



Get started with Agent Skills in the API

Learn how to use Agent Skills to create documents with the Claude API in under 10 minutes.

 Copy page

This tutorial shows you how to use Agent Skills to create a PowerPoint presentation. You'll learn how to enable Skills, make a simple request, and access the generated file.

Prerequisites

- [Anthropic API key](#)
- Python 3.7+ or curl installed
- Basic familiarity with making API requests

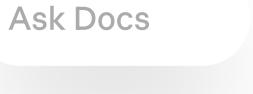
What are Agent Skills?

Pre-built Agent Skills extend Claude's capabilities with specialized expertise for tasks like creating documents, analyzing data, and processing files. Anthropic provides the following pre-built Agent Skills in the API:

- **PowerPoint (pptx)**: Create and edit presentations
- **Excel (xlsx)**: Create and analyze spreadsheets
- **Word (docx)**: Create and edit documents
- **PDF (pdf)**: Generate PDF documents

 Want to create custom Skills? See the [Agent Skills Cookbook](#) for examples of building your own Skills with domain-specific expertise.

Step 1: List available Skills

First, let's see what Skills are available. We'll use the Skills API to list all A  managed Skills:



```
import anthropic

client = anthropic.Anthropic()

# List Anthropic-managed Skills
skills = client.beta.skills.list(
    source="anthropic",
    betas=["skills-2025-10-02"]
)

for skill in skills.data:
    print(f"{skill.id}: {skill.display_title}")
```

You see the following Skills: ppx , xlsx , docx , and pdf .

This API returns each Skill's metadata: its name and description. Claude loads this metadata at startup to know what Skills are available. This is the first level of **progressive disclosure**, where Claude discovers Skills without loading their full instructions yet.

Step 2: Create a presentation

Now we'll use the PowerPoint Skill to create a presentation about renewable energy. We specify Skills using the `container` parameter in the Messages API:

Python ▾



Ask Docs

Claude Docs

```
client = anthropic.Anthropic()

# Create a message with the PowerPoint Skill
response = client.beta.messages.create(
    model="claude-sonnet-4-5-20250929",
    max_tokens=4096,
    betas=["code-execution-2025-08-25", "skills-2025-10-02"],
    container={
        "skills": [
            {
                "type": "anthropic",
                "skill_id": "pptx",
                "version": "latest"
            }
        ]
    },
    messages=[{
        "role": "user",
        "content": "Create a presentation about renewable energy with 5 slides"
    }],
    tools=[{
        "type": "code_execution_20250825",
        "name": "code_execution"
    }]
)

print(response.content)
```

Let's break down what each part does:

- **container.skills** : Specifies which Skills Claude can use
- **type: "anthropic"** : Indicates this is an Anthropic-managed Skill
- **skill_id: "pptx"** : The PowerPoint Skill identifier
- **version: "latest"** : The Skill version set to the most recently published
- **tools** : Enables code execution (required for Skills)
- **Beta headers:** code-execution-2025-08-25 and skills-2025-10-02

When you make this request, Claude automatically matches your task to the relevant Skill. Since you asked for a presentation, Claude determines the PowerPoint Skill is relevant and loads its full instructions: the second level of progressive disclosure. Then Claude executes the Skill's code to create your presentation.

Ask Docs

Claude Docs

The presentation was created in the code execution container and saved as a file. The response includes a file reference with a file ID. Extract the file ID and download it using the Files API:

Python ▾



```
# Extract file ID from response
file_id = None
for block in response.content:
    if block.type == 'tool_use' and block.name == 'code_execution':
        # File ID is in the tool result
        for result_block in block.content:
            if hasattr(result_block, 'file_id'):
                file_id = result_block.file_id
                break

if file_id:
    # Download the file
    file_content = client.beta.files.download(
        file_id=file_id,
        betas=["files-api-2025-04-14"]
    )

    # Save to disk
    with open("renewable_energy.pptx", "wb") as f:
        file_content.write_to_file(f.name)

    print(f"Presentation saved to renewable_energy.pptx")
```

- ⓘ For complete details on working with generated files, see the [code execution tool documentation](#).

Try more examples

Now that you've created your first document with Skills, try these variations:

Create a spreadsheet

Ask Docs

Claude Docs

```
response = client.beta.messages.create(
    model="claude-sonnet-4-5-20250929",
    max_tokens=4096,
    betas=["code-execution-2025-08-25", "skills-2025-10-02"],
    container={
        "skills": [
            {
                "type": "anthropic",
                "skill_id": "xlsx",
                "version": "latest"
            }
        ]
    },
    messages=[{
        "role": "user",
        "content": "Create a quarterly sales tracking spreadsheet with sample"
    }],
    tools=[{
        "type": "code_execution_20250825",
        "name": "code_execution"
    }]
)
```

Create a Word document

Python ▾



Ask Docs



```
max_tokens=4096,  
betas=["code-execution-2025-08-25", "skills-2025-10-02"],  
container={  
    "skills": [  
        {  
            "type": "anthropic",  
            "skill_id": "docx",  
            "version": "latest"  
        }  
    ]  
},  
messages=[{  
    "role": "user",  
    "content": "Write a 2-page report on the benefits of renewable energy"  
}],  
tools=[{  
    "type": "code_execution_20250825",  
    "name": "code_execution"  
}]  
)
```

Generate a PDF

Python ▾



Ask Docs

Claude Docs

```
max_tokens=4096,  
betas=["code-execution-2025-08-25", "skills-2025-10-02"],  
container={  
    "skills": [  
        {  
            "type": "anthropic",  
            "skill_id": "pdf",  
            "version": "latest"  
        }  
    ]  
},  
messages=[{  
    "role": "user",  
    "content": "Generate a PDF invoice template"  
}],  
tools=[{  
    "type": "code_execution_20250825",  
    "name": "code_execution"  
}]  
)
```

Next steps

Now that you've used pre-built Agent Skills, you can:



API Guide

Use Skills with the Claude API



Create Custom Skills

Upload your own Skills for specialized tasks



Authoring Guide

Ask Docs



>_

Use Skills in Claude Code ↗

Learn about Skills in Claude Code



Use Skills in the Agent SDK

Use Skills programmatically in TypeScript and Python



Agent Skills Cookbook ↗

Explore example Skills and implementation patterns



Solutions

AI agents

Code modernization

Coding

Customer support

Education

Financial services

Government

Life sciences

Partners

Amazon Bedrock

Learn

Blog

Catalog

Courses

Use cases

Connectors

Customer stories

Engineering at Anthropic

Events

Powered by Claude

Service partners

Ask Docs

Startups program



[Anthropic](#)[Careers](#)[Economic Futures](#)[Research](#)[News](#)[Responsible Scaling Policy](#)[Security and compliance](#)[Transparency](#)[Help and security](#)[Availability](#)[Status](#)[Support](#)[Discord](#)[Terms and policies](#)[Privacy policy](#)[Responsible disclosure policy](#)[Terms of service: Commercial](#)[Terms of service: Consumer](#)[Usage policy](#)[Ask Docs](#)