

Python Quickstart for ADK

This guide shows you how to get up and running with Agent Development Kit (ADK) for Python. 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: create and activate a Python virtual environment



Create a Python virtual environment:

```
python -m venv .venv
```

Activate the Python virtual environment:

Windows CMD

```
.venv\Scripts\activate.bat
```

Windows Powershell

```
.venv\Scripts\Activate.ps1
```

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
```

Explore the agent project

The created agent project has the following structure, with the `agent.py` file containing the main control code for the agent.

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

Update your agent project

The `agent.py` file contains a `root_agent` definition which is the only required element of an ADK agent. You can also define tools for the agent to use. Update the generated `agent.py` code to include a `get_current_time` tool for use by the agent, as shown in the following code:

```
from google.adk.agents.llm_agent import Agent  
  
# Mock tool implementation  
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-3-pro-preview',  
    name='root_agent',  
    description="Tells the current time in a specified city.",  
    instruction="You are a helpful assistant that tells the  
current time in cities. Use the 'get_current_time' tool for  
this purpose.",  
    tools=[get_current_time],  
)
```

Set your API key

This project uses the Gemini API, which requires an API key. If you don't already have Gemini API key, create a key in Google AI Studio on the [API Keys](#) page.

In a terminal window, write your API key into an `.env` file as an environment variable:

Update: `my_agent/.env`

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



Using other AI models with ADK



ADK supports the use of many generative AI models. For more information on configuring other models in ADK agents, see [Models & Authentication](#).

Run your agent

You can run your ADK agent with an interactive command-line interface using the `adk run` command or the ADK web user interface provided by the ADK using the `adk web` command. Both these options allow you to test and interact with your agent.

Run with command-line interface

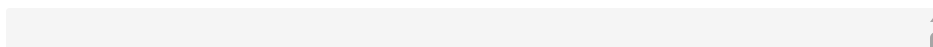
Run your agent using the `adk run` command-line tool.

```
adk run my_agent
```

```
[user]: what can you do?  
[root_agent]: I can tell you the current time in a specified city.  
[user]: what time it is in London?  
[root_agent]: The current time in London is 10:30 AM.  
[user]:
```

Run with web interface

The ADK framework provides web interface you can use to test and interact with your agent. You can start the web interface using the following command:



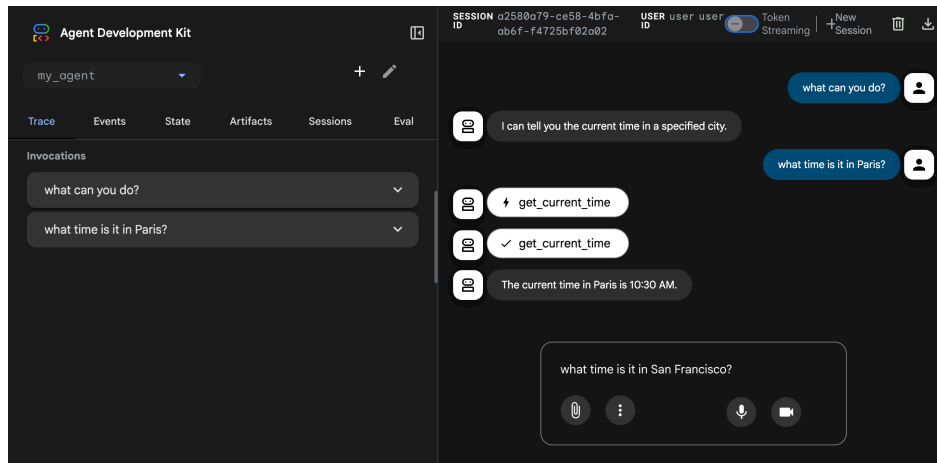
```
adk web --port 8000
```



Note

Run this command from the **parent directory** that contains your `my_agent/` folder. For example, if your agent is inside `agents/my_agent/`, run `adk web` from the `agents/` directory.

This command starts a web server with a chat interface for your agent. You can access the web interface at (<http://localhost:8000>). Select the agent at the upper left corner and type a request.



Next: Build your agent

Now that you have ADK installed and your first agent running, try building your own agent with our build guides:

- [Build your agent](#)

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