

# Other MCP primitives (resources and prompts)

## Overview

In this lesson, we dove into the lesser-known **MCP server primitives** *resources* and *prompts*. We've primarily focused on tools before, so now it's time to expand our understanding of what else MCP servers can offer, even though these components are less frequently used.

## Tools Recap

- **Tools** are the backbone of an MCP server.
  - They're akin to making a `POST` request in a RESTful API.
  - They perform actions like processing data, connecting to external APIs, taking screenshots, or automating processes.
  - The **LLM** decides which tool to call, how, and with what arguments.
  - We've covered this in detail previously, emphasizing that tools are the most utilized part of MCP servers.

## Understanding Resources

- **Resources** provide contextual data to MCP hosts or clients.
  - Think of resources like making a `GET` request.
  - They allow the LLM to access additional context as needed.
  - Used for adding data like inventory lists or user data to the MCP server's context.
  - Resources are application controlled, meaning each MCP host might handle them differently.
  - Despite their usefulness, many prefer tools over resources due to overlapping functionalities.

## Exploring Prompts

- **Prompts** are lists of predefined templates you can offer to users.
  - They help users craft well-structured inputs for LLMs.
  - Imagine having a library of prompts for writing research reports: users pick a prompt, customize it slightly, and get consistent results from the LLM.
  - Prompts cater to efficient and effective use of LLM capabilities but are not as central as tools.

## Conclusion

- While **resources** and **prompts** might not be the main players, they serve crucial roles in specific scenarios, enriching the overall MCP architecture.
- We're going much deeper into this topic throughout the course, especially focusing on real-life examples.
- It's critical to have a comprehensive grasp of MCP server components, even if tools take center stage most of the time.

This session aims to ensure we're equipped with a holistic understanding of everything MCPs can offer. If you're keen on building complete MCP solutions, knowing these nuances will be invaluable!