

`Process` files:
Blueprints for Agentic AI

Llewellyn Falco

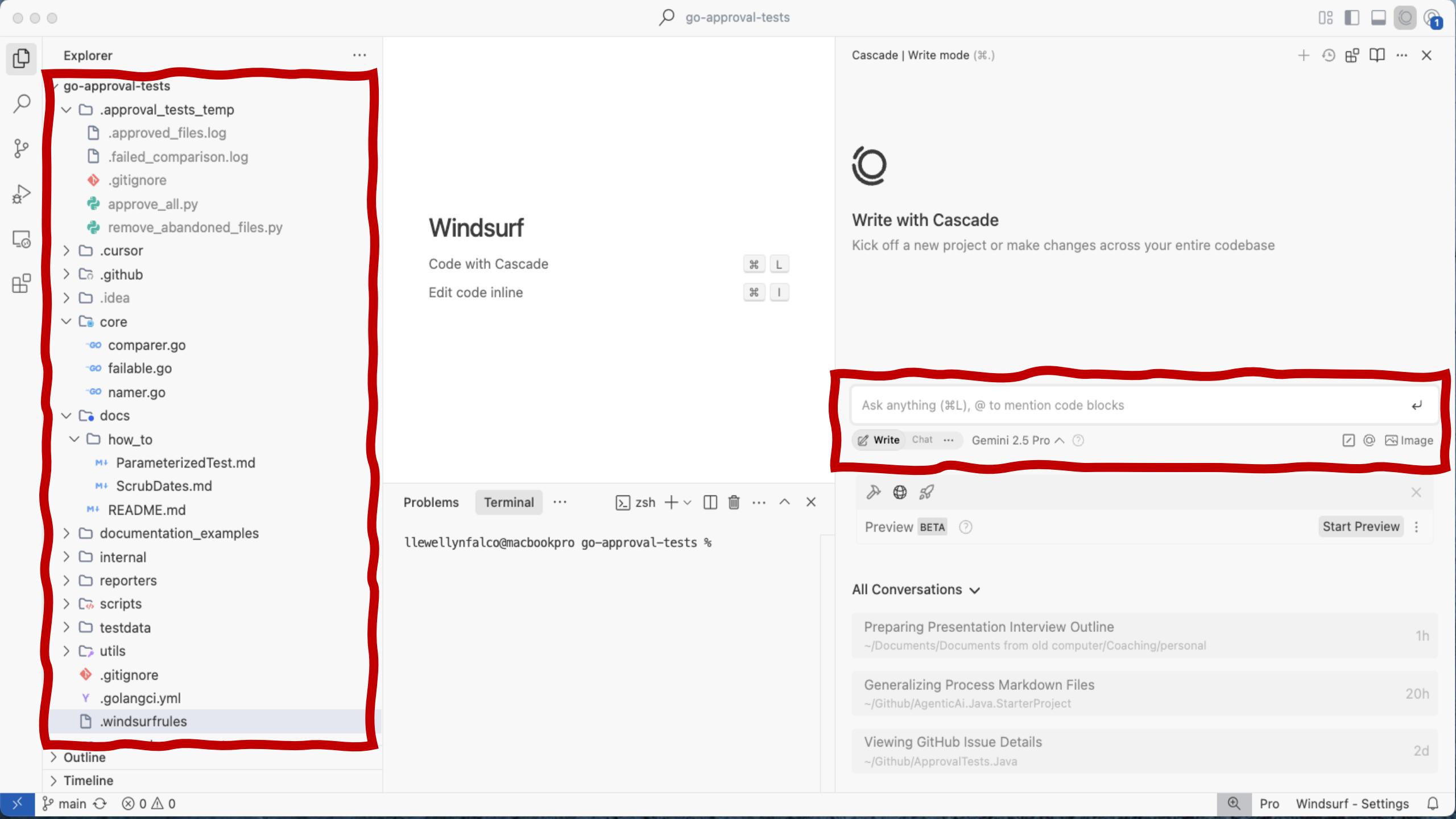
Resources



github.com/isidore/Talks/blob/master/AgenticAIAndProcessfiles.md

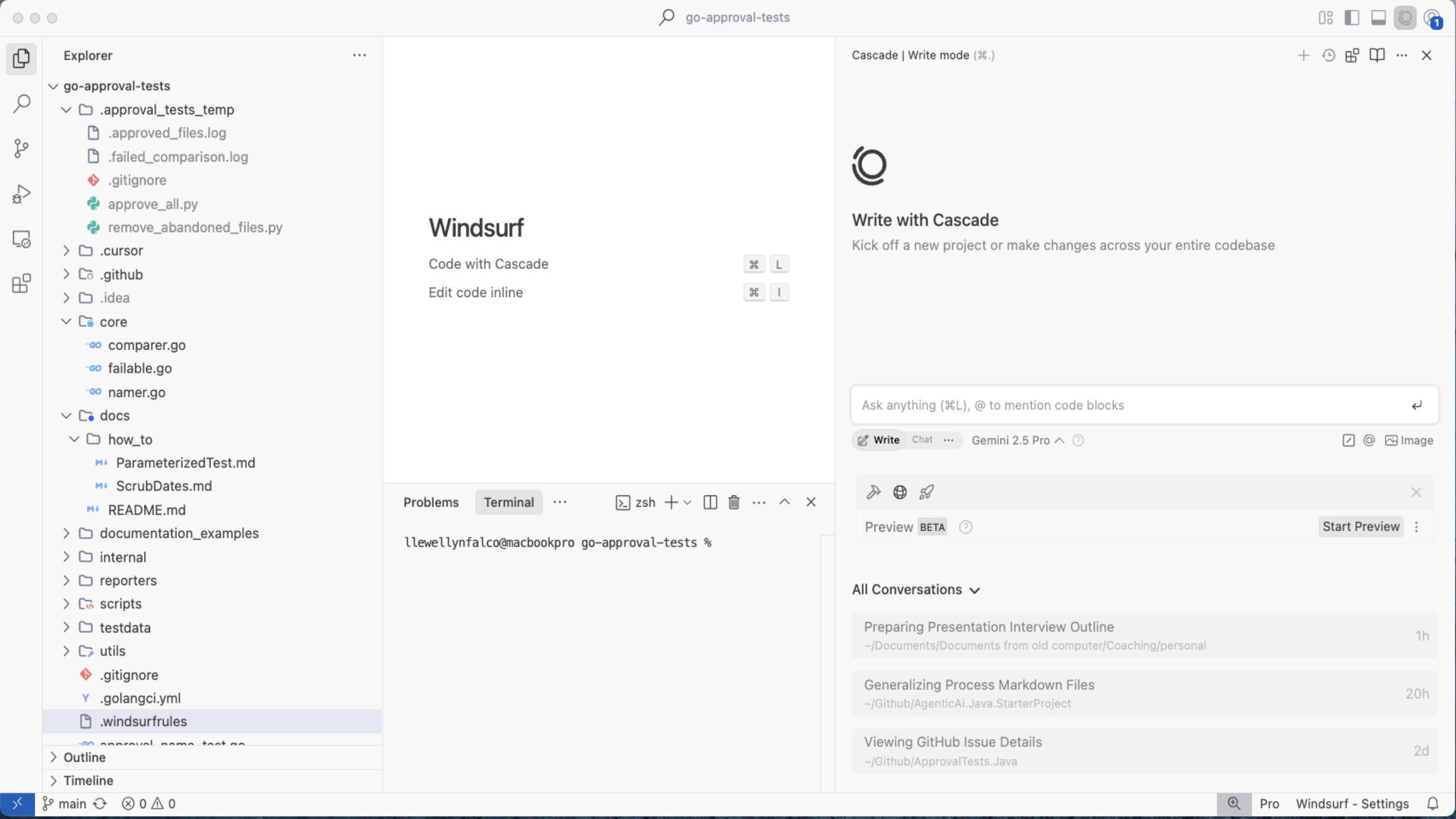
Fixing a Bug

In approvaltests.go



The AI can see your
whole system

The AI can see your
whole system (**if it asks**)



Write with Cascade

Kick off a new project or make changes across your entire codebase

Ask anything (⌘L), @ to mention code blocks



Write

Chat

...

Gemini 2.5 Pro ^ ?



Image

Let's fix bug #49

What?

<https://github.com/approvals/go-approval-tests/issues/49>

.... Garbage



go-approval-tests --zsh -- 80x24

[llewellynfalco@macbookpro go-approval-tests %

Let's fix bug #49

What?

<https://github.com/approvals/go-approval-tests/issues/49>

.... Garbage

Use 'gh issue view <number> --json body'

Ran terminal command

```
{  
  "body": "When `UseFolder` is set to a non-existing directory" +  
    "\nhttps://github.com/approvals/go-approval-tests/blob/434b91" +  
    "05e958695377ea0bac571e15c6b2a19ca/approvals.go#L78\n" +  
    "just `received does not match a proved` is logged instead" +  
    "of the actual `no such file or directory`\\nerror that was" +  
    "generated in [ `dumpReceivedTestResult` ](https://github.com/appro" +  
    "vals/go-approval-tests/blob/434b9105e958695377" +  
    "ea0bac571e15c6b2a19ca/approval_name.go#L116)."  
}
```

Ok, should I make the code changes?

It can use tools

It can use **your** tools

Ok, should I make the code changes?

No, first write a unit test to confirm the bug.

Ok, Done.

Edited

Run the tests.

Yes, it's failing as expected

Ran terminal command

Great, Fix the code.

Ok, Done.

Edited

Did it work?

Yes, the tests pass now. Should I commit the code?

Ran terminal command

No, clean up the code, remove the comments.

Ok, Done.

Edited

And cleanup the names

Ok, Done.

Edited

Does it still work?

Ran terminal command

Tests still pass. Should I commit the code?

What's the message?

Fixed directory creation

No, use ` -B fixed #49 create directory when needed`

Ran terminal command

Ok, committed

That was cool... Let's do it again

Please create `fixing_bugs.process.md` and write up the steps to fix bugs based on this conversation.

Ok

 Edited

Process for Fixing Bugs

Ask for the bug number.

When fixing a bug reported in an issue:

1. **Understand the Bug**:

* Thoroughly read the issue description and any related comments to understand the problem, expected behavior, and actual behavior.

* Read the pull request via the github cli: `gh issue view <number> --json body`

2. **Write a Failing Test**:

* Create a new test case or modify an existing one in the relevant test suite

* The test should specifically target the scenario described in the bug report and fail with the current codebase, clearly demonstrating the bug (e.g., throwing the specific exception, producing incorrect output).

* Run the tests to verify the bug

3. **Implement the Fix**:

* Modify the necessary source code file(s) to correct the bug.

* Focus on addressing the root cause identified by the failing test.

4. **Verify the Fix**:

* Run the tests

* Confirm that the previously failing test now passes.

* Ensure **all** other tests continue to pass, verifying no regressions were introduced.

5. **Refactor and Commit the Changes**:

* Remove unneeded comments, improve variable names and run tests to confirm refactorings.

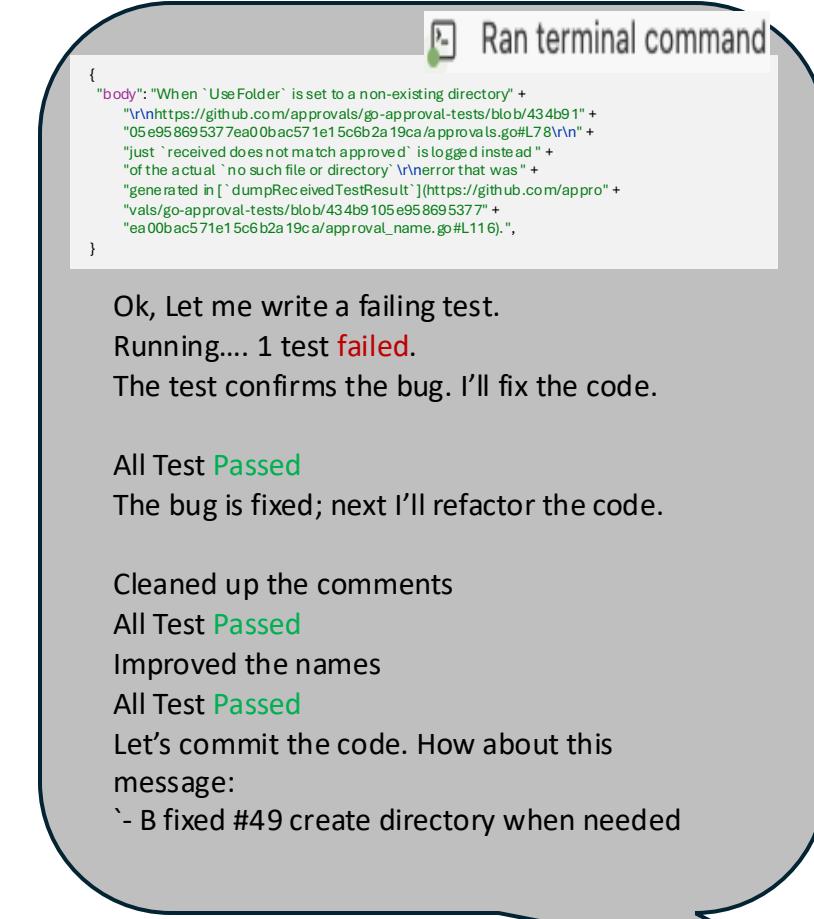
* Use the Arlo Commit Notation (`<Risk Symbol> B <Title>`). Typically, the risk symbol will be `` (Tested) if you wrote a unit test.

* Reference the fixed issue number in the commit message body (e.g., `Fixes #<issue_number>`).

Please read `fixing_bugs.process.md` and follow the instructions.

Ok... what's the bug number we are fixing today?

49



y

Ok, committed

We used to automate processes

Now we can automate **ourselves**

Let's code?...

my.Process.md Files



>.windsurf/processes/

- 💻 **BashScripts.process.md**
- 🔴 **TDD.creating_tests.process.md**
- 🟢 **TDD.implement_production.process.md**
- 🟣 **TDD.refactoring.process.md**

#1. todo

#2.online poker Cockroach.

#3.personal Finance.

Microsoft Office App.

Minesweeper

#6. 1st person shooter

“ Asking the LLM to do it just felt like... **sitting at the drive-thru intercom**
trying to make sure they got the "**no meat**" part,
and then pulling up to the second window and **hoping**
the person slapping the sandwich together **noticed** that.

”



Sam Livingston-Gray

Canary clauses

and brown M&Ms

Munchies

Potato chips with assorted dips

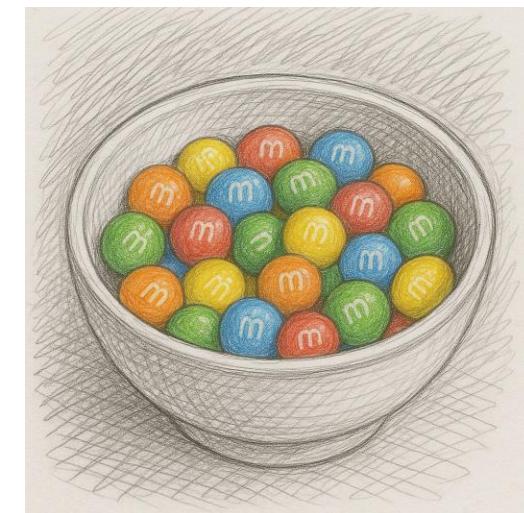
Nuts

Pretzels

→ M & M's (WARNING: ABSOLUTELY NO BROWN ONES)

Twelve (12) Reese's peanut butter cups

Twelve (12) assorted Dannon yogurt (on ice)



Canary clauses

rules.md

| **ALWAYS** add the STARTER_CHARACTER followed by space at the
| start of your reply.

| The STARTER_CHARACTER will change for each process file that is in
| progress.

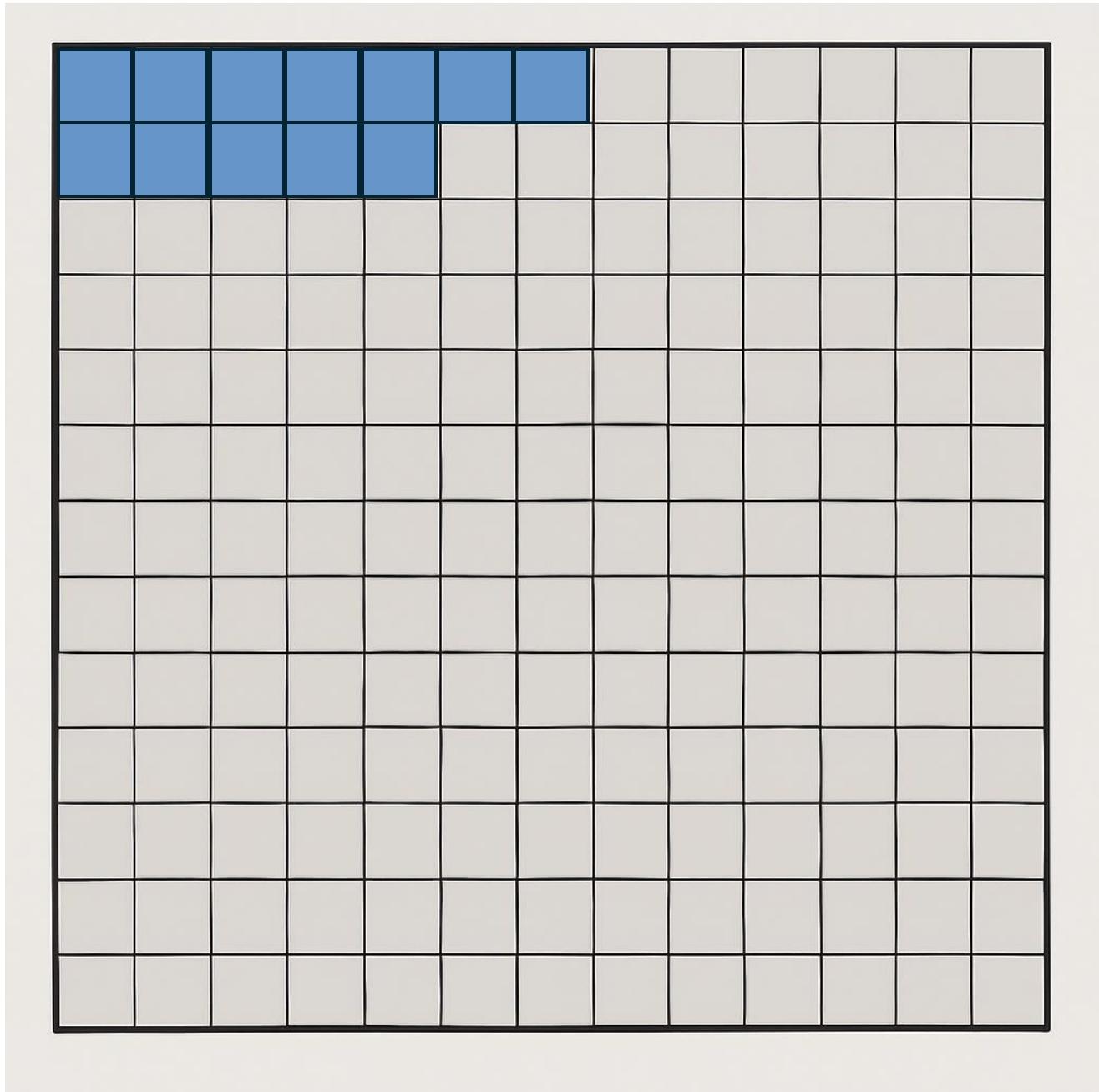
| Default STARTER_CHARACTER = 



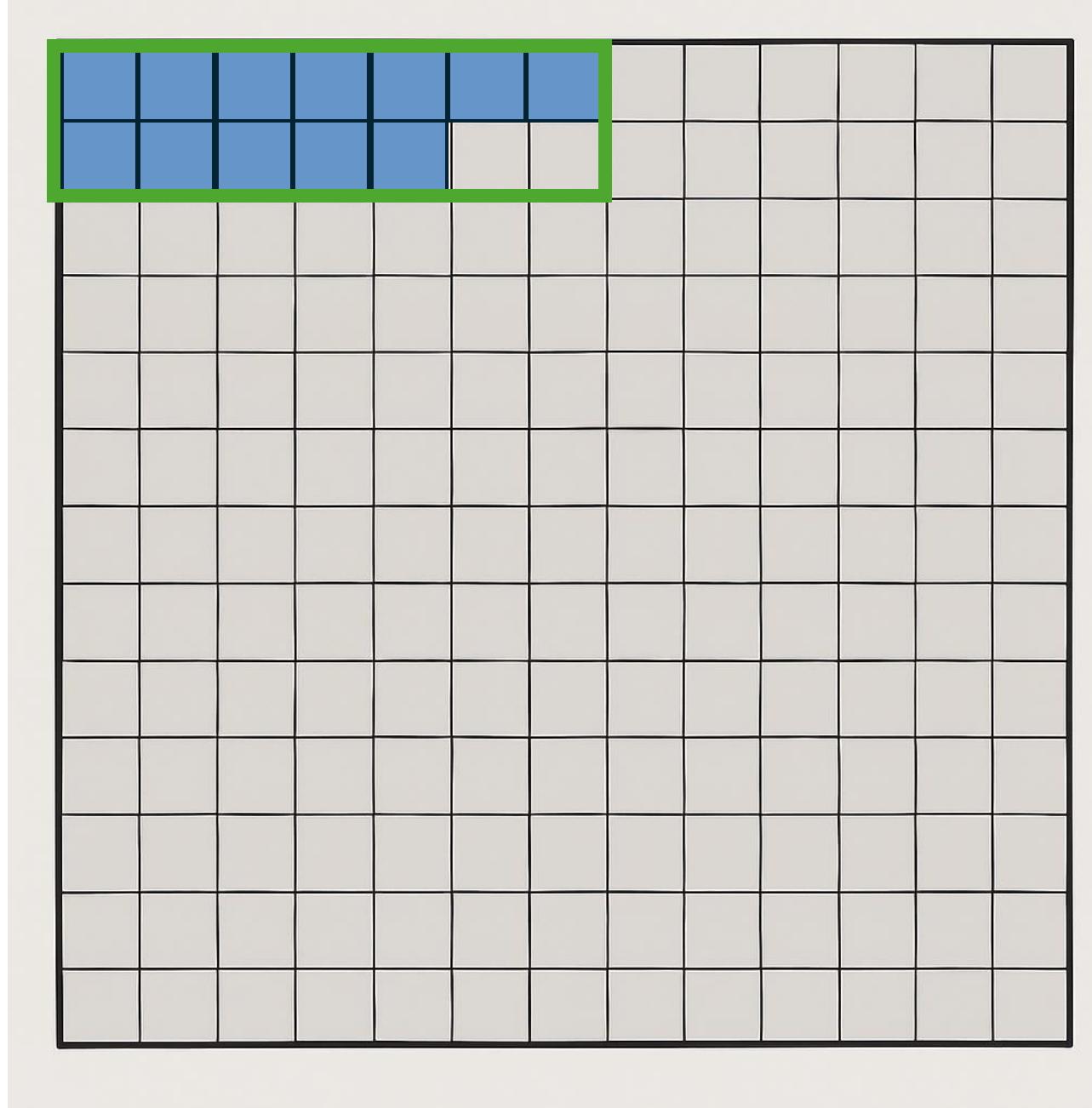
OK.

Context Window

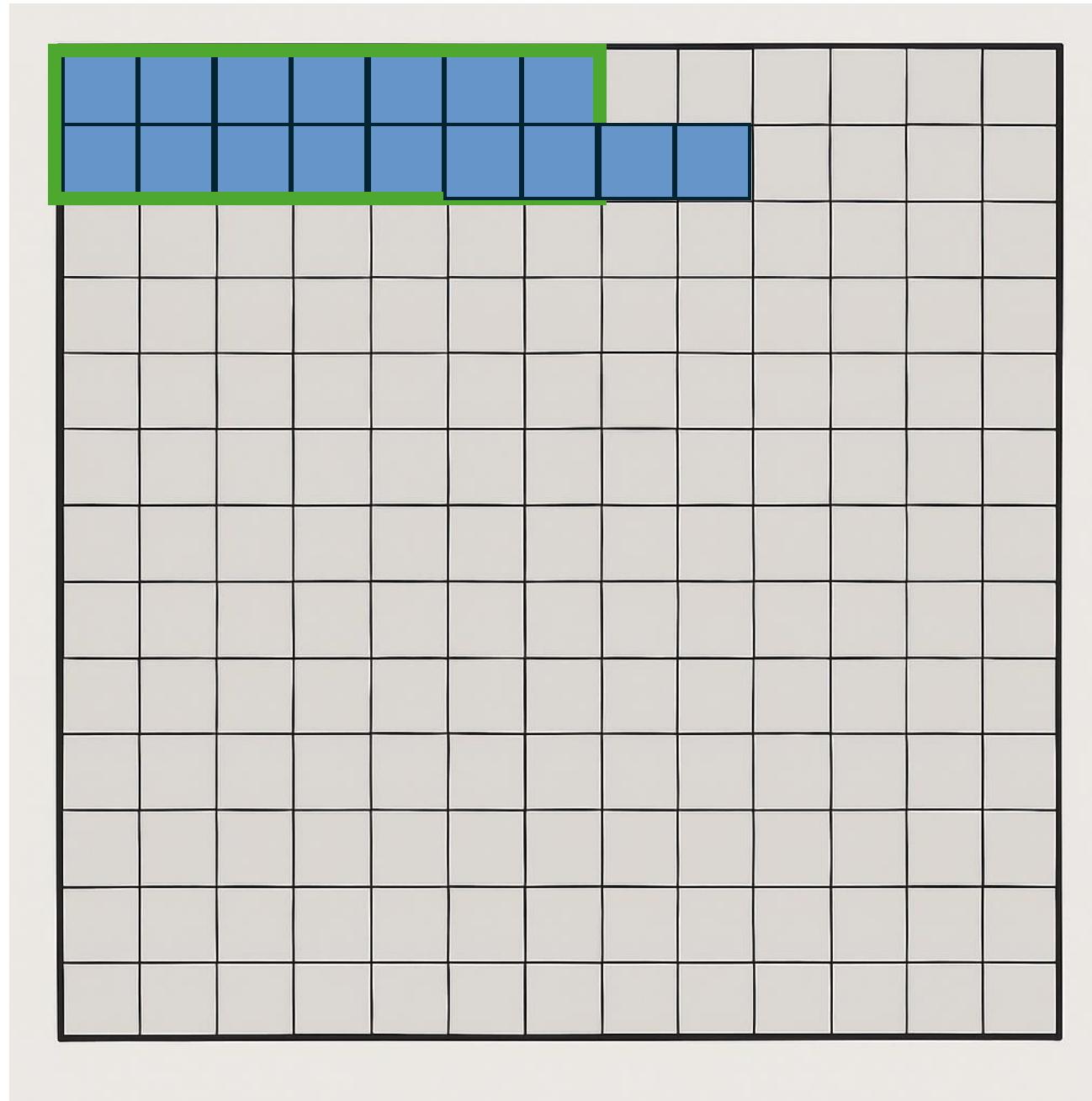
number of tokens
the LLM can handle



Effective Context number of tokens
before the responses
start to significantly degrade



Effective Context number of tokens
before the responses
start to significantly degrade



my.Process.md Files

late_night_coding.process.md

STARTER_CHARACTER = 

1. Ask for preferred caffeine,
offer suggestions
2. Tell the user
“just one more function”
3. Open IDE

Please read @late_night_coding.process.md and follow
the instructions



How would you like your caffeine?
(coffee, tea, soda, intravenous)

Soda

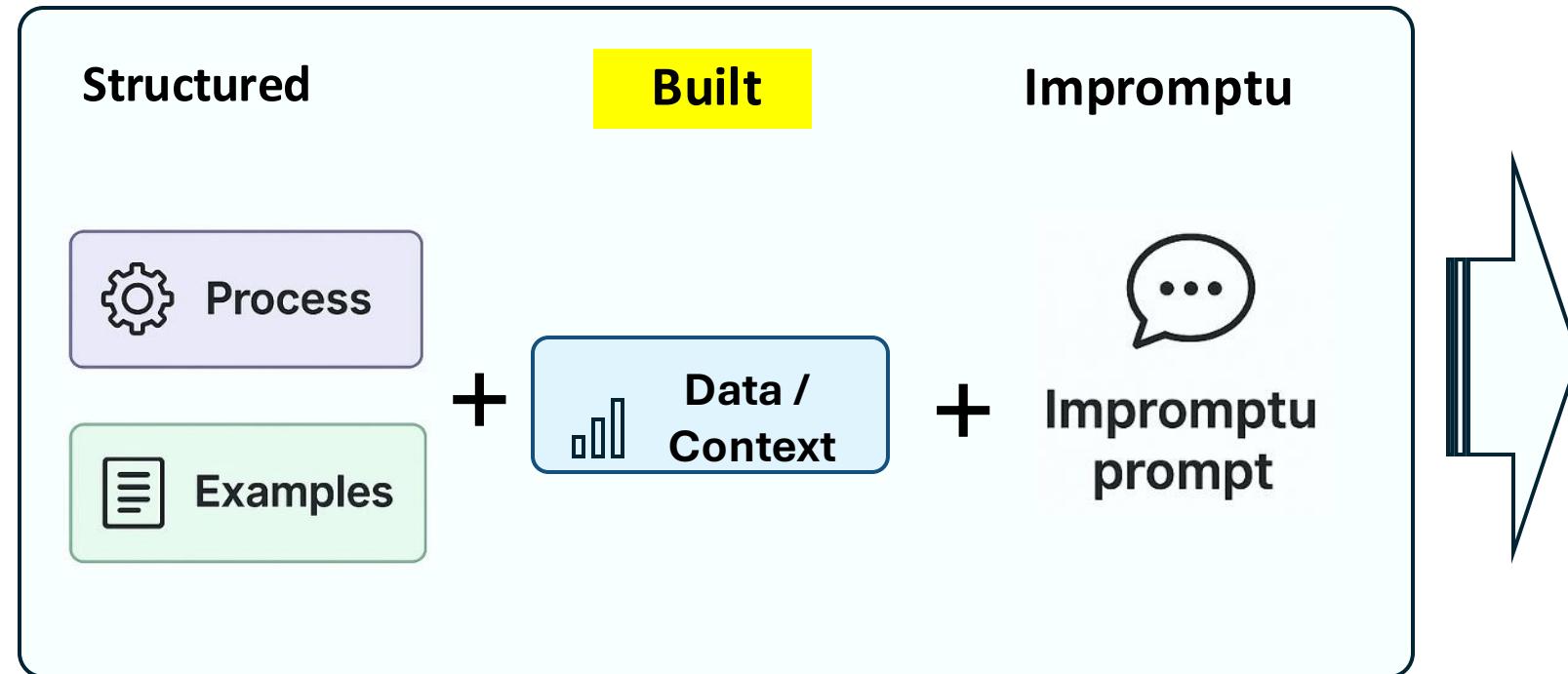


Great, Just one more function to write before bed,
are you ready?

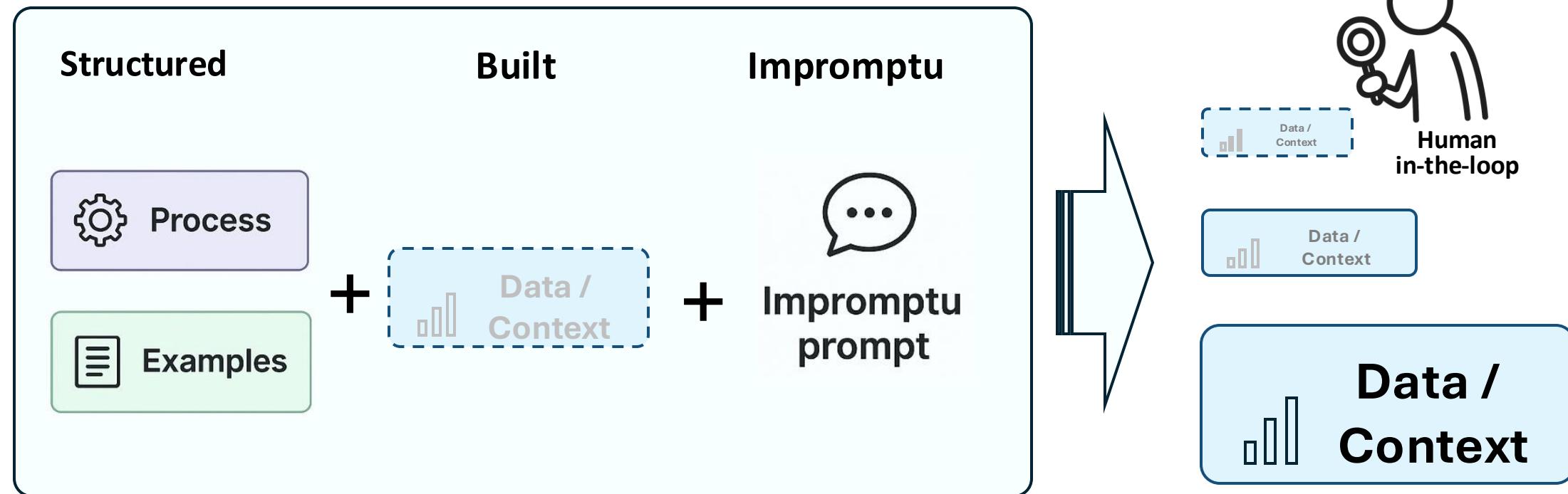
yes

Let's get started...

Components of an Effective AI Prompt



Components of an Effective AI Prompt



Human in-the-loop



Pre-Heat

Are you familiar with the top 10 popular characters of greek mythology?

Yes, here are 10 of the most popular and well-known characters from Greek mythology:

1. **Zeus** – King of the gods, ruler of Mount Olympus, god of the sky and thunder.
2. **Hera** – Queen of the gods, goddess of marriage and family, wife (and sister) of Zeus.
3. **Poseidon** – God of the sea, earthquakes, and horses; Zeus's brother.
4. **Hades** – God of the underworld and the dead; another brother of Zeus.
5. **Athena** – Goddess of wisdom, strategy, and war; born from Zeus's head.
6. **Apollo** – God of the sun, music, poetry, and prophecy; twin brother of Artemis.
7. **Artemis** – Goddess of the hunt, wilderness, and the moon; twin sister of Apollo.
8. **Ares** – God of war and violence; son of Zeus and Hera.
9. **Aphrodite** – Goddess of love and beauty; born from sea foam or daughter of Zeus, depending on the myth.
10. **Hermes** – Messenger of the gods, god of travel, thieves, and commerce.

Would you like a more detailed summary or a different top 10 (e.g., heroes, monsters, or tragic figures)?

Interview me

Cambridge, england, in a college court
Lovely—Cambridge, England, in a college court it is! Picture cobblestone paths, ivy on sandstone walls, and maybe a curious pigeon or two.

3. Names

Would you like to include the names of the people in the image?
If yes, I'll place first names only in a subtle font near each person.

no

Got it — no names in the image.

4. Language

What programming language and project are you all working on?

working on obsidian

Perfect – you're all mob programming on Obsidian (the note-taking app, I assume, possibly customizing or plugin coding).

5. Image

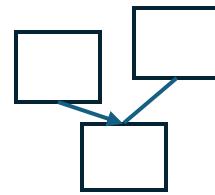
Please upload a Zoom screenshot of your mob so I can include everyone in the illustration.



Build a Doc

Unit Test

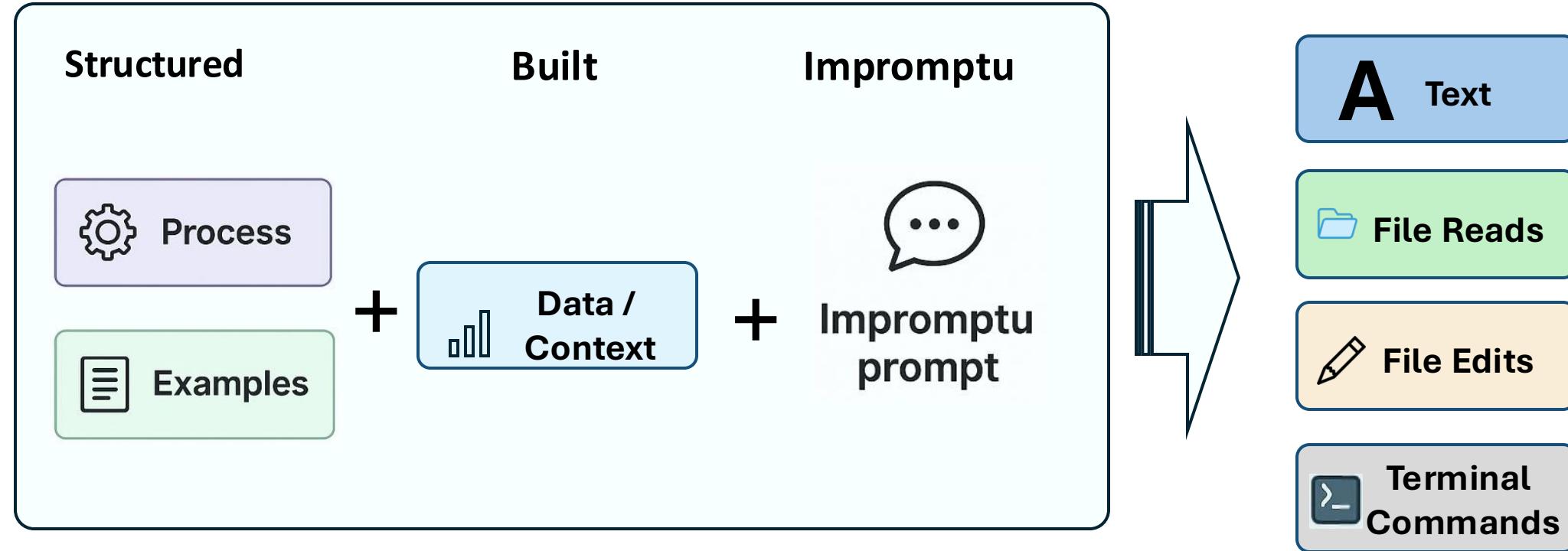
Diagram



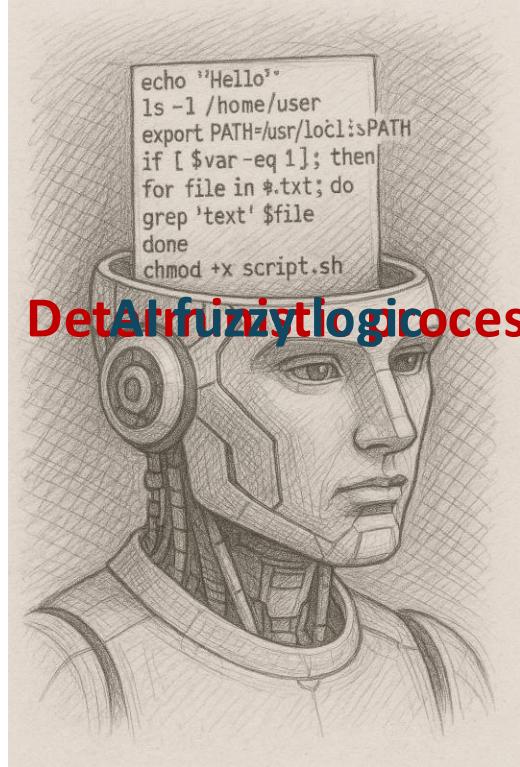
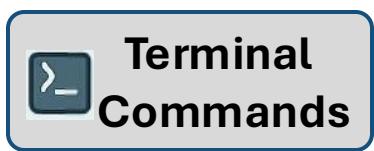
Check List

- item 1
- item 2
- item 3

Actions



Actions

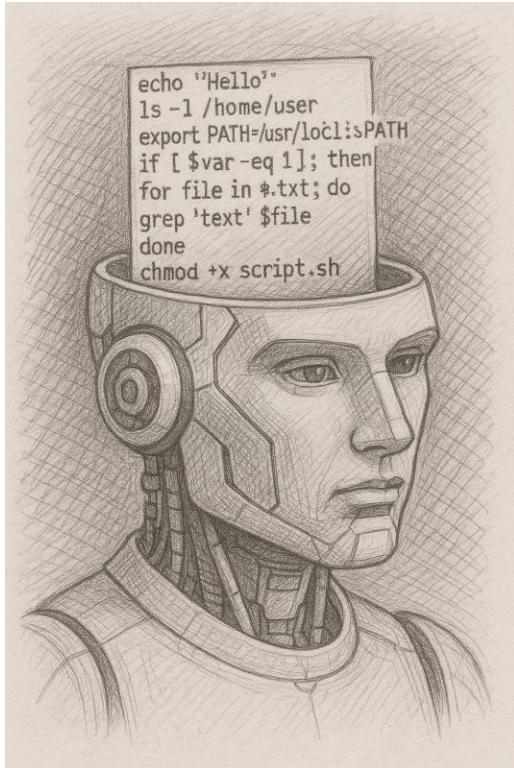


Actions



Terminal
Commands

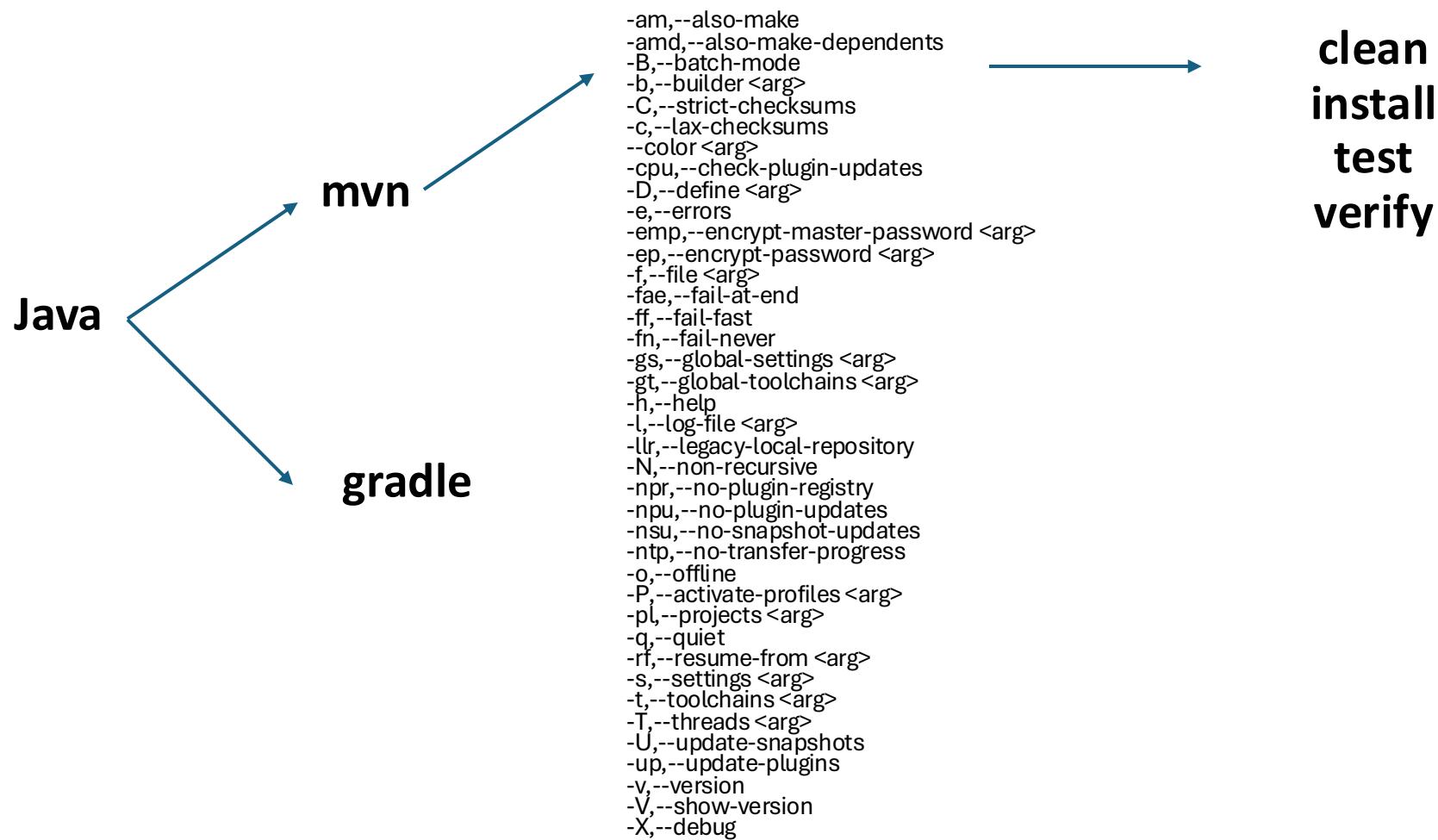
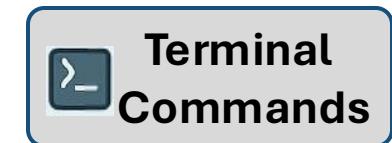
Deterministic processes



AI fuzzy logic

Actions

Run Tests



Actions

Run Tests

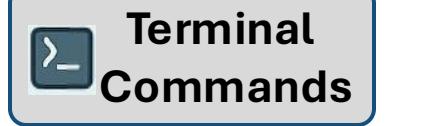


Terminal
Commands

rules.md

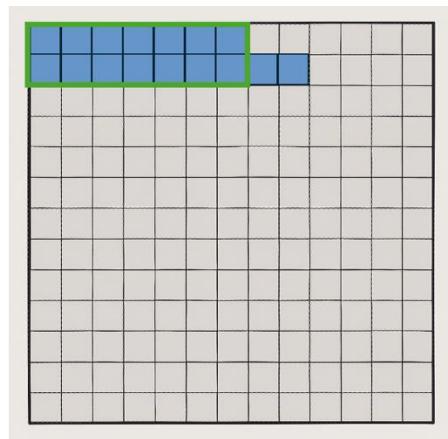
```
|-----|  
| To run tests: `./build_and_test.sh` |  
|-----|
```

Actions



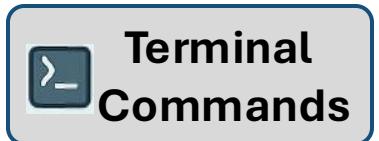
```
[INFO] rule[INFO] Scanning for projects...
[INFO] [INFO] -----< starterproject:approvaltests_playground >-----
[INFO] Building approvaltests_playground 1.0-SNAPSHOT
[INFO] -----[jar]-----
[INFO]
[INFO] --- maven-resources-plugin:2.6:resources (default-resources) @ approvaltests_playground ---
[WARNING] Using platform encoding (UTF-8 actually) to copy filtered resources, i.e. build is platform dependent!
[INFO] skip non existing resourceDirectory /Users/llewellynfalco/Github/AgenticAi.Java.StarterProject/src/main/resources
[INFO]
[INFO] --- maven-compiler-plugin:3.14.0:compile (default-compile) @ approvaltests_playground ---
[INFO] Nothing to compile - all classes are up to date.
[INFO]
[INFO] --- maven-resources-plugin:2.6:testResources (default-testResources) @ approvaltests_playground ---
[WARNING] Using platform encoding (UTF-8 actually) to copy filtered resources, i.e. build is platform dependent!
[INFO] skip non existing resourceDirectory /Users/llewellynfalco/Github/AgenticAi.Java.StarterProject/src/test/resources
[INFO]
[INFO] --- maven-compiler-plugin:3.14.0:testCompile (default-testCompile) @ approvaltests_playground ---
[INFO] Nothing to compile - all classes are up to date.
[INFO]
[INFO] --- maven-surefire-plugin:3.5.3:test (default-test) @ approvaltests_playground ---
[INFO] Using auto detected provider org.apache.maven.surefire.junitplatform.JUnitPlatformProvider
[INFO]
[INFO] -----
[INFO] T E S T S
[INFO] -----
[INFO] Running org.samples.SampleTests
[INFO] Tests run: 3, Failures: 0, Errors: 0, Skipped: 0, Time elapsed: 0.327 s -- in org.samples.SampleTests
[INFO] Running org.samples.HexBoardTest
[INFO] Tests run: 5, Failures: 0, Errors: 0, Skipped: 0, Time elapsed: 0.142 s -- in org.samples.HexBoardTest
[INFO]
[INFO] Results:
[INFO]
[INFO] Tests run: 8, Failures: 0, Errors: 0, Skipped: 0
[INFO]
[INFO] -----
[INFO] --- maven-jar-plugin:2.4:jar (default-jar) @ approvaltests_playground ---
[INFO] -----
[INFO] BUILD SUCCESS
[INFO] -----
[INFO] Total time: 3.489 s
[INFO] Finished at: 2025-05-20T05:09:25-06:00
[INFO] -----s.md
```

Feedback



Actions

~~mvn verify --output-ai~~



./build_and_test.sh
 **Built: 8 tests passed.**

my.Process.md Files



late_night_coding.process.md

Windsurf → Workflows

Copilot → Instructions

Cursor → Rules

my.Process.md Files



late_night_coding.process.md

Windsurf → Workflows

Copilot → Instructions

Cursor → Rules

Trained for Agentic

Reinforcement Learning Step

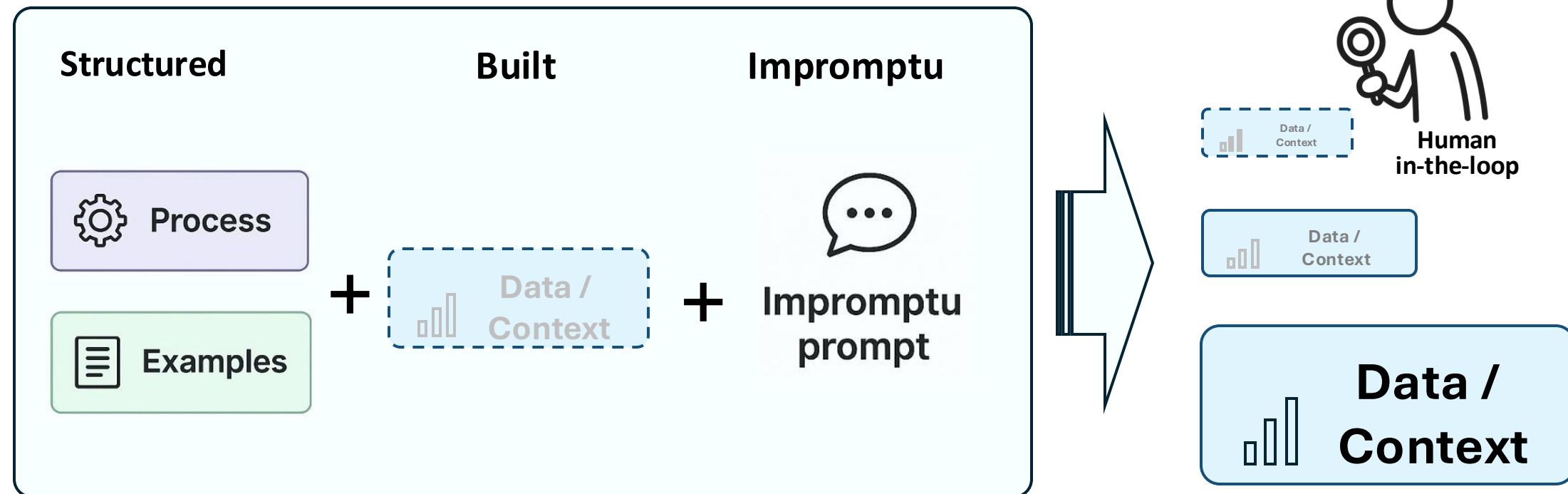
Claude 3.5+

Chat GPT 4.1

Google Gemini 2.5 Pro

SWE-1

Components of an Effective AI Prompt



Thank You!

Please connect on LinkedIn



Llewellyn Falco

