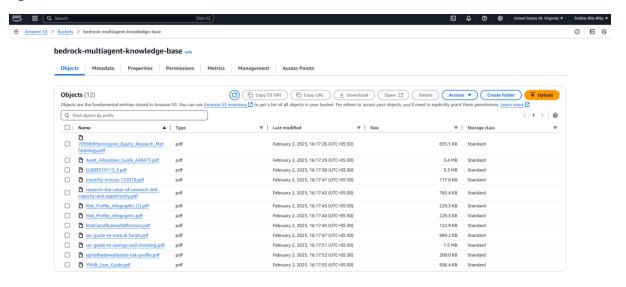
Step-by-Step Guide with Screenshots

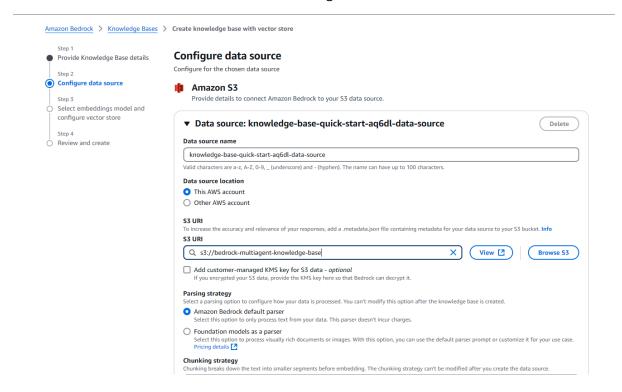
Prepare S3 Bucket for Knowledge Base

The S3 bucket is set up to store **financial guides**, **investment strategies**, **and budgeting frameworks**. These documents will be used by the **Budget Optimizer and Investment Advisor agents**.



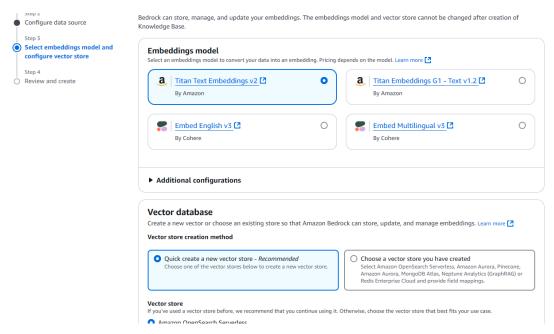
Map the Knowledge Base with S3 in Bedrock

The S3 bucket is linked to the **AWS Bedrock Knowledge Base**, ensuring that agents can retrieve relevant financial data for decision-making.



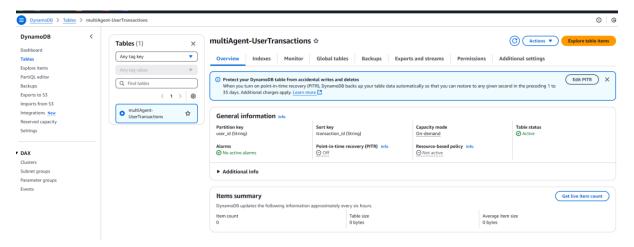
Select the Embedding Model

Choosing an embedding model enables efficient **retrieval of knowledge base documents** for processing.



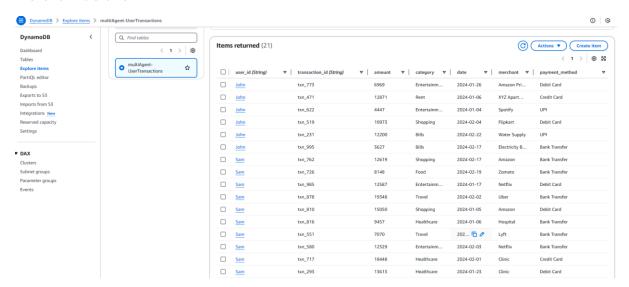
Create DynamoDB Table

A **DynamoDB table** is created to store **user transactions**, which will be accessed by the **Expense Analyzer agent**.



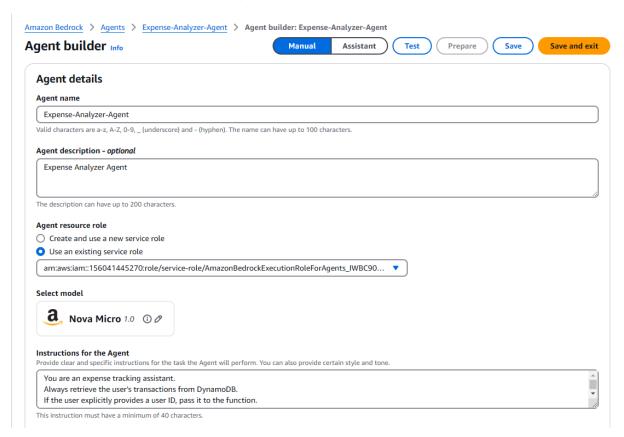
Add Data to DynamoDB

Sample transaction data is added, including user ID, transaction ID, category, amount, and merchant details.



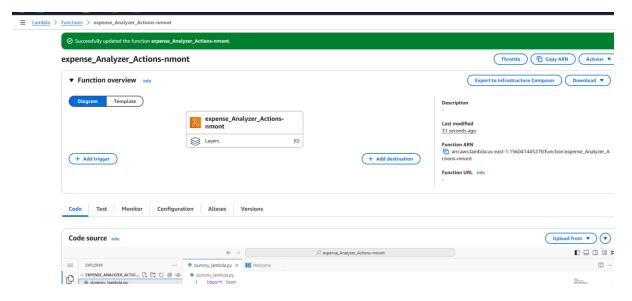
Create Bedrock Agent - Expense Analyzer

The **Expense Analyzer agent** is created with a selected **Foundation Model** and given **instructions** to fetch and analyze expenses.



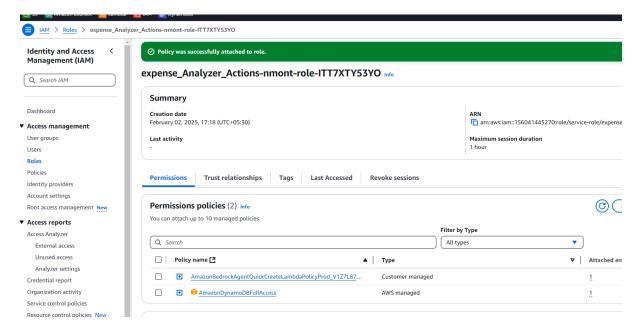
Lambda for Expense Analyzer

An AWS Lambda function is configured to **fetch data from DynamoDB** when the **Expense Analyzer agent is invoked**.



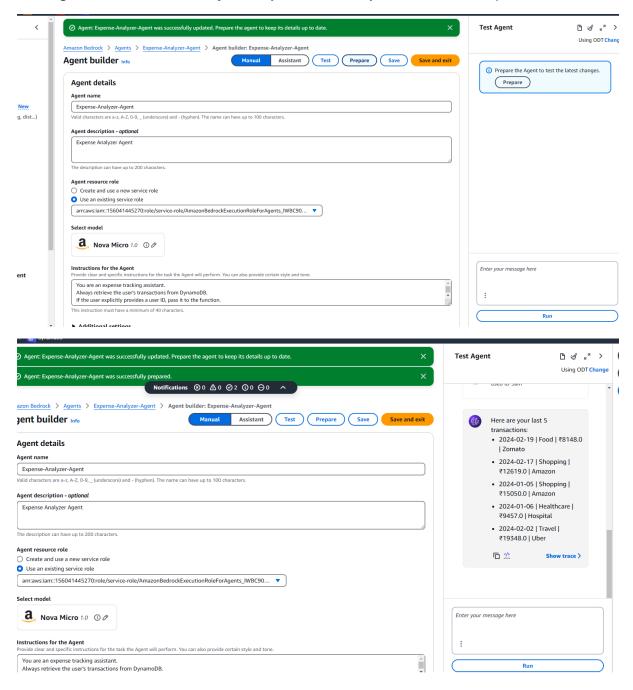
Update Lambda Policy for DynamoDB Access

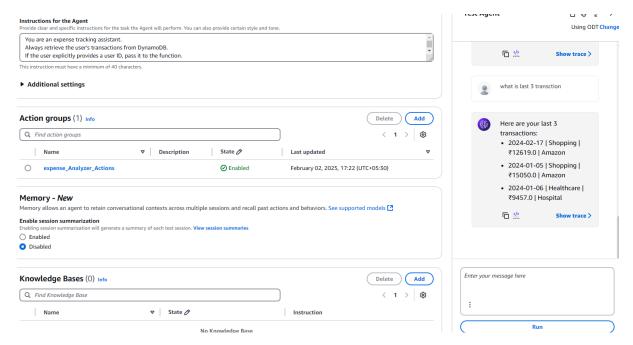
The Lambda function is granted **permissions to read from DynamoDB**, ensuring smooth data retrieval.



Save, Prepare, and Test Each Agent

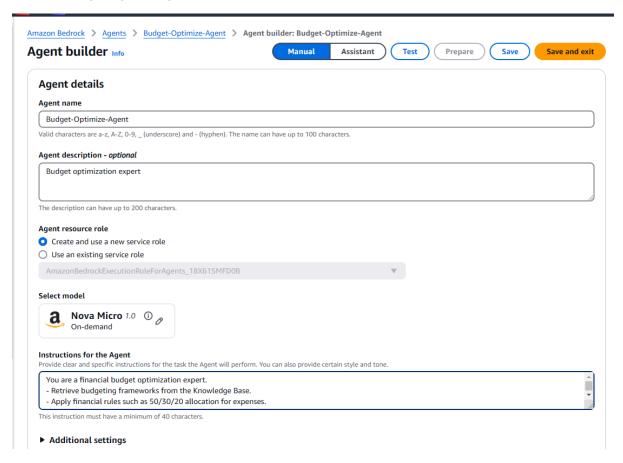
Each agent is tested **individually** to verify that it correctly retrieves data and performs its task.



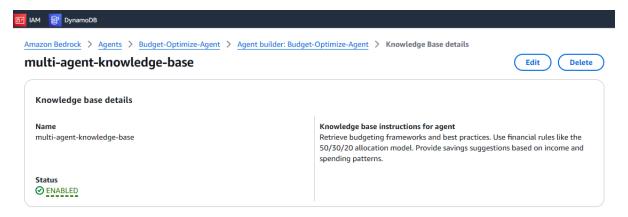


Create Bedrock Agent - Budget Optimizer

The **Budget Optimizer agent** is created and **mapped to the Knowledge Base**, enabling it to retrieve budgeting strategies.

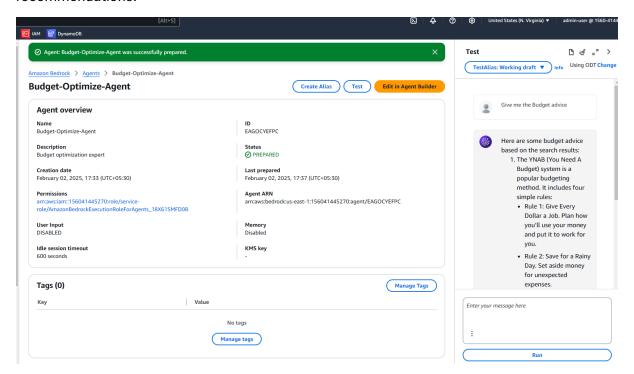


Map to Knowledge base which we created



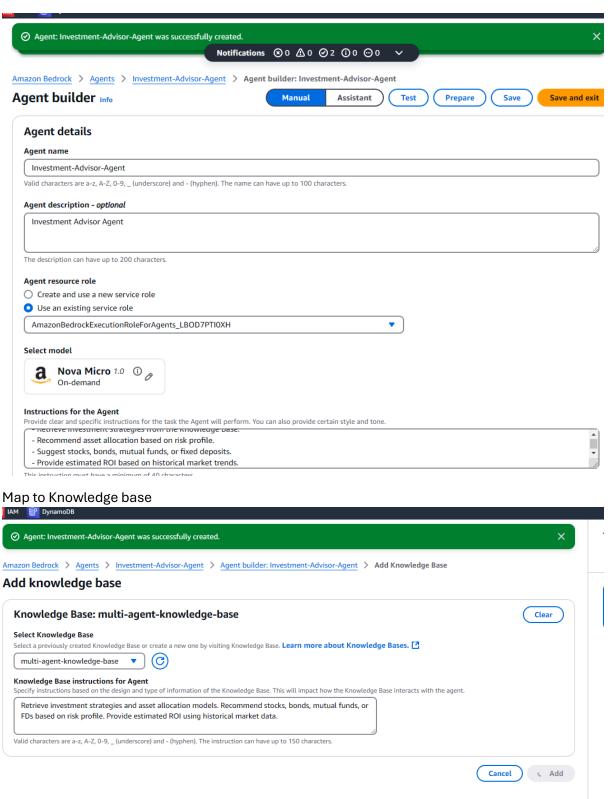
Test Budget Optimizer Agent

The agent is tested to ensure it can **retrieve financial rules** and provide budgeting recommendations.



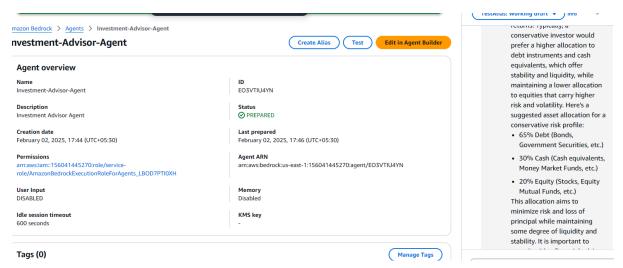
Create Bedrock Agent - Investment Advisor

The **Investment Advisor agent** is created and mapped to the **Knowledge Base**, allowing it to suggest investment strategies.



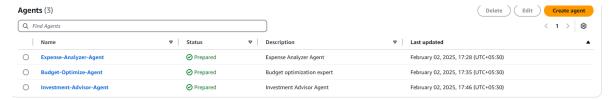
Test Investment Advisor Agent

The agent is tested separately to verify that it **retrieves investment insights** from the Knowledge Base.



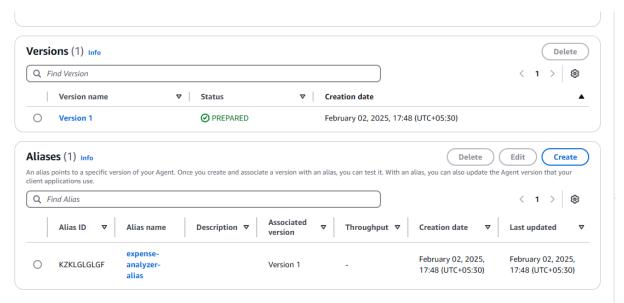
All Sub-Agents Created

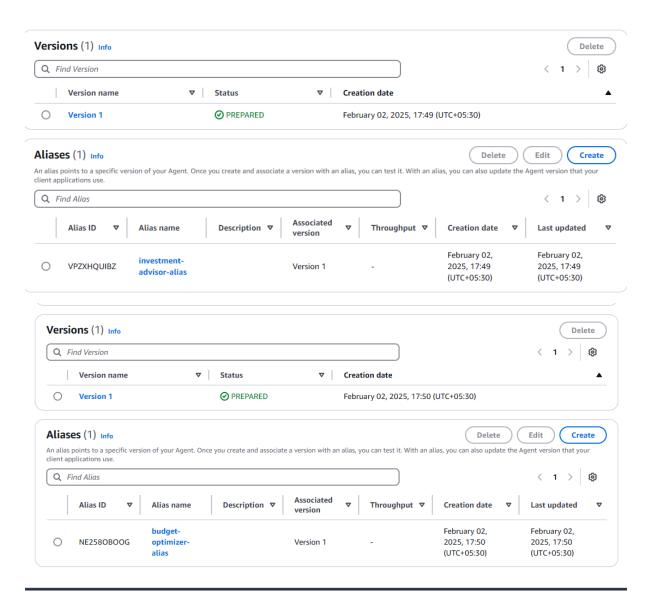
A verification step to ensure that **Expense Analyzer, Budget Optimizer, and Investment Advisor agents** are set up correctly.



Create Aliases for All Agents

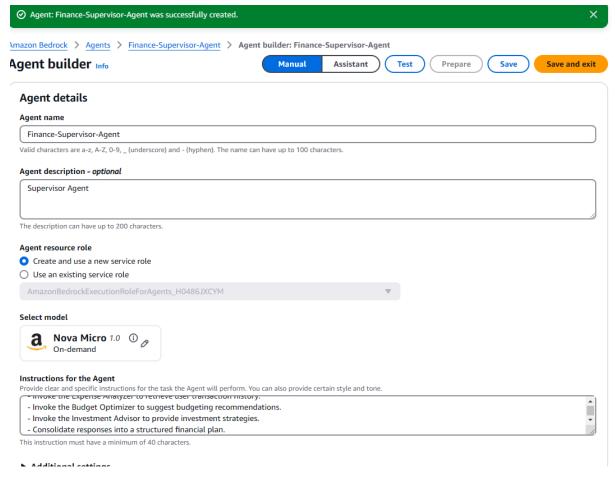
Each agent is assigned an **alias** so they can be used in Supervisor agent.





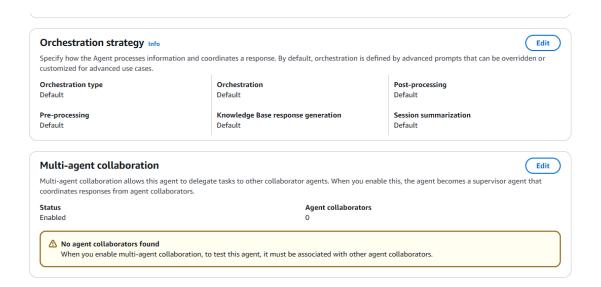
Create Supervisor Agent & Enable Multi-Agent Collaboration

The Supervisor Agent is created to manage task delegation across sub-agents.

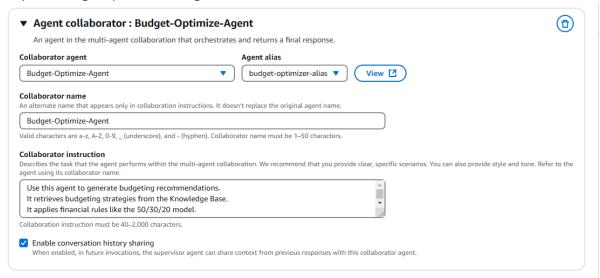


Map Sub-Agents to Supervisor & Set Collaboration Instructions

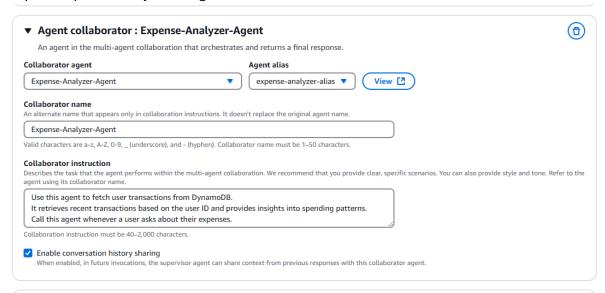
Each sub-agent (**Budget Optimizer, Expense Analyzer, Investment Advisor**) is mapped to the Supervisor Agent, along with its **collaborator instructions**.



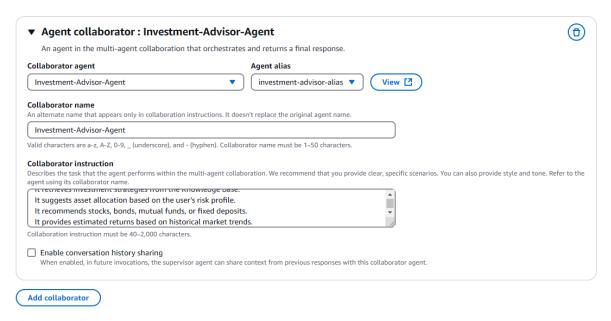
Map the Budget optimizer and give collaboration instruction



Map the Expense analyzer and give collaboration instruction

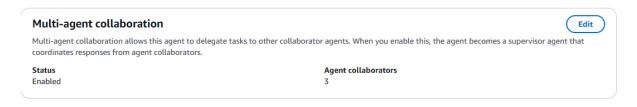


Map the Investment advisor and give collaboration instruction



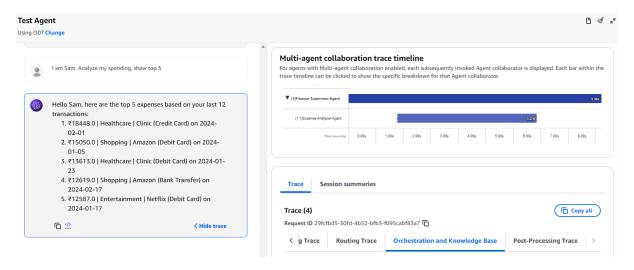
All Three Agents Successfully Mapped to Supervisor

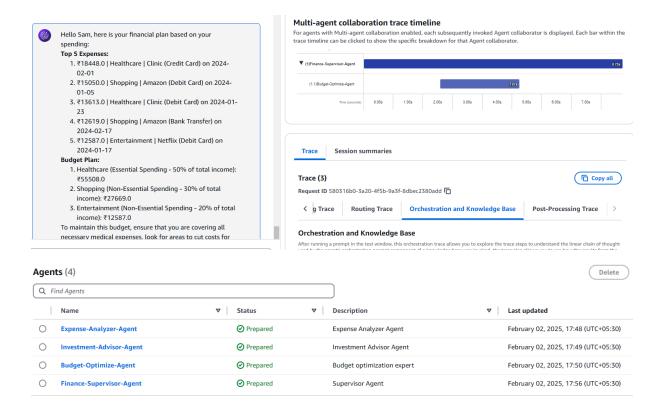
The **Supervisor Agent is now fully configured** to coordinate between agents.



Test the Supervisor Agent

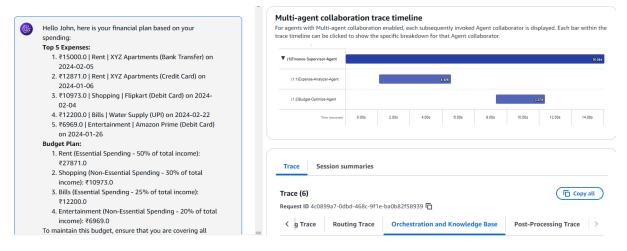
The Supervisor Agent is tested with different queries to ensure it correctly **delegates tasks to sub-agents**.





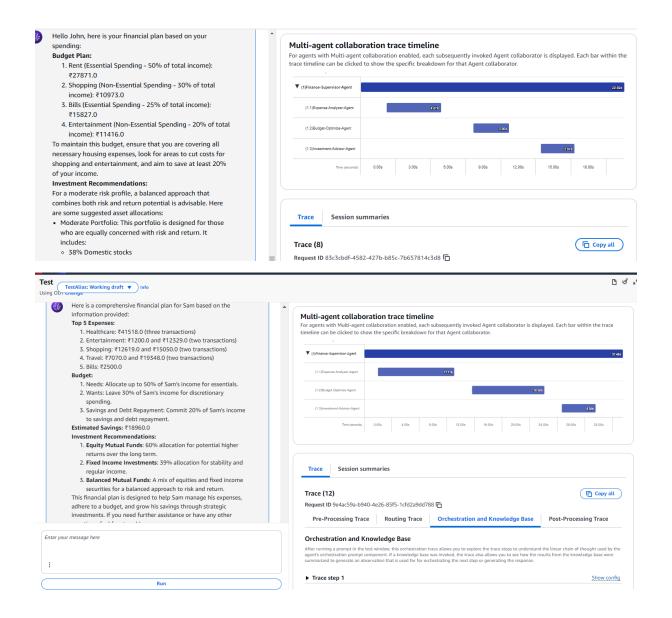
Query Uses Two Agents

A query is tested where only two sub-agents are used based on the question type.



Query Uses All Three Agents

A query is tested where **all three sub-agents** are invoked for a **comprehensive financial analysis**.



Bonus: Exposing the Supervisor Agent via Lambda & API Gateway

The Supervisor Agent is **wrapped with AWS Lambda and exposed via API Gateway**, allowing external services to interact with it. A **Postman request is shown hitting the API Gateway endpoint**.

