'type': 'tool\_call'}], usage\_metadata={'input\_tokens': 429, 'output\_tokens': 36, 'total\_tokens': 465, 'input\_token\_details': {'audio': 0, 'cache\_read': 0}, 'output\_token\_details': {'audio': 0, 'reasoning': 0}}, ToolMessage(content='[{"Date": "2025-03-10", "CallCount": 2}]', name='run\_sql\_query', id='953b4cbe-a964-4022-a659-a722352c614b', tool\_call\_id='call\_v20zoFWZeQeQRnyfljR7IEAv'), AIMessage(content='', additional\_kwargs={'refusal': None}, response\_metadata={'token\_usage': {'completion\_tokens': 25, 'prompt\_tokens': 428, 'total\_tokens': 453, 'completion\_tokens\_details': {'accepted\_prediction\_tokens': 0, 'audio\_tokens': 0, 'reasoning\_tokens': 0, 'rejected\_prediction\_tokens': 0}, 'prompt\_tokens\_details': {'audio\_tokens': 0, 'cached\_tokens': 0}}, 'model\_provider': 'openai', 'model\_name': 'gpt-4o-mini-2024-07-18', 'system\_

`fingerprint': 'fp_aa07c96156', 'id': 'chatcmpl-Ck8Utc83y5JTfv6YXANKxye4hR8eq', 'service_tier': 'default', 'finish_reason': 'tool_calls', 'logprobs': None}, id='lcmpl-run--479aa274-d929-4b66-82b7-a2537ff00e7f-0', tool_calls=[{'name': 'run_sql_query', 'args': {'query': "SELECT * FROM calls WHERE category = 'Product Inquiry'";}}, {"id": "call_nHWiZhByxntmW45RHql7NQqh", "type": "tool_call"}], usage_metadata={'input_tokens': 428, 'output_tokens': 25, 'total_tokens': 453, 'input_token_details': {'audio': 0, 'cache_read': 0}, 'output_token_details': {'audio': 0, 'reasoning': 0}}), ToolMessage(content='[{"CallID": 4, "Date": "2025-04-05", "Duration": 29400.0, "Transcript": "Caller: Hi, I'm shopping for wireless earbuds and need some recommendations for ones under $50 that have decent sound quality for everyday use like commuting and workouts. Agent: We have the SoundPro model priced at $45, which has excellent reviews for battery life and comfort during activities. Caller: Does it come with noise cancellation, or is that only on higher-end models? Also, are they sweat-resistant? Agent: No noise cancellation on this one, but it does have good passive isolation and is IPX4 sweat-resistant. Would you like me to add it to your cart? Caller: Yes, please do that. One more thing, what's the return policy if they don't fit well? Agent: You have 30 days to return for a full refund. I've added it; you can proceed to checkout now."}, {"summary": "The caller is looking for wireless earbuds under $50 with good sound quality for everyday use, and asks about noise cancellation and sweat-resistance."}, {"category": "Product Inquiry"}, {"CallID": 8, "Date": "2025-08-14", "Duration": 26100.0, "Transcript": "Caller: Hi, I noticed the same product is cheaper on Amazon. Do you guys offer price matching to keep things competitive? Agent: We do price match within 7 days of purchase if you provide a link to the competitor's listing. Caller: Great, here's the link: amazon.com/product. It's $10 less there. Agent: Let me verify, yes, it qualifies. I'll adjust your order and refund the difference. Caller: Awesome, that saves me some money. Thanks for being flexible about this."}, {"summary": "Caller inquired about price matching with a competitor's listing and received assistance from the agent."}, {"category": "Product Inquiry"}, {"CallID": 9, "Date": "2025-09-25", "Duration": 19800.0, "Transcript": "Caller: My promotional code isn't working on the sale items in my cart. Is there a restriction I'm missing? Agent: Some codes exclude sale items. Which code are you trying to use? Caller: It's WELCOME10. Maybe there's another one I can use instead? Agent: That one is for full-price only. Try NEWUSER15, which should work on everything. Caller: It applied! Thanks for the tip."}, {"summary": "The caller had trouble applying a promotional code to sale items in their cart."}, {"category": "Product Inquiry"}, {"CallID": 12, "Date": "2024-12-18", "Duration": 27300.0, "Transcript": "Caller: Hi, can I get a discount if I bundle a shirt and pants together? I'm shopping for work clothes. Agent: Yes, we have bundle deals, 10% off for matching sets like that. Caller: Sounds good. Can you help add them to my cart? The navy shirt and black pants. Agent: Added, and the discount applied automatically. Ready to check out? Caller: Yes, thanks. One more, do you have sizing guides? Agent: Absolutely, check the product pages or I can email them."}, {"summary": "Caller asked about bundling a shirt and pants for work clothes, received information on discounts and had items added to cart. Also inquired about sizing guides."}, {"category": "Product Inquiry"}, {"CallID": 14, "Date": "2024-02-21", "Duration": 33000.0, "Transcript": "Caller: Hello, I'm curious if your products are eco-friendly. Specifically, the clothing line, what materials do you use? Agent: Our clothing is made from recycled fabrics and organic cotton, with certifications for sustainability. Caller: That's impressive. Do you have any third-party verifications I can look up? Agent: Yes, we're GOTS certified. I can send links if you'd like. Caller: Please do. I'm going to buy a couple of shirts now. Thanks! Agent: Email sent. Happy shopping!"}, {"summary": "The caller inquired about the eco-friendliness and sustainability of the clothing line, specifically asking about materials and certifications."}, {"category": "Product Inquiry"}, {"CallID": 18, "Date": "2024-06-26", "Duration": 26700.0, "Transcript": "Caller: My coupon code expired yesterday, but I just found out about it. Can you make an exception and honor it? Agent: As a one-time courtesy, yes. What's the code? Caller: SUMMER20. It's for 20% off. Agent: Applied to your cart. Proceed when ready. Caller: You're a lifesaver. Thanks!"}, {"summary": "Caller requested an exception to honor an expired coupon code, which was granted."}]`

nted as a one-time courtesy.", "category": "Product Inquiry"}, {"CallID": 21, "Date": "2024-09-16", "Duration": 23400.0, "Transcript": "Caller: Hi, I need some help understanding your size chart for jeans. The measurements are confusing. Agent: For jeans, measure your waist and inseam. Which style are you looking at? Caller: The slim fit ones. My waist is 32 inches. Agent: That would be size 32. Inseam options are 30 or 32. Caller: I'll take 32/32. Thanks for clarifying.", "summary": "The caller needed help understanding the size chart for slim fit jeans and was having trouble with the measurements.", "category": "Product Inquiry"}, {"CallID": 22, "Date": "2024-10-31", "Duration": 25800.0, "Transcript": "Caller: My product review isn't showing up on the site even after a few days. Agent: Reviews go through moderation, but it shouldn't take long. Let me check. Caller: It's been over a week now. Agent: Found it, approved now. It should appear shortly. Caller: Great, I appreciate the feedback system. Thanks.", "summary": "The caller had an issue with their product review not being displayed on the site despite waiting several days, and the agent helped to resolve the issue by checking and approving it."}, {"category": "Product Inquiry"}, {"CallID": 25, "Date": "2023-01-10", "Duration": 17400.0, "Transcript": "Caller: Hi, can I use PayPal as a payment method on your checkout page? Agent: Yes, it's available at checkout. Caller: It's not showing up for me. What could be wrong? Agent: Try refreshing the page or clearing your cache. Caller: That worked. Thanks!", "summary": "The caller had trouble seeing PayPal as a payment option on checkout, but was able to resolve the issue by refreshing the page and clearing their cache."}, {"category": "Product Inquiry"}, {"CallID": 27, "Date": "2023-03-19", "Duration": 22500.0, "Transcript": "Caller: Hello, is there any recall information on the toy set I bought last month? Agent: Let me check, which specific set? Caller: The building blocks for kids aged 3-5. Agent: No recalls on that one. It's safe. Caller: Good to hear. Thanks for confirming.", "summary": "The caller inquired about recall information on a toy set purchased last month and was assured it is safe with no recalls."}, {"category": "Product Inquiry"}, {"CallID": 31, "Date": "2023-07-26", "Duration": 23100.0, "Transcript": "Caller: Hello, are there vegan options in your skincare products? I'm looking for something gentle. Agent: Many are vegan, look for the label. I recommend the aloe-based cream. Caller: Does it have any animal testing? Agent: No, we're cruelty-free. Caller: Adding it now. Thanks!", "summary": "The caller asked about vegan options in skincare products and was recommended an aloe-based cream that is both vegan and cruelty-free."}, {"category": "Product Inquiry"}, {"CallID": 37, "Date": "2025-01-27", "Duration": 23700.0, "Transcript": "Caller: Hi, does your website have accessibility features for visually impaired users? Agent: Yes, it's compatible with screen readers, and we have alt text on all images. Caller: Great, that's important to me. Agent: If you need more help, let us know. Caller: Will do. Thanks.", "summary": "The caller asked about accessibility features for visually impaired users on our website."}, {"category": "Product Inquiry"}, {"CallID": 40, "Date": "2025-04-06", "Duration": 29400.0, "Transcript": "Caller: I need the assembly instructions for the desk I bought, they weren't in the box. Agent: No problem. I can email a PDF version. Caller: Yes, please. My email is deskbuyer@email.com. Agent: Sent. If you have questions during assembly, call back. Caller: Received it. Thanks so much!", "summary": "Caller needed assembly instructions for their purchased desk and agent emailed a PDF version."}, {"category": "Product Inquiry"}, {"CallID": 43, "Date": "2025-07-18", "Duration": 18300.0, "Transcript": "Caller: Hello, do you carry pet-friendly cleaning products that won't harm my dog? Agent: Yes, our non-toxic line is safe for pets. Caller: Specifically for floors? Agent: Absolutely, the floor cleaner is pet-safe. Caller: I'll order some. Thanks!", "summary": "Customer inquired about pet-friendly cleaning products, specifically for floors, and placed an order."}, {"category": "Product Inquiry"}, {"CallID": 45, "Date": "2025-09-12", "Duration": 17100.0, "Transcript": "Caller: Hi, can you compare two phone models for me? Battery life is key. Agent: Model A has 12 hours, B has 8. Caller: What about camera quality? Agent: A is better there too. Caller: I'll go with A.", "summary": "The caller compared battery life and camera quality of two phone models."}, {"category": "Product Inquiry"}, {"CallID": 51, "Date": "2024-03-18", "Duration": 22200.0, "Transcript": "Caller: Hello, do you have a student discount program? Agent: 10% off with valid ID. Caller:"}

How do I apply it online? Agent: Upload ID at checkout. Caller: Easy enough. Thanks!", "summary": "The caller inquired about the student discount program and how to apply it online.", "category": "Product Inquiry"}, {"CallID": 53, "Date": "2024-05-17", "Duration": 19500.0, "Transcript": "Caller: Hi, are there eco-friendly shipping options available? Agent: We offer carbon-neutral shipping at no extra cost. Caller: Does it slow down delivery? Agent: No, same speed. Caller: Select that for my order.", "summary": "The caller inquired about eco-friendly shipping options and was informed that they offer carbon-neutral shipping at no extra cost.", "category": "Product Inquiry"}, {"CallID": 57, "Date": "2024-09-08", "Duration": 23100.0, "Transcript": "Caller: Hi, do your food products have allergy information? Agent: Yes, detailed on labels and site. Caller: Any with nuts? Agent: This snack is nut-free. Caller: I'll take it.", "summary": "Caller inquired about allergy information for food products, specifically looking for nut-free options.", "category": "Product Inquiry"}, {"CallID": 59, "Date": "2024-11-05", "Duration": 20100.0, "Transcript": "Caller: Hello, is there a virtual try-on feature for glasses? Agent: Yes, via our app. Caller: How do I access it? Agent: Download and upload photo. Caller: Sounds fun. Thanks!", "summary": "The caller inquired about the virtual try-on feature for glasses and was provided with instructions on how to access it.", "category": "Product Inquiry"}, {"CallID": 61, "Date": "2023-01-02", "Duration": 21600.0, "Transcript": "Caller: Hi, can I customize a product like engraving on a mug? Agent: Yes, for \$5 extra. Caller: What font options? Agent: Several, script or block. Caller: Script please. Add it.", "summary": "The caller inquired about customizing a product with engraving and font options.", "category": "Product Inquiry"}, {"CallID": 65, "Date": "2023-05-28", "Duration": 24300.0, "Transcript": "Caller: Hi, can I bundle a camera with accessories for a deal? Agent: Yes, 20% savings bundle. Caller: Include tripod? Agent: Added to cart. Caller: Ready to buy. Thanks!", "summary": "The caller is interested in purchasing a camera and bundled accessories with a 20% discount.", "category": "Product Inquiry"}, {"CallID": 67, "Date": "2023-07-25", "Duration": 18300.0, "Transcript": "Caller: Hello, what about import duties for international orders? Agent: Customers pay any duties. Caller: Can you estimate for \$100 order? Agent: Varies by country, around 10-20%. Caller: Okay, thanks.", "summary": "The caller inquired about import duties for international orders and asked the agent to estimate the cost for a \$100 order.", "category": "Product Inquiry"}, {"CallID": 71, "Date": "2023-11-19", "Duration": 23700.0, "Transcript": "Caller: Hello, military discount available? Agent: 15% with ID verification. Caller: Online code? Agent: Use MIL15. Caller: Applied successfully. Thanks!", "summary": "The caller inquired about a military discount and successfully applied online using the code MIL15.", "category": "Product Inquiry"}, {"CallID": 72, "Date": "2023-12-01", "Duration": 25800.0, "Transcript": "Caller: Your site is loading really slowly today. Agent: High traffic, sorry. Order by phone? Caller: Yes, let's do that. Agent: What items? Caller: Two books and a mug.", "summary": "A customer experienced slow website load times and wanted to place an order over the phone.", "category": "Product Inquiry"}, {"CallID": 73, "Date": "2025-01-14", "Duration": 20400.0, "Transcript": "Caller: Hi, hypoallergenic jewelry options? Agent: Nickel-free earrings and more. Caller: Specific for sensitive ears? Agent: Yes, titanium posts. Caller: I'll take a pair.", "summary": "The caller inquired about hypoallergenic jewelry options, specifically seeking nickel-free earrings with titanium posts suitable for sensitive ears.", "category": "Product Inquiry"}, {"CallID": 75, "Date": "2025-03-10", "Duration": 22500.0, "Transcript": "Caller: Hello, do you rent out products like formal dresses for events? Agent: Yes, select dresses available for rent. Caller: Sizes and styles? Agent: Sizes 2-16, various colors. Caller: Book a red one in size 8.", "summary": "Customer is looking to rent a red formal dress, size 8, for an event.", "category": "Product Inquiry"}, {"CallID": 76, "Date": "2025-04-25", "Duration": 27000.0, "Transcript": "Caller: The product manual came in Spanish, but I need English. Agent: Apologies, I'll send the English PDF. Caller: Email to manalneed@email.com. Agent: Sent. Check inbox. Caller: Got it. Thanks!", "summary": "The caller received a Spanish product manual and needed an English version, which was resolved by sending the English PDF to their email.", "category": "Product Inquiry"}, {"CallID": 77, "Date": "2025-05-07", "Duration": 19500.0, "Transcript": ""}

t": "Caller: Hi, teacher discount program? Agent: 10% off with school ID. Caller: How to submit proof? Agent: Email it to us. Caller: Sending now.", "summary": "The caller inquired about submitting proof for a teacher discount program and was advised on how to do so.", "category": "Product Inquiry"}, {"CallID": 80, "Date": "2025-08-19", "Duration": 26400.0, "Transcript": "Caller: My promo codes aren't stacking on the order. Agent: Only one per order allowed. Caller: Can I use the better one? Agent: Yes, apply the highest discount. Caller: Done. Thanks!", "summary": "The caller was having trouble using multiple promo codes on their order and was assisted by the agent.", "category": "Product Inquiry"}, {"CallID": 81, "Date": "2025-09-01", "Duration": 18600.0, "Transcript": "Caller: Hi, is your coffee sustainably sourced? Agent: Yes, fair trade certified. Caller: Great for ethics. Agent: We prioritize that. Caller: Ordering now.", "summary": "The caller inquired about the sustainability of a product and received confirmation from the agent.", "category": "Product Inquiry"}, {"CallID": 83, "Date": "2024-11-28", "Duration": 24000.0, "Transcript": "Caller: Hello, do you have an affiliate program I can join? Agent: Yes, sign up on our site for 5% commissions. Caller: Sounds good. Agent: Approval in 24 hours. Caller: Joining now.", "summary": "The caller asked about joining the affiliate program and was informed of the process.", "category": "Product Inquiry"}, {"CallID": 84, "Date": "2024-12-10", "Duration": 25500.0, "Transcript": "Caller: This item is discontinued, any similar alternatives? Agent: Yes, upgraded model with better features. Caller: Compare specs? Agent: Improved camera and battery. Caller: Switch to that. Thanks.", "summary": "The caller was looking for an alternative to a discontinued product, and the agent suggested an upgraded model with improved features.", "category": "Product Inquiry"}, {"CallID": 87, "Date": "2024-03-22", "Duration": 23100.0, "Transcript": "Caller: Hello, is there a buy-one-get-one deal on socks? Agent: Yes, mix and match. Caller: How does it apply? Agent: Auto in cart. Caller: Awesome.", "summary": "The caller inquired about a buy-one-get-one deal on socks and was informed about the promotion's application.", "category": "Product Inquiry"}, {"CallID": 89, "Date": "2024-05-19", "Duration": 18900.0, "Transcript": "Caller: Hi, are snacks gluten-free? Agent: Marked on packaging. Caller: This one? Agent: Yes, certified. Caller: Adding to cart.", "summary": "The caller inquired about the gluten-friendliness of a specific snack product and was assured it is certified gluten-free.", "category": "Product Inquiry"}, {"CallID": 91, "Date": "2024-07-16", "Duration": 23400.0, "Transcript": "Caller: Hello, can you extend the flash sale? I missed it. Agent: Unfortunately not, but another soon. Caller: Set an alert? Agent: Yes, subscribed to you. Caller: Thanks.", "summary": "The caller asked to extend a flash sale they missed, and was informed that it's not possible, but another one will be available soon.", "category": "Product Inquiry"}, {"CallID": 95, "Date": "2024-11-07", "Duration": 21900.0, "Transcript": "Caller: Hello, what color options for this bag? Agent: Red, blue, black. Caller: Green available? Agent: Out, sorry. Caller: Blue it is.", "summary": "The caller inquired about the available colors of a product and specifically asked if green was an option.", "category": "Product Inquiry"}, {"CallID": 96, "Date": "2024-12-22", "Duration": 28200.0, "Transcript": "Caller: Site isn't optimized for mobile, hard to navigate. Agent: Try our app for better experience. Caller: Link please. Agent: Sent via text. Caller: Downloading. Thanks.", "summary": "The caller had difficulty navigating the website on their mobile device, but was directed to a mobile app as an alternative solution.", "category": "Product Inquiry"}, {"CallID": 97, "Date": "2023-01-04", "Duration": 19200.0, "Transcript": "Caller: Hi, policy on reselling your products? Agent: No issues, go ahead. Caller: Good to know. Agent: Happy selling. Caller: Thanks!", "summary": "The caller asked about the policy on reselling products and was informed that there are no issues with doing so.", "category": "Product Inquiry"}, {"CallID": 99, "Date": "2023-03-03", "Duration": 22200.0, "Transcript": "Caller: Hello, what's included in VIP membership? Agent: Free shipping, early access. Caller: Cost per year? Agent: \$99. Caller: Signing up.", "summary": "The caller inquired about the benefits of a VIP membership and was informed that it includes free shipping and early access."}, {"category": "Product Inquiry"}], name='run\_sql\_query', id='bf8495f1-ab94-4e78-9ef4-1ab63ee1438d', tool\_call\_id='call\_nHWiZhByxntmW45RHql7NQqh'), AIMessage(content='', additional\_kwargs={'refusal': None}, response\_metadata={'to': 'user'})

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plit, Elastic, and more—LangGraph is a low-level orchestration framework and runtime for building, managing, and deploying long-running, stateful agents. LangGraph is very low-level, and focused entirely on agent orchestration."}, {"title": "Introduction to LangGraph - Hugging Face Agents Course", "url": "//duckduckgo.com/l/?uddg=https%3A%2F%2Fhuggingface.co%2Flearn%2Fagents%2Dcourse%2Funit2%2Flanggraph%2Fintroduction&rut=b795910c133f8ecfac0c780b2234a420ef34051e3835aefa8aa8db560e49122c", "snippet": "Welcome to this next part of our journey, where you'll learn how to build applications using the LangGraph framework designed to help you structure and orchestrate complex LLM workflows. LangGraph is a framework that allows you to build production-ready applications by giving you control tools over the flow of your agent."}, {"title": "LangGraph Tutorial: What Is LangGraph and How to Use It?", "url": "//duckduckgo.com/l/?uddg=https%3A%2F%2Fwww.datacamp.com%2Ftutorial%2Flanggraph%2Dtutorial&rut=71a6f16af02bec6b524df7b3bbf1c7675282b1fc8955b22e8e7ef60e3b60b154", "snippet": "LangGraph is a library within the LangChain ecosystem that provides a framework for defining, coordinating, and executing multiple LLM agents (or chains) in a structured and efficient manner."}]}', name='perform\_internet\_search', id='2b0bef6e-714e-434b-ba9d-7d9e9ecab680', tool\_call\_id='call\_OzytqlSxGZ1YJ7pvbFlwSfjE')], 'initial\_route': 'agent\_lookup', 'route': ['summarizer\_agent'], 'sql\_results': ['', ''], 'question\_results': ['', ''], 'plan': [{}], 'current\_task': None} Summarizer combining info: The user asked: I want to know which date had the most calls, and i want you to list me all the calls about product inquiries. also tell me what langgraph is, I heard about it during lunch.

And this was found:

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- [Tool: run\_sql\_query] Query: SELECT Date, COUNT(\*) as CallCount FROM calls GROUP BY Date ORDER BY CallCount DESC LIMIT 1; Result: [{"Date": "2025-03-10", "CallCount": 2}]  
- [Tool: run\_sql\_query] Query: SELECT \* FROM calls WHERE category = 'Product Inquiry'; Result: [{"CallID": 4, "Date": "2025-04-05", "Duration": 29400.0, "Transcript": "Caller: Hi, I'm shopping for wireless earbuds and need some recommendations for ones under \$50 that have decent sound quality for everyday use like commuting and workouts. Agent: We have the SoundPro model priced at \$45, which has excellent reviews for battery life and comfort during activities. Caller: Does it come with noise cancellation, or is that only on higher-end models? Also, are they sweat-resistant? Agent: No noise cancellation on this one, but it does have good passive isolation and is IPX4 sweat-resistant. Would you like me to add it to your cart? Caller: Yes, please do that. One more thing, what's the return policy if they don't fit well? Agent: You have 30 days to return for a full refund. I've added it; you can proceed to checkout now."}, {"summary": "The caller is looking for wireless earbuds under \$50 with good sound quality for everyday use, and asks about noise cancellation and sweat-resistance.", "category": "Product Inquiry"}, {"CallID": 8, "Date": "2025-08-14", "Duration": 26100.0, "Transcript": "Caller: Hi, I noticed the same product is cheaper on Amazon. Do you guys offer price matching to keep things competitive? Agent: We do price match within 7 days of purchase if you provide a link to the competitor's listing. Caller: Great, here's the link: amazon.com/product. It's \$10 less there. Agent: Let me verify, yes, it qualifies. I'll adjust your order and refund the difference. Caller: Awesome, that saves me some money. Thanks for being flexible about this."}, {"summary": "Caller inquired about price matching with a competitor's listing and received assistance from the agent.", "category": "Product Inquiry"}, {"CallID": 9, "Date": "2025-09-25", "Duration": 19800.0, "Transcript": "Caller: My promotional code isn't working on the sale items in my cart. Is there a restriction I'm missing? Agent: Some codes exclude sale items. Which code are you trying to use? Caller: It's WELCOME10. Maybe t"}]

here's another one I can use instead? Agent: That one is for full-price only. Try NEWUSER15, which should work on everything. Caller: It applied! Thanks for the tip.", "summary": "The caller had trouble applying a promotional code to sale items in their cart.", "category": "Product Inquiry"}, {"CallID": 12, "Date": "2024-12-18", "Duration": 27300.0, "Transcript": "Caller: Hi, can I get a discount if I bundle a shirt and pants together? I'm shopping for work clothes. Agent: Yes, we have bundle deals, 10% off for matching sets like that. Caller: Sounds good. Can you help add them to my cart? The navy shirt and black pants. Agent: Added, and the discount applied automatically. Ready to check out? Caller: Yes, thanks. One more, do you have sizing guides? Agent: Absolutely, check the product pages or I can email them.", "summary": "Caller asked about bundling a shirt and pants for work clothes, received information on discounts and had items added to cart. Also inquired about sizing guides.", "category": "Product Inquiry"}, {"CallID": 14, "Date": "2024-02-21", "Duration": 33000.0, "Transcript": "Caller: Hello, I'm curious if your products are eco-friendly. Specifically, the clothing line, what materials do you use? Agent: Our clothing is made from recycled fabrics and organic cotton, with certifications for sustainability. Caller: That's impressive. Do you have any third-party verifications I can look up? Agent: Yes, we're GOTS certified. I can send links if you'd like. Caller: Please do. I'm going to buy a couple of shirts now. Thanks! Agent: Email sent. Happy shopping!", "summary": "The caller inquired about the eco-friendliness and sustainability of the clothing line, specifically asking about materials and certifications.", "category": "Product Inquiry"}, {"CallID": 18, "Date": "2024-06-26", "Duration": 26700.0, "Transcript": "Caller: My coupon code expired yesterday, but I just found out about it. Can you make an exception and honor it? Agent: As a one-time courtesy, yes. What's the code? Caller: SUMMER20. It's for 20% off. Agent: Applied to your cart. Proceed when ready. Caller: You're a lifesaver. Thanks!", "summary": "Caller requested an exception to honor an expired coupon code, which was granted as a one-time courtesy.", "category": "Product Inquiry"}, {"CallID": 21, "Date": "2024-09-16", "Duration": 23400.0, "Transcript": "Caller: Hi, I need some help understanding your size chart for jeans. The measurements are confusing. Agent: For jeans, measure your waist and inseam. Which style are you looking at? Caller: The slim fit ones. My waist is 32 inches. Agent: That would be size 32. Inseam options are 30 or 32. Caller: I'll take 32/32. Thanks for clarifying.", "summary": "The caller needed help understanding the size chart for slim fit jeans and was having trouble with the measurements.", "category": "Product Inquiry"}, {"CallID": 22, "Date": "2024-10-31", "Duration": 25800.0, "Transcript": "Caller: My product review isn't showing up on the site even after a few days. Agent: Reviews go through moderation, but it shouldn't take long. Let me check. Caller: It's been over a week now. Agent: Found it, approved now. It should appear shortly. Caller: Great, I appreciate the feedback system. Thanks.", "summary": "The caller had an issue with their product review not being displayed on the site despite waiting several days, and the agent helped to resolve the issue by checking and approving it.", "category": "Product Inquiry"}, {"CallID": 25, "Date": "2023-01-10", "Duration": 17400.0, "Transcript": "Caller: Hi, can I use PayPal as a payment method on your checkout page? Agent: Yes, it's available at checkout. Caller: It's not showing up for me. What could be wrong? Agent: Try refreshing the page or clearing your cache. Caller: That worked. Thanks!", "summary": "The caller had trouble seeing PayPal as a payment option on checkout, but was able to resolve the issue by refreshing the page and clearing their cache.", "category": "Product Inquiry"}, {"CallID": 27, "Date": "2023-03-19", "Duration": 22500.0, "Transcript": "Caller: Hello, is there any recall information on the toy set I bought last month? Agent: Let me check, which specific set? Caller: The building blocks for kids aged 3-5. Agent: No recalls on that one. It's safe. Caller: Good to hear. Thanks for confirming.", "summary": "The caller inquired about recall information on a toy set purchased last month and was assured it is safe with no recalls.", "category": "Product Inquiry"}, {"CallID": 31, "Date": "2023-07-26", "Duration": 23100.0, "Transcript": "Caller: Hello, are there vegan options in your skincare products? I'm looking for something gentle. Agent: Many are vegan, look for the label. I recommend the aloe-based cream. Caller: Does it have any animal testing? Agent: No, we're cruelty-free. Caller: Adding it

now. Thanks!", "summary": "The caller asked about vegan options in skincare products and was recommended an aloe-based cream that is both vegan and cruelty-free.", "category": "Product Inquiry"}, {"CallID": 37, "Date": "2025-01-27", "Duration": 23700.0, "Transcript": "Caller: Hi, does your website have accessibility features for visually impaired users? Agent: Yes, it's compatible with screen readers, and we have alt text on all images. Caller: Great, that's important to me. Agent: If you need more help, let us know. Caller: Will do. Thanks.", "summary": "The caller asked about accessibility features for visually impaired users on our website.", "category": "Product Inquiry"}, {"CallID": 40, "Date": "2025-04-06", "Duration": 29400.0, "Transcript": "Caller: I need the assembly instructions for the desk I bought, they weren't in the box. Agent: No problem. I can email a PDF version. Caller: Yes, please. My email is deskbuyer@email.com. Agent: Sent. If you have questions during assembly, call back. Caller: Received it. Thanks so much!", "summary": "Caller needed assembly instructions for their purchased desk and agent emailed a PDF version.", "category": "Product Inquiry"}, {"CallID": 43, "Date": "2025-07-18", "Duration": 18300.0, "Transcript": "Caller: Hello, do you carry pet-friendly cleaning products that won't harm my dog? Agent: Yes, our non-toxic line is safe for pets. Caller: Specifically for floors? Agent: Absolutely, the floor cleaner is pet-safe. Caller: I'll order some. Thanks!", "summary": "Customer inquired about pet-friendly cleaning products, specifically for floors, and placed an order.", "category": "Product Inquiry"}, {"CallID": 45, "Date": "2025-09-12", "Duration": 17100.0, "Transcript": "Caller: Hi, can you compare two phone models for me? Battery life is key. Agent: Model A has 12 hours, B has 8. Caller: What about camera quality? Agent: A is better there too. Caller: I'll go with A.", "summary": "The caller compared battery life and camera quality of two phone models.", "category": "Product Inquiry"}, {"CallID": 51, "Date": "2024-03-18", "Duration": 22200.0, "Transcript": "Caller: Hello, do you have a student discount program? Agent: 10% off with valid ID. Caller: How do I apply it online? Agent: Upload ID at checkout. Caller: Easy enough. Thanks!", "summary": "The caller inquired about the student discount program and how to apply it online.", "category": "Product Inquiry"}, {"CallID": 53, "Date": "2024-05-17", "Duration": 19500.0, "Transcript": "Caller: Hi, are there eco-friendly shipping options available? Agent: We offer carbon-neutral shipping at no extra cost. Caller: Does it slow down delivery? Agent: No, same speed. Caller: Select that for my order.", "summary": "The caller inquired about eco-friendly shipping options and was informed that they offer carbon-neutral shipping at no extra cost.", "category": "Product Inquiry"}, {"CallID": 57, "Date": "2024-09-08", "Duration": 23100.0, "Transcript": "Caller: Hi, do your food products have allergy information? Agent: Yes, detailed on labels and site. Caller: Any with nuts? Agent: This snack is nut-free. Caller: I'll take it.", "summary": "Caller inquired about allergy information for food products, specifically looking for nut-free options.", "category": "Product Inquiry"}, {"CallID": 59, "Date": "2024-11-05", "Duration": 20100.0, "Transcript": "Caller: Hello, is there a virtual try-on feature for glasses? Agent: Yes, via our app. Caller: How do I access it? Agent: Download and upload photo. Caller: Sounds fun. Thanks!", "summary": "The caller inquired about the virtual try-on feature for glasses and was provided with instructions on how to access it.", "category": "Product Inquiry"}, {"CallID": 61, "Date": "2023-01-02", "Duration": 21600.0, "Transcript": "Caller: Hi, can I customize a product like engraving on a mug? Agent: Yes, for \$5 extra. Caller: What font options? Agent: Several, script or block. Caller: Script please. Add it.", "summary": "The caller inquired about customizing a product with engraving and font options.", "category": "Product Inquiry"}, {"CallID": 65, "Date": "2023-05-28", "Duration": 24300.0, "Transcript": "Caller: Hi, can I bundle a camera with accessories for a deal? Agent: Yes, 20% savings bundle. Caller: Include t-ripod? Agent: Added to cart. Caller: Ready to buy. Thanks!", "summary": "The caller is interested in purchasing a camera and bundled accessories with a 20% discount.", "category": "Product Inquiry"}, {"CallID": 67, "Date": "2023-07-25", "Duration": 18300.0, "Transcript": "Caller: Hello, what about import duties for international orders? Agent: Customers pay any duties. Caller: Can you estimate for \$100 order? Agent: Varies by country, around 10-20%. Caller: Okay, thanks.", "summary": "The caller inquired about import duties for international orders and asked to"}]

he agent to estimate the cost for a \$100 order.", "category": "Product Inquiry"}, {"CallID": 71, "Date": "2023-11-19", "Duration": 23700.0, "Transcript": "Caller: Hello, military discount available? Agent: 15% with ID verification. Caller: Online code? Agent: Use MIL15. Caller: Applied successfully. Thanks!", "summary": "The caller inquired about a military discount and successfully applied online using the code MIL15.", "category": "Product Inquiry"}, {"CallID": 72, "Date": "2023-12-01", "Duration": 25800.0, "Transcript": "Caller: Your site is loading really slowly today. Agent: High traffic, sorry. Order by phone? Caller: Yes, let's do that. Agent: What items? Caller: Two books and a mug.", "summary": "A customer experienced slow website load times and wanted to place an order over the phone.", "category": "Product Inquiry"}, {"CallID": 73, "Date": "2025-01-14", "Duration": 20400.0, "Transcript": "Caller: Hi, hypoallergenic jewelry options? Agent: Nickel-free earrings and more. Caller: Specific for sensitive ears? Agent: Yes, titanium posts. Caller: I'll take a pair.", "summary": "The caller inquired about hypoallergenic jewelry options, specifically seeking nickel-free earrings with titanium posts suitable for sensitive ears.", "category": "Product Inquiry"}, {"CallID": 75, "Date": "2025-03-10", "Duration": 22500.0, "Transcript": "Caller: Hello, do you rent out products like formal dresses for events? Agent: Yes, select dresses available for rent. Caller: Sizes and styles? Agent: Sizes 2-16, various colors. Caller: Book a red one in size 8.", "summary": "Customer is looking to rent a red formal dress, size 8, for an event.", "category": "Product Inquiry"}, {"CallID": 76, "Date": "2025-04-25", "Duration": 27000.0, "Transcript": "Caller: The product manual came in Spanish, but I need English. Agent: Apologies, I'll send the English PDF. Caller: Email to manualneed@email.com. Agent: Sent. Check inbox. Caller: Got it. Thanks!", "summary": "The caller received a Spanish product manual and needed an English version, which was resolved by sending the English PDF to their email.", "category": "Product Inquiry"}, {"CallID": 77, "Date": "2025-05-07", "Duration": 19500.0, "Transcript": "Caller: Hi, teacher discount program? Agent: 10% off with school ID. Caller: How to submit proof? Agent: Email it to us. Caller: Sending now.", "summary": "The caller inquired about submitting proof for a teacher discount program and was advised on how to do so.", "category": "Product Inquiry"}, {"CallID": 80, "Date": "2025-08-19", "Duration": 26400.0, "Transcript": "Caller: My promo codes aren't stacking on the order. Agent: Only one per order allowed. Caller: Can I use the better one? Agent: Yes, apply the highest discount. Caller: Done. Thanks!", "summary": "The caller was having trouble using multiple promo codes on their order and was assisted by the agent.", "category": "Product Inquiry"}, {"CallID": 81, "Date": "2025-09-01", "Duration": 18600.0, "Transcript": "Caller: Hi, is your coffee sustainably sourced? Agent: Yes, fair trade certified. Caller: Great for ethics. Agent: We prioritize that. Caller: Ordering now.", "summary": "The caller inquired about the sustainability of a product and received confirmation from the agent.", "category": "Product Inquiry"}, {"CallID": 83, "Date": "2024-11-28", "Duration": 24000.0, "Transcript": "Caller: Hello, do you have an affiliate program I can join? Agent: Yes, sign up on our site for 5% commissions. Caller: Sounds good. Agent: Approval in 24 hours. Caller: Joining now.", "summary": "The caller asked about joining the affiliate program and was informed of the process.", "category": "Product Inquiry"}, {"CallID": 84, "Date": "2024-12-10", "Duration": 25500.0, "Transcript": "Caller: This item is discontinued, any similar alternatives? Agent: Yes, upgraded model with better features. Caller: Compare specs? Agent: Improved camera and battery. Caller: Switch to that. Thanks.", "summary": "The caller was looking for an alternative to a discontinued product, and the agent suggested an upgraded model with improved features.", "category": "Product Inquiry"}, {"CallID": 87, "Date": "2024-03-22", "Duration": 23100.0, "Transcript": "Caller: Hello, is there a buy-one-get-one deal on socks? Agent: Yes, mix and match. Caller: How does it apply? Agent: Auto in cart. Caller: Awesome.", "summary": "The caller inquired about a buy-one-get-one deal on socks and was informed about the promotion's application.", "category": "Product Inquiry"}, {"CallID": 89, "Date": "2024-05-19", "Duration": 18900.0, "Transcript": "Caller: Hi, are snacks gluten-free? Agent: Marked on packaging. Caller: This one? Agent: Yes, certified. Caller: Adding to cart.", "summary": "The caller inquired about the gluten-friendliness of a specific snack product and was assured it is certified gluten-free."}

ee.", "category": "Product Inquiry"}, {"CallID": 91, "Date": "2024-07-16", "Duration": 23400.0, "Transcript": "Caller: Hello, can you extend the flash sale? I missed it. Agent: Unfortunately not, but another soon. Caller: Set an alert? Agent: Yes, subscribed you. Caller: Thanks.", "summary": "The caller asked to extend a flash sale they missed, and was informed that it's not possible, but another one will be available soon."}, {"category": "Product Inquiry"}, {"CallID": 95, "Date": "2024-11-07", "Duration": 21900.0, "Transcript": "Caller: Hello, what color options for this bag? Agent: Red, blue, black. Caller: Green available? Agent: Out, sorry. Caller: Blue it is.", "summary": "The caller inquired about the available colors of a product and specifically asked if green was an option."}, {"category": "Product Inquiry"}, {"CallID": 96, "Date": "2024-12-22", "Duration": 28200.0, "Transcript": "Caller: Site isn't optimized for mobile, hard to navigate. Agent: Try our app for better experience. Caller: Link please. Agent: Sent via text. Caller: Downloading. Thanks.", "summary": "The caller had difficulty navigating the website on their mobile device, but was directed to a mobile app as an alternative solution."}, {"category": "Product Inquiry"}, {"CallID": 97, "Date": "2023-01-04", "Duration": 19200.0, "Transcript": "Caller: Hi, policy on reselling your products? Agent: No issues, go ahead. Caller: Good to know. Agent: Happy selling. Caller: Thanks!", "summary": "The caller asked about the policy on reselling products and was informed that there are no issues with doing so."}, {"category": "Product Inquiry"}, {"CallID": 99, "Date": "2023-03-03", "Duration": 22200.0, "Transcript": "Caller: Hello, what's included in VIP membership? Agent: Free shipping, early access. Caller: Cost per year? Agent: \$99. Caller: Signing up.", "summary": "The caller inquired about the benefits of a VIP membership and was informed that it includes free shipping and early access."}, {"category": "Product Inquiry"}]

- [Tool: perform\_internet\_search] Query: LangGraph Result: {"query": "LangGraph", "results": [{"title": "LangGraph - LangChain", "url": "//duckduckgo.com/l/?uddg=https%3A%2F%2Fwww.langchain.com%2Flanggraph&rut=1ed7185c85dab06a192c2fa5506e8b7458d14ba0b3f510451788dcf9bd851475", "snippet": "LangGraph'slow-level primitives provide the flexibility needed to create fully customizable agents. Design diverse control flows – single, multi-agent, hierarchical – all using one framework.LangGraph'sbuilt-in memory stores conversation histories and maintains context over time, enabling rich, personalized interactions across sessions."}, {"title": "GitHub - langchain-ai/langgraph: Build resilient language agents as graphs.", "url": "//duckduckgo.com/l/?uddg=https%3A%2F%2Fgithub.com%2Flangchain%2Dai%2Flanggraph&rut=7ba3994fa3604ac82fc669cd5aa3dac45e2c1931048e242bfc8f9a346040551e", "snippet": "Build resilient language agents as graphs. Contribute to langchain-ai/langgraphdevelopment by creating an account on GitHub."}, {"title": "What is LangGraph? - IBM", "url": "//duckduckgo.com/l/?uddg=https%3A%2F%2Fwww.ibm.com%2Fthink%2Ftopics%2Flanggraph&rut=4517814b9d7e41b43c9fa54df59c9fa23482933f53d6923a31ce1037ed11d2db", "snippet": "LangGraph, created by LangChain, is an open source AI agent framework designed to build, deploy and manage complex generative AI agent workflows. It provides a set of tools and libraries that enable users to create, run and optimize large language models (LLMs) in a scalable and efficient manner. At its core,LangGraphuses the power of graph-based architectures to model and manage the ..."}, {"title": "What is LangGraph? - GeeksforGeeks", "url": "//duckduckgo.com/l/?uddg=https%3A%2F%2Fwww.geeksforgeeks.org%2Fmachine%2Dlearning%2Fwhat%2Dis%2Dlanggraph%2F&rut=24ef91e8f393f35f28e2cd40bcd5b879e40517654f6bea0fe4c226971bdd6bee", "snippet": "LangGraphis an open-source framework built by LangChain that streamlines the creation and management of AI agent workflows. At its core,LangGraphcombines large language models (LLMs) with graph-based architectures allowing developers to map, organize and optimize how AI agents interact and make decisions."}, {"title": "How to Build AI Agents with LangGraph: A Step-by-Step Guide", "url": "//duckduckgo.com/l/?uddg=https%3A%2F%2Fmedium.com%2F40lorevanoudenhove%2Fhow%2Dto%2Dbuild%2Dai%2Dagents%2Dwith%2Dlanggraph%2Da%2Dstep%2Dby%2Dstep%2Dguide%2D5d84d9c7e832&rut=0998de18a257fdbd89d2e7507223decd4d9f58151ec908705d4ad71cd67911370", "snippet": "LangGraph, a powerful extension of the LangChain library, is designed to help developers build these advanced AI agents by enabling stateful, multi-actor applications with cyclic computation ..."}, {"title": "LangGraph: Build Stateful AI Agents in Python", "url": "//duckduckgo.com/l/?uddg=https%3A%2F%2Frealpython.com%2Fla

nggraph%2Dpython%2F&rut=32e31aa7edad630714d6b5c049ce3ddab36d2cdace8cd6d8c40705f7977be568", "snippet": "LangGraph is a Python library that lets you build complex workflows with state graphs, conditional edges, and cycles for LLM applications. Learn how to use LangGraph to create a state graph agent that can parse and respond to emails using OpenAI LLMs."}, {"title": "langgraph · PyPI", "url": "//duckduckgo.com/l/?uddg=https%3A%2F%2Fpypi.org%2Fproject%2Flanggraph%2F&rut=4b9eb369d985c655ae566fca21b567b155a84f0b4be8e17aafb1a51fa82e7699", "snippet": "LangGraph's ecosystem While LangGraph can be used standalone, it also integrates seamlessly with any LangChain product, giving developers a full suite of tools for building agents. To improve your LLM application development, pair LangGraph with LangSmith – Helpful for agent evals and observability."}, {"title": "LangGraph overview - Docs by LangChain", "url": "//duckduckgo.com/l/?uddg=https%3A%2F%2Fdocs.langchain.com%2Fos%2Fpython%2Flanggraph%2Foverview&rut=17dda4b0444d10370eff9bf30645c97240c1d0a76dfccead2225cf6b56e0abb", "snippet": "Trusted by companies shaping the future of agents— including Klarna, Replit, Elastic, and more— LangGraph is a low-level orchestration framework and runtime for building, managing, and deploying long-running, stateful agents. LangGraph is very low-level, and focused entirely on agent orchestration."}, {"title": "Introduction to LangGraph - Hugging Face Agents Course", "url": "//duckduckgo.com/l/?uddg=https%3A%2F%2Fhuggingface.co%2Flearn%2Fagents%2Dcourse%2Funit%2Flanggraph%2Fintroduction&rut=b795910c133f8ecfac0c780b2234a420ef34051e3835aefa8aa8db560e49122c", "snippet": "Welcome to this next part of our journey, where you'll learn how to build applications using the LangGraph framework designed to help you structure and orchestrate complex LLM workflows. LangGraph is a framework that allows you to build production-ready applications by giving you control over the flow of your agent."}, {"title": "LangGraph Tutorial: What Is LangGraph and How to Use It?", "url": "//duckduckgo.com/l/?uddg=https%3A%2F%2Fwww.datacamp.com%2Ftutorial%2Flanggraph%2Dtutorial&rut=71a6f16af02bec6b524df7b3bbf1c7675282b1fc8955b22e8e7ef60e3b60b154", "snippet": "LangGraph is a library within the LangChain ecosystem that provides a framework for defining, coordinating, and executing multiple LLM agents (or chains) in a structured and efficient manner."}]]

Summarizer final summary: On March 10, 2025, the date with the highest call volume had two calls. The following calls were related to product inquiries:

1. Call on April 5, 2025, regarding wireless earbuds.
2. Call on August 14, 2025, about price matching.
3. Call on September 25, 2025, regarding a promotional code issue.
4. Call on December 18, 2024, about bundling work clothes.
5. Call on February 21, 2024, about eco-friendly products.
- ...
6. Various other calls focused on product specifications, discount programs, and ordering issues.

LangGraph is an open-source framework developed by LangChain for building and managing AI agent workflows. It uses graph-based architecture to customize and optimize interactions of language models (LLMs), allowing developers to create complex AI agent applications. It provides tools to handle multi-agent systems, memory storage, and conversational context, making it suitable for scalable and personalized AI interactions.

== Final State ==

['\_\_end\_\_']

== Messages ==

[HUMAN]

I want to know which date had the most calls, and i want you to list me all the calls about product inquiries. also tell me what langgraph is, I heard about it during lunch.

[AI]

{

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[AI]

[TOOL]

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[{"Date": "2025-03-10", "CallCount": 2}]
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[AI]

[TOOL]

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[{"CallID": 4, "Date": "2025-04-05", "Duration": 29400.0, "Transcript": "Caller:  
Hi, I'm shopping for wireless earbuds and need some recommendations for ones unde  
r $50 that have decent sound quality for everyday use like commuting and workou  
ts. Agent: We have the SoundPro model priced at $45, which has excellent reviews f  
or battery life and comfort during activities. Caller: Does it come with noise ca  
ncellation, or is that only on higher-end models? Also, are they sweat-resistant?  
Agent: No noise cancellation on this one, but it does have good passive isolation  
and is IPX4 sweat-resistant. Would you like me to add it to your cart? Caller: Ye  
s, please do that. One more thing, what's the return policy if they don't fit we  
ll? Agent: You have 30 days to return for a full refund. I've added it; you can p  
roceed to checkout now.", "summary": "The caller is looking for wireless earbuds  
under $50 with good sound quality for everyday use, and asks about noise cancella  
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e": "2025-08-14", "Duration": 26100.0, "Transcript": "Caller: Hi, I noticed the s  
ame product is cheaper on Amazon. Do you guys offer price matching to keep things  
competitive? Agent: We do price match within 7 days of purchase if you provide a  
link to the competitor's listing. Caller: Great, here's the link: amazon.com/prod  
uct. It's $10 less there. Agent: Let me verify, yes, it qualifies. I'll adjust yo  
ur order and refund the difference. Caller: Awesome, that saves me some money. Th  
anks for being flexible about this.", "summary": "Caller inquired about price mat  
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0, "Transcript": "Caller: My promotional code isn't working on the sale items in  
my cart. Is there a restriction I'm missing? Agent: Some codes exclude sale item  
s. Which code are you trying to use? Caller: It's WELCOME10. Maybe there's anothe  
r one I can use instead? Agent: That one is for full-price only. Try NEWUSER15, w  
hich should work on everything. Caller: It applied! Thanks for the tip.", "summar  
y": "The caller had trouble applying a promotional code to sale items in their ca  
rt.", "category": "Product Inquiry"}, {"CallID": 12, "Date": "2024-12-18", "Durat  
ion": 27300.0, "Transcript": "Caller: Hi, can I get a discount if I bundle a shir  
t and pants together? I'm shopping for work clothes. Agent: Yes, we have bundle d  
eals, 10% off for matching sets like that. Caller: Sounds good. Can you help add  
them to my cart? The navy shirt and black pants. Agent: Added, and the discount a  
pplied automatically. Ready to check out? Caller: Yes, thanks. One more, do you h  
ave sizing guides? Agent: Absolutely, check the product pages or I can email the m.  
", "summary": "Caller asked about bundling a shirt and pants for work clothes,  
received information on discounts and had items added to cart. Also inquired abou  
t sizing guides.", "category": "Product Inquiry"}, {"CallID": 14, "Date": "2024-0  
2-21", "Duration": 33000.0, "Transcript": "Caller: Hello, I'm curious if your pro  
ducts are eco-friendly. Specifically, the clothing line, what materials do you u  
se? Agent: Our clothing is made from recycled fabrics and organic cotton, with ce
```

rtifications for sustainability. Caller: That's impressive. Do you have any third-party verifications I can look up? Agent: Yes, we're GOTS certified. I can send links if you'd like. Caller: Please do. I'm going to buy a couple of shirts now. Thanks! Agent: Email sent. Happy shopping!", "summary": "The caller inquired about the eco-friendliness and sustainability of the clothing line, specifically asking about materials and certifications.", "category": "Product Inquiry"}, {"CallID": 18, "Date": "2024-06-26", "Duration": 26700.0, "Transcript": "Caller: My coupon code expired yesterday, but I just found out about it. Can you make an exception and honor it? Agent: As a one-time courtesy, yes. What's the code? Caller: SUMMER20. It's for 20% off. Agent: Applied to your cart. Proceed when ready. Caller: You're a lifesaver. Thanks!", "summary": "Caller requested an exception to honor an expired coupon code, which was granted as a one-time courtesy.", "category": "Product Inquiry"}, {"CallID": 21, "Date": "2024-09-16", "Duration": 23400.0, "Transcript": "Caller: Hi, I need some help understanding your size chart for jeans. The measurements are confusing. Agent: For jeans, measure your waist and inseam. Which style are you looking at? Caller: The slim fit ones. My waist is 32 inches. Agent: That would be size 32. Inseam options are 30 or 32. Caller: I'll take 32/32. Thanks for clarifying.", "summary": "The caller needed help understanding the size chart for slim fit jeans and was having trouble with the measurements.", "category": "Product Inquiry"}, {"CallID": 22, "Date": "2024-10-31", "Duration": 25800.0, "Transcript": "Caller: My product review isn't showing up on the site even after a few days. Agent: Reviews go through moderation, but it shouldn't take long. Let me check. Caller: It's been over a week now. Agent: Found it, approved now. It should appear shortly. Caller: Great, I appreciate the feedback system. Thanks.", "summary": "The caller had an issue with their product review not being displayed on the site despite waiting several days, and the agent helped to resolve the issue by checking and approving it.", "category": "Product Inquiry"}, {"CallID": 25, "Date": "2023-01-10", "Duration": 17400.0, "Transcript": "Caller: Hi, can I use PayPal as a payment method on your checkout page? Agent: Yes, it's available at checkout. Caller: It's not showing up for me. What could be wrong? Agent: Try refreshing the page or clearing your cache. Caller: That worked. Thanks!", "summary": "The caller had trouble seeing PayPal as a payment option on checkout, but was able to resolve the issue by refreshing the page and clearing their cache.", "category": "Product Inquiry"}, {"CallID": 27, "Date": "2023-03-19", "Duration": 22500.0, "Transcript": "Caller: Hello, is there any recall information on the toy set I bought last month? Agent: Let me check, which specific set? Caller: The building blocks for kids aged 3-5. Agent: No recalls on that one. It's safe. Caller: Good to hear. Thanks for confirming.", "summary": "The caller inquired about recall information on a toy set purchased last month and was assured it is safe with no recalls.", "category": "Product Inquiry"}, {"CallID": 31, "Date": "2023-07-26", "Duration": 23100.0, "Transcript": "Caller: Hello, are there vegan options in your skincare products? I'm looking for something gentle. Agent: Many are vegan, look for the label. I recommend the aloe-based cream. Caller: Does it have any animal testing? Agent: No, we're cruelty-free. Caller: Adding it now. Thanks!", "summary": "The caller asked about vegan options in skincare products and was recommended an aloe-based cream that is both vegan and cruelty-free.", "category": "Product Inquiry"}, {"CallID": 37, "Date": "2025-01-27", "Duration": 23700.0, "Transcript": "Caller: Hi, does your website have accessibility features for visually impaired users? Agent: Yes, it's compatible with screen readers, and we have alt text on all images. Caller: Great, that's important to me. Agent: If you need more help, let us know. Caller: Will do. Thanks.", "summary": "The caller asked about accessibility features for visually impaired users on our website.", "category": "Product Inquiry"}, {"CallID": 40, "Date": "2025-04-06", "Duration": 29400.0, "Transcript": "Caller: I need the assembly instructions for the desk I bought, they weren't in the box. Agent: No problem. I can email a PDF version. Caller: Yes, please. My email is deskbuyer@email.com. Agent: Sent. If you have questions during assembly, call back. Caller: Received it. Thanks so much!", "summary": "Caller needed assembly instructions for their purchased desk and agent emailed a PDF version.", "category": "Product Inquiry"}, {"CallID": 43, "Date": "2025-07-18", "Duration": 18300.0, "Transcript": "Caller: Hello, do you carry pet-friendly cleaning products?"}

products that won't harm my dog? Agent: Yes, our non-toxic line is safe for pets. Caller: Specifically for floors? Agent: Absolutely, the floor cleaner is pet-safe. Caller: I'll order some. Thanks!", "summary": "Customer inquired about pet-friendly cleaning products, specifically for floors, and placed an order.", "category": "Product Inquiry"}, {"CallID": 45, "Date": "2025-09-12", "Duration": 17100.0, "Transcript": "Caller: Hi, can you compare two phone models for me? Battery life is key. Agent: Model A has 12 hours, B has 8. Caller: What about camera quality? Agent: A is better there too. Caller: I'll go with A.", "summary": "The caller compared battery life and camera quality of two phone models.", "category": "Product Inquiry"}, {"CallID": 51, "Date": "2024-03-18", "Duration": 22200.0, "Transcript": "Caller: Hello, do you have a student discount program? Agent: 10% off with valid ID. Caller: How do I apply it online? Agent: Upload ID at checkout. Caller: Easy enough. Thanks!", "summary": "The caller inquired about the student discount program and how to apply it online.", "category": "Product Inquiry"}, {"CallID": 53, "Date": "2024-05-17", "Duration": 19500.0, "Transcript": "Caller: Hi, are there eco-friendly shipping options available? Agent: We offer carbon-neutral shipping at no extra cost. Caller: Does it slow down delivery? Agent: No, same speed. Caller: Select that for my order.", "summary": "The caller inquired about eco-friendly shipping options and was informed that they offer carbon-neutral shipping at no extra cost.", "category": "Product Inquiry"}, {"CallID": 57, "Date": "2024-09-08", "Duration": 23100.0, "Transcript": "Caller: Hi, do your food products have a allergy information? Agent: Yes, detailed on labels and site. Caller: Any with nuts? Agent: This snack is nut-free. Caller: I'll take it.", "summary": "Caller inquired about allergy information for food products, specifically looking for nut-free options.", "category": "Product Inquiry"}, {"CallID": 59, "Date": "2024-11-05", "Duration": 20100.0, "Transcript": "Caller: Hello, is there a virtual try-on feature for glasses? Agent: Yes, via our app. Caller: How do I access it? Agent: Download and upload photo. Caller: Sounds fun. Thanks!", "summary": "The caller inquired about the virtual try-on feature for glasses and was provided with instructions on how to access it.", "category": "Product Inquiry"}, {"CallID": 61, "Date": "2023-01-02", "Duration": 21600.0, "Transcript": "Caller: Hi, can I customize a product like engraving on a mug? Agent: Yes, for \$5 extra. Caller: What font options? Agent: Several, script or block. Caller: Script please. Add it.", "summary": "The caller inquired about customizing a product with engraving and font options.", "category": "Product Inquiry"}, {"CallID": 65, "Date": "2023-05-28", "Duration": 24300.0, "Transcript": "Caller: Hi, can I bundle a camera with accessories for a deal? Agent: Yes, 20% savings bundle. Caller: Include tripod? Agent: Added to cart. Caller: Ready to buy. Thanks!", "summary": "The caller is interested in purchasing a camera and bundled accessories with a 20% discount.", "category": "Product Inquiry"}, {"CallID": 67, "Date": "2023-07-25", "Duration": 18300.0, "Transcript": "Caller: Hello, what about import duties for international orders? Agent: Customers pay any duties. Caller: Can you estimate for \$100 order? Agent: Varies by country, around 10-20%. Caller: Okay, thanks.", "summary": "The caller inquired about import duties for international orders and asked the agent to estimate the cost for a \$100 order.", "category": "Product Inquiry"}, {"CallID": 71, "Date": "2023-11-19", "Duration": 23700.0, "Transcript": "Caller: Hello, military discount available? Agent: 15% with ID verification. Caller: Online code? Agent: Use MIL15. Caller: Applied successfully. Thanks!", "summary": "The caller inquired about a military discount and successfully applied online using the code MIL15.", "category": "Product Inquiry"}, {"CallID": 72, "Date": "2023-12-01", "Duration": 25800.0, "Transcript": "Caller: Your site is loading really slowly today. Agent: High traffic, sorry. Order by phone? Caller: Yes, let's do that. Agent: What items? Caller: Two books and a mug.", "summary": "A customer experienced slow website load times and wanted to place an order over the phone.", "category": "Product Inquiry"}, {"CallID": 73, "Date": "2025-01-14", "Duration": 20400.0, "Transcript": "Caller: Hi, hypoallergenic jewelry options? Agent: Nickel-free earrings and more. Caller: Specific for sensitive ears? Agent: Yes, titanium posts. Caller: I'll take a pair.", "summary": "The caller inquired about hypoallergenic jewelry options, specifically seeking nickel-free earrings with titanium posts suitable for sensitive ears.", "category": "Product Inquiry"}, {"CallID": 75, "Date": "2025-03-1"}]

0", "Duration": 22500.0, "Transcript": "Caller: Hello, do you rent out products like formal dresses for events? Agent: Yes, select dresses available for rent. Caller: Sizes and styles? Agent: Sizes 2-16, various colors. Caller: Book a red one in size 8.", "summary": "Customer is looking to rent a red formal dress, size 8, for an event.", "category": "Product Inquiry"}, {"CallID": 76, "Date": "2025-04-25", "Duration": 27000.0, "Transcript": "Caller: The product manual came in Spanish, but I need English. Agent: Apologies, I'll send the English PDF. Caller: Email to manualneed@email.com. Agent: Sent. Check inbox. Caller: Got it. Thanks!", "summary": "The caller received a Spanish product manual and needed an English version, which was resolved by sending the English PDF to their email.", "category": "Product Inquiry"}, {"CallID": 77, "Date": "2025-05-07", "Duration": 19500.0, "Transcript": "Caller: Hi, teacher discount program? Agent: 10% off with school ID. Caller: How to submit proof? Agent: Email it to us. Caller: Sending now.", "summary": "The caller inquired about submitting proof for a teacher discount program and was advised on how to do so.", "category": "Product Inquiry"}, {"CallID": 80, "Date": "2025-08-19", "Duration": 26400.0, "Transcript": "Caller: My promo codes aren't stacking on the order. Agent: Only one per order allowed. Caller: Can I use the better one? Agent: Yes, apply the highest discount. Caller: Done. Thanks!", "summary": "The caller was having trouble using multiple promo codes on their order and was assisted by the agent.", "category": "Product Inquiry"}, {"CallID": 81, "Date": "2025-09-01", "Duration": 18600.0, "Transcript": "Caller: Hi, is your coffee sustainably sourced? Agent: Yes, fair trade certified. Caller: Great for ethics. Agent: We prioritize that. Caller: Ordering now.", "summary": "The caller inquired about the sustainability of a product and received confirmation from the agent.", "category": "Product Inquiry"}, {"CallID": 83, "Date": "2024-11-28", "Duration": 24000.0, "Transcript": "Caller: Hello, do you have an affiliate program I can join? Agent: Yes, sign up on our site for 5% commissions. Caller: Sounds good. Agent: Approval in 24 hours. Caller: Joining now.", "summary": "The caller asked about joining the affiliate program and was informed of the process.", "category": "Product Inquiry"}, {"CallID": 84, "Date": "2024-12-10", "Duration": 25500.0, "Transcript": "Caller: This item is discontinued, any similar alternatives? Agent: Yes, upgraded model with better features. Caller: Compare specs? Agent: Improved camera and battery. Caller: Switch to that. Thanks.", "summary": "The caller was looking for an alternative to a discontinued product, and the agent suggested an upgraded model with improved features.", "category": "Product Inquiry"}, {"CallID": 87, "Date": "2024-03-22", "Duration": 23100.0, "Transcript": "Caller: Hello, is there a buy-one-get-one deal on socks? Agent: Yes, mix and match. Caller: How does it apply? Agent: Auto in cart. Caller: Awesome.", "summary": "The caller inquired about a buy-one-get-one deal on socks and was informed about the promotion's application.", "category": "Product Inquiry"}, {"CallID": 89, "Date": "2024-05-19", "Duration": 18900.0, "Transcript": "Caller: Hi, are snacks gluten-free? Agent: Marked on packaging. Caller: This one? Agent: Yes, certified. Caller: Adding to cart.", "summary": "The caller inquired about the gluten-friendliness of a specific snack product and was assured it is certified gluten-free.", "category": "Product Inquiry"}, {"CallID": 91, "Date": "2024-07-16", "Duration": 23400.0, "Transcript": "Caller: Hello, can you extend the flash sale? I missed it. Agent: Unfortunately not, but another soon. Caller: Set an alert? Agent: Yes, subscribed to you. Caller: Thanks.", "summary": "The caller asked to extend a flash sale they missed, and was informed that it's not possible, but another one will be available soon.", "category": "Product Inquiry"}, {"CallID": 95, "Date": "2024-11-07", "Duration": 21900.0, "Transcript": "Caller: Hello, what color options for this bag? Agent: Red, blue, black. Caller: Green available? Agent: Out, sorry. Caller: Blue it is.", "summary": "The caller inquired about the available colors of a product and specifically asked if green was an option.", "category": "Product Inquiry"}, {"CallID": 96, "Date": "2024-12-22", "Duration": 28200.0, "Transcript": "Caller: Site isn't optimized for mobile, hard to navigate. Agent: Try our app for better experience. Caller: Link please. Agent: Sent via text. Caller: Downloading. Thanks.", "summary": "The caller had difficulty navigating the website on their mobile device, but was directed to a mobile app as an alternative solution.", "category": "Product Inquiry"}, {"CallID": 97, "Date": "2023-01-04", "Duration": 19200.0, "Transcript": "Caller: Hello, do you rent out products like formal dresses for events? Agent: Yes, select dresses available for rent. Caller: Sizes and styles? Agent: Sizes 2-16, various colors. Caller: Book a red one in size 8.", "summary": "Customer is looking to rent a red formal dress, size 8, for an event.", "category": "Product Inquiry"}]

"Transcript": "Caller: Hi, policy on reselling your products? Agent: No issues, go ahead. Caller: Good to know. Agent: Happy selling. Caller: Thanks!", "summary": "The caller asked about the policy on reselling products and was informed that there are no issues with doing so.", "category": "Product Inquiry"}, {"CallID": 99, "Date": "2023-03-03", "Duration": 22200.0, "Transcript": "Caller: Hello, what's included in VIP membership? Agent: Free shipping, early access. Caller: Cost per year? Agent: \$99. Caller: Signing up.", "summary": "The caller inquired about the benefits of a VIP membership and was informed that it includes free shipping and early access.", "category": "Product Inquiry"}]

[AI]

[TOOL]

{"query": "LangGraph", "results": [{"title": "LangGraph - LangChain", "url": "//duckduckgo.com/l/?uddg=https%3A%2F%2Fwww.langchain.com%2Flanggraph&rut=1ed7185c85dab06a192c2fa5506e8b7458d14ba0b3f510451788dcf9bd851475", "snippet": "LangGraph's low-level primitives provide the flexibility needed to create fully customizable agents. Design diverse control flows – single, multi-agent, hierarchical – all using one framework. LangGraph's built-in memory stores conversation histories and maintains context over time, enabling rich, personalized interactions across sessions."}, {"title": "GitHub - langchain-ai/langgraph: Build resilient language agents as graphs.", "url": "//duckduckgo.com/l/?uddg=https%3A%2F%2Fgithub.com%2Flangchain-ai%2Flanggraph&rut=7ba3994fa3604ac82fc669cd5aa3dac45e2c1931048e242bfc8f9a346040551e", "snippet": "Build resilient language agents as graphs. Contribute to langchain-ai/langgraph development by creating an account on GitHub."}, {"title": "What is LangGraph? - IBM", "url": "//duckduckgo.com/l/?uddg=https%3A%2F%2Fwww.ibm.com%2Fthink%2Ftopics%2Flanggraph&rut=4517814b9d7e41b43c9fa54df59c9fa23482933f53d6923a31ce1037ed11d2db", "snippet": "LangGraph, created by LangChain, is an open source AI agent framework designed to build, deploy and manage complex generative AI agent workflows. It provides a set of tools and libraries that enable users to create, run and optimize large language models (LLMs) in a scalable and efficient manner. At its core, LangGraph uses the power of graph-based architectures to model and manage the ..."}, {"title": "What is LangGraph? - GeeksforGeeks", "url": "//duckduckgo.com/l/?uddg=https%3A%2F%2Fwww.geeksforgeeks.org%2Fmachine%2Dlearning%2Fwhat%2Dis%2Dlanggraph%2F&rut=24ef91e8f393f35f28e2cd40bcd5b879e40517654f6bea0fe4c226971bdd6bee", "snippet": "LangGraph is an open-source framework built by LangChain that streamlines the creation and management of AI agent workflows. At its core, LangGraph combines large language models (LLMs) with graph-based architectures allowing developers to map, organize and optimize how AI agents interact and make decisions."}, {"title": "How to Build AI Agents with LangGraph: A Step-by-Step Guide", "url": "//duckduckgo.com/l/?uddg=https%3A%2F%2Fmedium.com%2F40lorevanoudenhoeve%2Fhow%2Dto%2Dbuild%2Dai%2Dagents%2Dwith%2Dlanggraph%2Da%2Dstep%2Dby%2Dstep%2Dguide%2D5d84d9c7e832&rut=0998de18a257fbd89d2e7507223decd4d9f58151ec908705d4ad71cd67911370", "snippet": "LangGraph, a powerful extension of the LangChain library, is designed to help developers build these advanced AI agents by enabling stateful, multi-actor applications with cyclic computation ..."}, {"title": "LangGraph: Build Stateful AI Agents in Python", "url": "//duckduckgo.com/l/?uddg=https%3A%2F%2Frealpython.com%2Flanggraph%2Fpython%2F&rut=32e31aa7edad630714d6b5c049ce3ddab36d2cdace8cd6d8c40705f7977be568", "snippet": "LangGraph is a Python library that lets you build complex workflows with state graphs, conditional edges, and cycles for LLM applications. Learn how to use LangGraph to create a state graph agent that can parse and respond to emails using OpenAI LLMs."}, {"title": "langgraph · PyPI", "url": "//duckduckgo.com/l/?uddg=https%3A%2F%2Fpypi.org%2Fproject%2Flanggraph%2F&rut=4b9eb369d985c655ae566fca21b567b155a84f0b4be8e17aafb1a51fa82e7699", "snippet": "LangGraph's ecosystem While LangGraph can be used standalone, it also integrates seamlessly with any LangChain product, giving developers a full suite of tools for building agents. To improve your LLM application development, pair LangGraph with LangSmith – Helpful for agent evals and observability."}, {"title": "LangGraph overview - Docs by LangChain", "url": "//duckduckgo.com/l/?uddg=https%3A%2F%2F"}]

Fdocs.langchain.com%2Foss%2Fpython%2Flanggraph%2Foverview&rut=17dda4b0444d10370ef  
f9bf30645c97240c1d0a76dfcce3d2225cf6b56e0abb", "snippet": "Trusted by companies  
shaping the future of agents— including Klarna, Replit, Elastic, and more—LangGra  
ph is a low-level orchestration framework and runtime for building, managing, and  
deploying long-running, stateful agents.LangGraph is very low-level, and focused e  
ntirely on agent orchestration."}, {"title": "Introduction to LangGraph - Hugging  
Face Agents Course", "url": "//duckduckgo.com/l/?uddg=https%3A%2F%2Fhuggingface.c  
o%2Flearn%2Fagents%2Dcourse%2Funit2%2Flanggraph%2Fintroduction&rut=b795910c133f8e  
cfac0c780b2234a420ef34051e3835aefa8aa8db560e49122c", "snippet": "Welcome to this  
next part of our journey, where you'll learn how to build applications using theL  
angGraphframework designed to help you structure and orchestrate complex LLM work  
flows.LangGraph is a framework that allows you to build production-ready applicati  
ons by giving you control tools over the flow of your agent."}, {"title": "LangGr  
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uddg=https%3A%2F%2Fwww.datacamp.com%2Ftutorial%2Flanggraph%2Dtutorial&rut=71a6f16  
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is a library within the LangChain ecosystem that provides a framework for definin  
g, coordinating, and executing multiple LLM agents (or chains) in a structured an  
d efficient manner."}]]}

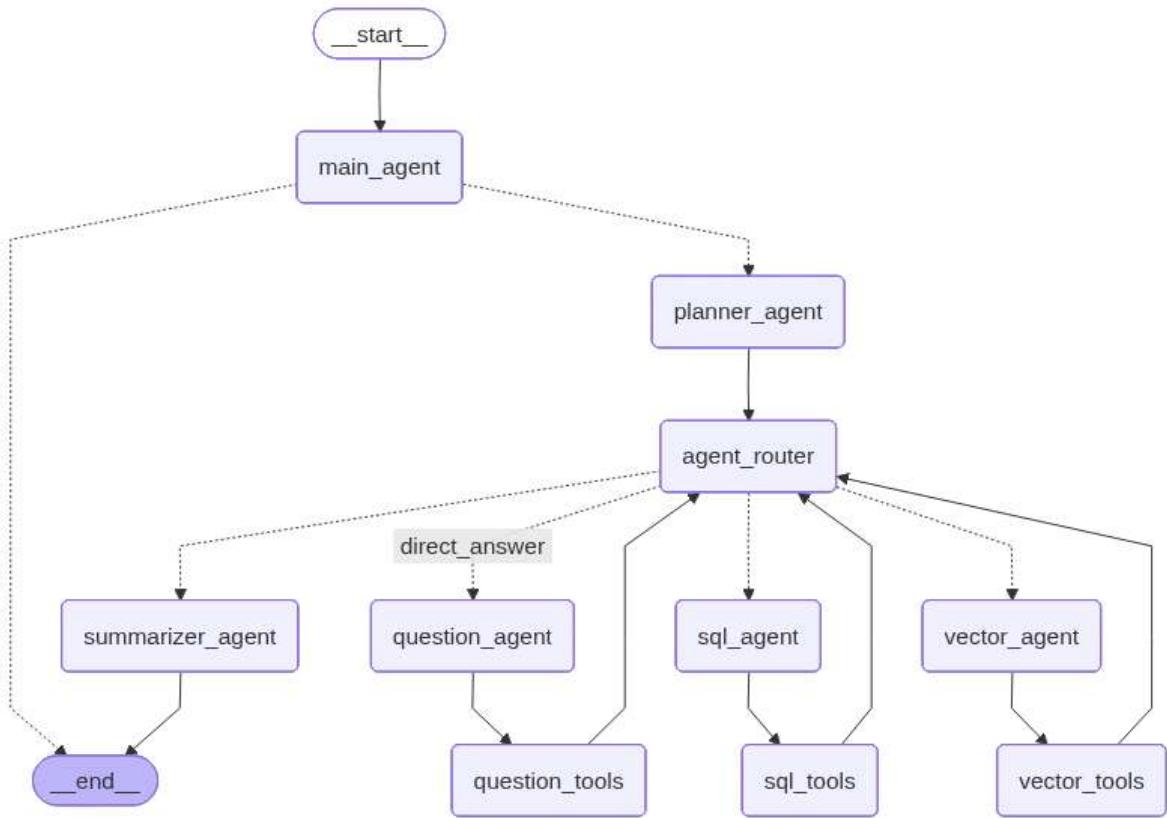
[AI]

On March 10, 2025, the date with the highest call volume had two calls. The follo  
wing calls were related to product inquiries:

1. Call on April 5, 2025, regarding wireless earbuds.
2. Call on August 14, 2025, about price matching.
3. Call on September 25, 2025, regarding a promotional code issue.
4. Call on December 18, 2024, about bundling work clothes.
5. Call on February 21, 2024, about eco-friendly products.
- ...
6. Various other calls focused on product specifications, discount programs, and  
ordering issues.

LangGraph is an open-source framework developed by LangChain for building and man  
aging AI agent workflows. It uses graph-based architecture to customize and optim  
ize interactions of language models (LLMs), allowing developers to create complex  
AI agent applications. It provides tools to handle multi-agent systems, memory st  
orage, and conversational context, making it suitable for scalable and personaliz  
ed AI interactions.

```
In [97]: display(Image(graph.get_graph().draw_mermaid_png()))
```



## Simple UI

(Not visible in exported notebook, but outputs are)

In [109...]

```

import gradio as gr

def chat_fn(message, history):
    result = graph.invoke({"messages": [{"role": "user", "content": message}]})
    reply = result["messages"][-1].content
    return reply

demo = gr.ChatInterface(chat_fn)
demo.launch()
# Example usage: give me the date that the most calls occurred, and also list me

```

\* Running on local URL: <http://127.0.0.1:7868>

\* To create a public link, set `share=True` in `launch()`.

Chatbot

Type a message...



Out[109...]

Coordinator decision: hello! how can i assist you today?  
Coordinator decision: agent lookup  
Planner output: {  
  "plan": [  
    {"id": 1, "task": "Find the date with the highest number of calls", "type": "sql\_agent", "done": false},  
    {"id": 2, "task": "Retrieve all calls related to returns and get their summaries and call IDs", "type": "sql\_agent", "done": false},  
    {"id": 3, "task": "Provide the definition of langgraph", "type": "direct\_answer", "done": false}  
  ]  
}  
Final plan: [{"id": 1, "task": "Find the date with the highest number of calls", "type": "sql\_agent", "done": false}, {"id": 2, "task": "Retrieve all calls related to returns and get their summaries and call IDs", "type": "sql\_agent", "done": false}, {"id": 3, "task": "Provide the definition of langgraph", "type": "direct\_answer", "done": false}]  
Routing to next task: sql\_agent with task: {"id": 1, "task": "Find the date with the highest number of calls", "type": "sql\_agent", "done": false}  
SQL Agent response:  
Run SQL Tool call Results raw: [{"Date": "2025-03-10", "CallCount": 2}]  
Routing to next task: sql\_agent with task: {"id": 2, "task": "Retrieve all calls related to returns and get their summaries and call IDs", "type": "sql\_agent", "done": false}  
SQL Agent response:  
Run SQL Tool call Results raw: [{"CallID": 1, "summary": "Customer received a defective blender after only a couple of uses and is requesting a replacement."}, {"CallID": 3, "summary": "The caller received a pair of shoes that is a size too small and is requesting an exchange for the next size up."}, {"CallID": 7, "summary": "Caller received a defective book with missing pages and loose binding, requesting a full refund or return."}, {"CallID": 16, "summary": "The caller received a sweater with an incorrect color, requesting a return and refund."}, {"CallID": 24, "summary": "The caller reported a shorter battery life on their watch than advertised, despite optimizing settings."}, {"CallID": 34, "summary": "Caller experiencing static noise with new headphones and requested replacement."}, {"CallID": 35, "summary": "The caller inquired about extending the return period during the holiday season."}, {"CallID": 38, "summary": "The caller experienced skin irritation from the dress material and would like to return the order."}, {"CallID": 41, "summary": "The caller wanted to return an item without the original receipt, but was able to get approval for store credit with their order number."}, {"CallID": 46, "summary": "The caller received a paint sample that didn't match the color on our website and wants to return it."}, {"CallID": 50, "summary": "The caller reported that their toy was missing some pieces and was upset about it. The agent apologized, offered to send replacement parts at no additional cost, and confirmed receipt of a photo from the caller."}, {"CallID": 55, "summary": "The caller wants to return an open-but-unused item (a shirt) and is asking for a return label."}, {"CallID": 58, "summary": "The caller reported that their picture frame arrived damaged, which was likely caused by shipping issues."}, {"CallID": 64, "summary": "The caller was dissatisfied with the perfume scent and requested a return."}, {"CallID": 69, "summary": "The caller inquired about tracking the status of their return, which was already received and being processed for a refund."}, {"CallID": 70, "summary": "The caller had an issue with poor-quality light bulbs that burnt out quickly and requested a replacement for all four."}, {"CallID": 78, "summary": "The caller's new shirt faded after one wash despite following the care instructions, and they requested a refund."}, {"CallID": 92, "summary": "The caller reported a problem with their belt buckle, which was covered under warranty."}, {"CallID": 93, "summary": "The caller inquired about returning a product from an international address and asked about the estimated shipping cost."}, {"CallID": 98, "summary": "The caller reported a defective printer cartridge that was leaking ink."}]

Routing to next task: direct\_answer with task: {'id': 3, 'task': 'Provide the definition of langgraph', 'type': 'direct\_answer', 'done': False}

Question Agent response:

Internet Search Tool call Results raw: {'query': 'definition of langgraph', 'results': [{}{'title': 'What is LangGraph? - IBM', 'url': '//duckduckgo.com/l/?uddg=https%3A%2F%2Fwww.ibm.com%2Fthink%2Ftopics%2Flanggraph&rut=4517814b9d7e41b43c9fa54df59c9fa23482933f53d6923a31ce1037ed11d2db', 'snippet': 'LangGraph, created by LangChain, is an open source AI agent framework designed to build, deploy and manage complex generative AI agent workflows. It provides a set of tools and libraries that enable users to create, run and optimize large language models (LLMs) in a scalable and efficient manner. At its core, LangGraph uses the power of graph-based architectures to model and manage the ...'}, {}{'title': 'What is LangGraph? - GeeksforGeeks', 'url': '//duckduckgo.com/l/?uddg=https%3A%2F%2Fwww.geeksforgeeks.org%2Fmachine%2Dlearning%2Fwhat%2Dis%2Dlanggraph%2F&rut=24ef91e8f393f35f28e2cd40bcd5b879e40517654f6bea0fe4c226971bdd6bee', 'snippet': 'LangGraph is an open-source framework built by LangChain that streamlines the creation and management of AI agent workflows. At its core, LangGraph combines large language models (LLMs) with graph-based architectures allowing developers to map, organize and optimize how AI agents interact and make decisions.'}, {}{'title': "Introduction to LangGraph: A Beginner's Guide - Medium", 'url': '//duckduckgo.com/l/?uddg=https%3A%2F%2Fmedium.com%2F%40cplog%2Fintroduction%2Dto%2Dlanggraph%2Da%2Dbeginners%2Dguide%2D14f9be027141&rut=b2704b0de83f9477c6a68bb66b30176c288a63917b44c7f0ee1f2fc559f92128', 'snippet': '"Unlock the power of LangGraph with our beginner's guide. Learn to build stateful applications with LLMs and enhance your AI projects with expert tips. Master LangGraph now!"'}, {}{'title': 'LangGraph - LangChain', 'url': '//duckduckgo.com/l/?uddg=https%3A%2F%2Fwww.langchain.com%2Flanggraph&rut=1ed7185c85dab06a192c2fa5506e8b7458d14ba0b3f510451788dcf9bd851475', 'snippet': "LangGraph's slow-level primitives provide the flexibility needed to create fully customizable agents. Design diverse control flows – single, multi-agent, hierarchical – all using one framework. LangGraph's built-in memory stores conversation histories and maintains context over time, enabling rich, personalized interactions across sessions."}, {}{'title': 'Introduction to LangGraph: Core Concepts and Basic Components', 'url': '//duckduckgo.com/l/?uddg=https%3A%2F%2Fdev.to%2Fjamesli%2Fintroduction%2Dto%2Dlanggraph%2Dcore%2Dconcepts%2Dand%2Dbasic%2Dcomponents%2D5bak&rut=21356e27cf4e77610891387e1995894ce27dc3727a1ff2467853842e5727842f', 'snippet': 'Today, we introduce a powerful solution – LangGraph, which addresses these issues through the concepts of graphs and state machines. Introduction to LangGraph LangGraph is a new member of the LangChain ecosystem, providing a graph-based framework for building complex LLM applications.'}, {}{'title': 'What is LangGraph? Key Concepts, Use Cases, and How to Get Started', 'url': '//duckduckgo.com/l/?uddg=https%3A%2F%2Fwww.designveloper.com%2Fblog%2Fwhat%2Dis%2Dlanggraph%2F&rut=0c1337224eed89eef3461a85f2f256052d8427eb9d551a16dec34f5e9f720a1', 'snippet': 'Learn what is LangGraph, how it works, key features, examples, and setup steps, plus FAQs on pricing, open source status, and more.'}, {}{'title': 'LangGraph Tutorial: What Is LangGraph and How to Use It?', 'url': '//duckduckgo.com/l/?uddg=https%3A%2F%2Fwww.datacamp.com%2Ftutorial%2Flanggraph%2Dtutorial&rut=71a6f16af02bec6b524df7b3bbf1c7675282b1fc8955b22e8e7ef60e3b60b154', 'snippet': 'LangGraph is a library within the LangChain ecosystem that provides a framework for defining, coordinating, and executing multiple LLM agents (or chains) in a structured and efficient manner.'}, {}{'title': 'LangGraph Introduction and when is it beneficial - A Streak of ...', 'url': '//duckduckgo.com/l/?uddg=https%3A%2F%2Ftelestreak.com%2Ftech%2Fai%2Flanggraph%2Dintroduction%2Dand%2Dwhen%2Dis%2Dt%2Dbeneficial%2F&rut=8e7b399f9fc00e17dc48c020bef2353b5267d6e16a6f89d8d3afeab1049a75f2', 'snippet': 'LangGraph is an excellent choice when you need a structured, scalable, and interpretable workflow that involves multiple stages of decision-making. Its ability to break down complex tasks into manageable parts and its clear graph-based approach make it particularly valuable for AI-driven applications that need both flexibility and reliability.'}, {}{'title': 'LangGraph Tutorial: Complete Guide to Building AI Workflows', 'url': '//duckduckgo.com/l/?uddg=https%3A%2F%2Fwww.codecademy.com%2Farticle%2Fbuilding%2Dai%2Dworkflow%2Dwith%2Dlanggraph&rut=d9603f0e47b82e5858f5721fd95242c9ff23a242995693db4d43a58c1bcf3b94', 'snippet': 'LangGraph is a powerful AI framework for building AI workflows. It provides a simple way to define and execute complex workflows using a graph-based approach. This tutorial will guide you through the process of building an AI workflow using LangGraph, from setting up the environment to deploying the final application.'}]}

ngGraph is a powerful Python library that simplifies creating, managing, and visualizing complex AI workflows. Built on the popular LangChain framework, LangGraph makes it straightforward to handle stateful workflows, conditional logic, loops, and multistep interactions.'}, {'title': 'LangGraph – Intuitively and Exhaustively Explained', 'url': '//duckduckgo.com/l/?uddg=https%3A%2F%2Fiaeef.substack.com%2Fp%2Flanggraph%2Dintuitively%2Dand%2Dexhaustively&rut=6e4234109ede051c31a94de4cd61c8432dea4cd462d8dcfa11166736c2c74308', 'snippet': 'These names are used throughout LangGraph for connecting nodes together and routing between nodes during execution, which will come up later. You might notice I call my definition of the graph workflow and then the graph gets "compiled" into app . This is, from what I can tell, the standard convention in the LangGraph documentation.'}]]}

Summarizer Agent state: {'messages': [HumanMessage(content="give me the date that the most calls occurred, and also list me all the calls that were about returns, I want to see the summaries of it and the call id's in bullet points and tell me what langgraph means\n\n\n"), additional\_kwargs={}, response\_metadata={}, id='2745bfc8-496c-444f-8eec-3619c8a76a82'), AIMessage(content='{\n "plan": [\n {"id": 1, "task": "Find the date with the highest number of calls", "type": "sql\_agent", "done": false},\n {"id": 2, "task": "Retrieve all calls related to returns and get their summaries and call IDs", "type": "sql\_agent", "done": false},\n {"id": 3, "task": "Provide the definition of langgraph", "type": "direct\_answer", "done": false}\n ]\n}', additional\_kwargs={'refusal': None}, response\_metadata={'token\_usage': {'completion\_tokens': 109, 'prompt\_tokens': 294, 'total\_tokens': 403}, 'completion\_tokens\_details': {'accepted\_prediction\_tokens': 0, 'audio\_tokens': 0, 'reasoning\_tokens': 0, 'rejected\_prediction\_tokens': 0}, 'model\_provider': 'openai', 'model\_name': 'gpt-4o-mini-2024-07-18', 'system\_fingerprint': 'fp\_aa07c96156', 'id': 'chatcmpl-CkAvixUFb0OyCkGA9CRy9GDQH40r7', 'service\_tier': 'default', 'finish\_reason': 'stop', 'logprobs': None, 'id': 'lc\_run--d0e7e558-81ff-4d20-baf4-14b18e913378-0', 'usage\_metadata': {'input\_tokens': 294, 'output\_tokens': 109, 'total\_tokens': 403}, 'input\_token\_details': {'audio': 0, 'cache\_read': 0}, 'output\_token\_details': {'audio': 0, 'reasoning': 0}}, AIMessage(content='', additional\_kwargs={'refusal': None}, response\_metadata={'token\_usage': {'completion\_tokens': 36, 'prompt\_tokens': 431, 'total\_tokens': 467}, 'completion\_tokens\_details': {'accepted\_prediction\_tokens': 0, 'audio\_tokens': 0, 'reasoning\_tokens': 0, 'rejected\_prediction\_tokens': 0}, 'model\_provider': 'openai', 'model\_name': 'gpt-4o-mini-2024-07-18', 'system\_fingerprint': 'fp\_aa07c96156', 'id': 'chatcmpl-CkAvlkjJCMlUbFhTRBmkd6N7WiuHC', 'service\_tier': 'default', 'finish\_reason': 'tool\_calls', 'logprobs': None, 'id': 'lc\_run--ad6075ec-1bc4-4e5c-b003-d273250adc8c-0', 'tool\_calls': [{'name': 'run\_sql\_query', 'args': {'query': 'SELECT Date, COUNT(\*) as CallCount FROM calls GROUP BY Date ORDER BY CallCount DESC LIMIT 1;'}}, {'name': 'call\_Egezu6i2C60UQTIGscSBnjwK', 'type': 'tool\_call'}], 'usage\_metadata': {'input\_tokens': 431, 'output\_tokens': 36, 'total\_tokens': 467}, 'input\_token\_details': {'audio': 0, 'cache\_read': 0}, 'output\_token\_details': {'audio': 0, 'reasoning': 0}}, ToolMessage(content='[{"Date": "2025-03-10", "CallCount": 2}]', name='run\_sql\_query', id='5f08be83-1644-4756-bdf6-60d0fbfa38644', tool\_call\_id='call\_Egezu6i2C60UQTIGscSBnjwK'), AIMessage(content='', additional\_kwargs={'refusal': None}, response\_metadata={'token\_usage': {'completion\_tokens': 29, 'prompt\_tokens': 435, 'total\_tokens': 464}, 'completion\_tokens\_details': {'accepted\_prediction\_tokens': 0, 'audio\_tokens': 0, 'reasoning\_tokens': 0, 'rejected\_prediction\_tokens': 0}, 'model\_provider': 'openai', 'model\_name': 'gpt-4o-mini-2024-07-18', 'system\_fingerprint': 'fp\_aa07c96156', 'id': 'chatcmpl-CkAvnWsGLIb6msRzi8MJAT5IBR4T7', 'service\_tier': 'default', 'finish\_reason': 'tool\_calls', 'logprobs': None, 'id': 'lc\_run--f41d3f24-c1e3-44e0-b49b-3f68fc3edcfe-0', 'tool\_calls': [{'name': 'run\_sql\_query', 'args': {'query': 'SELECT CallID, summary FROM calls WHERE category = \'Return / Refund\';"}, 'id': 'call\_00g1Q1fWFhZB0kPrw5vHyeE9', 'type': 'tool\_call'}], 'usage\_metadata': {'input\_tokens': 435, 'output\_tokens': 29, 'total\_tokens': 464}, 'input\_token\_details': {'audio': 0, 'cache\_read': 0}, 'output\_token\_details': {'audio': 0, 'reasoning': 0}}, ToolMessage(content='[{"CallID": 1, "summary": "Customer received a defective blender after only a couple of uses and is r'},

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sed architectures allowing developers to map, organize and optimize how AI agents interact and make decisions."}, {"title": "Introduction to LangGraph: A Beginner \\'s Guide - Medium", "url": "//duckduckgo.com/l/?uddg=https%3A%2F%2Fmedium.com%2F%40cplog%2Fintroduction%2Dto%2Dlanggraph%2Da%2Dbeginners%2Dguide%2D14f9be027141&rut=b2704b0de83f9477c6a68bb66b30176c288a63917b44c7f0ee1f2fc559f92128", "snippet": "Unlock the power of LangGraph with our beginner\\'s guide. Learn to build stateful applications with LLMs and enhance your AI projects with expert tips. Master LangGraph now!"}, {"title": "LangGraph - LangChain", "url": "//duckduckgo.com/l/?uddg=https%3A%2F%2Fwww.langchain.com%2Flanggraph&rut=1ed7185c85dab06a192c2fa5506e8b7458d14ba0b3f510451788dcf9bd851475", "snippet": "LangGraph\\'s slow-level primitives provide the flexibility needed to create fully customizable agents. Design diverse control flows – single, multi-agent, hierarchical – all using one framework. LangGraph\\'s built-in memory stores conversation histories and maintains context over time, enabling rich, personalized interactions across sessions."}, {"title": "Introduction to LangGraph: Core Concepts and Basic Components", "url": "//duckduckgo.com/l/?uddg=https%3A%2F%2Fdev.to%2Fjamesli%2Fintroduction%2Dto%2Dlanggraph%2Dcore%2Dconcepts%2Dand%2Dbasic%2Dcomponents%2D5bak&rut=21356e27cf4e77610891387e1995894ce27dc3727a1ff2467853842e5727842f", "snippet": "Today, we introduce a powerful solution – LangGraph, which addresses these issues through the concepts of graphs and state machines. Introduction to LangGraph LangGraph is a new member of the LangChain ecosystem, providing a graph-based framework for building complex LLM applications."}, {"title": "What is LangGraph? Key Concepts, Use Cases, and How to Get Started", "url": "//duckduckgo.com/l/?uddg=https%3A%2F%2Fwww.designveloper.com%2Fblog%2Fwhat%2Dis%2Dlanggraph%2F&rut=0c1337224eed89eef3461a85f2f256052d8427eb9d551a16d8ec34f5e9f720a1", "snippet": "Learn what is LangGraph, how it works, key features, examples, and setup steps, plus FAQs on pricing, open source status, and more."}, {"title": "LangGraph Tutorial: What Is LangGraph and How to Use It?", "url": "//duckduckgo.com/l/?uddg=https%3A%2F%2Fwww.datacamp.com%2Ftutorial%2Flanggraph%2Dtutorial&rut=71a6f16af02bec6b524df7b3bbf1c7675282b1fc8955b22e8e7ef60e3b60b154", "snippet": "LangGraph is a library within the LangChain ecosystem that provides a framework for defining, coordinating, and executing multiple LLM agents (or chains) in a structured and efficient manner."}, {"title": "LangGraph Introduction and when is it beneficial - A Streak of ...", "url": "//duckduckgo.com/l/?uddg=https%3A%2F%2Ftelestreak.com%2Ftech%2Fai%2Flanggraph%2Dintroduction%2Dand%2Dwhen%2Dis%2Dit%2Dbeneficial%2F&rut=8e7b399f9fc00e17dc48c020bef2353b5267d6e16a6f89d8d3afeab1049a75f2", "snippet": "LangGraph is an excellent choice when you need a structured, scalable, and interpretable workflow that involves multiple stages of decision-making. Its ability to break down complex tasks into manageable parts and its clear graph-based approach make it particularly valuable for AI-driven applications that need both flexibility and reliability."}, {"title": "LangGraph Tutorial: Complete Guide to Building AI Workflows", "url": "//duckduckgo.com/l/?uddg=https%3A%2F%2Fwww.codecademy.com%2Farticle%2Fbuilding%2Dai%2Dworkflow%2Dwith%2Dlanggraph&rut=d9603f0e47b82e5858f5721fd95242c9ff23a242995693db4d43a58c1bcf3b94", "snippet": "LangGraph is a powerful Python library that simplifies creating, managing, and visualizing complex AI workflows. Built on the popular LangChain framework, LangGraph makes it straightforward to handle stateful workflows, conditional logic, loops, and multistep interactions."}, {"title": "LangGraph – Intuitively and Exhaustively Explained", "url": "//duckduckgo.com/l/?uddg=https%3A%2F%2Fiaeef.substack.com%2Fp%2Flanggraph%2Dintuitively%2Dand%2Dexhaustively&rut=6e4234109ede051c31a94de4cd61c8432dea4cd462d8dcfa11166736c2c74308", "snippet": "These names are used throughout LangGraph for connecting nodes together and routing between nodes during execution, which will come up later. You might notice I call my definition of the graph workflow and then the graph gets \\\"compiled\\\" into app . This is, from what I can tell, the standard convention in the LangGraph documentation."}]}, name='perform\_internet\_search', id='1f906d85-df5a-4f85-9165-572bdab6f8d6', tool\_call\_id='call\_YgvGiyENnZXxAh4gpP3vtp5')], 'initial\_route': 'agent\_lookup', 'route': ['summarizer\_agent'], 'sql\_results': ['', ''], 'question\_results': ['', ''], 'plan': [{id: 1, task: 'Find the date with the highest number of calls', type: 'sql\_agent', done: True}, {id: 2, task: 'Retrieve all calls related to returns and get their summaries and call IDs', type: 'sql\_agent', done: True}, {id: 3, task: 'P'}]

```
rove the definition of langgraph', 'type': 'direct_answer', 'done': True}], 'cu  
rrent_task': None}
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Summarizer combining info: The user asked: give me the date that the most calls o  
ccurred, and also list me all the calls that were about returns, I want to see the  
summaries of it and the call id's in bulletpoints and tell me what langgraph means

And this was found:

- 
- 
- 
- [Tool: run\_sql\_query] Query: SELECT Date, COUNT(\*) as CallCount FROM calls GROU  
P BY Date ORDER BY CallCount DESC LIMIT 1; Result: [{"Date": "2025-03-10", "CallC  
ount": 2}]
- [Tool: run\_sql\_query] Query: SELECT CallID, summary FROM calls WHERE category =  
'Return / Refund'; Result: [{"CallID": 1, "summary": "Customer received a defecti  
ve blender after only a couple of uses and is requesting a replacement."}, {"Call  
ID": 3, "summary": "The caller received a pair of shoes that is a size too small  
and is requesting an exchange for the next size up."}, {"CallID": 7, "summary":  
"Caller received a defective book with missing pages and loose binding, requestin  
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"summary": "The caller reported a shorter battery life on their watch than advert  
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"summary": "The caller inquired about extending the return period during the holi  
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from the dress material and would like to return the order."}, {"CallID": 41, "su  
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6, "summary": "The caller received a paint sample that didn't match the color on  
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{"CallID": 58, "summary": "The caller reported that their picture frame arrived d  
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"The caller was dissatisfied with the perfume scent and requested a return."},  
{"CallID": 69, "summary": "The caller inquired about tracking the status of their  
return, which was already received and being processed for a refund."}, {"CallI  
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rnt out quickly and requested a replacement for all four."}, {"CallID": 78, "sum  
mary": "The caller's new shirt faded after one wash despite following the care ins  
tructions, and they requested a refund."}, {"CallID": 92, "summary": "The caller  
reported a problem with their belt buckle, which was covered under warranty."},  
{"CallID": 93, "summary": "The caller inquired about returning a product from an  
international address and asked about the estimated shipping cost."}, {"CallID":  
98, "summary": "The caller reported a defective printer cartridge that was leakin  
g ink."}]
- [Tool: perform\_internet\_search] Query: definition of langgraph Result: {"quer  
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ippet": "LangGraph, created by LangChain, is an open source AI agent framework de  
signed to build, deploy and manage complex generative AI agent workflows. It prov  
ides a set of tools and libraries that enable users to create, run and optimize l  
arge language models (LLMs) in a scalable and efficient manner. At its core, LangG"}]

raphuses the power of graph-based architectures to model and manage the ..."}, {"title": "What is LangGraph? - GeeksforGeeks", "url": "//duckduckgo.com/l/?uddg=https%3A%2F%2Fwww.geeksforgeeks.org%2Fmachine%2Dlearning%2Fwhat%2Dis%2Dlanggraph%2F&rut=24ef91e8f393f35f28e2cd40bcd5b879e40517654f6bea0fe4c226971bdd6bee", "snippet": "LangGraph is an open-source framework built by LangChain that streamlines the creation and management of AI agent workflows. At its core, LangGraph combines large language models (LLMs) with graph-based architectures allowing developers to map, organize and optimize how AI agents interact and make decisions."}, {"title": "Introduction to LangGraph: A Beginner's Guide - Medium", "url": "//duckduckgo.com/l/?uddg=https%3A%2F%2Fmedium.com%2F%40cplog%2Fintroduction%2Dto%2Dlanggraph%2Da%2Dbeginners%2Dguide%2D14f9be027141&rut=b2704b0de83f9477c6a68bb66b30176c288a63917b44c7f0ee1f2fc559f92128", "snippet": "Unlock the power of LangGraph with our beginner's guide. Learn to build stateful applications with LLMs and enhance your AI projects with expert tips. Master LangGraph now!"}, {"title": "LangGraph - LangChain", "url": "//duckduckgo.com/l/?uddg=https%3A%2F%2Fwww.langchain.com%2Flanggraph&rut=1ed7185c85dab06a192c2fa5506e8b7458d14ba0b3f510451788dcf9bd851475", "snippet": "LangGraph's low-level primitives provide the flexibility needed to create fully customizable agents. Design diverse control flows – single, multi-agent, hierarchical – all using one framework. LangGraph's built-in memory stores conversation histories and maintains context over time, enabling rich, personalized interactions across sessions."}, {"title": "Introduction to LangGraph: Core Concepts and Basic Components", "url": "//duckduckgo.com/l/?uddg=https%3A%2F%2Fdev.to%2Fjamesli%2Fin%2Fintroduction%2Dto%2Dlanggraph%2Dcore%2Dconcepts%2Dand%2Dbasic%2Dcomponents%2D5bak&ut=21356e27cf4e77610891387e1995894ce27dc3727a1ff2467853842e5727842f", "snippet": "Today, we introduce a powerful solution – LangGraph, which addresses these issues through the concepts of graphs and state machines. Introduction to LangGraph LangGraph is a new member of the LangChain ecosystem, providing a graph-based framework for building complex LLM applications."}, {"title": "What is LangGraph? Key Concepts, Use Cases, and How to Get Started", "url": "//duckduckgo.com/l/?uddg=https%3A%2F%2Fwww.designveloper.com%2Fblog%2Fwhat%2Dis%2Dlanggraph%2F&rut=0c1337224eed89eef3461a85f2f256052d8427eb9d551a16d8ec34f5e9f720a1", "snippet": "Learn what is LangGraph, how it works, key features, examples, and setup steps, plus FAQs on pricing, open source status, and more."}, {"title": "LangGraph Tutorial: What Is LangGraph and How to Use It?", "url": "//duckduckgo.com/l/?uddg=https%3A%2F%2Fwww.datacamp.com%2Ftutorial%2Flanggraph%2Dtutorial&rut=71a6f16af02bec6b524df7b3bbf1c7675282b1fc8955b22e8e7ef60e3b60b154", "snippet": "LangGraph is a library within the LangChain ecosystem that provides a framework for defining, coordinating, and executing multiple LLM agents (or chains) in a structured and efficient manner."}, {"title": "LangGraph Introduction and when is it beneficial - A Streak of ...", "url": "//duckduckgo.com/l/?uddg=https%3A%2F%2Ftelestreak.com%2Ftech%2Fai%2Flanggraph%2Dintroduction%2Dand%2Dwhen%2Dis%2Dit%2Dbeneficial%2F&rut=8e7b399f9fc00e17dc48c020bef2353b5267d6e16a6f89d8d3afeab1049a75f2", "snippet": "LangGraph is an excellent choice when you need a structured, scalable, and interpretable workflow that involves multiple stages of decision-making. Its ability to break down complex tasks into manageable parts and its clear graph-based approach make it particularly valuable for AI-driven applications that need both flexibility and reliability."}, {"title": "LangGraph Tutorial: Complete Guide to Building AI Workflows", "url": "//duckduckgo.com/l/?uddg=https%3A%2F%2Fwww.codecademy.com%2Farticle%2Fbuilding%2Dai%2Dworkflow%2Dwith%2Dlanggraph&rut=d9603f0e47b82e5858f5721fd95242c9ff23a242995693db4d43a58c1bcf3b94", "snippet": "LangGraph is a powerful Python library that simplifies creating, managing, and visualizing complex AI workflows. Built on the popular LangChain framework, LangGraph makes it straightforward to handle stateful workflows, conditional logic, loops, and multistep interactions."}, {"title": "LangGraph – Intuitively and Exhaustively Explained", "url": "//duckduckgo.com/l/?uddg=https%3A%2F%2Fiaeef.substack.com%2Fp%2Flanggraph%2Dintuitively%2Dand%2Dexhaustively&rut=6e4234109ede051c31a94de4cd61c8432dea4cd462d8dcfa11166736c2c74308", "snippet": "These names are used throughout LangGraph for connecting nodes together and routing between nodes during execution, which will come up later. You might notice I call my definition of the graph workflow and then the graph gets \"compiled\" into app . This is, from what I can tell, the standard convention in the LangGraph documentation."}]

entation."}]]}  
Summarizer final summary: The date with the most calls was March 10, 2025, with a total of two calls. Below is a list of call summaries and IDs related to returns or refunds:

- \*\*CallID: 1\*\* - Customer received a defective blender after only a couple of uses and is requesting a replacement.
- \*\*CallID: 3\*\* - The caller received a pair of shoes that is a size too small and is requesting an exchange for the next size up.
- \*\*CallID: 7\*\* - Caller received a defective book with missing pages and loose binding, requesting a full refund or return.
- \*\*CallID: 16\*\* - The caller received a sweater with an incorrect color, requesting a return and refund.
- \*\*CallID: 24\*\* - The caller reported a shorter battery life on their watch than advertised, despite optimizing settings.
- \*\*CallID: 34\*\* - Caller experiencing static noise with new headphones and requested replacement.
- \*\*CallID: 35\*\* - The caller inquired about extending the return period during the holiday season.
- \*\*CallID: 38\*\* - The caller experienced skin irritation from the dress material and would like to return the order.
- \*\*CallID: 41\*\* - The caller wanted to return an item without the original receipt, but was able to get approval for store credit with their order number.
- \*\*CallID: 46\*\* - The caller received a paint sample that didn't match the color on our website and wants to return it.
- \*\*CallID: 50\*\* - The caller reported that their toy was missing some pieces and was upset about it. The agent apologized, offered to send replacement parts at no additional cost, and confirmed receipt of a photo from the caller.
- \*\*CallID: 55\*\* - The caller wants to return an open-but-unused item (a shirt) and is asking for a return label.
- \*\*CallID: 58\*\* - The caller reported that their picture frame arrived damaged, likely due to shipping issues.
- \*\*CallID: 64\*\* - The caller was dissatisfied with the perfume scent and requested a return.
- \*\*CallID: 69\*\* - The caller inquired about tracking the status of their return, which was already received and being processed for a refund.
- \*\*CallID: 70\*\* - The caller had an issue with poor-quality light bulbs that burnt out quickly and requested a replacement for all four.
- \*\*CallID: 78\*\* - The caller's new shirt faded after one wash, despite following care instructions, and they requested a refund.
- \*\*CallID: 92\*\* - The caller reported a problem with their belt buckle, which was covered under warranty.
- \*\*CallID: 93\*\* - The caller inquired about returning a product from an international address and asked about the estimated shipping cost.
- \*\*CallID: 98\*\* - The caller reported a defective printer cartridge that was leaking ink.

Regarding "LangGraph," it is a framework created by LangChain. LangGraph is designed to build, deploy, and manage AI agent workflows using large language models (LLMs) within a graph-based architecture, allowing for structured and efficient AI application development.

Coordinator decision: agent lookup

Planner output: {

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  "plan": [
    {"id": 1, "task": "Identify the date with the highest number of calls", "type": "sql_agent", "done": false},
    {"id": 2, "task": "Retrieve all calls that were about returns", "type": "sql_agent", "done": false},
    {"id": 3, "task": "List summaries and call ids of return calls in bullet points", "type": "vector_agent", "done": false},
```

```
{"id": 4, "task": "Define what langgraph means", "type": "direct_answer", "done": false}
    ]
}

Final plan: [{"id": 1, "task": "Identify the date with the highest number of calls", "type": "sql_agent", "done": False}, {"id": 2, "task": "Retrieve all calls that were about returns", "type": "sql_agent", "done": False}, {"id": 3, "task": "List summaries and call ids of return calls in bullet points", "type": "vector_agent", "done": False}, {"id": 4, "task": "Define what langgraph means", "type": "direct_answer", "done": False}]
Routing to next task: sql_agent with task: {"id": 1, "task": "Identify the date with the highest number of calls", "type": "sql_agent", "done": False}
SQL Agent response:
Run SQL Tool call Results raw: [{"Date": "2025-03-10", "call_count": 2}]
Routing to next task: sql_agent with task: {"id": 2, "task": "Retrieve all calls that were about returns", "type": "sql_agent", "done": False}
SQL Agent response:
Run SQL Tool call Results raw: [{"CallID": 1, "Date": "2025-01-15", "Duration": 23520.0, "Transcript": "Caller: Hi there, I recently purchased a blender from your site, but it's making this awful grinding noise after just a couple of uses. I'm really disappointed because I was looking forward to making smoothies every morning. Agent: I'm so sorry to hear about that issue with your blender. Could you please provide me with the order number so I can look into this for you? Caller: Sure, the order number is 45678. Do you think this is something that's covered under the warranty, or will I have to pay for repairs? Agent: Absolutely, this sounds like a manufacturing defect, so it's fully covered. Would you prefer a replacement or a refund? Also, do you still have the original packaging? Caller: I'd love a replacement, please. Yes, I kept the box just in case. Thank you so much for helping me out with this. Agent: No problem at all. I'll process that replacement right away, and you should receive it within 3-5 business days."}, {"CallID": 3, "Date": "2025-03-10", "Duration": 19080.0, "Transcript": "Caller: The pair of shoes I ordered arrived, but they're a size too small and pinching my toes. Can I exchange them for the next size up? Agent: Of course, we're happy to help with exchanges. What's your order ID, and what size would you like instead? Caller: The order ID is 98765, and I'd like a size 9 instead of 8. Are they in stock right now? Agent: Let me check, yes, size 9 is available. I'll email you a return label, and the new pair will ship once we receive the old ones. Caller: Perfect, and how can I track the status of the new shipment? Thanks for making this easy."}, {"CallID": 7, "Date": "2025-07-09", "Duration": 24000.0, "Transcript": "Caller: I just received the book I ordered, but several pages are missing, and the binding seems loose. This is really frustrating as it was a gift. Agent: I'm truly sorry for the poor quality. Can you give me the order details so I can arrange a resolution? Caller: Order number 11223. I'd prefer a full refund rather than a replacement, if possible. Agent: Understood. Do you want to return it, or can we just process the refund since it's defective? Caller: I'd like to return it, please send a label. How long will the refund take once you receive it? Agent: Label emailed. Refund should post within 5-7 business days after receipt."}, {"CallID": 16, "Date": "2024-04-29", "Duration": 28800.0, "Transcript": "Caller: The color of the sweater I received is way off from the photo online, it's more brown than beige. Agent: Colors can vary due to screen settings, but if it's not what you expected, we can arrange a return. Caller: Yes, please. Order 77889. Will I get free return shipping? Agent: Absolutely, label on the way. Would you like a different color as replacement? Caller: No, just a refund. Thanks for understanding."}, {"CallID": 18, "Date": "2024-05-01", "Duration": 14400.0, "Transcript": "Caller: I received a refund for my order, but I'm still experiencing issues with the product. Agent: I'm sorry to hear that. Let me check on this for you. Caller: Please let me know if there's any update. Agent: I'll keep you updated as soon as I have more information."}]]
```

d'}, {'CallID': 24, 'Date': '2024-12-28', 'Duration': 33600.0, 'Transcript': "Caller: The battery life on this watch is much shorter than what was advertised, only lasting a few hours. Agent: That doesn't sound right. Have you tried optimizing settings like turning off notifications? Caller: Yes, I did all that. Still drains fast. Agent: Let's return it for inspection. I'll send a label. Caller: Okay, hope the next one is better. Thanks. Agent: We'll make sure. Refund if needed.", 'summary': 'The caller reported a shorter battery life on their watch than advertised, despite optimizing settings.', 'category': 'Return / Refund'}, {'CallID': 34, 'Date': '2023-10-15', 'Duration': 33300.0, 'Transcript': "Caller: These wired headphones have terrible static noise right out of the box. Agent: That sounds defective. Have you tried a different device? Caller: Yes, same issue. Agent: We'll replace them. Send back the old pair? Caller: Yes, please provide a label. Agent: On its way. New ones shipping today.", 'summary': 'Caller experiencing static noise with new headphones and requested replacement.', 'category': 'Return / Refund'}, {'CallID': 35, 'Date': '2023-11-30', 'Duration': 17100.0, 'Transcript': "Caller: Hello, do you extend return periods during the holidays? Agent: Yes, purchases from now until December can be returned by January 15. Caller: That's convenient for gifts. Agent: Shop with peace of mind. Caller: Will do. Thanks!", 'summary': 'The caller inquired about extending the return period during the holiday season.', 'category': 'Return / Refund'}, {'CallID': 38, 'Date': '2025-02-09', 'Duration': 27900.0, 'Transcript': "Caller: The material on this dress is causing irritation on my skin, it's itchy. Agent: Sorry to hear that. Perhaps an allergic reaction. Want to return? Caller: Yes, order 22334. Agent: Refund starting now. Send it back. Caller: Thanks for the hassle-free process.", 'summary': 'The caller experienced skin irritation from the dress material and would like to return the order.', 'category': 'Return / Refund'}, {"CallID": 41, "Date": "2025-05-21", "Duration": 24600.0, "Transcript": "Caller: Hi, can I return an item without the original receipt? I lost it. Agent: We can issue store credit if you have the order number or email. Caller: It's an online purchase, order 44556. Agent: Found it. Return approved for credit. Caller: That's fine. Thanks.", "summary": "The caller wanted to return an item without the original receipt, but was able to get approval for store credit with their order number."}, {"CallID": 46, "Date": "2025-10-27", "Duration": 29700.0, "Transcript": "Caller: The paint sample I got doesn't match the color on your site at all. Agent: Samples can vary slightly, but if it's way off, return it. Caller: Yes, it's not close. Agent: Send it back; we'll ship a new one free. Caller: Thanks. Hope the next is accurate.", "summary": "The caller received a paint sample that didn't match the color on our website and wants to return it."}, {"CallID": 50, "Date": "2024-02-01", "Duration": 30900.0, "Transcript": "Caller: The toy I ordered is missing some pieces, my kid is upset. Agent: Sorry! Send a photo of what's missing? Caller: Emailing now. Agent: Parts on the way, no charge. Caller: Thanks, that'll make his day.", "summary": "The caller reported that their toy was missing some pieces and was upset about it. The agent apologized, offered to send replacement parts at no additional cost, and confirmed receipt of a photo from the caller."}, {"CallID": 55, "Date": "2024-07-11", "Duration": 16800.0, "Transcript": "Caller: Hello, can I return an item that's been opened but unused? Agent: Yes, as long as it's in original condition. Caller: It's a shirt I tried on once. Agent: That's fine. Send label? Caller: Yes, please.", "summary": "The caller wants to return an open-but-unused item (a shirt) and is asking for a return label."}, {"CallID": 58, "Date": "2024-10-23", "Duration": 26100.0, "Transcript": "Caller: The picture frame arrived bent out of shape. Agent: Likely shipping damage. Photo please? Caller: Sent. Agent: Replacement coming. Caller: Thanks for the swift action.", "summary": "The caller reported that their picture frame arrived damaged, which was likely caused by shipping issues."}, {"CallID": 64, "Date": "2023-04-16", "Duration": 29400.0, "Transcript": "Caller: The perfume scent is overpowering, not what I expected. Agent: Scents are subjective. Return okay? Caller: Yes, please. Agent: Label sent. Caller: Appreciate the policy.", "summary": "The caller was dissatisfied with the perfume scent and requested a return."}, {"CallID": 69, "Date": "2023-09-22", "Duration": 17100.0, "Transcript": "Caller: The perfume scent is overpowering, not what I expected. Agent: Scents are subjective. Return okay? Caller: Yes, please. Agent: Label sent. Caller: Appreciate the policy."}, {"CallID": 73, "Date": "2024-01-15", "Duration": 27900.0, "Transcript": "Caller: The perfume scent is overpowering, not what I expected. Agent: Scents are subjective. Return okay? Caller: Yes, please. Agent: Label sent. Caller: Appreciate the policy."}]

on': 17400.0, 'Transcript': 'Caller: Hi, how do I track the status of my return? Agent: Have you shipped it back? Caller: Yes, last week. Agent: Received, refund processing. Caller: How long? Agent: 3-5 days.', 'summary': 'The caller inquired about tracking the status of their return, which was already received and being processed for a refund.', 'category': 'Return / Refund'}, {'CallID': 70, 'Date': '2023-10-04', 'Duration': 29700.0, 'Transcript': 'Caller: These light bulbs burnt out after a day, poor quality. Agent: Possible bad batch. Replace? Caller: All four, please. Agent: New set shipping. Caller: Thanks for the replacement.', 'summary': 'The caller had an issue with poor-quality light bulbs that burnt out quickly and requested a replacement for all four.', 'category': 'Return / Refund'}, {'CallID': 78, 'Date': '2025-06-22', 'Duration': 31500.0, 'Transcript': 'Caller: The fabric on my new shirt faded after one wash. Agent: Did you follow the care instructions? Caller: Yes, cold water and all. Agent: Must be defective, refund? Caller: Yes, please. Thanks.', 'summary': "The caller's new shirt faded after one wash despite following the care instructions, and they requested a refund.", 'category': 'Return / Refund'}, {'CallID': 92, 'Date': '2024-08-28', 'Duration': 26100.0, 'Transcript': 'Caller: The belt buckle snapped off already. Agent: Covered under warranty. Caller: Photo sent. Agent: Replace approved. Caller: New one soon?', 'summary': 'The caller reported a problem with their belt buckle, which was covered under warranty.', 'category': 'Return / Refund'}, {'CallID': 93, 'Date': '2024-09-10', 'Duration': 20100.0, 'Transcript': 'Caller: Hi, returns from international addresses? Agent: Yes, but you pay shipping. Caller: Estimated cost? Agent: Depends, \$20-30. Caller: Noted.', 'summary': 'The caller inquired about returning a product from an international address and asked about the estimated shipping cost.', 'category': 'Return / Refund'}, {'CallID': 98, 'Date': '2023-02-19', 'Duration': 30900.0, 'Transcript': 'Caller: Printer ink is leaking everywhere. Agent: Still intact? Caller: Yes. Agent: Defective, replace. Caller: Send new cartridge.', 'summary': 'The caller reported a defective printer cartridge that was leaking ink.', 'category': 'Return / Refund'}]

Routing to next task: vector\_agent with task: {'id': 3, 'task': 'List summaries and call ids of return calls in bullet points', 'type': 'vector\_agent', 'done': False}

Vector Agent response:

Routing to next task: direct\_answer with task: {'id': 4, 'task': 'Define what langgraph means', 'type': 'direct\_answer', 'done': False}

Question Agent response:

Internet Search Tool call Results raw: {'query': 'langgraph definition', 'results': [ {'title': 'What is LangGraph? - GeeksforGeeks', 'url': '//duckduckgo.com/l/?uddg=https%3A%2F%2Fwww.geeksforgeeks.org%2Fmachine%2Dlearning%2Fwhat%2Dis%2Dlangraph%2F&rut=24ef91e8f393f35f28e2cd40bcd5b879e40517654f6bea0fe4c226971bdd6bee', 'snippet': 'LangGraph is an open-source framework built by LangChain that streamlines the creation and management of AI agent workflows. At its core, LangGraph combines large language models (LLMs) with graph-based architectures allowing developers to map, organize and optimize how AI agents interact and make decisions.'}, {'title': 'What is LangGraph? - IBM', 'url': '//duckduckgo.com/l/?uddg=https%3A%2F%2Fww.ibm.com%2Fthink%2Ftopics%2Flanggraph&rut=4517814b9d7e41b43c9fa54df59c9fa23482933f53d6923a31ce1037ed11d2db', 'snippet': 'LangGraph, created by LangChain, is an open source AI agent framework designed to build, deploy and manage complex generative AI agent workflows. It provides a set of tools and libraries that enable users to create, run and optimize large language models (LLMs) in a scalable and efficient manner. At its core, LangGraph uses the power of graph-based architectures to model and manage the ...'}, {'title': 'LangGraph: Build Stateful AI Agents in Python', 'url': '//duckduckgo.com/l/?uddg=https%3A%2F%2Frealpython.com%2Flanggraph%2Dpython%2F&rut=32e31aa7edad630714d6b5c049ce3ddab36d2cdace8cd6d8c40705f7977be58', 'snippet': 'LangGraph is a versatile Python library designed for stateful, cyclic, and multi-actor Large Language Model (LLM) applications. This tutorial will give you an overview of LangGraph fundamentals through hands-on examples, and the tools needed to build your own LLM workflows and agents in LangGraph.'}, {'title': 'LangGraph - LangChain', 'url': '//duckduckgo.com/l/?uddg=https%3A%2F%2Fwww.langchain.com%2Flanggraph&rut=1ed7185c85dab06a192c2fa5506e8b7458d14ba0b3f510451788dcf9'}

bd851475', 'snippet': "LangGraph's flexible framework supports diverse control flows - single agent, multi-agent, hierarchical, sequential - and robustly handles realistic, complex scenarios."}, {'title': "Introduction to LangGraph: A Beginner's Guide - Medium", 'url': '//duckduckgo.com/l/?uddg=https%3A%2F%2Fmedium.com%2F%40cplog%2Fintroduction%2Dto%2Dlanggraph%2Da%2Dbeginners%2Dguide%2D14f9be027141&rut=b2704b0de83f9477c6a68bb66b30176c288a63917b44c7f0ee1f2fc559f92128', 'snippet': "Unlock the power of LangGraph with our beginner's guide. Learn to build stateful applications with LLMs and enhance your AI projects with expert tips. Master LangGraph now!"}, {'title': 'LangGraph Tutorial: What Is LangGraph and How to Use It?', 'url': '//duckduckgo.com/l/?uddg=https%3A%2F%2Fwww.datacamp.com%2Ftutorial%2Flanggraph%2Dtutorial&rut=71a6f16af02bec6b524df7b3bbf1c7675282b1fc8955b22e8e7ef60e3b60b154', 'snippet': 'LangGraph is a library within the LangChain ecosystem that provides a framework for defining, coordinating, and executing multiple LLM agents (or chains) in a structured and efficient manner.'}, {'title': 'Introduction to LangGraph: Core Concepts and Basic Components', 'url': '//duckduckgo.com/l/?uddg=https%3A%2F%2Fdev.to%2Fjamesli%2Fintroduction%2Dto%2Dlanggraph%2Dcore%2Dconcepts%2Dand%2Dbasic%2Dcomponents%2D5bak&rut=21356e27cf4e77610891387e1995894ce27dc3727a1ff2467853842e5727842f', 'snippet': 'Today, we introduce a powerful solution—LangGraph, which addresses these issues through the concepts of graphs and state machines. Introduction to LangGraph LangGraph is a new member of the LangChain ecosystem, providing a graph-based framework for building complex LLM applications.'}, {'title': 'Understanding LangGraph Data Visualization Software - Coursera', 'url': '//duckduckgo.com/l/?uddg=https%3A%2F%2Fwww.coursera.org%2Farticles%2Flanggraph&rut=6bf5e57d4094f957b5c1b5da157b7bdc8fb81aad96d51cb9f7fcba5e2edda60d', 'snippet': 'LangGraph is a specialized library within the LangChain ecosystem that enables you to build multi-agent applications using large language models (LLMs). LangGraph provides a flexible way to coordinate and execute multiple LLM "agents" in complex work flows, from customer service chatbots to content-generation pipelines. Using graph-based architectures to manage the relationships between the ...'}, {'title': 'What is LangGraph? Key Concepts, Use Cases, and How to Get Started', 'url': '//duckduckgo.com/l/?uddg=https%3A%2F%2Fwww.designveloper.com%2Fblog%2Fwhat%2Dis%2Dlanggraph%2F&rut=0c1337224eed89eef3461a85f2f256052d8427eb9d551a16d8ec34f5e9f720a1', 'snippet': 'Learn what is LangGraph, how it works, key features, examples, and setup steps, plus FAQs on pricing, open source status, and more.'}, {'title': 'A Beginner's Guide to LangGraph - arunsbn.substack.com', 'url': '//duckduckgo.com/l/?uddg=https%3A%2F%2Farunsbn.substack.com%2Fp%2Fa%2Dbeginners%2Dguide%2Dto%2Dlanggraph&rut=0f539fcbb8bb038c81735c1ea2f122c05b8fa98ba3ba6b6ea545cedddfa7a678', 'snippet': 'LangGraph, on the other hand, is purpose-built for stateful, multi-agent orchestration. It uses a graph structure, giving you an explicit way to define agent interactions and control the flow of information.'}]}

Summarizer Agent state: {'messages': [HumanMessage(content="give me the date that the most calls occurred, and also list me all the calls that were about returns, I want to see the summaries of it and the call id's in bullet points and tell me what langgraph means\n\n\n", additional\_kwargs={}, response\_metadata={}, id='27328863-ccd0-4686-887f-4b1074a0a783'), AIMessage(content='{\n "plan": [\n {"id": 1,\n "task": "Identify the date with the highest number of calls",\n "type": "sql\_agent",\n "done": false},\n {"id": 2,\n "task": "Retrieve all calls that were about returns",\n "type": "sql\_agent",\n "done": false},\n {"id": 3,\n "task": "List summaries and call ids of return calls in bullet points",\n "type": "vector\_agent",\n "done": false},\n {"id": 4,\n "task": "Define what langgraph means",\n "type": "direct\_answer",\n "done": false}\n ]\n}', additional\_kwargs={'refusal': None}, response\_metadata={'token\_usage': {'completion\_tokens': 137, 'prompt\_tokens': 294, 'total\_tokens': 431, 'completion\_tokens\_details': {'accepted\_prediction\_tokens': 0, 'audio\_tokens': 0, 'reasoning\_tokens': 0, 'rejected\_prediction\_tokens': 0}, 'prompt\_tokens\_details': {'audio\_tokens': 0, 'cached\_tokens': 0}}, 'model\_provider': 'openai', 'model\_name': 'gpt-4o-mini-2024-07-18', 'system\_fingerprint': 'fp\_aa07c96156', 'id': 'chatmpl-CkAziGwzauGrrQ5we3NTqueVwjylG', 'service\_tier': 'default', 'finish\_reason': 'stop', 'logprobs': None}, id='lc\_run--d1ddf41c-99fd-4f9e-abd2-3d570e73a46a-0', usage\_metadata={'input\_tokens': 294, 'output\_tokens': 137, 'total\_tokens': 431, 'input\_token\_details': {'audio': 0, 'cache\_read': 0}, 'output\_token\_

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ase send a label. How long will the refund take once you receive it? Agent: Label emailed. Refund should post within 5-7 business days after receipt.", "summary": "Caller received a defective book with missing pages and loose binding, requesting a full refund or return.", "category": "Return / Refund"}, {"CallID": 16, "Date": "2024-04-29", "Duration": 28800.0, "Transcript": "Caller: The color of the sweater I received is way off from the photo online, it's more brown than beige. Agent: Colors can vary due to screen settings, but if it's not what you expected, we can arrange a return. Caller: Yes, please. Order 77889. Will I get free return shipping? Agent: Absolutely, label on the way. Would you like a different color as replacement? Caller: No, just a refund. Thanks for understanding.", "summary": "The caller received a sweater with an incorrect color, requesting a return and refund.", "category": "Return / Refund"}, {"CallID": 24, "Date": "2024-12-28", "Duration": 33600.0, "Transcript": "Caller: The battery life on this watch is much shorter than what was advertised, only lasting a few hours. Agent: That doesn't sound right. Have you tried optimizing settings like turning off notifications? Caller: Yes, I did all that. Still drains fast. Agent: Let's return it for inspection. I'll send a label. Caller: Okay, hope the next one is better. Thanks. Agent: We'll make sure. Refund if needed.", "summary": "The caller reported a shorter battery life on their watch than advertised, despite optimizing settings.", "category": "Return / Refund"}, {"CallID": 34, "Date": "2023-10-15", "Duration": 33300.0, "Transcript": "Caller: These wired headphones have terrible static noise right out of the box. Agent: That sounds defective. Have you tried a different device? Caller: Yes, same issue. Agent: We'll replace them. Send back the old pair? Caller: Yes, please provide a label. Agent: On its way. New ones shipping today.", "summary": "Caller experiencing static noise with new headphones and requested replacement.", "category": "Return / Refund"}, {"CallID": 35, "Date": "2023-11-30", "Duration": 17100.0, "Transcript": "Caller: Hello, do you extend return periods during the holidays? Agent: Yes, purchases from now until December can be returned by January 15. Caller: That's convenient for gifts. Agent: Shop with peace of mind. Caller: Will do. Thanks!", "summary": "The caller inquired about extending the return period during the holiday season.", "category": "Return / Refund"}, {"CallID": 38, "Date": "2025-02-09", "Duration": 27900.0, "Transcript": "Caller: The material on this dress is causing irritation on my skin, it's itchy. Agent: Sorry to hear that. Perhaps an allergic reaction. Want to return? Caller: Yes, order 22334. Agent: Refund starting now. Send it back. Caller: Thanks for the hassle-free process.", "summary": "The caller experienced skin irritation from the dress material and would like to return the order.", "category": "Return / Refund"}, {"CallID": 41, "Date": "2025-05-21", "Duration": 24600.0, "Transcript": "Caller: Hi, can I return an item without the original receipt? I lost it. Agent: We can issue store credit if you have the order number or email. Caller: It's an online purchase, order 44556. Agent: Found it. Return approved for credit. Caller: That's fine. Thanks.", "summary": "The caller wanted to return an item without the original receipt, but was able to get approval for store credit with their order number.", "category": "Return / Refund"}, {"CallID": 46, "Date": "2025-10-27", "Duration": 29700.0, "Transcript": "Caller: The paint sample I got doesn't match the color on your site at all. Agent: Samples can vary slightly, but if it's way off, return it. Caller: Yes, it's not close. Agent: Send it back; we'll ship a new one free. Caller: Thanks. Hope the next is accurate.", "summary": "The caller received a paint sample that didn't match the color on our website and wants to return it.", "category": "Return / Refund"}, {"CallID": 50, "Date": "2024-02-01", "Duration": 30900.0, "Transcript": "Caller: The toy I ordered is missing some pieces, my kid is upset. Agent: Sorry! Send a photo of what's missing? Caller: Emailing now. Agent: Parts on the way, no charge. Caller: Thanks, that'll make his day.", "summary": "The caller reported that their toy was missing some pieces and was upset about it. The agent apologized, offered to send replacement parts at no additional cost, and confirmed receipt of a photo from the caller.", "category": "Return / Refund"}, {"CallID": 55, "Date": "2024-07-11", "Duration": 16800.0, "Transcript": "Caller: Hello, can I return an item that's been opened but unused? Agent: Yes, as long as it's in original condition. Caller: It's a shirt I tried on once. Agent: That's fine. Send label? Caller: Yes, please.", "summary": "The caller asked if they could return an item that had been opened but was unused."}]

caller wants to return an open-but-unused item (a shirt) and is asking for a return label.", "category": "Return / Refund"}, {"CallID": 58, "Date": "2024-10-23", "Duration": 26100.0, "Transcript": "Caller: The picture frame arrived bent out of shape. Agent: Likely shipping damage. Photo please? Caller: Sent. Agent: Replacement coming. Caller: Thanks for the swift action.", "summary": "The caller reported that their picture frame arrived damaged, which was likely caused by shipping issues.", "category": "Return / Refund"}, {"CallID": 64, "Date": "2023-04-16", "Duration": 29400.0, "Transcript": "Caller: The perfume scent is overpowering, not what I expected. Agent: Scents are subjective. Return okay? Caller: Yes, please. Agent: Label sent. Caller: Appreciate the policy.", "summary": "The caller was dissatisfied with the perfume scent and requested a return.", "category": "Return / Refund"}, {"CallID": 69, "Date": "2023-09-22", "Duration": 17400.0, "Transcript": "Caller: Hi, how do I track the status of my return? Agent: Have you shipped it back? Caller: Yes, last week. Agent: Received, refund processing. Caller: How long? Agent: 3-5 days.", "summary": "The caller inquired about tracking the status of their return, which was already received and being processed for a refund.", "category": "Return / Refund"}, {"CallID": 70, "Date": "2023-10-04", "Duration": 29700.0, "Transcript": "Caller: These light bulbs burnt out after a day, poor quality. Agent: Possible bad batch. Replace? Caller: All four, please. Agent: New set shipping. Caller: Thanks for the replacement.", "summary": "The caller had an issue with poor-quality light bulbs that burnt out quickly and requested a replacement for all four.", "category": "Return / Refund"}, {"CallID": 78, "Date": "2025-06-22", "Duration": 31500.0, "Transcript": "Caller: The fabric on my new shirt faded after one wash. Agent: Did you follow the care instructions? Caller: Yes, cold water and all. Agent: Must be defective, refund? Caller: Yes, please. Thanks.", "summary": "The caller's new shirt faded after one wash despite following the care instructions, and they requested a refund.", "category": "Return / Refund"}, {"CallID": 92, "Date": "2024-08-28", "Duration": 26100.0, "Transcript": "Caller: The belt buckle snapped off already. Agent: Covered under warranty. Caller: Photo sent. Agent: Replace approved. Caller: New one soon?", "summary": "The caller reported a problem with their belt buckle, which was covered under warranty.", "category": "Return / Refund"}, {"CallID": 93, "Date": "2024-09-10", "Duration": 20100.0, "Transcript": "Caller: Hi, returns from international addresses? Agent: Yes, but you pay shipping. Caller: Estimated cost? Agent: Depends, \$20-30. Caller: Noted.", "summary": "The caller inquired about returning a product from an international address and asked about the estimated shipping cost.", "category": "Return / Refund"}, {"CallID": 98, "Date": "2023-02-19", "Duration": 30900.0, "Transcript": "Caller: Printer ink is leaking everywhere. Agent: Seal intact? Caller: Yes. Agent: Defective, replace. Caller: Send new cartridge.", "summary": "The caller reported a defective printer cartridge that was leaking ink.", "category": "Return / Refund"}], name='run\_sql\_query', id='e4b57f48-b863-4e99-a6a6-8c3f659eefb7', tool\_call\_id='call\_o7jjNHDh0V0pKBLSLFGowh1L'), AIMessage(content='', additional\_kwargs={'refusal': None}, response\_metadata={'token\_usage': {'completion\_tokens': 20, 'prompt\_tokens': 62, 'total\_tokens': 82, 'completion\_tokens\_details': {'accepted\_prediction\_tokens': 0, 'audio\_tokens': 0, 'reasoning\_tokens': 0, 'rejected\_prediction\_tokens': 0}, 'prompt\_tokens\_details': {'audio\_tokens': 0, 'cached\_tokens': 0}}, 'model\_provider': 'openai', 'model\_name': 'gpt-4o-mini-2024-07-18', 'system\_fingerprint': 'fp\_11f3029f6b', 'id': 'chatmpl-CkAzoyzhRQaRx8intDdSM5gZXCQ1J', 'service\_tier': 'default', 'finish\_reason': 'tool\_calls', 'logprobs': None}, id='lcrun--0f927dbb-fb2c-4858-8036-cb63a5fe90f1-0', tool\_calls=[{'name': 'search\_vector\_db', 'args': {'query': 'return calls summaries and call ids'}, 'id': 'call\_e0DrMnHOWpHLySC94a0hsFm8', 'type': 'tool\_call'}], usage\_metadata={'input\_tokens': 62, 'output\_tokens': 20, 'total\_tokens': 82, 'input\_token\_details': {'audio': 0, 'cache\_read': 0}, 'output\_token\_details': {'audio': 0, 'reasoning': 0}}), ToolMessage(content="Search results for 'return calls summaries and call ids' (vector-based).", name='search\_vector\_db', id='d21a7f82-783e-45fc-bfa7-84b0275dc57c', tool\_call\_id='call\_e0DrMnHOWpHLySC94a0hsFm8'), AIMessage(content='', additional\_kwargs={'refusal': None}, response\_metadata={'token\_usage': {'completion\_tokens': 18, 'prompt\_tokens': 75, 'total\_tokens': 93, 'completion\_tokens\_details': {'accepted\_prediction\_tokens': 0, 'audio\_tokens': 0, 'reasoning\_tokens': 0, 'rejected\_prediction\_tokens': 0}}})

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hatbots to content-generation pipelines. Using graph-based architectures to manage the relationships between the ..."}, {"title": "What is LangGraph? Key Concepts, Use Cases, and How to Get Started", "url": "//duckduckgo.com/l/?uddg=https%3A%2F%2Fwww.designveloper.com%2Fblog%2Fwhat%2Dis%2Dlanggraph%2F&rut=0c1337224eed89ee f3461a85f2f256052d8427eb9d551a16d8ec34f5e9f720a1", "snippet": "Learn what islangraph, how it works, key features, examples, and setup steps, plus FAQs on pricing, open source status, and more."}, {"title": "A Beginner's Guide to LangGraph - arunsbn.substack.com", "url": "//duckduckgo.com/l/?uddg=https%3A%2F%2Farunsbn.substack.com%2Fp%2Fa%2Dbeginners%2Dguide%2Dto%2Dlanggraph&rut=0f539fcbb8bb038c81735c 1ea2f122c05b8fa98ba3ba6b6ea545ceddfa7a678", "snippet": "LangGraph, on the other hand, is purpose-built for stateful, multi-agent orchestration. It uses a graph structure, giving you an explicit way to define agent interactions and control the flow of information."}]]}', name='perform\_internet\_search', id='55482baf-bfd6-40e2-b453-4091b92fef42', tool\_call\_id='call\_eSdYkDsTnXQQTOnlLRnNwYqd')], 'initial\_route': 'agent\_lookup', 'route': ['summarizer\_agent'], 'sql\_results': ['', ''], 'vector\_results': ['', ''], 'question\_results': [''], 'plan': [{id: 1, task: 'Identify the date with the highest number of calls', type: 'sql\_agent', done: True}, {id: 2, task: 'Retrieve all calls that were about returns', type: 'sql\_agent', done: True}, {id: 3, task: 'List summaries and call ids of return calls in bullet points', type: 'vector\_agent', done: True}, {id: 4, task: 'Define what langgraph means', type: 'direct\_answer', done: True}], 'current\_task': None}

Summarizer combining info: The user asked: give me the date that the most calls occurred, and also list me all the calls that were about returns, I want to see the summaries of it and the call id's in bulletpoints and tell me what langgraph means

And this was found:

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- [Tool: run\_sql\_query] Query: SELECT Date, COUNT(\*) as call\_count FROM calls GROUP BY Date ORDER BY call\_count DESC LIMIT 1; Result: [{"Date": "2025-03-10", "call\_count": 2}]  
- [Tool: run\_sql\_query] Query: SELECT \* FROM calls WHERE category = 'Return / Refund'; Result: [{"CallID": 1, "Date": "2025-01-15", "Duration": 23520.0, "Transcript": "Caller: Hi there, I recently purchased a blender from your site, but it's making this awful grinding noise after just a couple of uses. I'm really disappointed because I was looking forward to making smoothies every morning. Agent: I'm so sorry to hear about that issue with your blender. Could you please provide me with the order number so I can look into this for you? Caller: Sure, the order number is 45678. Do you think this is something that's covered under the warranty, or will I have to pay for repairs? Agent: Absolutely, this sounds like a manufacturing defect, so it's fully covered. Would you prefer a replacement or a refund? Also, do you still have the original packaging? Caller: I'd love a replacement, please. Yes, I kept the box just in case. Thank you so much for helping me out with this. Agent: No problem at all. I'll process that replacement right away, and you should receive it within 3-5 business days."}, {"summary": "Customer received a defective blender after only a couple of uses and is requesting a replacement.", "category": "Return / Refund"}, {"CallID": 3, "Date": "2025-03-10", "Duration": 19080.0, "Transcript": "Caller: The pair of shoes I ordered arrived, but they're a size too small and pinching my toes. Can I exchange them for the next size up? Agent: Of course, we're happy to help with exchanges. What's your order ID, and what size would you like instead? Caller: The order ID is 98765, and I'd like a size 9 instead of 8. Are they in stock right now? Agent: Let me check, yes, size 9 is available. I'll email you a return label, and the new pair will ship once we receive the old ones. Caller: Perfect, and how can I track the status of the new shipme"}]

nt? Thanks for making this easy.", "summary": "The caller received a pair of shoes that is a size too small and is requesting an exchange for the next size up.", "category": "Return / Refund"}, {"CallID": 7, "Date": "2025-07-09", "Duration": 24000.0, "Transcript": "Caller: I just received the book I ordered, but several pages are missing, and the binding seems loose. This is really frustrating as it was a gift. Agent: I'm truly sorry for the poor quality. Can you give me the order details so I can arrange a resolution? Caller: Order number 11223. I'd prefer a full refund rather than a replacement, if possible. Agent: Understood. Do you want to return it, or can we just process the refund since it's defective? Caller: I'd like to return it, please send a label. How long will the refund take once you receive it? Agent: Label emailed. Refund should post within 5-7 business days after receipt.", "summary": "Caller received a defective book with missing pages and loose binding, requesting a full refund or return.", "category": "Return / Refund"}, {"CallID": 16, "Date": "2024-04-29", "Duration": 28800.0, "Transcript": "Caller: The color of the sweater I received is way off from the photo online, it's more brown than beige. Agent: Colors can vary due to screen settings, but if it's not what you expected, we can arrange a return. Caller: Yes, please. Order 77889. Will I get free return shipping? Agent: Absolutely, label on the way. Would you like a different color as replacement? Caller: No, just a refund. Thanks for understanding.", "summary": "The caller received a sweater with an incorrect color, requesting a return and refund.", "category": "Return / Refund"}, {"CallID": 24, "Date": "2024-12-28", "Duration": 33600.0, "Transcript": "Caller: The battery life on this watch is much shorter than what was advertised, only lasting a few hours. Agent: That doesn't sound right. Have you tried optimizing settings like turning off notifications? Caller: Yes, I did all that. Still drains fast. Agent: Let's return it for inspection. I'll send a label. Caller: Okay, hope the next one is better. Thanks. Agent: We'll make sure. Refund if needed.", "summary": "The caller reported a shorter battery life on their watch than advertised, despite optimizing settings.", "category": "Return / Refund"}, {"CallID": 34, "Date": "2023-10-15", "Duration": 33300.0, "Transcript": "Caller: These wired headphones have terrible static noise right out of the box. Agent: That sounds defective. Have you tried a different device? Caller: Yes, same issue. Agent: We'll replace them. Send back the old pair? Caller: Yes, please provide a label. Agent: On its way. New ones shipping today.", "summary": "Caller experiencing static noise with new headphones and requested replacement.", "category": "Return / Refund"}, {"CallID": 35, "Date": "2023-11-30", "Duration": 17100.0, "Transcript": "Caller: Hello, do you extend return periods during the holidays? Agent: Yes, purchases from now until December can be returned by January 15. Caller: That's convenient for gifts. Agent: Shop with peace of mind. Caller: Will do. Thanks!", "summary": "The caller inquired about extending the return period during the holiday season.", "category": "Return / Refund"}, {"CallID": 38, "Date": "2025-02-09", "Duration": 27900.0, "Transcript": "Caller: The material on this dress is causing irritation on my skin, it's itchy. Agent: Sorry to hear that. Perhaps an allergic reaction. Want to return? Caller: Yes, order 22334. Agent: Refund starting now. Send it back. Caller: Thanks for the hassle-free process.", "summary": "The caller experienced skin irritation from the dress material and would like to return the order.", "category": "Return / Refund"}, {"CallID": 41, "Date": "2025-05-21", "Duration": 24600.0, "Transcript": "Caller: Hi, can I return an item without the original receipt? I lost it. Agent: We can issue store credit if you have the order number or email. Caller: It's an online purchase, order 44556. Agent: Found it. Return approved for credit. Caller: That's fine. Thanks.", "summary": "The caller wanted to return an item without the original receipt, but was able to get approval for store credit with their order number.", "category": "Return / Refund"}, {"CallID": 46, "Date": "2025-10-27", "Duration": 29700.0, "Transcript": "Caller: The paint sample I got doesn't match the color on your site at all. Agent: Samples can vary slightly, but if it's way off, return it. Caller: Yes, it's not close. Agent: Send it back; we'll ship a new one free. Caller: Thanks. Hope the next is accurate.", "summary": "The caller received a paint sample that didn't match the color on our website and wants to return it.", "category": "Return / Refund"}, {"CallID": 50, "Date": "2024-02-01", "Duration": 30900.0, "Transcript": "Caller: The toy I ordered is miss

ing some pieces, my kid is upset. Agent: Sorry! Send a photo of what's missing? Caller: Emailing now. Agent: Parts on the way, no charge. Caller: Thanks, that'll make his day.", "summary": "The caller reported that their toy was missing some pieces and was upset about it. The agent apologized, offered to send replacement parts at no additional cost, and confirmed receipt of a photo from the caller.", "category": "Return / Refund"}, {"CallID": 55, "Date": "2024-07-11", "Duration": 16800.0, "Transcript": "Caller: Hello, can I return an item that's been opened but unused? Agent: Yes, as long as it's in original condition. Caller: It's a shirt I tried on once. Agent: That's fine. Send label? Caller: Yes, please.", "summary": "The caller wants to return an open-but-unused item (a shirt) and is asking for a return label.", "category": "Return / Refund"}, {"CallID": 58, "Date": "2024-10-23", "Duration": 26100.0, "Transcript": "Caller: The picture frame arrived bent out of shape. Agent: Likely shipping damage. Photo please? Caller: Sent. Agent: Replacement coming. Caller: Thanks for the swift action.", "summary": "The caller reported that their picture frame arrived damaged, which was likely caused by shipping issues.", "category": "Return / Refund"}, {"CallID": 64, "Date": "2023-04-16", "Duration": 29400.0, "Transcript": "Caller: The perfume scent is overpowering, not what I expected. Agent: Scents are subjective. Return okay? Caller: Yes, please. Agent: Label sent. Caller: Appreciate the policy.", "summary": "The caller was dissatisfied with the perfume scent and requested a return.", "category": "Return / Refund"}, {"CallID": 69, "Date": "2023-09-22", "Duration": 17400.0, "Transcript": "Caller: Hi, how do I track the status of my return? Agent: Have you shipped it back? Caller: Yes, last week. Agent: Received, refund processing. Caller: How long? Agent: 3-5 days.", "summary": "The caller inquired about tracking the status of their return, which was already received and being processed for a refund.", "category": "Return / Refund"}, {"CallID": 70, "Date": "2023-10-04", "Duration": 29700.0, "Transcript": "Caller: These light bulbs burnt out after a day, poor quality. Agent: Possible bad batch. Replace? Caller: All four, please. Agent: New set shipping. Caller: Thanks for the replacement.", "summary": "The caller had an issue with poor-quality light bulbs that burnt out quickly and requested a replacement for all four.", "category": "Return / Refund"}, {"CallID": 78, "Date": "2025-06-22", "Duration": 31500.0, "Transcript": "Caller: The fabric on my new shirt faded after one wash. Agent: Did you follow the care instructions? Caller: Yes, cold water and all. Agent: Must be defective, refund? Caller: Yes, please. Thanks.", "summary": "The caller's new shirt faded after one wash despite following the care instructions, and they requested a refund.", "category": "Return / Refund"}, {"CallID": 92, "Date": "2024-08-28", "Duration": 26100.0, "Transcript": "Caller: The belt buckle snapped off already. Agent: Covered under warranty. Caller: Photo sent. Agent: Replace approved. Caller: New one soon?", "summary": "The caller reported a problem with their belt buckle, which was covered under warranty.", "category": "Return / Refund"}, {"CallID": 93, "Date": "2024-09-10", "Duration": 20100.0, "Transcript": "Caller: Hi, returns from international addresses? Agent: Yes, but you pay shipping. Caller: Estimated cost? Agent: Depends, \$20-30. Caller: Noted.", "summary": "The caller inquired about returning a product from an international address and asked about the estimated shipping cost.", "category": "Return / Refund"}, {"CallID": 98, "Date": "2023-02-19", "Duration": 30900.0, "Transcript": "Caller: Printer ink is leaking everywhere. Agent: Seal intact? Caller: Yes. Agent: Defective, replace. Caller: Send new cartridge.", "summary": "The caller reported a defective printer cartridge that was leaking ink.", "category": "Return / Refund"}]

- [Tool: search\_vector\_db] Query: return calls summaries and call ids Result: Search results for 'return calls summaries and call ids' (vector-based).
- [Tool: perform\_internet\_search] Query: langgraph definition Result: {"query": "langgraph definition", "results": [{"title": "What is LangGraph? - GeeksforGeeks", "url": "//duckduckgo.com/l/?uddg=https%3A%2F%2Fwww.geeksforgeeks.org%2Fmachine%2Dlearning%2Fwhat%2Dis%2Dlanggraph%2F&rut=24ef91e8f393f35f28e2cd40bcd5b879e40517654f6bea0fe4c226971bdd6bee", "snippet": "LangGraph is an open-source framework built by LangChain that streamlines the creation and management of AI agent workflows. At its core, LangGraph combines large language models (LLMs) with graph-based architectures allowing developers to map, organize and optimize how AI agents inte"}]}

ract and make decisions."}, {"title": "What is LangGraph? - IBM", "url": "//duckduckgo.com/l/?uddg=https%3A%2F%2Fwww.ibm.com%2Fthink%2Ftopics%2Flanggraph&rut=4517814b9d7e41b43c9fa54df59c9fa23482933f53d6923a31ce1037ed11d2db", "snippet": "LangGraph, created by LangChain, is an open source AI agent framework designed to build, deploy and manage complex generative AI agent workflows. It provides a set of tools and libraries that enable users to create, run and optimize large language models (LLMs) in a scalable and efficient manner. At its core, LangGraph uses the power of graph-based architectures to model and manage the ..."}, {"title": "LangGraph: Build Stateful AI Agents in Python", "url": "//duckduckgo.com/l/?uddg=https%3A%2F%2Frealpython.com%2Flanggraph%2Dpython%2F&rut=32e31aa7edad630714d6b5c049ce3ddab36d2cdace8cd6d8c40705f7977be568", "snippet": "LangGraph is a versatile Python library designed for stateful, cyclic, and multi-actor Large Language Model (LLM) applications. This tutorial will give you an overview of LangGraph fundamentals through hands-on examples, and the tools needed to build your own LLM workflows and agents in LangGraph."}, {"title": "LangGraph - LangChain", "url": "//duckduckgo.com/l/?uddg=https%3A%2F%2Fwww.langchain.com%2Flanggraph&rut=1ed7185c85dab06a192c2fa5506e8b7458d14ba0b3f510451788dcf9bd851475", "snippet": "LangGraph's flexible framework supports diverse control flows - single agent, multi-agent, hierarchical, sequential - and robustly handles realistic, complex scenarios."}, {"title": "Introduction to LangGraph: A Beginner's Guide - Medium", "url": "//duckduckgo.com/l/?uddg=https%3A%2F%2Fmedium.com%2F40cplog%2Fintroduction%2Dto%2Dlanggraph%2Da%2Dbeginners%2Dguide%2D14f9be027141&rut=b2704b0de83f9477c6a68bb66b30176c288a63917b44c7f0ee1f2fc559f92128", "snippet": "Unlock the power of LangGraph with our beginner's guide. Learn to build stateful applications with LLMs and enhance your AI projects with expert tips. Master LangGraph now!"}, {"title": "LangGraph Tutorial: What Is LangGraph and How to Use It?", "url": "//duckduckgo.com/l/?uddg=https%3A%2F%2Fwww.datacamp.com%2Ftutorial%2Flanggraph%2Dtutorial&rut=71a6f16af02bec6b524df7b3bbf1c7675282b1fc8955b22e8e7ef60e3b60b154", "snippet": "LangGraph is a library within the LangChain ecosystem that provides a framework for defining, coordinating, and executing multiple LLM agents (or chains) in a structured and efficient manner."}, {"title": "Introduction to LangGraph: Core Concepts and Basic Components", "url": "//duckduckgo.com/l/?uddg=https%3A%2F%2Fdev.to%2Fjamesli%2Fintroduction%2Dto%2Dlanggraph%2Dcore%2Dconcepts%2Dand%2Dbasic%2Dcomponents%2D5bak&rut=21356e27cf4e77610891387e1995894ce27dc3727a1ff2467853842e5727842f", "snippet": "Today, we introduce a powerful solution—LangGraph, which addresses these issues through the concepts of graphs and state machines. LangGraph is a new member of the LangChain ecosystem, providing a graph-based framework for building complex LLM applications."}, {"title": "Understanding LangGraph Data Visualization Software - Coursera", "url": "//duckduckgo.com/l/?uddg=https%3A%2F%2Fwww.coursera.org%2Farticles%2Flanggraph&rut=6bf5e57d4094f957b5c1b5da157b7bdc8fb81aad96d51cb9f7fcba5e2edda60d", "snippet": "LangGraph is a specialized library within the LangChain ecosystem that enables you to build multi-agent applications using large language models (LLMs). LangGraph provides a flexible way to coordinate and execute multiple LLM \"agents\" in complex workflows, from customer service chatbots to content-generation pipelines. Using graph-based architectures to manage the relationships between the ..."}, {"title": "What is LangGraph? Key Concepts, Use Cases, and How to Get Started", "url": "//duckduckgo.com/l/?uddg=https%3A%2F%2Fwww.designdeveloper.com%2Fblog%2Fwhat%2Dis%2Dlanggraph%2F&rut=0c1337224eed89eef3461a85f2f256052d8427eb9d551a16d8ec34f5e9f720a1", "snippet": "Learn what is LangGraph, how it works, key features, examples, and setup steps, plus FAQs on pricing, open source status, and more."}, {"title": "A Beginner's Guide to LangGraph - arunsbn.substack.com", "url": "//duckduckgo.com/l/?uddg=https%3A%2F%2Farunsbn.substack.com%2Fp%2Fa%2Dbeginners%2Dguide%2Dto%2Dlanggraph&rut=0f539fcbb8bb038c81735c1ea2f122c05b8fa98ba3ba6b6ea545cedddfa7a678", "snippet": "LangGraph, on the other hand, is purpose-built for stateful, multi-agent orchestration. It uses a graph structure, giving you an explicit way to define agent interactions and control the flow of information."}]]

Summarizer final summary: ### Key Results:

- \*\*Date with Most Calls:\*\* March 10, 2025, had the highest call volume with 2 calls.

- **\*\*Return-Related Calls:\*\***

- **CallID 1:\*\* \*2025-01-15\*** - A customer received a defective blender and requested a replacement.
- **CallID 3:\*\* \*2025-03-10\*** - A customer received shoes that were too small and requested an exchange for a larger size.
- **CallID 7:\*\* \*2025-07-09\*** - The caller received a book with missing pages and requested a full refund.
- **CallID 16:\*\* \*2024-04-29\*** - The color of a sweater was incorrect, and the customer requested a return and refund.
- **CallID 24:\*\* \*2024-12-28\*** - A watch with poor battery life led the customer to initiate a return for inspection.
- **CallID 34:\*\* \*2023-10-15\*** - A customer reported static noise from new headphones and requested a replacement.
- **CallID 35:\*\* \*2023-11-30\*** - The caller inquired about extending return periods during holidays.
- **CallID 38:\*\* \*2025-02-09\*** - A dress caused skin irritation, and the customer wanted to return it.
- **CallID 41:\*\* \*2025-05-21\*** - The caller returned an item without a receipt in exchange for store credit.
- **CallID 46:\*\* \*2025-10-27\*** - A paint sample didn't match, prompting a return request.
- **CallID 50:\*\* \*2024-02-01\*** - Missing toy pieces led to a request for replacements.
- **CallID 55:\*\* \*2024-07-11\*** - The caller wanted to return an opened shirt and requested a return label.
- **CallID 58:\*\* \*2024-10-23\*** - A picture frame arrived damaged, resulting in a replacement request.
- **CallID 64:\*\* \*2023-04-16\*** - An unsatisfactory perfume scent led to a return request.
- **CallID 69:\*\* \*2023-09-22\*** - The caller inquired about the status of a returned item.
- **CallID 70:\*\* \*2023-10-04\*** - Poor-quality light bulbs led the caller to request a replacement.
- **CallID 78:\*\* \*2025-06-22\*** - A shirt faded after washing, prompting a refund request.
- **CallID 92:\*\* \*2024-08-28\*** - A warranty-covered belt buckle issue prompted a replacement.
- **CallID 93:\*\* \*2024-09-10\*** - Inquiry about international return shipping costs.
- **CallID 98:\*\* \*2023-02-19\*** - A leaking printer cartridge was reported as defective, and a replacement was requested.

- **\*\*LangGraph Definition:\*\***

- LangGraph is an open-source framework developed by LangChain, designed for the efficient creation and management of AI agent workflows. It integrates large language models (LLMs) with graph-based architectures to optimize interactions and decision-making processes.