

Python Quickstart for ADK

Get up and running with Agent Development Kit (ADK)

Prerequisites

Before you start, make sure you have the following installed:

- **Python 3.10 or later**
- **pip** for installing packages

Installation

Install ADK by running the following command:

```
pip install google-adk
```

Recommended: Virtual Environment

```
# Create environment  
python -m venv .venv  
  
# Activate (MacOS / Linux)  
source .venv/bin/activate
```

Create an Agent Project

Run the `adk create` command to start a new agent project.

```
adk create my_agent
```

Project Structure

```
my_agent/
    agent.py      # main agent code
    .env          # API keys or project IDs
    __init__.py
```

Update Your Agent (`agent.py`)

Define tools and the `root_agent` for your assistant.

```
from google.adk.agents.llm_agent import Agent

def get_current_time(city: str) -> dict:
    """Returns the current time in a specified city."""
    return {"status": "success", "city": city, "time": "10:30 AM"}

root_agent = Agent(
    model='gemini-1.5-flash',
    name='root_agent',
    instruction="You are a helpful assistant. Use 'get_current_time' tool.",
    tools=[get_current_time],
)
```

Set Your API Key

1. Get a key from [Google AI Studio](#).
2. Write it to your `.env` file:

```
echo 'GOOGLE_API_KEY="YOUR_API_KEY"' > .env
```

Tip: ADK supports many generative AI models and authentication methods.

Run Your Agent: CLI

Run your agent using the interactive command-line tool.

```
adk run my_agent
```

```
○ (.venv) simonliuyuwei@cloudshell:~/adk-project$ adk run ./simon-example/
Log setup complete: /tmp/agents_log/agent.20250611_141700.log
To access latest log: tail -F /tmp/agents_log/agent.latest.log
Running agent root_agent, type exit to exit.
[user]: 請介紹你自己
[root_agent]: 您好！我是一個大型語言模型，由 Google 訓練。我旨在成為一個有用的助手，可以回答您的問題、提供資訊、生成文字、翻譯語言等等。我的知識庫廣泛，並且我正在不斷學習和改進。我希望能夠幫助您解決任何問題或滿足您的資訊需求。
```

Run Your Agent: Web Interface

Test and interact with your agent through a web browser.

```
adk web --port 8000
```

- Access at: <http://localhost:8000>
- Select the agent and start chatting!

```
o (.venv) simonliuyuwei@cloudshell:~/adk-project$ adk web
INFO:     Started server process [4643]
INFO:     Waiting for application startup.

+-----+
| ADK Web Server started
|
| For local testing, access at http://localhost:8000.
+-----+

INFO:     Application startup complete.
INFO:     Uvicorn running on http://127.0.0.1:8000 (Press CTRL+C to quit)
```

Next Steps

Now that you have your first agent running, explore more:

- **Build your agent:** Follow the full tutorial guides.
- **Custom Tools:** Add complex logic to your agents.
- **Cloud Deployment:** Move from local to production.

Thank You!

Questions?