

```
import pytest
```

```
from swarm_models import OpenAIChat
```

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

```
from swarms.structs.company import Company
```

```
# Mock OpenAIChat instance
```

```
llm = OpenAIChat(openai_api_key="test_key", max_tokens=4000)
```

```
# Mock Agents
```

```
ceo = Agent(llm=llm, name="CEO")
```

```
dev = Agent(llm=llm, name="Developer")
```

```
va = Agent(llm=llm, name="VA")
```

```
hr = Agent(llm=llm, name="HR")
```

```
shared_instructions = "Listen to your boss"
```

```
def test_add_agent():
```

```
    company = Company(
```

```
        org_chart=[[ceo, [dev, va]],
```

```
        shared_instructions=shared_instructions,
```

```
    )
```

```
    company.add(hr)
```

```
    assert hr in company.agents
```

```
def test_get_agent():  
    company = Company(  
        org_chart=[[ceo, [dev, va]]],  
        shared_instructions=shared_instructions,  
    )  
    company.add(hr)  
    assert company.get("HR") == hr
```

```
def test_remove_agent():  
    company = Company(  
        org_chart=[[ceo, [dev, va]]],  
        shared_instructions=shared_instructions,  
    )  
    company.add(hr)  
    company.remove(hr)  
    assert hr not in company.agents
```

```
def test_add_existing_agent():  
    company = Company(  
        org_chart=[[ceo, [dev, va]]],  
        shared_instructions=shared_instructions,  
    )  
    company.add(hr)  
    with pytest.raises(ValueError):
```

```
company.add(hr)
```

```
def test_get_nonexistent_agent():
```

```
    company = Company(  
        org_chart=[[ceo, [dev, va]]],  
        shared_instructions=shared_instructions,  
    )
```

```
    with pytest.raises(ValueError):
```

```
        company.get("Nonexistent")
```

```
def test_remove_nonexistent_agent():
```

```
    company = Company(  
        org_chart=[[ceo, [dev, va]]],  
        shared_instructions=shared_instructions,  
    )
```

```
    with pytest.raises(ValueError):
```

```
        company.remove(hr)
```