

```
import os
```

```
from dotenv import load_dotenv
```

```
from swarm_models import OpenAIChat
```

```
from swarms.structs import Agent
```

```
# import modal
```

```
load_dotenv()
```

```
# Model
```

```
llm = OpenAIChat(  
    openai_api_key=os.getenv("OPENAI_API_KEY"),  
    model_name="gpt-4",  
    max_tokens=1000,  
)
```

```
# Modal
```

```
# stub = modal.Stub(name="swarms")
```

```
# Agent
```

```
# @stub.function(gpu="any")
```

```
agent = Agent(  
    llm=llm,
```

```
max_loops=2,  
autosave=True,  
dashboard=True,  
)  
out = agent.run(  
    "Generate a 5,000 word blog on how swarms of autonomous agents"  
    " can be used to solve the world's problems."  
)  
print(out)
```