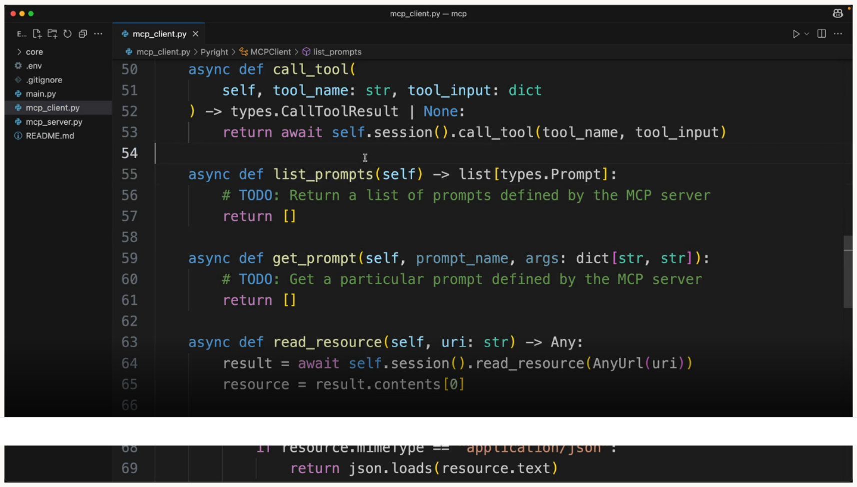
‹ Previous

Prompts in the client

Open in Claude



```
    async def call_tool(
        self, tool_name: str, tool_input: dict
    ) -> types.CallToolResult | None:
        return await self.session().call_tool(tool_name, tool_input)

    async def list_prompts(self) -> list[types.Prompt]:
        # TODO: Return a list of prompts defined by the MCP server
        return []

    async def get_prompt(self, prompt_name, args: dict[str, str]):
        # TODO: Get a particular prompt defined by the MCP server
        return []

    async def read_resource(self, uri: str) -> Any:
        result = await self.session().read_resource(AnyUrl(uri))
        resource = result.contents[0]
```

```
            if resource.mimeType == "application/json":
                return json.loads(resource.text)
```

Next

The final step in building our MCP client is implementing prompt functionality. This allows us to list all available prompts from the server and retrieve specific prompts with variables filled in.

Implementing List Prompts

The `list_prompts` method is straightforward. It calls the session's list prompts function and returns the prompts:

```
async def list_prompts(self) -> list[types.Prompt]:
    result = await self.session().list_prompts()
    return result.prompts
```

Getting Individual Prompts

The `get_prompt` method is more interesting because it handles variable interpolation. When you request a prompt, you provide arguments that get

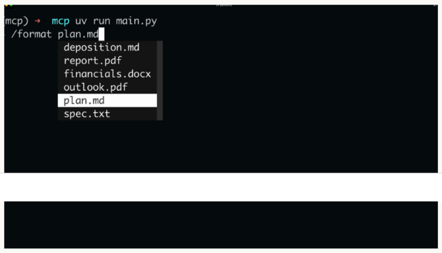
Next

```
async def get_prompt(self, prompt_name, args: dict[str, str]):
    result = await self.session().get_prompt(prompt_name, args)
    return result.messages
```

For example, if your server has a `format_document` prompt that expects a `doc_id` parameter, the arguments dictionary would contain `{"doc_id": "plan.md"}`. This value gets interpolated into the prompt template.

Testing Prompts in Action

Once implemented, you can test prompts through the CLI. When you type a slash (`/`), available prompts appear as commands. Selecting a prompt like "format" will prompt you to choose from available documents.

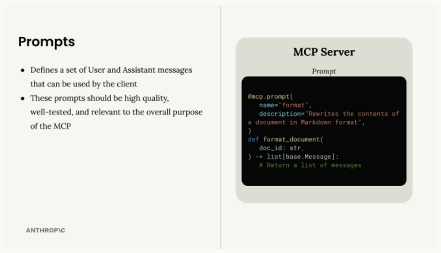


```
mcp) ➜  mcp uv run main.py
 /format plan.md
        deposition.md
        report.pdf
        financials.docx
        outlook.pdf
        plan.md
        spec.txt
```

Next

After selecting a document, the system sends the complete prompt to Claude. The AI receives both the formatting instructions and the document ID, then uses available tools to fetch and process the content.

How Prompts Work



- Defines a set of User and Assistant messages that can be used by the client
- These prompts should be high quality, well-tested, and relevant to the overall purpose of the MCP

```
@mcp.prompt(
   name="format",
   description="Rewrites the contents of a document in Markdown format",
)
def format_document(
   doc_id: str,
) -> list[base.Message]:
   # Return a list of messages
```

Prompts define a set of user and assistant messages that clients can use. They should be high-quality, well-tested, and relevant to your MCP server's purpose. The workflow is:

- Write and evaluate a prompt relevant to your server's functionality
- Define the prompt in your MCP server using the `@mcp.prompt` decorator
- Clients can request the prompt at any time
- Arguments provided by the client become keyword arguments in your prompt function
- The function returns formatted messages ready for the AI model

This system creates reusable, parameterized prompts that maintain consistency while allowing customization through variables. It's particularly useful for complex workflows where you want to ensure the AI receives properly structured instructions every time.

Next