

`Process` files:

Blueprints for Agentic AI

Llewellyn Falco

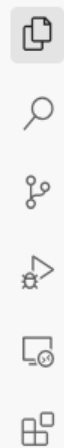
Resources



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

Fixing a Bug

In approvaltests.go



Explorer



- go-approval-tests
 - .approval_tests_temp
 - .approved_files.log
 - .failed_comparison.log
 - .gitignore
 - approve_all.py
 - remove_abandoned_files.py
 - .cursor
 - .github
 - .idea
 - core
 - comparer.go
 - failable.go
 - namer.go
 - docs
 - how_to
 - ParameterizedTest.md
 - ScrubDates.md
 - README.md
 - documentation_examples
 - internal
 - reporters
 - scripts
 - testdata
 - utils
 - .gitignore
 - .golangci.yml
 - .windsurfrules

Windsurf

Code with Cascade

Edit code inline



Cascade | Write mode (⌘.)



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



Preview BETA



Start Preview



All Conversations

Preparing Presentation Interview Outline

~/Documents/Documents from old computer/Coaching/personal

1h

Generalizing Process Markdown Files

~/Github/AgenticAi.Java.StarterProject

20h

Viewing GitHub Issue Details

~/Github/ApprovalTests.Java

2d

Problems

Terminal



zsh



llewellynfalco@macbookpro go-approval-tests %



The AI can see your
whole system

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

go-approval-tests

Explorer

go-approval-tests

.approval_tests_temp

.approved_files.log

.failed_comparison.log

.gitignore

approve_all.py

remove_abandoned_files.py

.cursor

.github

.idea

core

comparer.go

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.gitignore

.golangci.yml

.windsurfrules

approval_name_test.go

Outline

Timeline

Windsurf

Code with Cascade

Edit code inline

Terminal

zsh

lllewellynfalco@macbookpro go-approval-tests %

Cascade | Write mode (⌘.)

Write with Cascade

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

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~/Github/ApprovalTests.Java

2d

main

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Pro

Windsurf - Settings

Write with Cascade

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

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

↩

Let's fix bug #49

What?

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

.... Garbage

IO errors are not handled when UseFolder points to non-existing directory #49

[Edit](#)[New issue](#)[Closed](#)

thmshmm opened on Oct 31, 2024

...

When `UseFolder` is set to a non-existing directory

[go-approval-tests/approvals.go](#)
Line 78 in 434b910

```
78      err := namer.compare(namer.getApprovalFile(extWithDot), namer.getReceivedFile(extWithDot), reader)
```

just `received does not match approved` is logged instead of the actual `no such file or directory` error that was generated in [dumpReceivedTestResult](#).

Create sub-issue





 hownowstephen closed this as [completed](#) in [04246fb](#) 4 days ago



Add a comment

Write

Preview

H B I       @   

Use Markdown to format your comment

Assignees



No one - [Assign yourself](#)

Labels



No labels

Type



No type

Projects



No projects

Milestone



No milestone

Relationships



None yet

Development



 Code with Copilot Agent Mode



[Create a branch](#) for this issue or link a pull request.

```

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```



 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" +
    "05e958695377ea00bac571e15c6b2a19ca/approvals.go#L78\n" +
    "just `received does not match approved` is logged instead" +
    "of the actual `no such file or directory`\n\nerror that was" +
    "generated in [ `dumpReceivedTestResult` ](https://github.com/appro" +
    "vals/go-approval-tests/blob/434b9105e958695377" +
    "ea00bac571e15c6b2a19ca/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.

 Ran terminal command

Yes, it's failing as expected

Great, Fix the code.

Ok, Done.

 Edited


Did it work?

 Ran terminal command

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


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``

Ok, committed

 Ran terminal command

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.

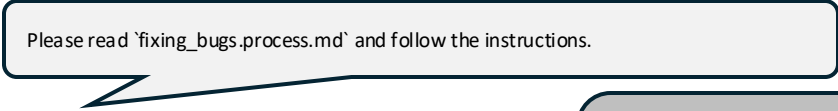
- * Ensure **all** other tests continue to pass, verifying no regressions were introduced.

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

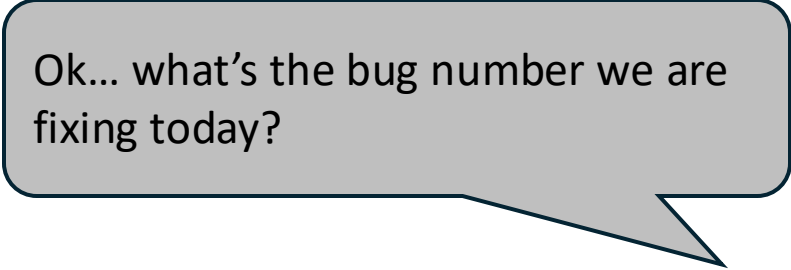
- * Remove unneeded comments, improve variable names and run tests to confirm refactorings.

- * 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

 Ran terminal command

```
{
  "body": "When `Use Folder` is set to a non-existing directory" +
    "\nhttps://github.com/approvals/go-approval-tests/blob/434b91" +
    "05e958695377ea00bac571e15c6b2a19ca/approvals.go#L78" +
    "just `received does not match approved` is logged instead" +
    "of the actual `no such file or directory` error that was" +
    "generated in [" + dumpReceivedTestResult + "](https://github.com/appro" +
    "vals/go-approval-tests/blob/434b9105e958695377" +
    "ea00bac571e15c6b2a19ca/approval_name.go#L116).",
}
```

Ok, Let me write a failing test.

Running.... 1 test **failed**.

The test confirms the bug. I'll fix the code.

All Test **Passed**

The bug is fixed; next I'll refactor the code.

Cleaned up the comments

All Test **Passed**

Improved the names

All Test **Passed**

Let's commit the code. How about this message:

`- B fixed #49 create directory when needed

y

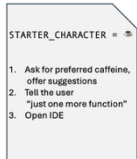
Ok, committed

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

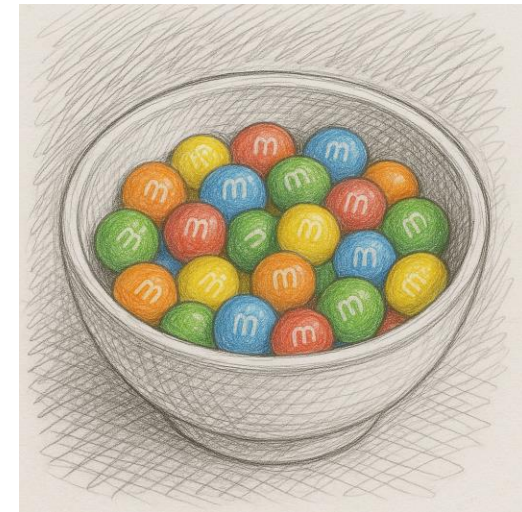
Nuts

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.

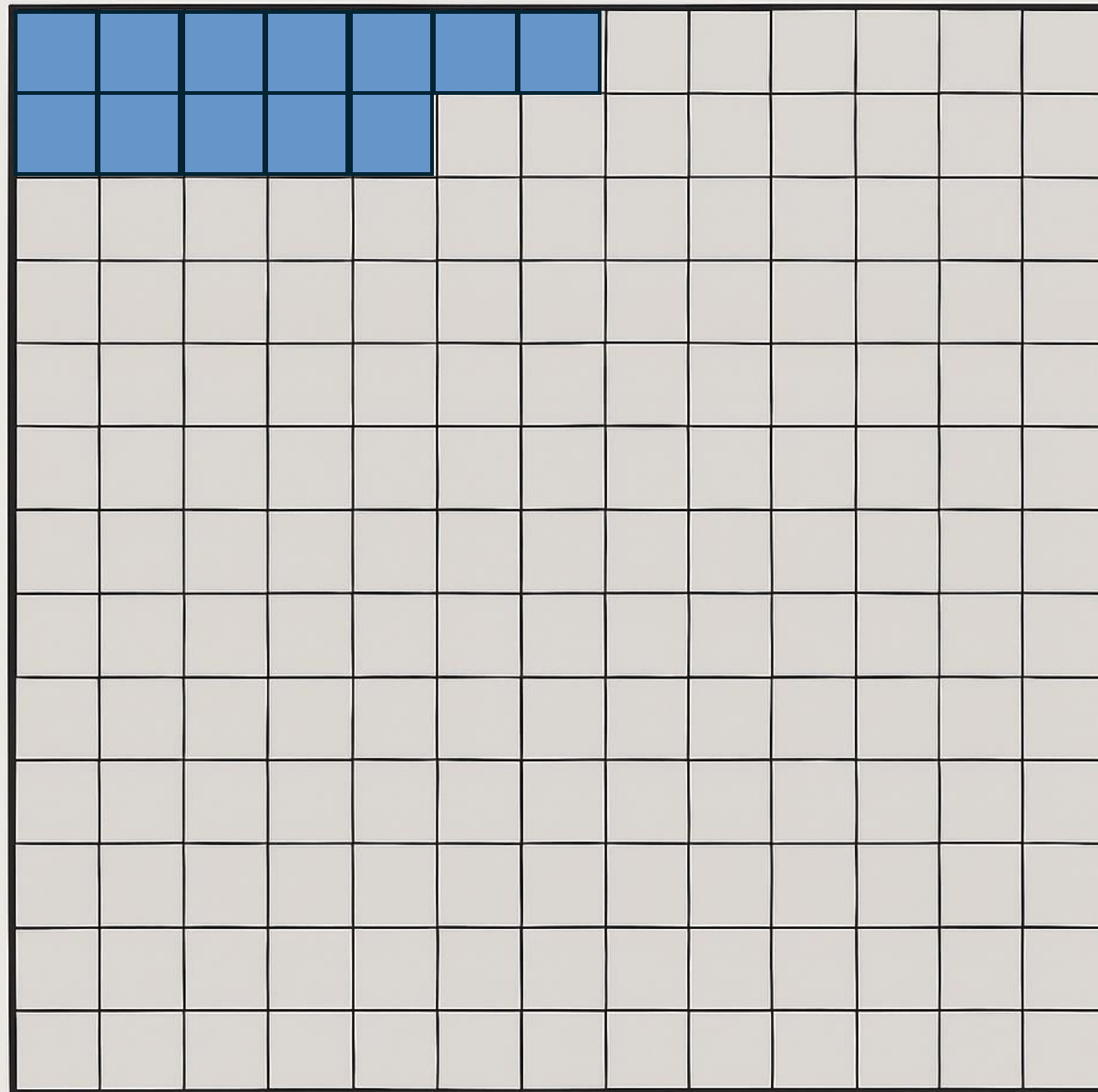
The STARTER_CHARACTER will change for each process file that is in progress.

Default STARTER_CHARACTER = 

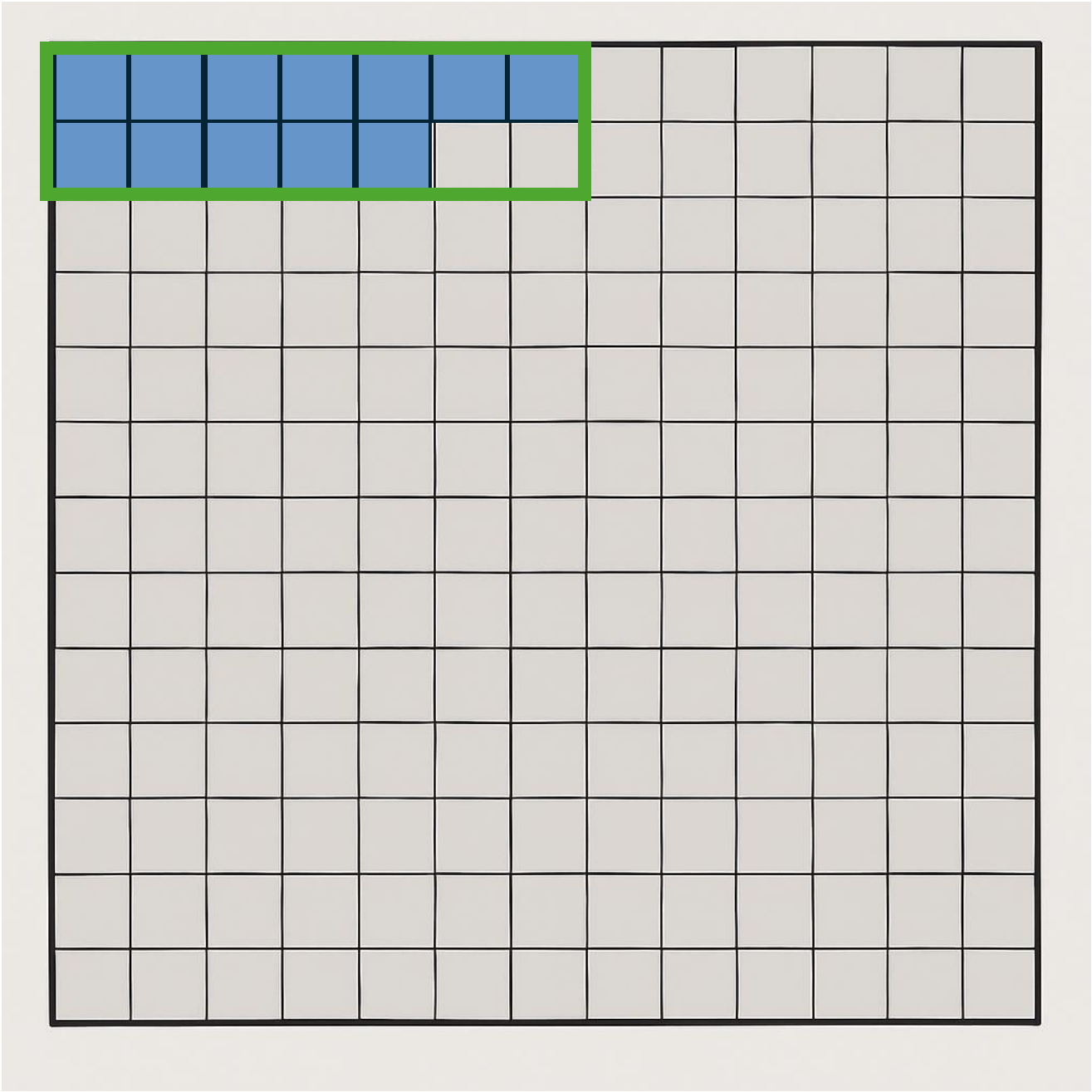
 OK.

Context Window

number of tokens
the LLM can handle




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



my.Process 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

Structured

Built

Impromptu



Process



Examples

+



Data /
Context

+



Impromptu
prompt



Components

of an Effective AI Prompt

Structured

Built

Impromptu



Process



Examples

+



Data /
Context

+



Impromptu
prompt



Data /
Context



Human
in-the-loop



Data /
Context



**Data /
Context**

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 cort

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 subtitle 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

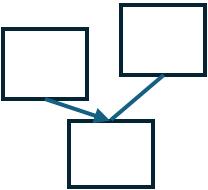
Please upload a Zoom screenshot of your mob so I can include everyone in the illustration.

📷

Build a Doc

Unit Test

Diagram



Check List

- ☒ item 1
- ☐ item 2
- ☐ item 3

Actions

Structured



Process



Examples

+



Data /
Context

+



Impromptu
prompt



A

Text



File Reads



File Edits



Terminal
Commands

Actions

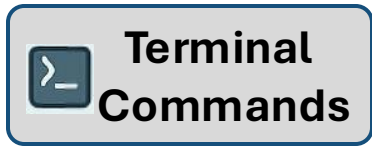


Terminal
Commands

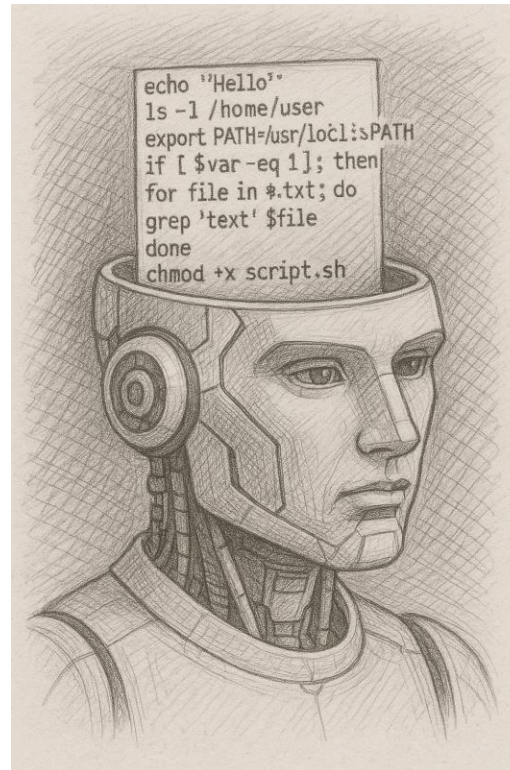


DetArtfuzzytlog processes

Actions

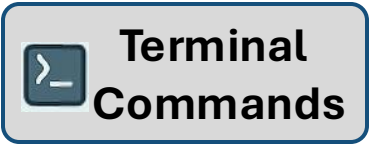


Deterministic processes



AI fuzzy logic

Actions



Java

mvn

gradle

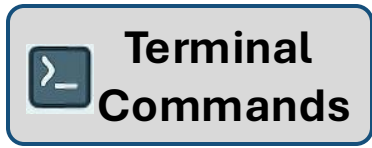
- am,--also-make
- amd,--also-make-dependents
- B,--batch-mode
- b,--builder <arg>
- C,--strict-checksums
- c,--lax-checksums
- color <arg>
- cpu,--check-plugin-updates
- D,--define <arg>
- e,--errors
- emp,--encrypt-master-password <arg>
- ep,--encrypt-password <arg>
- f,--file <arg>
- fae,--fail-at-end
- ff,--fail-fast
- fn,--fail-never
- gs,--global-settings <arg>
- gt,--global-toolchains <arg>
- h,--help
- l,--log-file <arg>
- llr,--legacy-local-repository
- N,--non-recursive
- npr,--no-plugin-registry
- npu,--no-plugin-updates
- nsu,--no-snapshot-updates
- ntp,--no-transfer-progress
- o,--offline
- P,--activate-profiles <arg>
- pl,--projects <arg>
- q,--quiet
- rf,--resume-from <arg>
- s,--settings <arg>
- t,--toolchains <arg>
- T,--threads <arg>
- U,--update-snapshots
- up,--update-plugins
- v,--version
- V,--show-version
- X,--debug

Run Tests

clean
install
test
verify

Actions

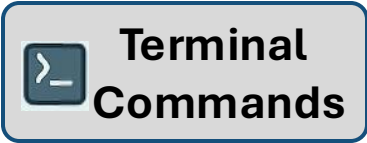
Run Tests



rules.md

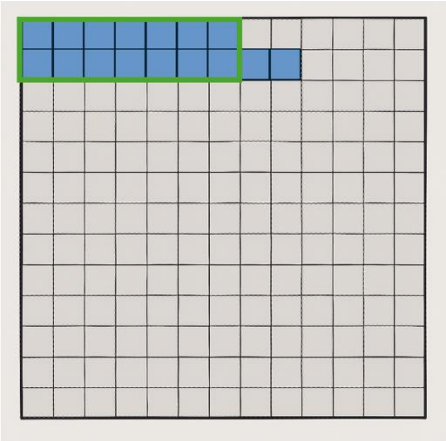
To run tests: `./build_and_test.sh`

Actions



Feedback

```
rule[INFO] Scanning for projects...
[INFO] -----< starterproject:approvaltests_playground >-----
[INFO] Building approvaltests_playground 1.0-SNAPSHOT
[INFO] -----[ jar]-----
[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] --- maven-compiler-plugin:3.14.0:compile (default-compile) @ approvaltests_playground ---
[INFO] Nothing to compile - all classes are up to date.
[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] --- maven-compiler-plugin:3.14.0:testCompile (default-testCompile) @ approvaltests_playground ---
[INFO] Nothing to compile - all classes are up to date.
[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] 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] Results:
[INFO] Tests run: 8, Failures: 0, Errors: 0, Skipped: 0
[INFO] --- maven-jar-plugin:2.4:jar (default-jar) @ approvaltests_playground ---
[INFO] BUILD SUCCESS
[INFO] Total time: 3.489 s
[INFO] Finished at: 2025-05-20T05:09:25-06:00
[INFO] ----- s.md
```



Actions



Terminal Commands

./build_and_test.sh

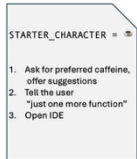


Built: 8 tests passed.

~~mvn verify --output-ai~~

[illegible]

my.Process Files



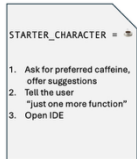
late_night_coding.**process**.md

Windsurf → Workflows

Copilot → Instructions

Cursor → Rules

my.Process 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

Structured

Built

Impromptu



Process



Examples

+



Data /
Context

+



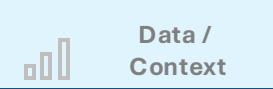
Impromptu
prompt



Data /
Context



Human
in-the-loop



Data /
Context



**Data /
Context**

Thank You!

Please connect on LinkedIn



Llewellyn Falco

