Collaborate.
Automate.
Innovate.

Beyond the chatbot, beyond the IDE: AI in my CI/CD

Presented by Justine Gehring | Gologic

For Confoo 2026

GOLOGIC

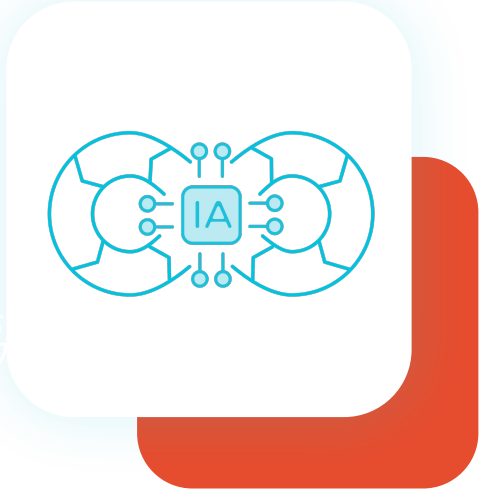
Justine Gehring

Head of AI Business Line

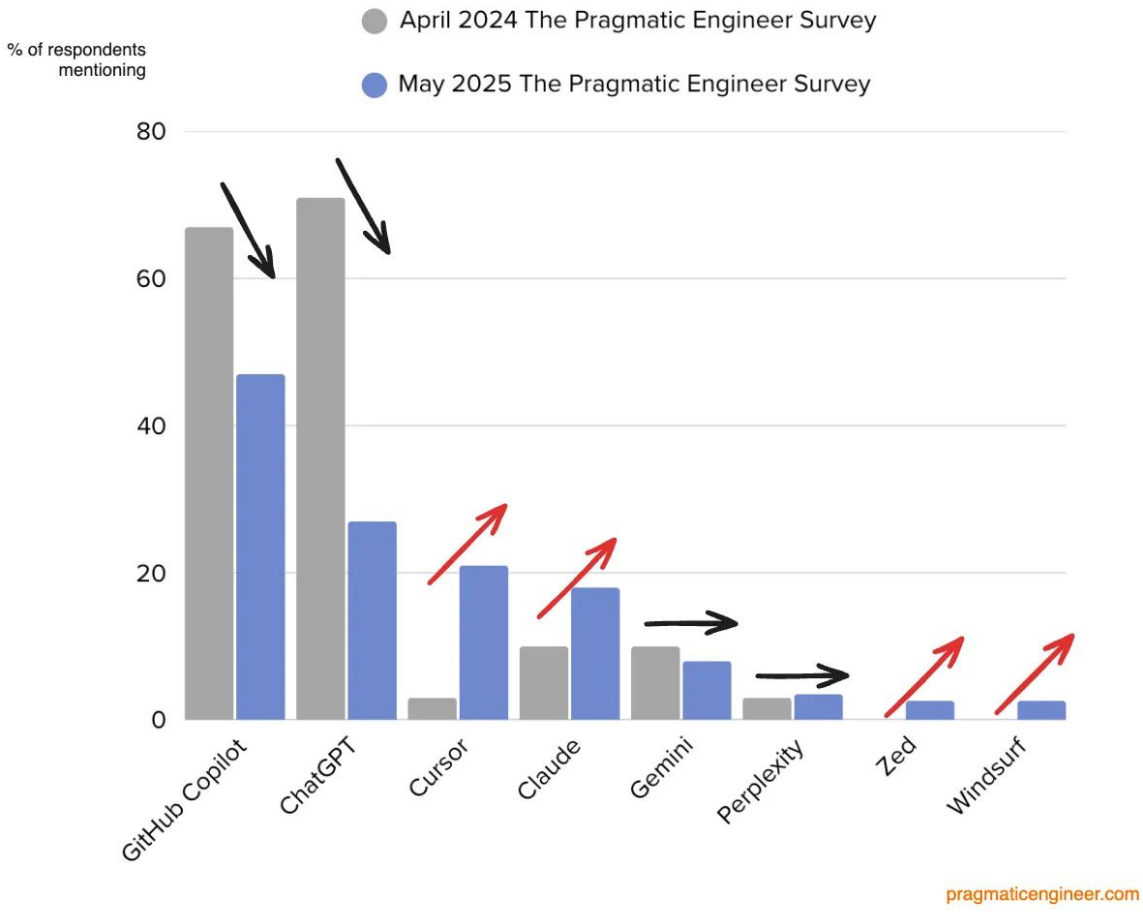
An expert in artificial intelligence, I develop AI solutions aimed at improving the productivity of IT teams. Educated at McGill and Mila, I specialized in Machine Learning for Code. As a speaker and co-author of the book "AI for Mass-Scale Code Refactoring and Analysis" (O'Reilly, 2024), I also serve on the program committee of TechDebt and will be responsible for the industry track in April 2026.

What is this talk *not* about

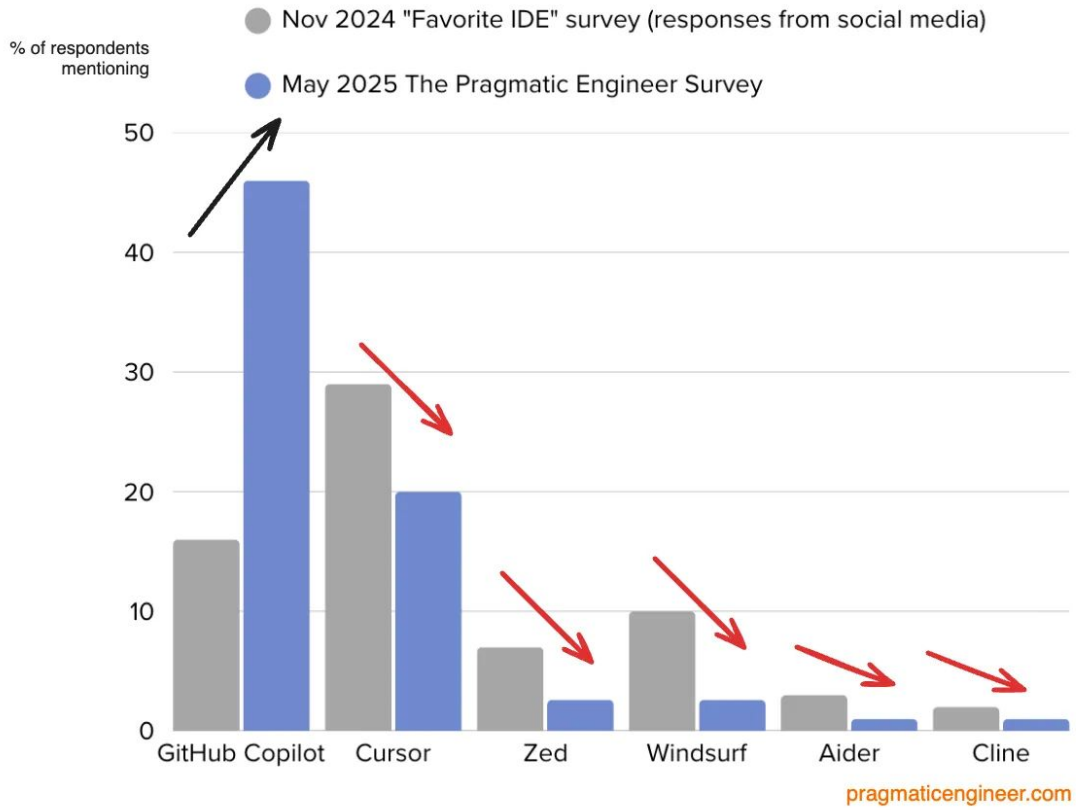
end-to-end agents to automate the whole process of CI/CD



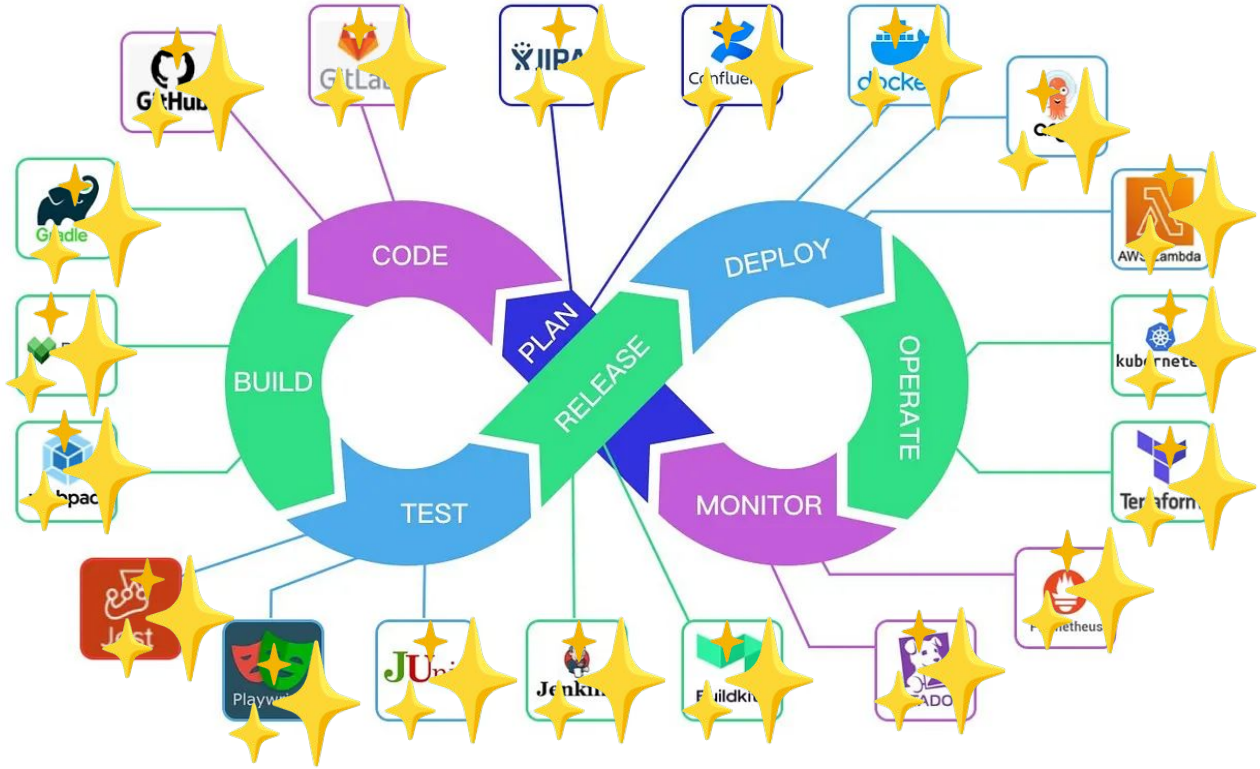
Most mentioned AI tools



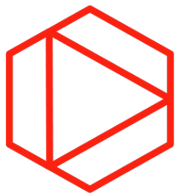
GitHub Copilot underrepresented on social media?



A completely incomplete history of AI for CI/CD tools


CODE
PLAN
DEPLOY
BUILD
RELEASE
OPERATE
TEST
MONITOR

History of AI tools for generating code



Tabnine

June 2018

Codex

August 2021

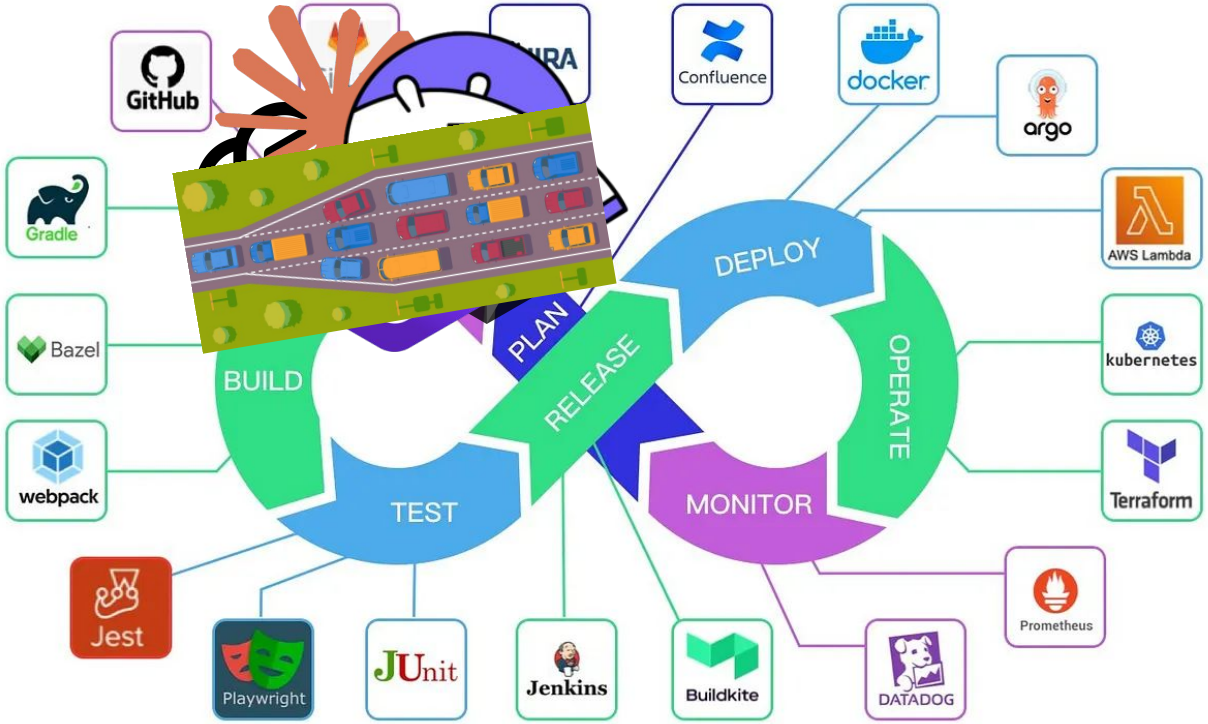
Github Copilot

October 2021

ChatGPT

November 2022

...


GitHub
Confluence
docker
argo
Gradle
AWS Lambda
Bazel
kubernetes
webpack
Terraform
Jest
Playwright
JUnit
Jenkins
Buildkite
DATADOG
Prometheus
PLAN
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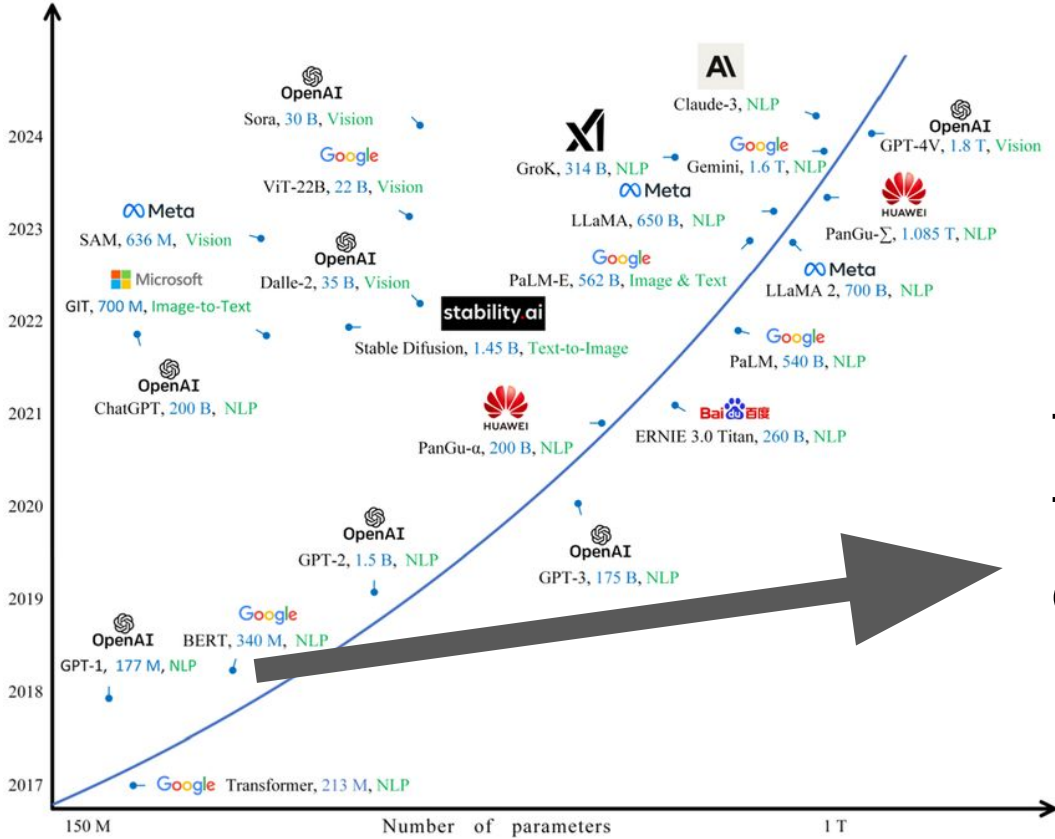
Why this change in focus?

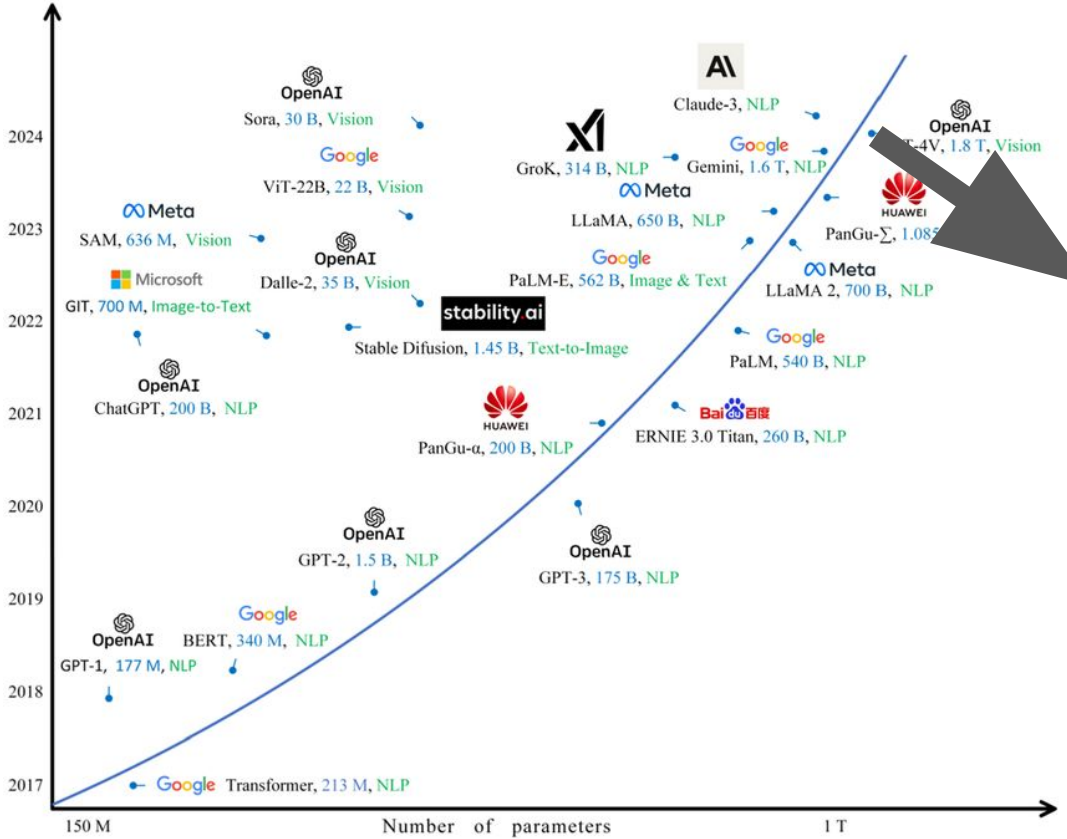


Let's finetune it on this super precise task with limited examples

👍

👎

Why this change in focus?



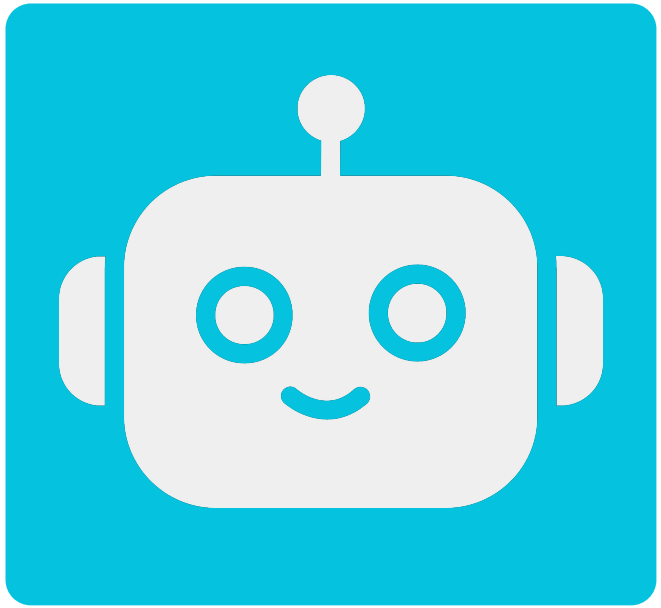
Let's use this hyper flexible model and give it the context it need

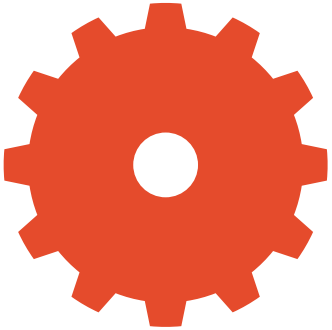
Models have now become commodities

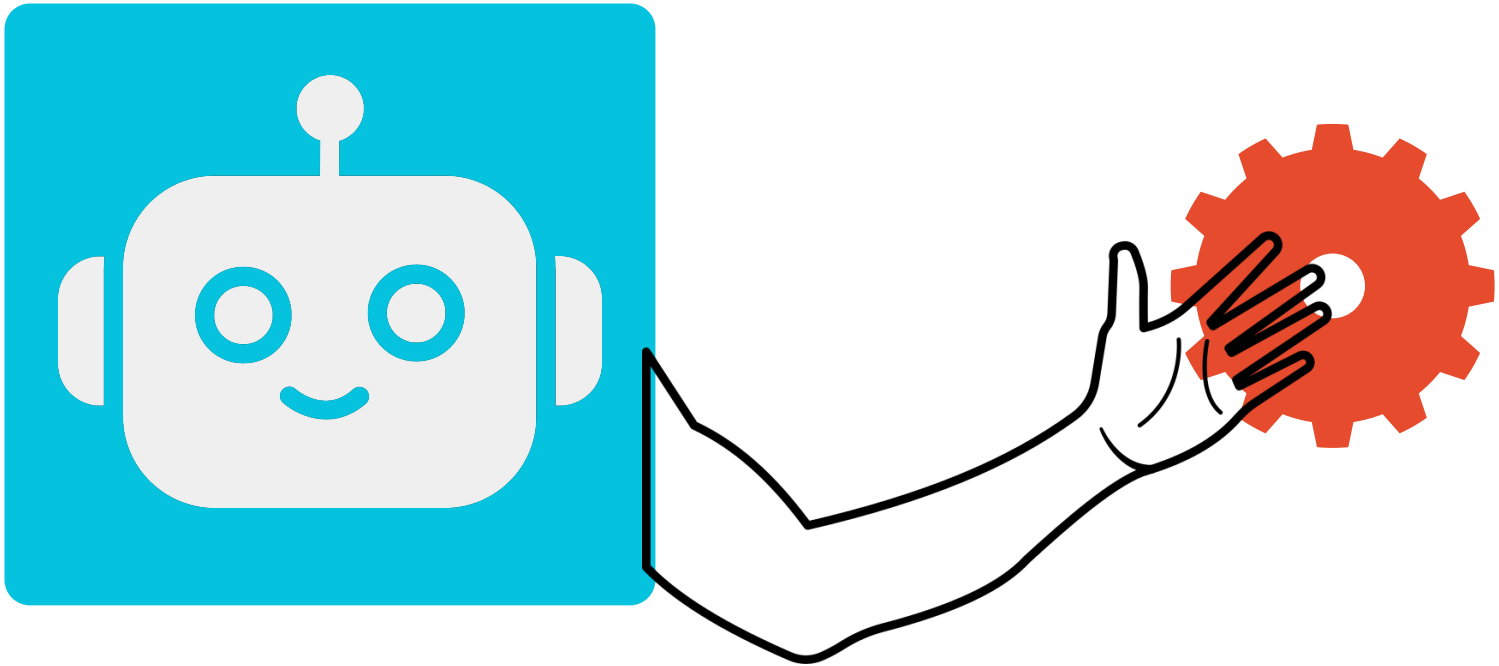
Context > Fine-tuning

So where does the challenge live?

The challenge is now in integrations



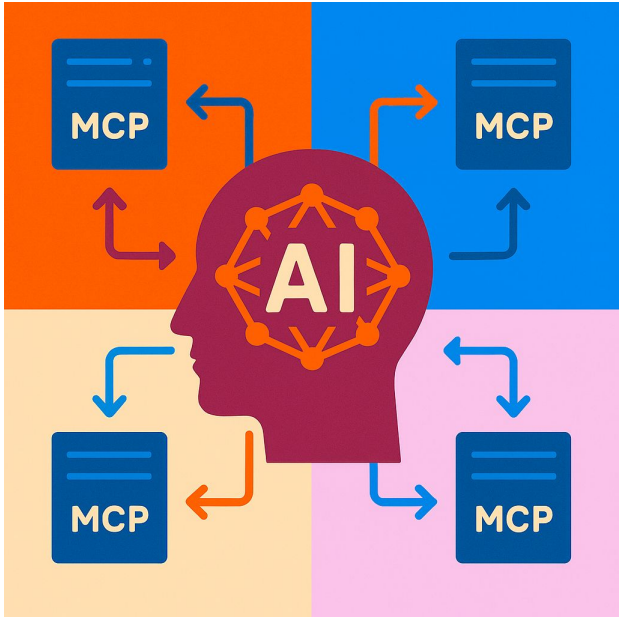




Why invent MCP?

Aggregates data from multiple sources, with limited complexity

Let’s the models interact with different tools and systems



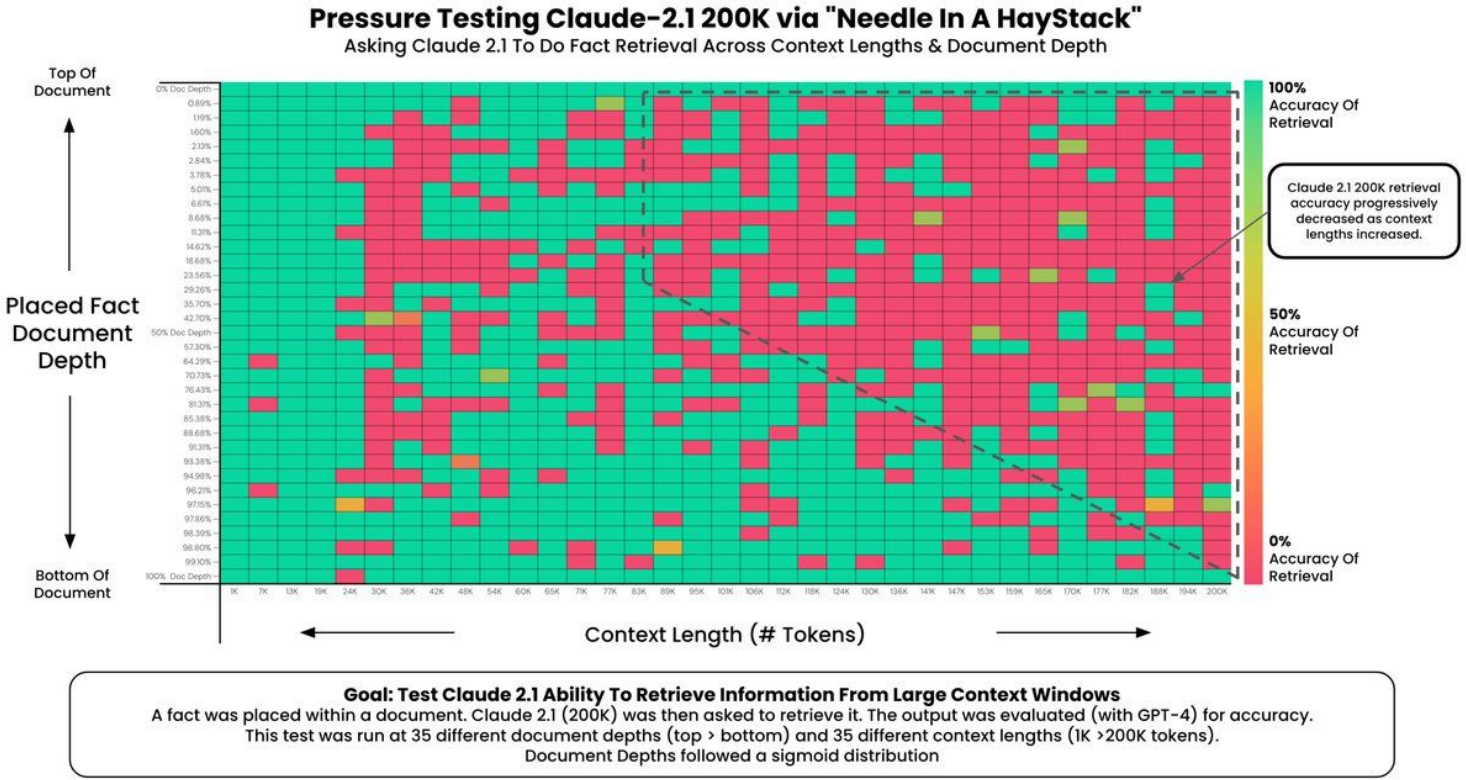
What is MCP?

REST API in web dev ~= MCP in the AI ecosystem

MCP (model context protocol) is a protocol for structured transmission of precise instructions to a model to define an operation

Operating System & Scripting
Windows Server
python
BASH
Linux
Programming Language & GUI
python
Java
Microsoft .NET
HTML
CSS
Programming Framework
React
spring boot
Microservices
Flux
Flask
Redux
django
node
Webservices
REST-API
{JSON}
Kong
webserver
Cloud
amazon web services
Google Cloud
Microsoft Azure
Containers
docker
RedHat OpenShift
kubernetes
DevOps / CI CD Tools
ANSIBLE
Terraform
maven
git
CHEF
Bitbucket
Jenkins
JFrog
puppet
Monitoring
elasticsearch
kibana
logstash
ZooKeeper
Prometheus
Grafana
Database
PostgreSQL
Qlik
mongoDB.
tableau
hazelcast IMDG
cassandra
influxdb
ORACLE
SQL Server
MySQL
MariaDB
amazon REDSHIFT
Testing
JUnit
APACHE JMeter™
Se
cypress
Integration
JBoss by Red Hat
solace.
kafka
SWIFT
WEBMETHODS
IBM MQ
Big Data
APACHE Spark
python
hadoop
R
Data Science / AI
pandas
TensorFlow
NumPy
mlr
R
learn
RPA
UiPath
AUTOMATION ANYWHERE
blueprism
PEGA
Process
Confluence
JIRA
Scrum
kanban tool
agile

but is there such a thing as too much context?



but is there such a thing as too much context?

20,000,000 LOC × 10 tokens = 200,000,000 tokens

200M tokens × $3 / 1M
= 200 × $3
= $600

ouch...

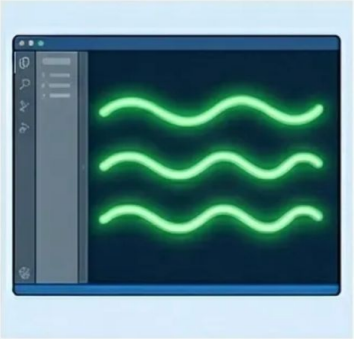


Figure 1

Figure 2

Figure 3

Figure 4

Figure 5

Figure 6

Figure 7

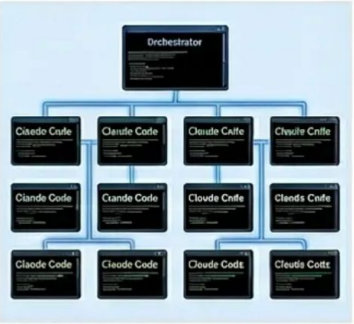
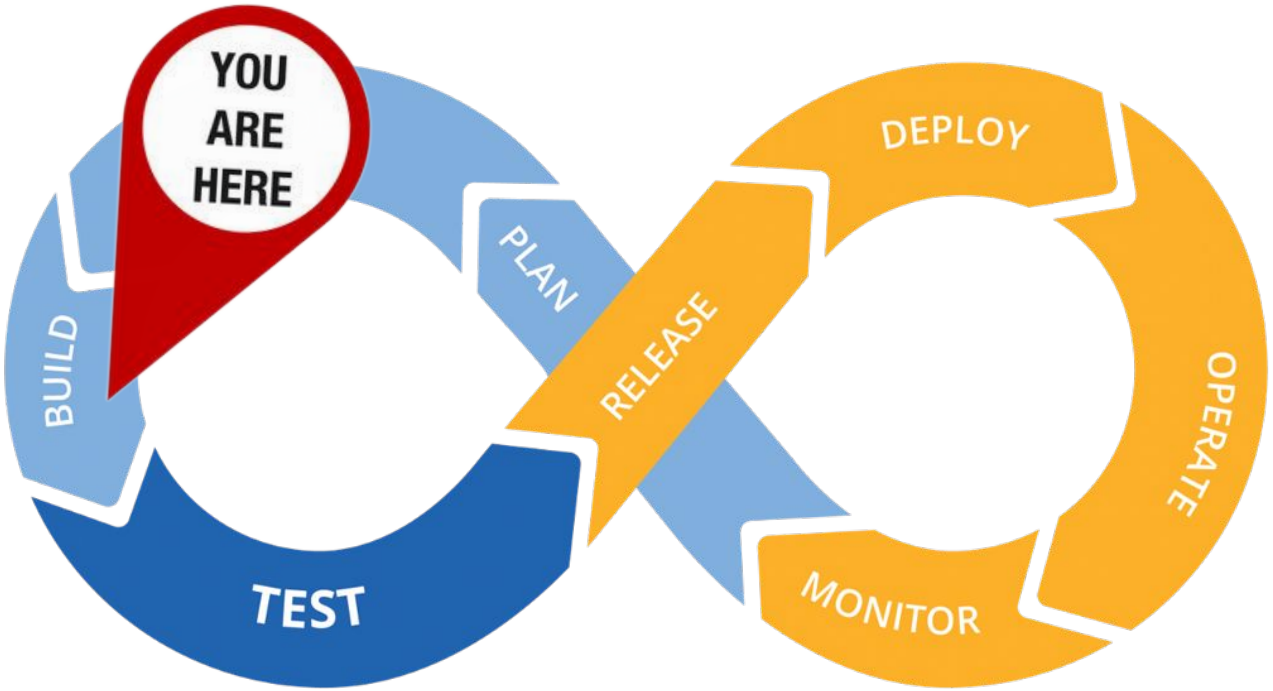


Figure 8

https://steve-yegge.medium.com/welcome-to-gas-town-4f25ee16dd04

5 AI FAMILIES

	LEARNING	EDITORIAL ASSISTANT	AUTOMATION & AGENT	PLANNING	EXPLORATION & SYNTHESIS
Use Cases	› Knowledge base dissemination › Onboarding › Summary and explanation of the material (code or other) › Advanced search	› Code generation › Text generation › Adding tests › Automatic documentation	› Standardization › Automation of repetitive tasks	› Migration planning › Impact analysis › Interoperability › Technical roadmap	› Advanced search on large sets › Use of metrics › Integration of observability tools
Potential Gain	› Reduction of cognitive load › Increased knowledge sharing	› More content, faster	› Cleaner, more consistent, higher quality code/text › Less manual labor	› Cost optimization › Prioritization assistance	› Summary of large amounts of data › Prioritization assistance
Example tools	› DeepWiki › GitHub Copilot Spaces › RAG	› GitHub Copilot › Windsurf › Claude code	› Code agent assigned to problems › N8N › Github Copilot with a to-do list	› Ticket management AI agent › Planning and recommendation agent (e.g., VM migration)	› Summary/report on tabular data › Log viewing


YOU ARE HERE
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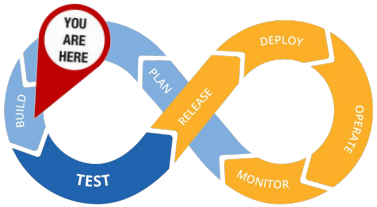
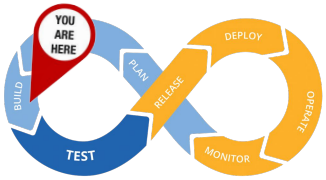


Identifying common causes for failures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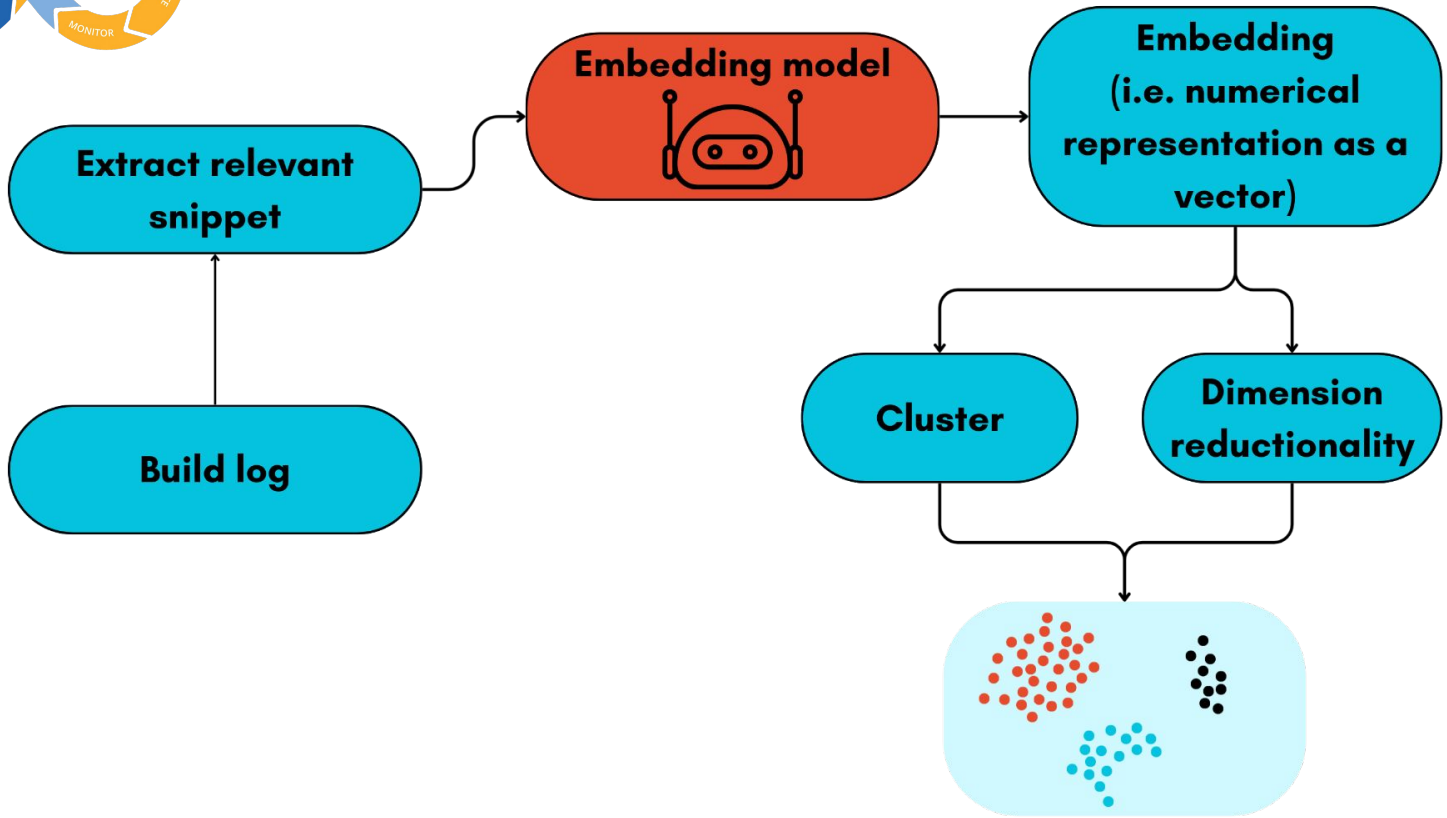
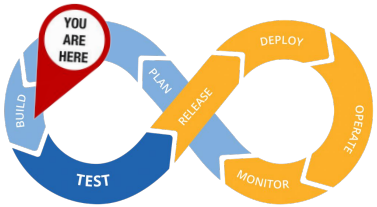

Extract relevant snippet
Embedding model
Embedding (i.e. numerical representation as a vector)
Build log
Cluster
Dimension reductionality



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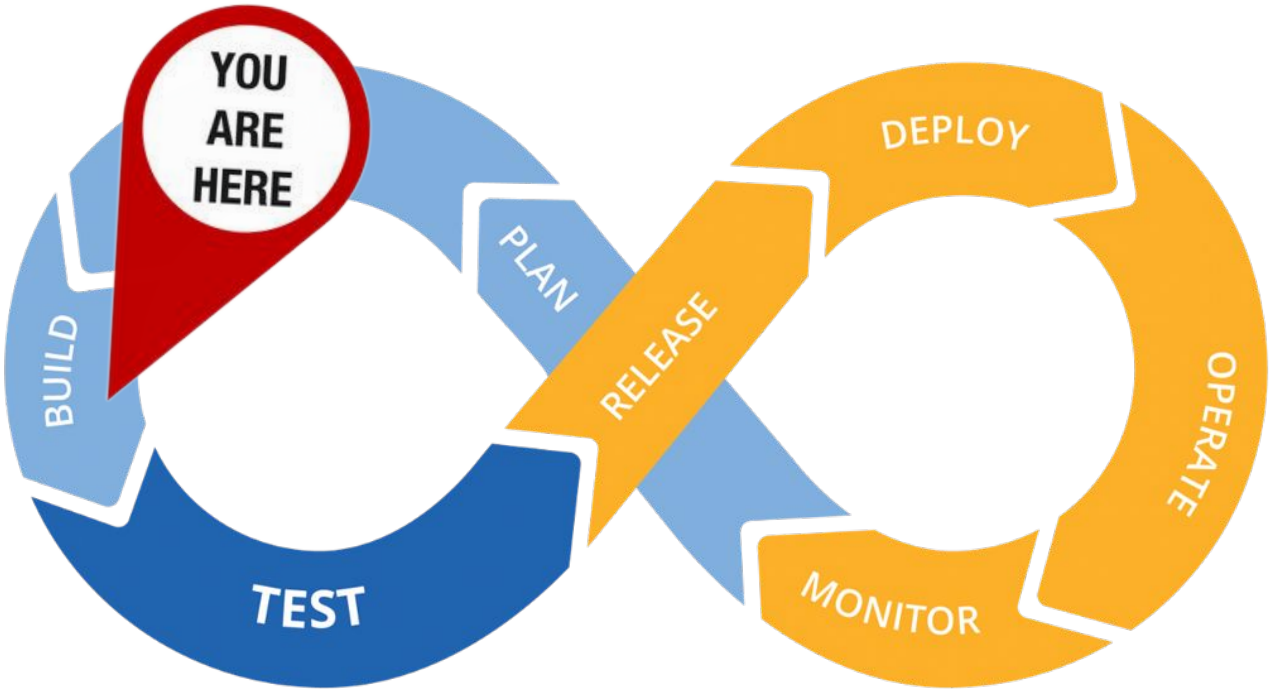
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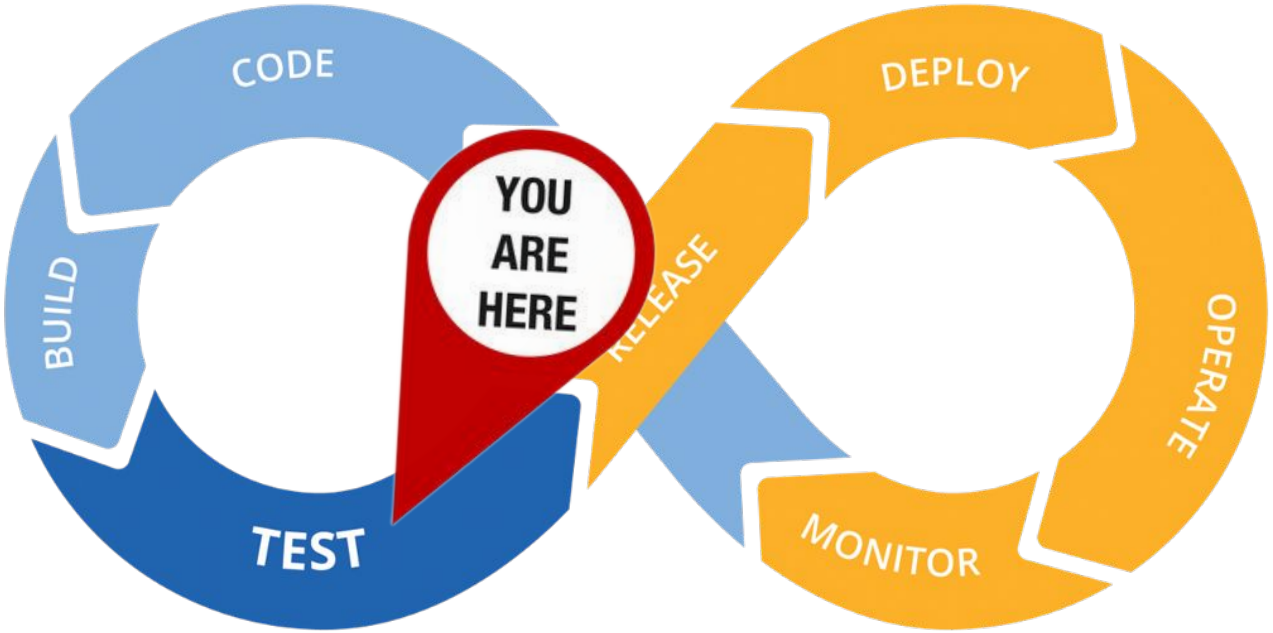
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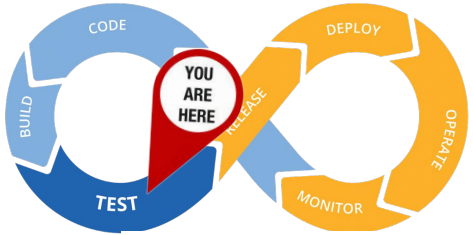
CODE
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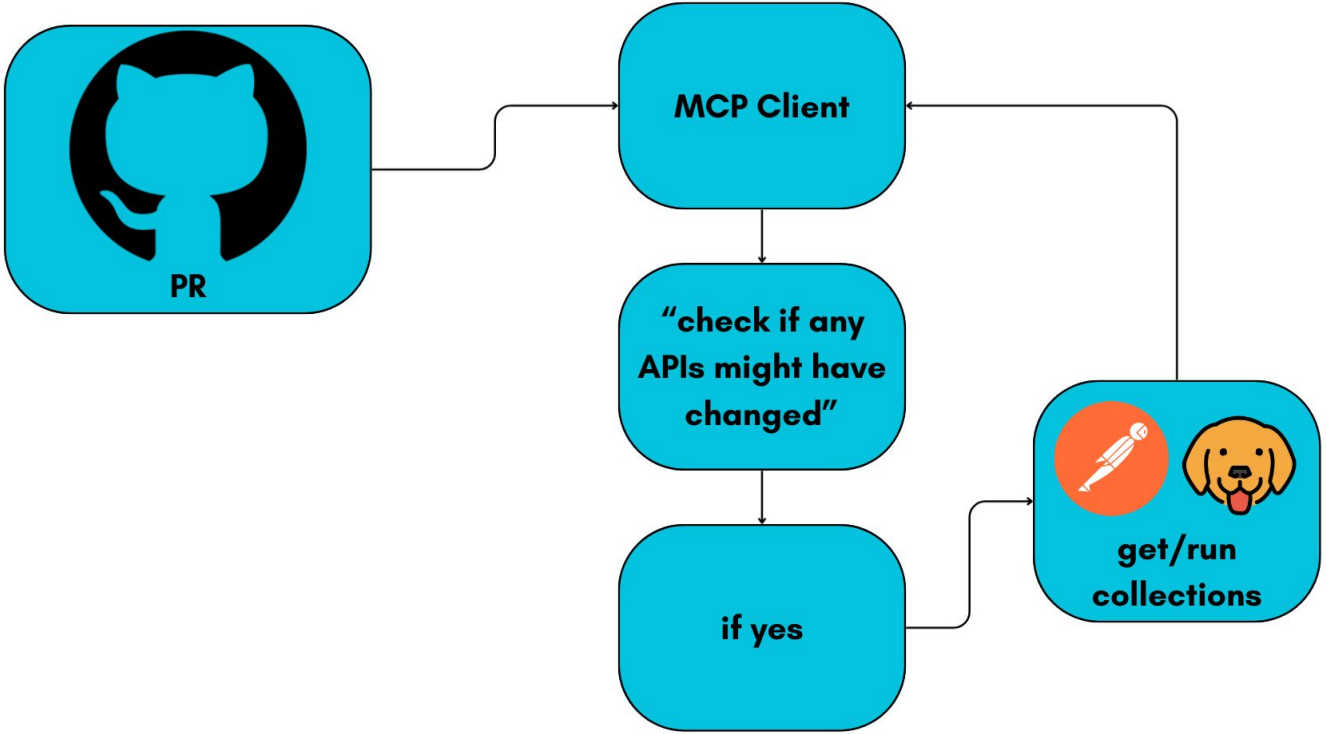
MCP


PR
MCP Client
"check if any APIs might have changed"
if yes
get/run collections

CODE
BUILD
TEST
YOU ARE HERE
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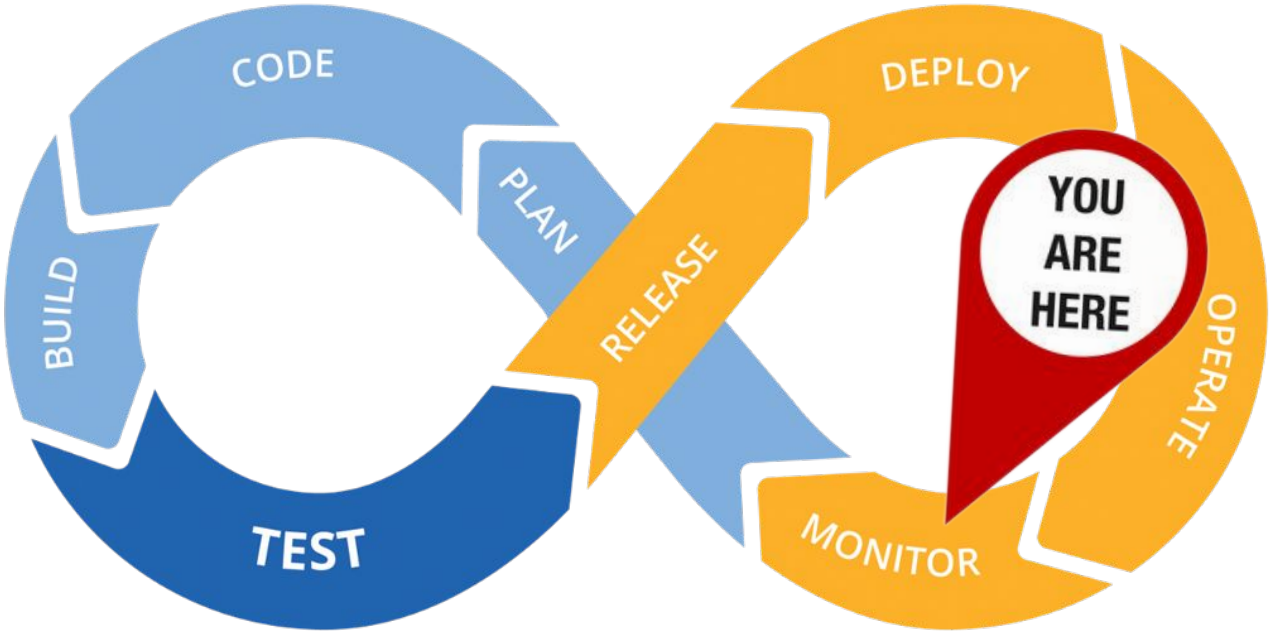
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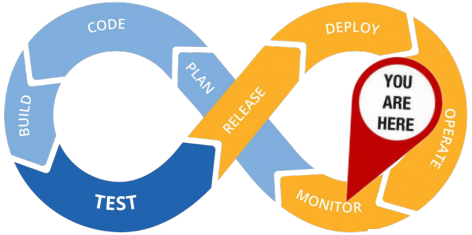
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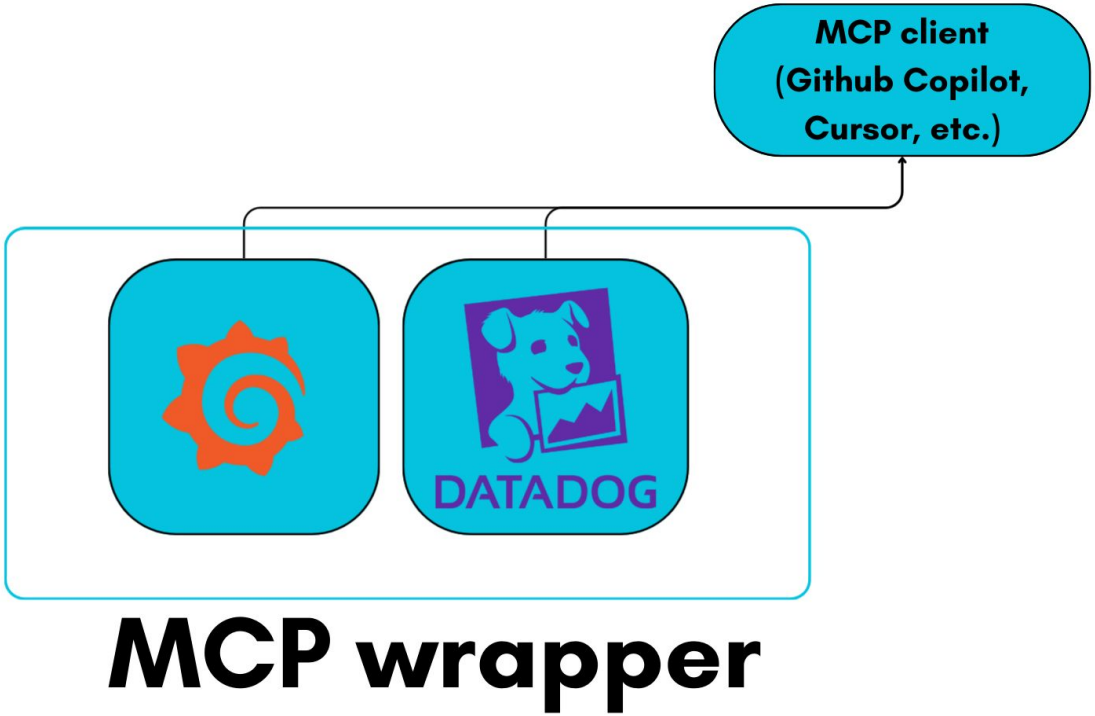
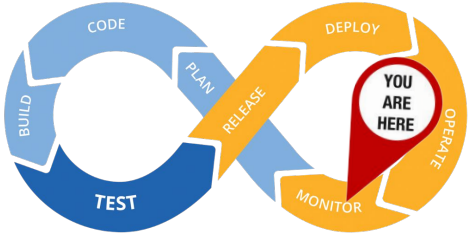
MCP


MCP client (Github Copilot, Cursor, etc.)
DATADOG
MCP wrapper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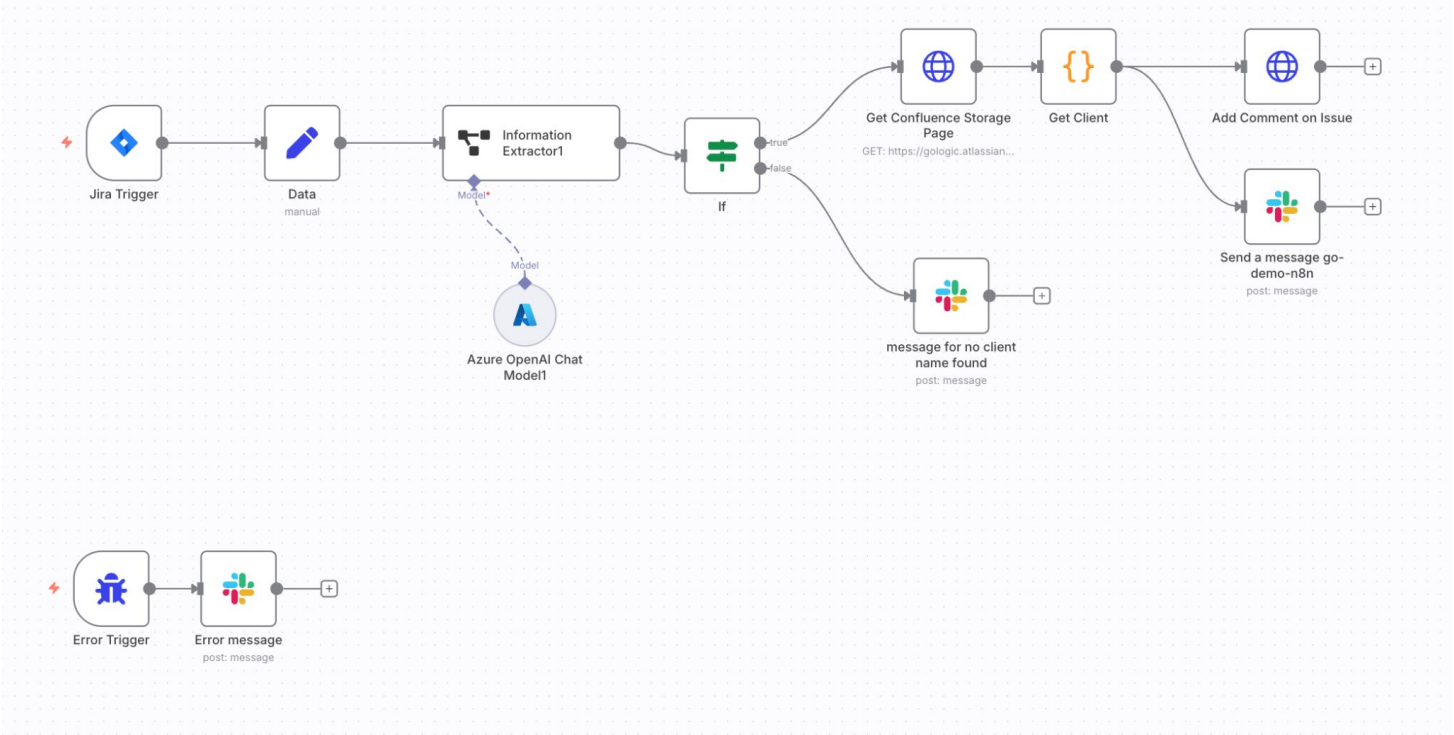
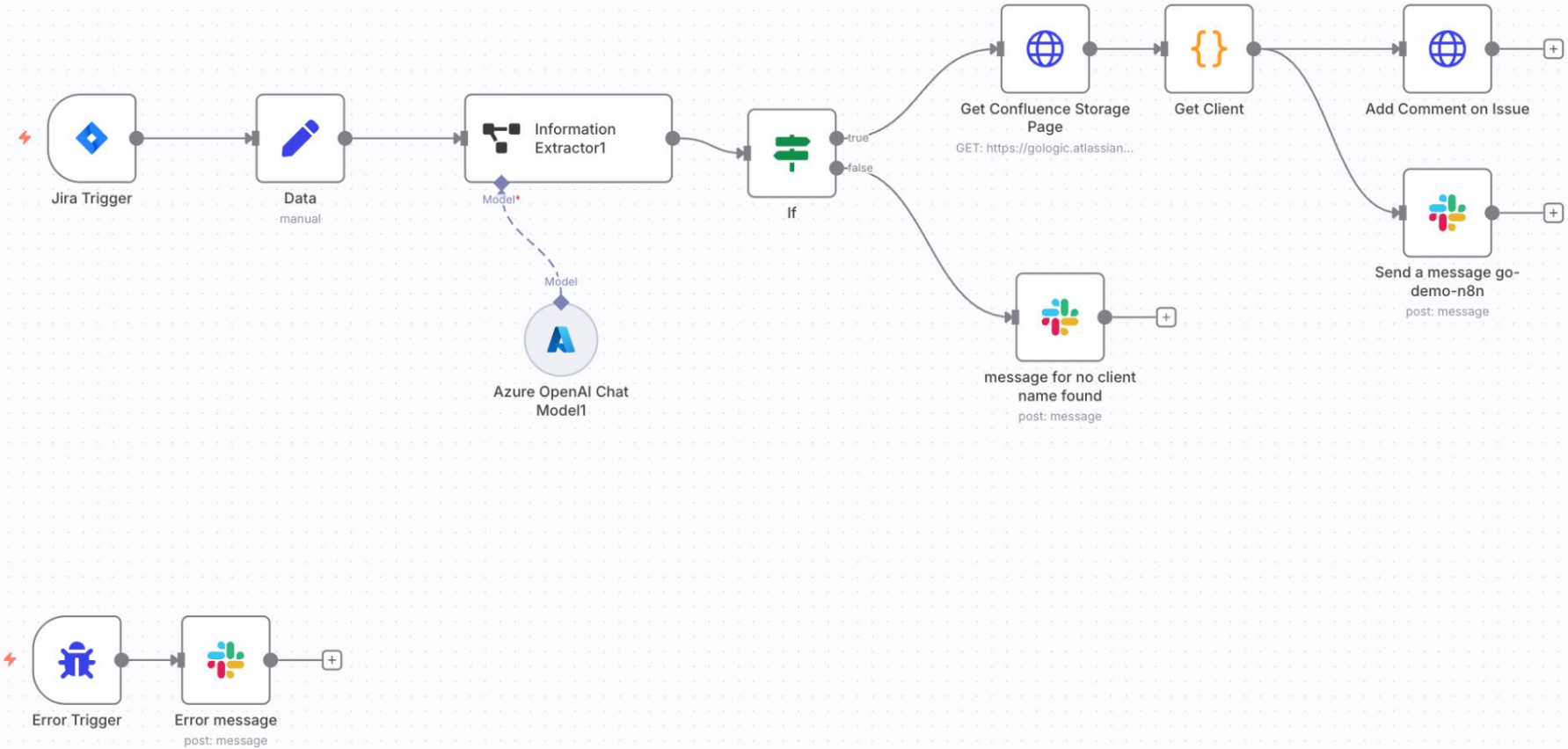

Jira Trigger
Data
manual
Information Extractor1
Model*
Model
Azure OpenAI Chat Model1
If
true
false
Get Confluence Storage Page
GET: https://gologic.atlassian...
Get Client
Add Comment on Issue
Send a message go-demo-n8n
post: message
message for no client name found
post: message
Error Trigger
Error message
post: message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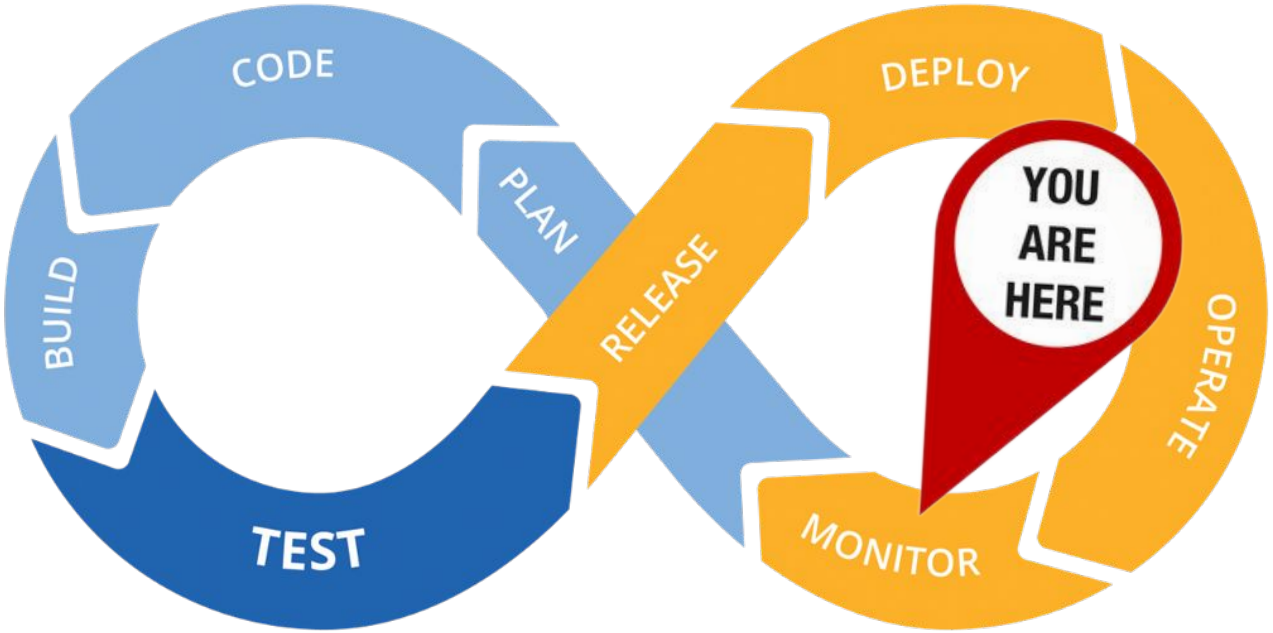
post: message
message for no client name found
post: message
Error Trigger
Error message
post: message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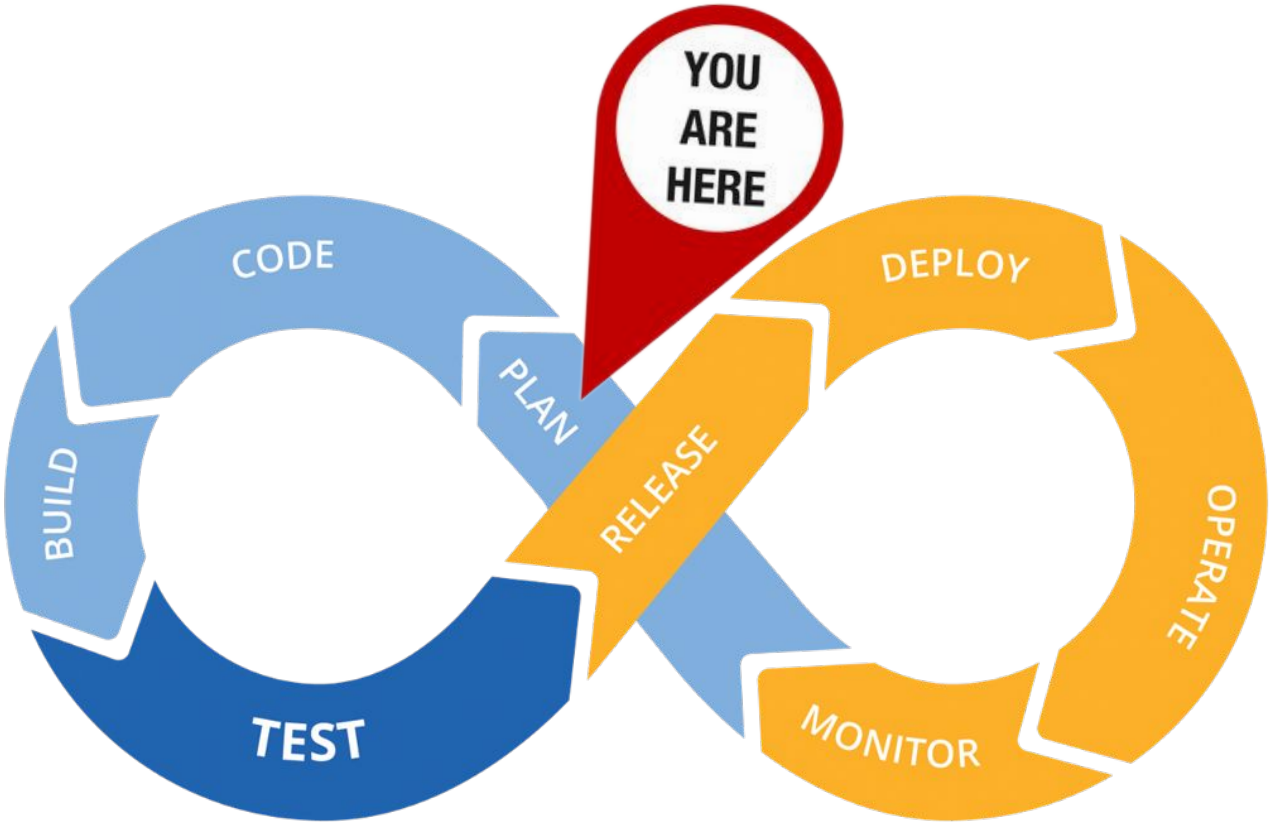
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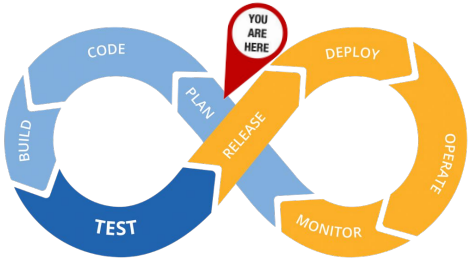
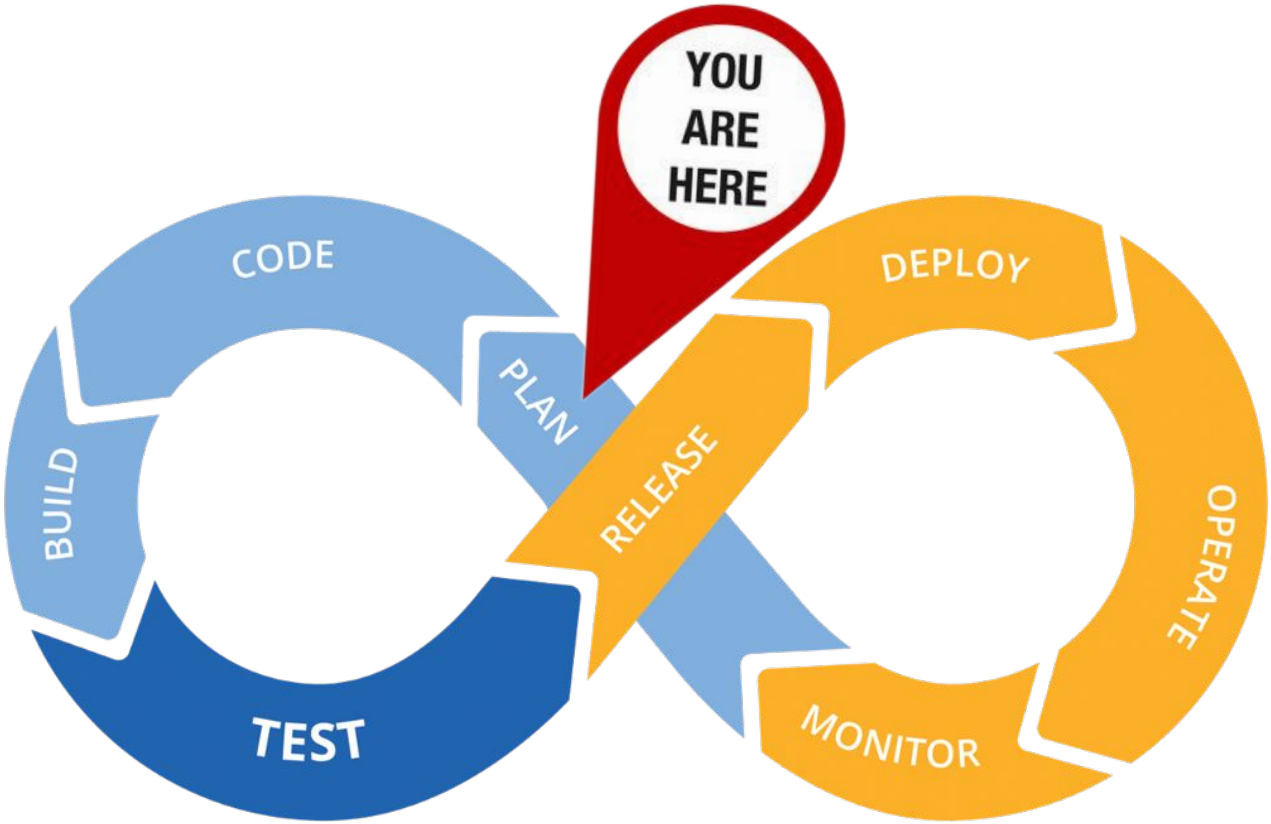


JetScale

Business rules, norms and requirements

IaC

Recommended actions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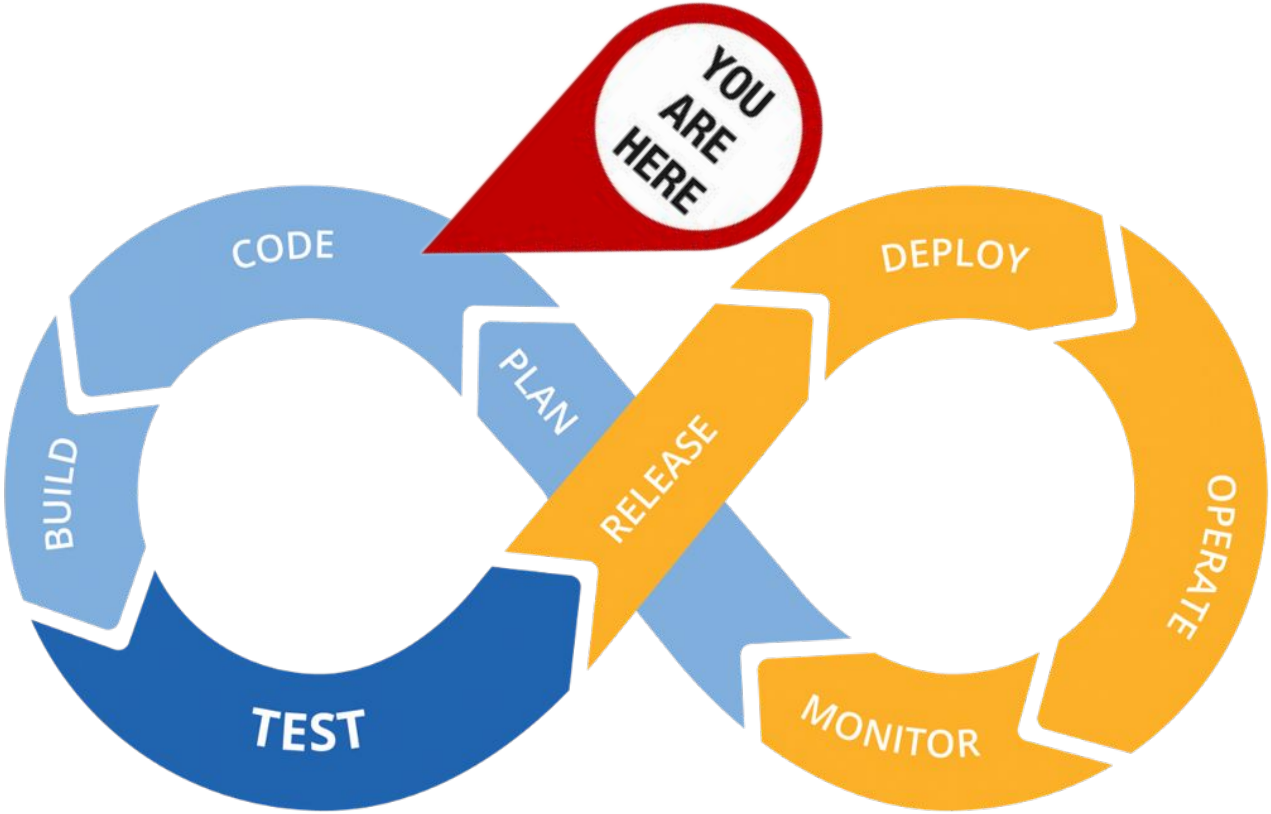
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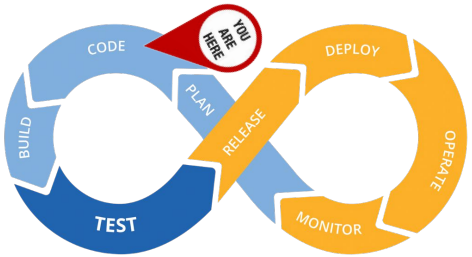
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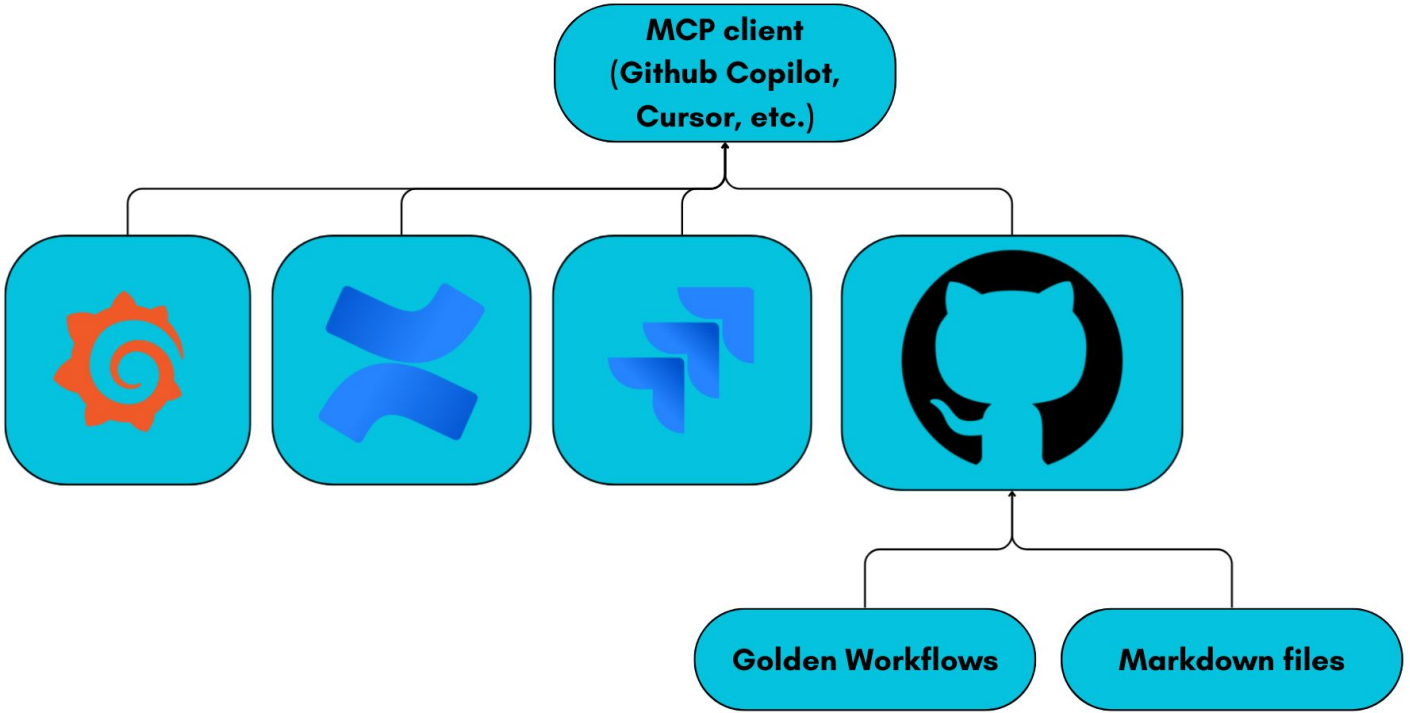
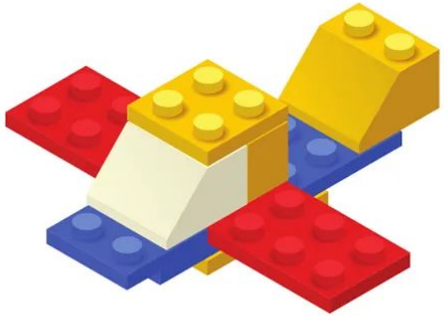
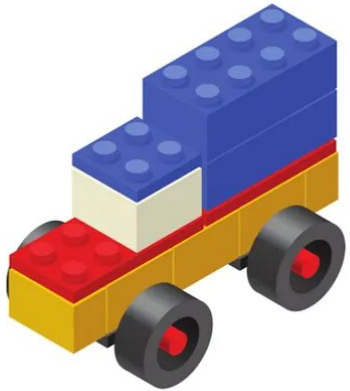
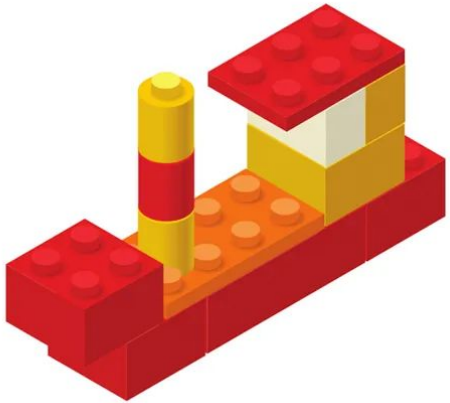
MCP


MCP client (Github Copilot, Cursor, etc.)
Golden Workflows
Markdown files

Takeaway

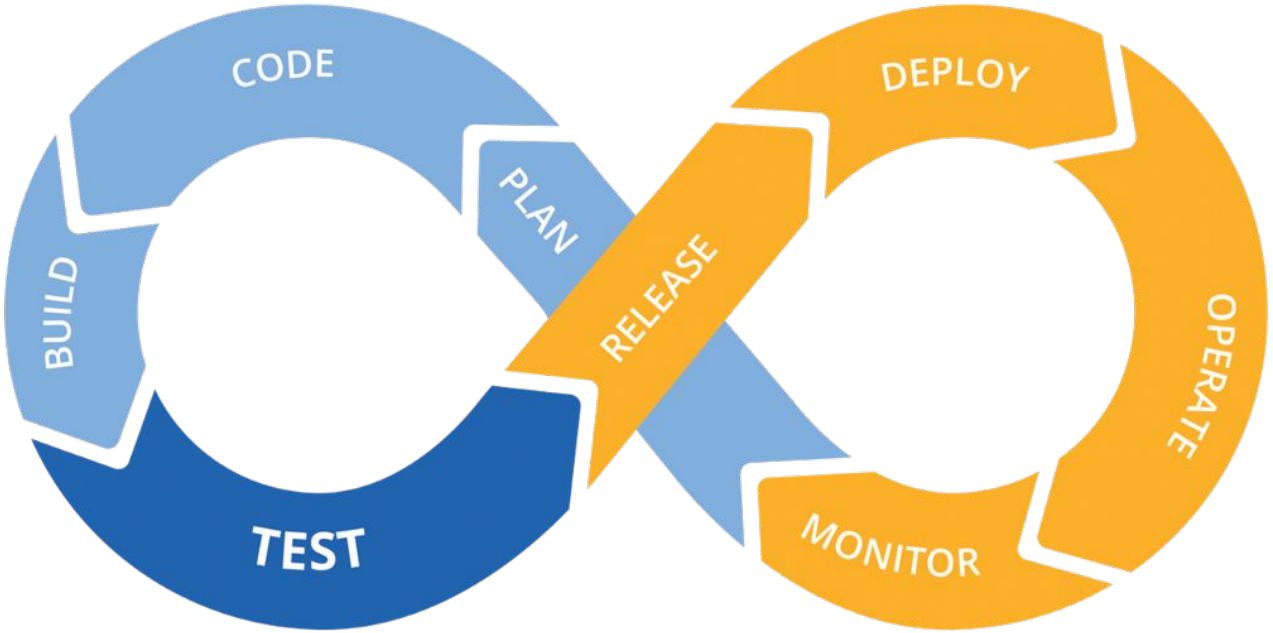






Takeaway

Hyper specific model
General model that can do all the things
General model with a very precise task
2022
2025
2026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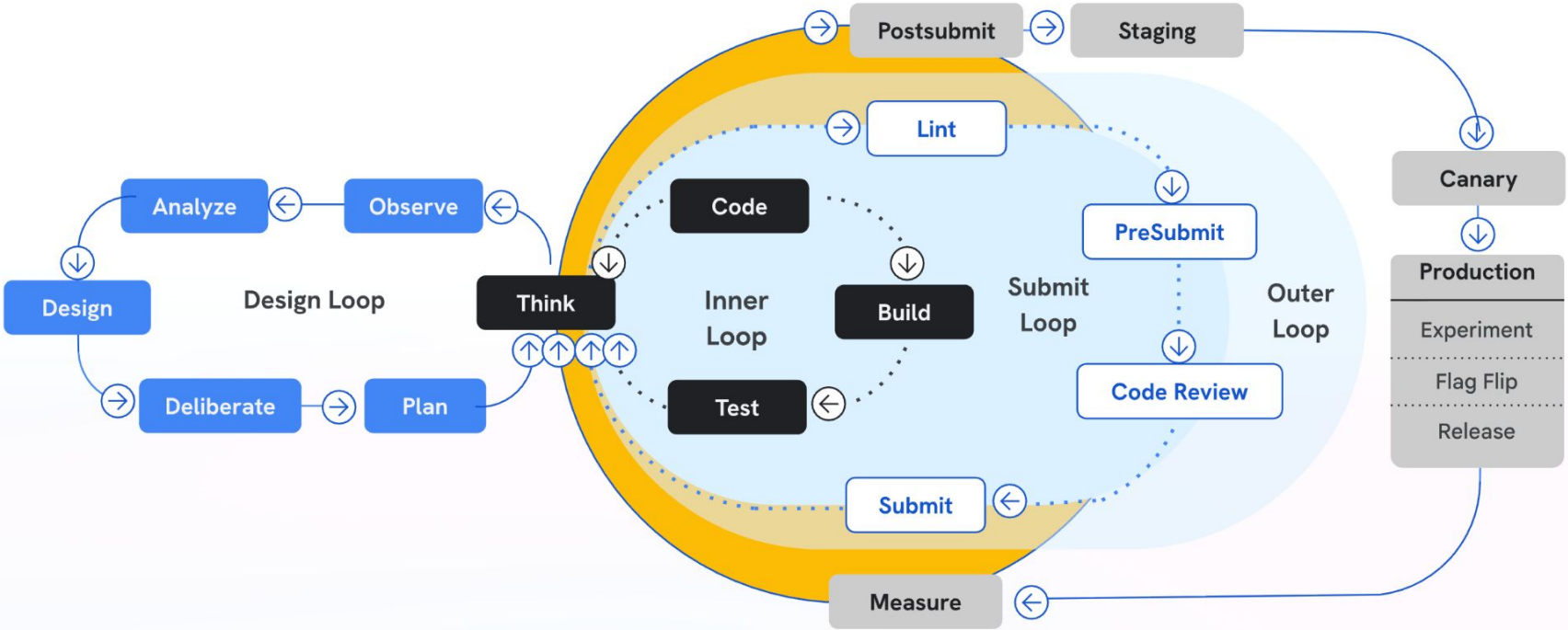
OPERATE
MONITOR



https://beyond.addy.ie/

In summary...

Context > Fine-tuning

Thank you!