

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.

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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:

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```
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: pptx , 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 ▾



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```
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.

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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

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```
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 ▾



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```
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



```
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



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AI agents

Code modernization

Coding

Customer support

Education

Financial services

Government

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