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import os

from swarms import Agent

from swarm_models import OpenAIChat


from dotenv import load_dotenv


# Load environment variables

load_dotenv()


# Retrieve the OpenAI API key from the environment variable

api_key = os.getenv("GROQ_API_KEY")


# Initialize the model for OpenAI Chat

model = OpenAIChat(

    openai_api_base="https://api.groq.com/openai/v1",

    openai_api_key=api_key,

    model_name="llama-3.1-70b-versatile",

    temperature=0.1,

)


# Initialize the agent with automated prompt engineering enabled

agent = Agent(

    agent_name="Financial-Analysis-Agent",

    system_prompt=None, # System prompt is dynamically generated

    agent_description=None,

    llm=model,
```

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max_loops=1,

autosave=True,

dashboard=False,

verbose=False,

dynamic_temperature_enabled=True,

saved_state_path="finance_agent.json",

user_name="Human:",

return_step_meta=False,

output_type="string",

streaming_on=False,

auto_generate_prompt=True, # Enable automated prompt engineering
)

# Run the agent with a task description and specify the device

agent.run(

    "How can I establish a ROTH IRA to buy stocks and get a tax break? What are the criteria",

    ## Will design a system prompt based on the task if description and system prompt are None

    device="cpu",

)

# Print the dynamically generated system prompt

print(agent.system_prompt)
```