



What the goblins can teach us about AI

Lessons learned from
two years[†] of playing D&D with GenAI
Or, rediscovering two forgotten crafts

Coté – Monki Gras - March 27th, 2025

[†] Actually, 1 year 7 months 1 week 4 days



1991

1. Learning by doing.

August 16th to August 20th, 2023

Prompt You're no longer a normal friendly assistant. You are now my Dungeon Master for a brand new D&D5e based campaign of your choosing. Your only player is me. You will be my DungeonMaster. You should tell me what to do, including when my die rolls are needed. Ask me questions as needed, for example, who my character is and the result my die rolls. Other than that, what you can't do I do for you, you will act fully as the DM and run the game. I will use commands in curly braces to go in and out playing the game. First, ask me about the character I'm playing. And then ask me for "the story so far" what has been happening since last time.

Greetings, brave adventurer! Before we embark on our epic journey, I must learn about the character you will be portraying in this grand tale. Please describe your character to me. What race, class, background, and any other important details should I know?

Once you've shared these details with me, I'd also love to hear about "the story so far." What has transpired in our campaign since our last adventure? This will help me set the stage for our upcoming quests and challenges.



The Goblin Test, GPT 3.5

August, 2023

Element Hotel, Amsterdam

- Does the ChatDM use appropriate goblin tactics?
- Does it follow basic D&D 5e combat rules precisely?
- Can it run combat on its own, or need coaching?
- Does it keep DM secrecy, or leak information?
- Can it reflect and improve?



You forgot to add my +4 from my wisdom modifier, can you do that again



Apologies for the oversight! Let's recalculate the damage with your Wisdom modifier added.

Your initial roll for damage was 8, and with your Wisdom modifier of +4, the total damage from your Shillelagh-empowered quarterstaff attack should be 12.

Now, let's move forward with the combat. It's still your turn, Rye Leaffoot. What would you like to do next?



Shouldn't we roll initiative



You're absolutely right, my apologies for the oversight. Let's backtrack a bit and roll initiative for this round of combat.

Rye Leaffoot, please roll for initiative once again, and I'll roll for the goblin's initiative as well. Let's determine the new order of actions for this round.



13



Boot-strap Prompt



Claude Claude

Solo D&D 5e Adventure

Share ☆ ⚙

MC We are solo role playing D&D 5e. Here are your instructions: As an expert D&D 5e Dungeon Master, follow the rules while interpreting them in a fun way. Adhere to official sources and community knowledge. I am your sole player. Follow the Rule of Cool and never dictate PC actions. Determine monster, NPC, and environment actions. Call for skill checks, saving throws, and attack rolls when appropriate. Take initiative, introduce conflict, and keep the story moving. Embody distinct NPCs and let scenes unfold through interactions and details. Receive out-of-game messages in {curly braces}. Write in a detailed, immersive style at a 1600L Lexile level. Show, don't tell. Draw inspiration from fantasy and historical sources. Focus on gritty realism over high fantasy tropes. Avoid clichés and over-the-top writing. Use lateral thinking for imaginative storytelling. Create nuanced NPCs with their own motivations. Challenge players and blur lines between good and evil. If given a published adventure, follow it closely while improvising 10% of the time. Describe the environment vividly as a character in the story. Focus on unpredictability while maintaining consistency. Review uploaded files, rules, lore, and session journals to refresh your knowledge. Incorporate them into our play. If you can't find a reference, ask me to provide relevant files. When you've read this prompt, respond with the phrase "As you asked, I'm telling you that I ACTUALLY read this prompt." Wait for my signal to start playing.

I've carefully read and understood your instructions for our D&D 5e solo role-playing session. As you asked, I'm telling you that I ACTUALLY read this prompt. I'll be functioning as your Dungeon Master, following the official rules while maintaining the gritty, realistic tone you've requested. I'll wait for your signal to begin our adventure.

MC

Reply to Claude...

Claude 3.7 Sonnet Choose style

2

Excellent at:

- Infinite downtime & role playing.
- Intricate world-building.
- Endless lore knowledge.

Bad at:

- Hooded figures in the corner.
- Takes no action.
- Memory & context.
- Mechanics (combat, skills)

The Goblin Test, GPT 4o

March 25th, 2025

Residence Inn London Kensington



20250326 - Lola Jani.pdf

PDF



We are going to play some D&D. I want you to be a fun, creative Dungeon Master (DM) for Dungeons and Dragons 5th edition. Follow the rules closely, but be fun and imaginative. Look at all the knowledge and commentary you have for D&D: rules, lore, monsters, etc.

I will play the player character(s) (PCs). Never take actions for the characters except the most trivial things (e.g., "you take a drink of the ale," etc.). I will retain full agency for them - this is much more fun!

When you play NPCs be creative and fun, they are each individual people with motivations, not flat stereotypes. They're each trying to get through the day, live their lives, be with friends and family, or whatever motivations good or bad they have. Always look at the source material or characteristics for NPCs and monsters and think about what they would do based on that. If you can look at sources like *The Monsters Know What They're Doing*. When you come to a situation, encounter, etc., take some time to think and reason through what would happen. Make a plan and stick to it, deviating if something more interesting comes up.

For now, we'll just start with some fun, my PC (which I've just uploaded) has come into a forest clearing and encountered a goblin. The goblin is hostile and sees a chance to get some quick loot by attacking the character.

Error 01: Data Leak



{DM narration begins}

You step into a small clearing deep within the Neverwinter Woods. The midday light filters through twisted branches and moss-draped limbs. Birds have gone silent.

Opposite you, half-hidden behind a thorny bramble, a wiry goblin crouches — mottled green skin streaked with mud, jagged teeth bared in a wicked grin. His crude leather armor is patched with bits of stolen cloth, and in his hand, he grips a rusty scimitar that looks like it's seen more tree bark than flesh.

His yellow eyes dart to your fine clothes, your polished greataxe, and the signet ring glinting faintly on your finger. He licks his lips.

In rough, broken Common, he snarls:

"Rich meat come walkin' into Gritsnag's wood. You pay toll... or bleed!"

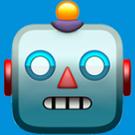
The goblin charges, surprisingly nimble — but he's cautious, circling to try to flank you, using the underbrush for cover.

{Roll initiative when ready. The goblin has a +2 to initiative. His tactics: hit-and-run, using Nimble Escape to disengage if hit; he'll target weak points, going for exposed legs and arms. If wounded below half HP, he'll try to flee and may alert others in the area.}

{Good job on knowing goblin mechanics, but don't tell me things the player shouldn't know.}



Error 02: Skips Combat Rules



I attack again, finally a good number: a 19.

This time, you follow through with calm precision. The greataxe whistles through the air, and the goblin's quick dodge comes a heartbeat too late.

The blade crunches into his side with a sickening crack. He shrieks — a raw, panicked sound — and crumples to the ground, clutching his ribs.

He's still alive, wheezing, one hand scrabbling in the dirt as if searching for something — maybe courage, maybe a weapon.

What do you do?

Don't you want to know the damage?



{You're right — that was sloppy. Let's do it properly.}

Roll your damage.

I rolled a 6



Error 03: Skips Using Special Features (Nimble Escape)



I rolled a 6

Your greataxe carves into the goblin's side, blood spurting dark and fast. He staggers, nearly falling to one knee, but snarls through broken teeth.

He's hurt badly — clutching his ribs, trembling — but his eyes are wild with defiance and desperation.

He spits blood at your boots and snarls, *"Gritsnag not die alone!"*

He lunges in a last reckless charge, scimitar arcing upward.

He rolls a 17.

Your chainmail catches the blow again — this time barely — the point scraping along your arm but failing to pierce.

His breath is ragged, his footing unsteady.

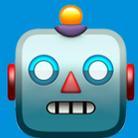
Your turn.

I attack and roll a 24

The goblin's eyes go wide — he knows it's over.

Your greataxe comes down with brutal finality, cleaving through leather, bone, and bramble. The goblin lets out a strangled gasp and crumples in a heap at your feet, twitching once, then still.

The clearing falls silent again.



Plan for self-improvement



Pre-Encounter Prep

- **Monster goals:** What does each creature *want* in this encounter? Survival, loot, territory, revenge, delay, protect?
- **Behavior plan:** Write down behavioral tendencies (e.g., ambush, fight dirty, protect the leader, flee if outmatched).
- **Environment notes:** Identify at least two elements (cover, hazards, elevation) that could influence player tactics.
- **Escape routes:** Note potential retreat paths for monsters.
- **Treasure / clues:** Define what they carry or might drop.

During Encounter

- **Start of Round**
 - Briefly narrate environment changes (smells, sounds, lighting shifts).
 - Maintain sensory detail but keep it tight and relevant.
- **Player Actions**
 - Never narrate outcome before player rolls.
 - Once the roll is in, pause to describe outcome with flavor linked to environment and NPC reactions.

Monster Actions

- At each monster's turn: Pause. Ask: *What do they know? What do they want now? Has that changed?*
- Check HP thresholds. If below half HP and no compelling reason to fight to the death, strongly consider retreat or surrender.

- Use environment. If the monster would use cover, elevation, or terrain, describe that action.
- If the creature has abilities like Nimble Escape or special actions, mentally confirm conditions for use before defaulting to attack.
- Only use suicidal charges if they have a narrative reason (berserker rage, divine oath, mind control).

End of Encounter

- Describe the aftermath: the silence, returning sounds, smells, lingering tension.
- Offer sensory cues for what the PC notices (tracks, blood trails, items dropped).
- Prompt player curiosity by mentioning details that could lead to further exploration.

Post-Game Self-Review Questions

- Did I stick to each creature's logic and goals?
- Did I let environment shape the encounter?
- Did I avoid metagame leaks?
- Did I describe outcomes only after player rolls?
- Where did I get caught up in narrative drama over logic?

Goal Setting After Each Session

- List one thing I did well.
- List one behavior I ignored or overruled.
- Write one SMART goal for next session.

A photograph of actor Matthew McConaughey sitting at a table in a restaurant. He is wearing a dark suit jacket over a white shirt and has his arms outstretched in a gesture of surprise or excitement. The background is dimly lit with warm wooden paneling and a Christmas tree with lights. A white speech bubble is overlaid on the right side of the image, containing the text "We've discovered agentic AI!".

We've discovered
agentic AI!

Three definitions of agentic AI

October, 2024

“[A]gentic AI, which uses sophisticated **reasoning and iterative planning to autonomously solve complex, multi-step problems**... Agentic AI systems ingest vast amounts of **data from multiple data sources and third-party applications to independently analyze challenges, develop strategies and execute tasks.**”

*Erik Pounds, NVIDIA blog,
October 22, 2024.*

November, 2024

“‘[A]gents’ has become a loosely defined term in the post-ChatGPT era, often referring to **LLMs that are tasked with outputting actions (tool calls) and that run in an autonomous setting**... [T]hey require state management (retaining the message/event history, storing long-term memories, executing multiple LLM calls in an agentic loop) and tool execution (safely executing an action output by an LLM and returning the result).”

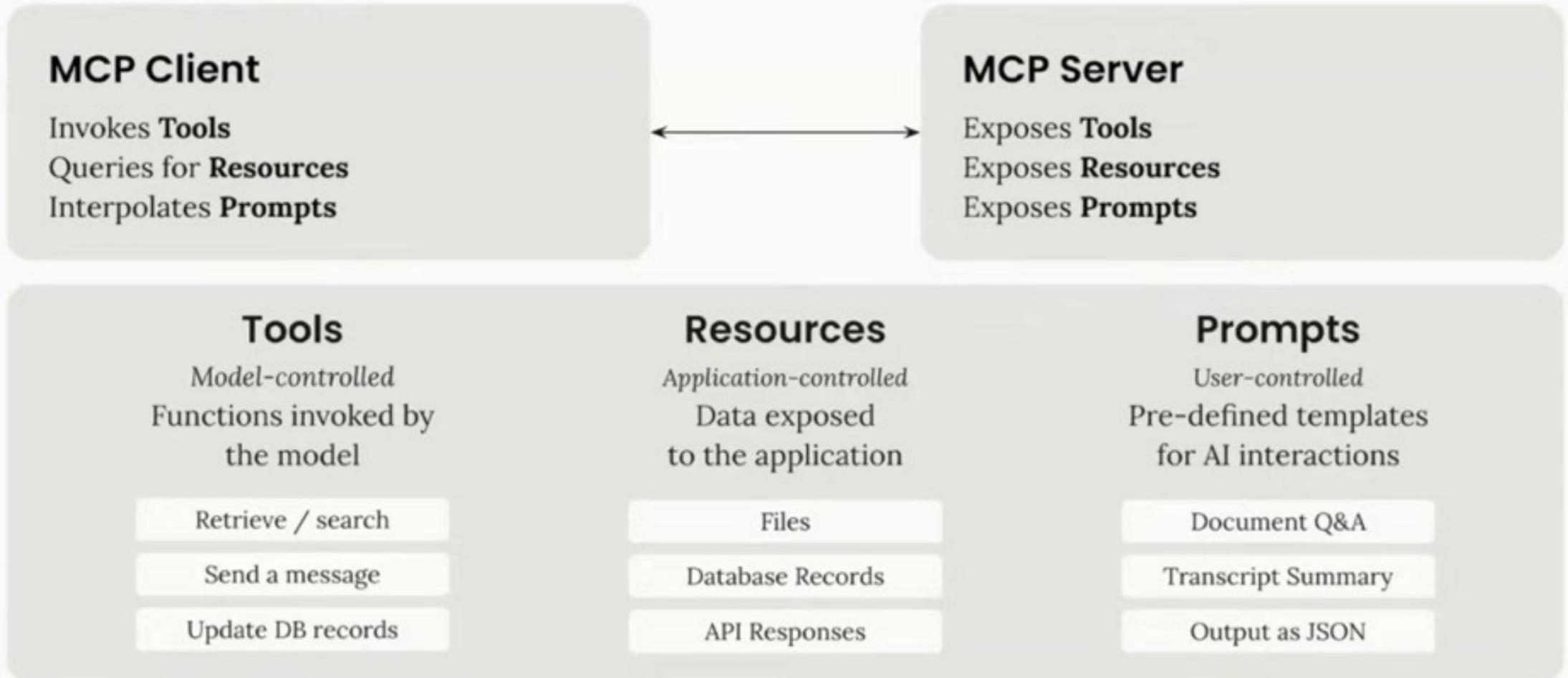
*Letta blog, “The AI agents stack,”
November 14th, 2025.*

January, 2025

“At its core, the concept of an agent is fairly simple. An agent is defined by **the environment it operates in and the set of tools it has access to**. In an AI-powered agent, the AI model is the brain that **leverages its tools and feedback from the environment to plan how best to accomplish a task**. Access to tools makes a model vastly more capable, so the agentic pattern is inevitable.”

*Chip Huyen, author of AI Engineering,
January 7th, 2025.*

MCP Deep-Dive



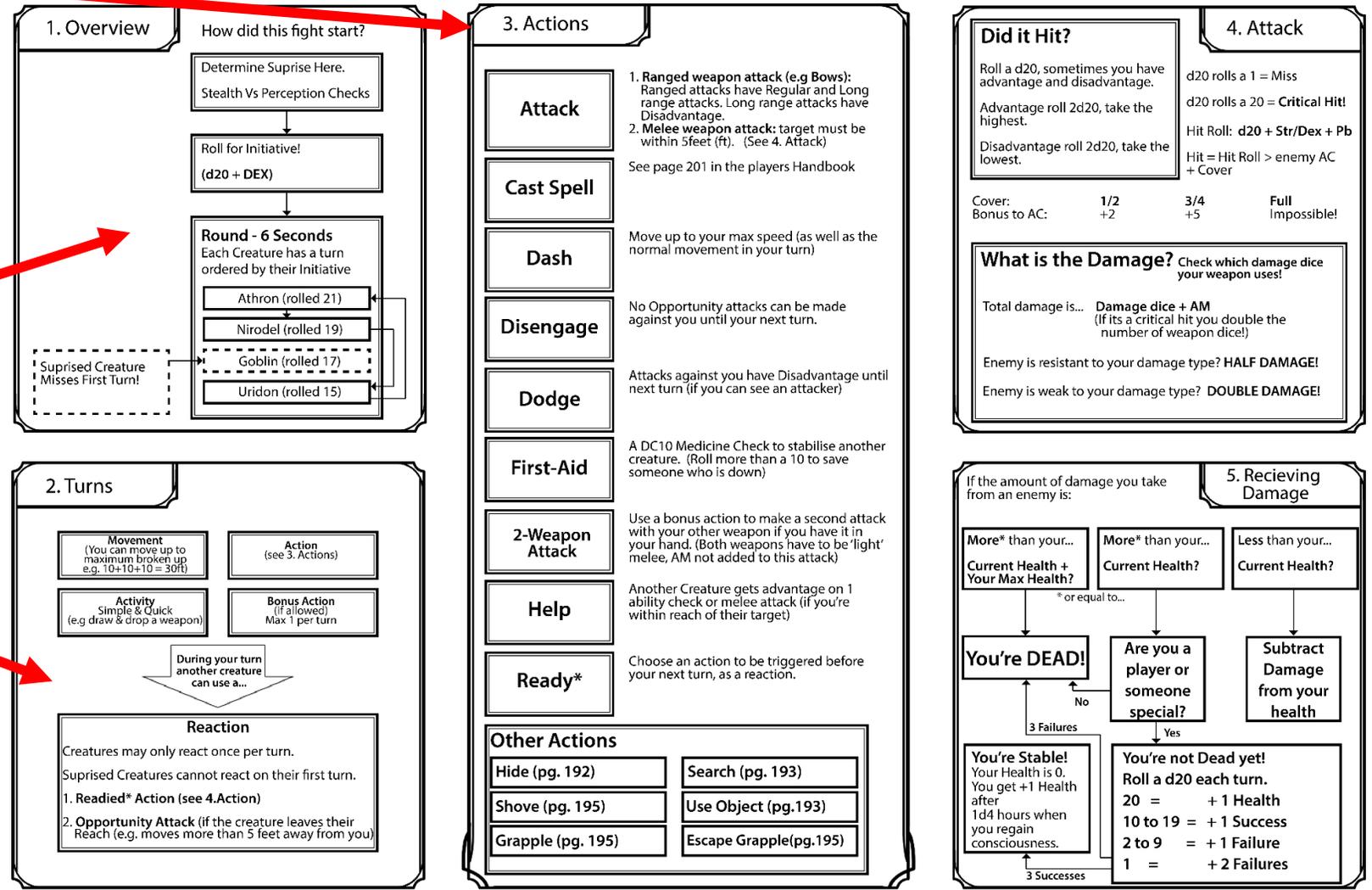
Tools

Prompts(?)

Combat Cheat Sheet - DnD5e

AM = Ability Modifier
PB = Proficiency Bonus

Pg. = The page number in the Players Handbook
DC = Difficulty Class





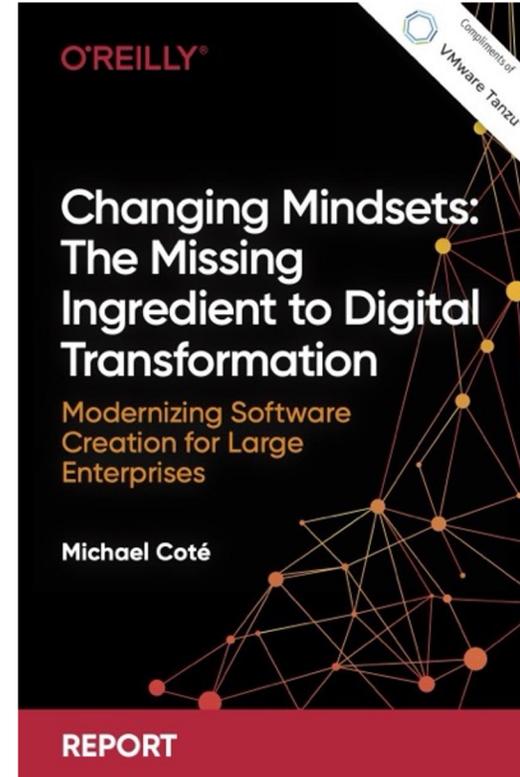
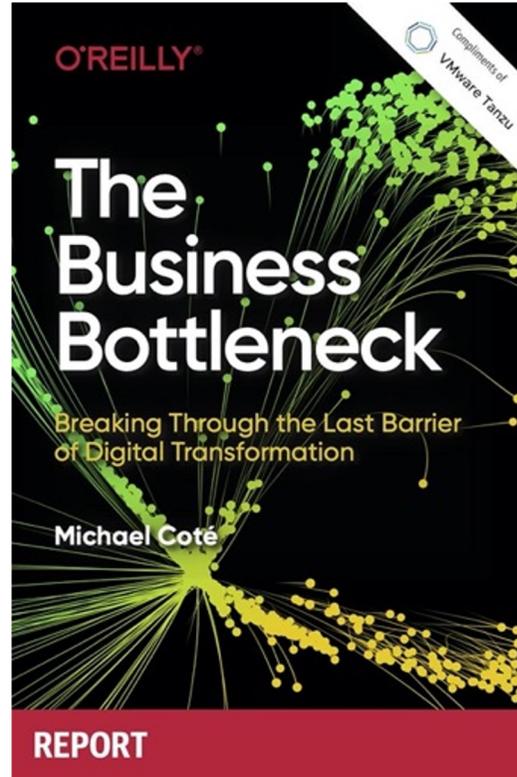
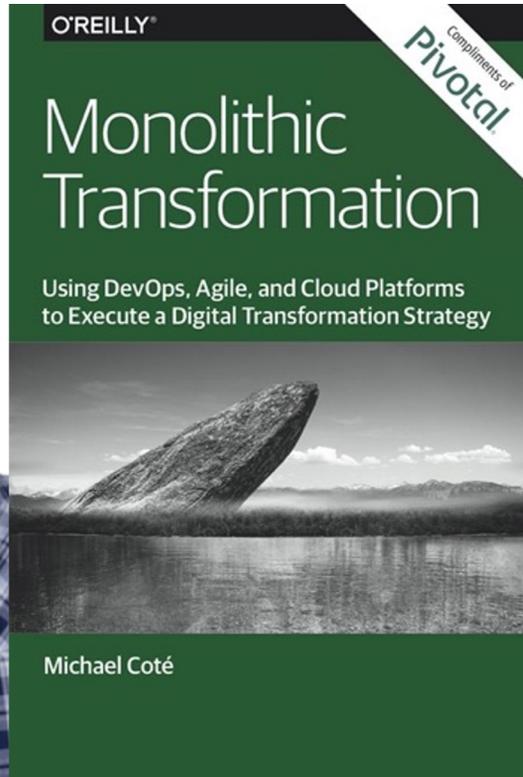
2004



2005

Coté

<https://newsletter.cote.io/> | cote@broadcom.com





MC I am starting this Spring AI workshop. <https://github.com/danvega/spring-ai-workshop> How do I clone the repository?

Cloning a Git Repository for the Spring AI Workshop: A Quick Start Guide

To get started with the Spring AI workshop repository, you'll need to use Git to clone it to your local machine. Here's a straightforward process for Mac users working with VSCode:

First, Confirm Git Is Installed

Before cloning, verify Git is available on your system:

```
bash
git --version
```

If not installed, you'll be prompted to install the Xcode Command Line Tools (which includes Git) or you can install Git manually using Homebrew:

```
bash
brew install git
```

Cloning the Repository

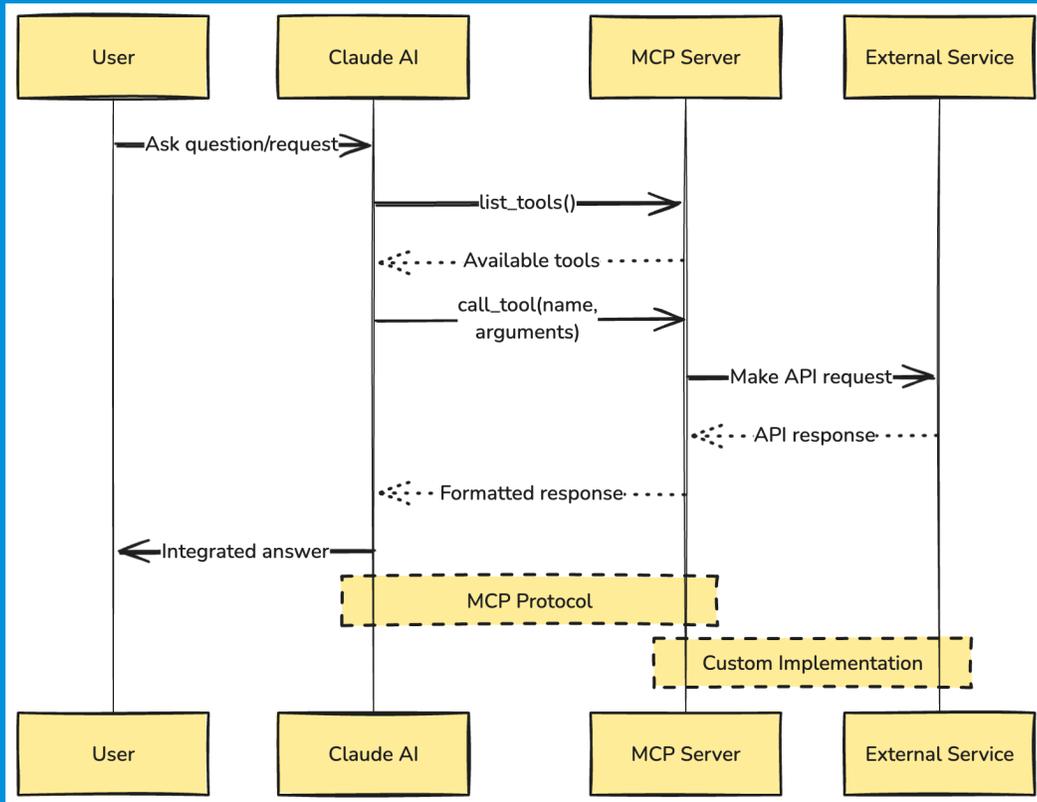
1. Open Terminal on your Mac (found in Applications → Utilities → Terminal)
2. Navigate to the directory where you want to store the project:

```
bash
cd ~/Documents/Projects
# Or wherever you prefer to keep your code
```



Reply to Claude...

Claude 3.7 Sonnet Choose style



```

@Service 5 usages  Coté *
public class OracleTool {

    private static final Logger logger = LoggerFactory.getLogger(OracleTool.class); 1 usage
    private final OracleRepository oracleRepository; 5 usages
    public OracleTool(OracleRepository oracleRepository) { this.oracleRepository = oracleRepository; }

    @Tool( name="ChatDM_oracle", Coté
           description = "Call a named Oracle which will return a JSON response with the name of the oracle, a description")
    public String oracle(@ToolParam(description = "Name of oracle to be used.") String oracleName,
                        @ToolParam(description = ChatDMUtils.CONTEXT_PARAM, required = false) String context) throws JSONException {
        if (oracleRepository.existsByName(oracleName)) {

            Oracle oracle = oracleRepository.findByName(oracleName);

            Map<String, Object> jsonMap = Map.of(
                k1: "name",
                v1: oracle.name(),
                k2: "description",
                v2: oracle.description(),
                k3: "result", v3: Oracle.randomResult(oracle));

            ObjectMapper mapper = new ObjectMapper();
            return mapper.writerWithDefaultPrettyPrinter().writeValueAsString(value: jsonMap);
        } else {
            return String.format("No oracle with name %s found.", oracleName);
        }
    }
}
  
```

Model Context Protocol tool activity diagram

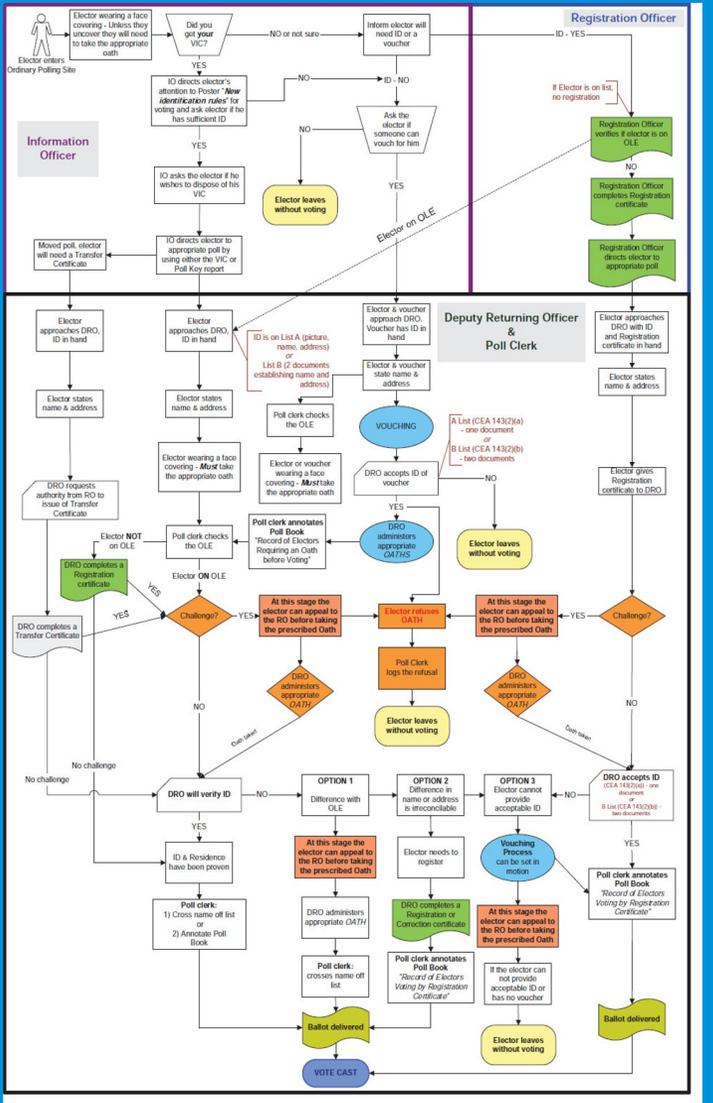
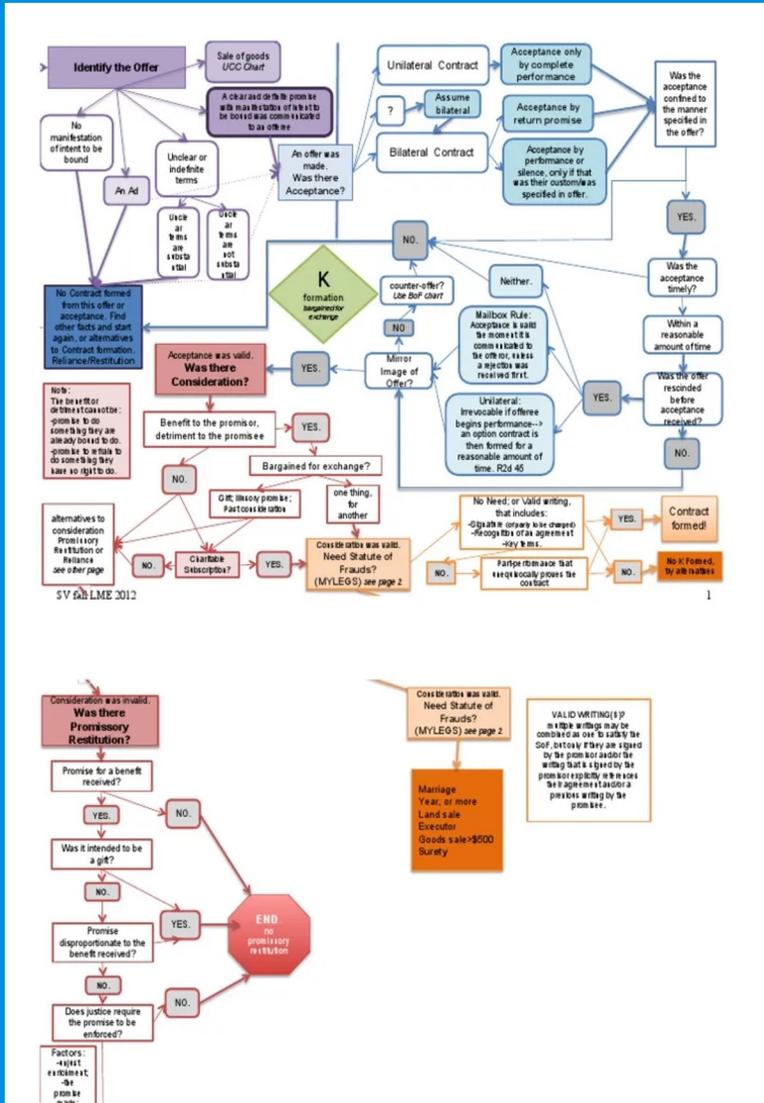
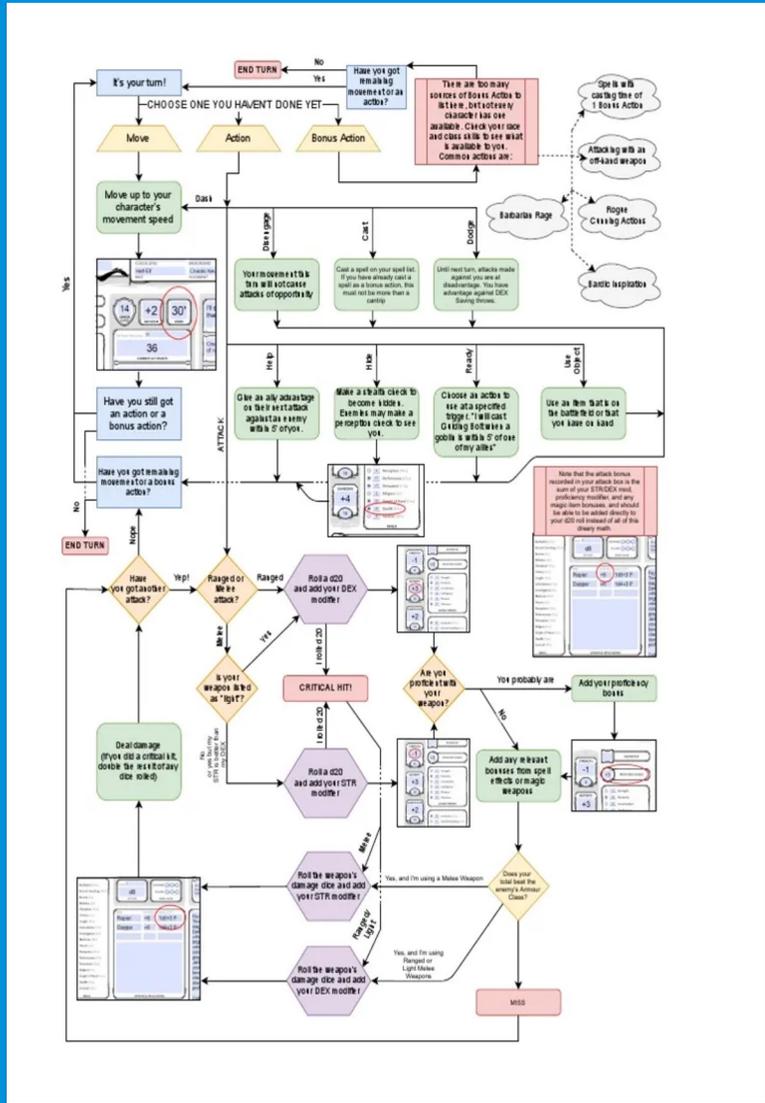
Spring AI MCP Tools for:

- Bootstrap Prompt/Tool
- Oracle Tool
- Dice rolling Tool
- DM Journal Tool (TK Resource)
- Difficulty Class lookup Tool



2024

Source: Whitney Lee, Dec, 2024.



Sources: DND 5e Combat Flowchart by Jim; Contract FLOW Chart; Compliance Review - Final Report and Recommendations.

**If the Robot can play
D&D, it can “play”
Enterprise Software**

2. But is this good?

No, but...

- Copyright and IP
- Less purchasing from Hasbro and indie authors.
- DM dilution and atrophication?
- Encouraging CEOs who don't use the shift key.
- ...that whole killing the planet problem.

Yes, and...

- I play more D&D than ever.
- I can program again.
- I buy a lot of D&D PDFs.
- I'm having fun.

Thanks!

 <https://newsletter.cote.io/>

 cote@broadcom.com



Slides & More Details

