Hypothesis- Driven Development

⚠ Product Pipeline

```
┌──────────────┐
│ Observations │
└──────────────┘
       │
       └──→ ┌───────┐ → ┌─────────┐ → ┌────────────┐ → ┌───────┐ → ┌────────────┐
            │ ideas │   │ designs │   │  code or   │   │ tests │   │ deployment │
            └───────┘   └─────────┘   │ execution  │   └───────┘   └────────────┘
                                      └────────────┘                      │
                           ┌──────────┐                                   │
                           │ released │ ←─────────────────────────────────┘
                           │ product  │
                           └──────────┘
```
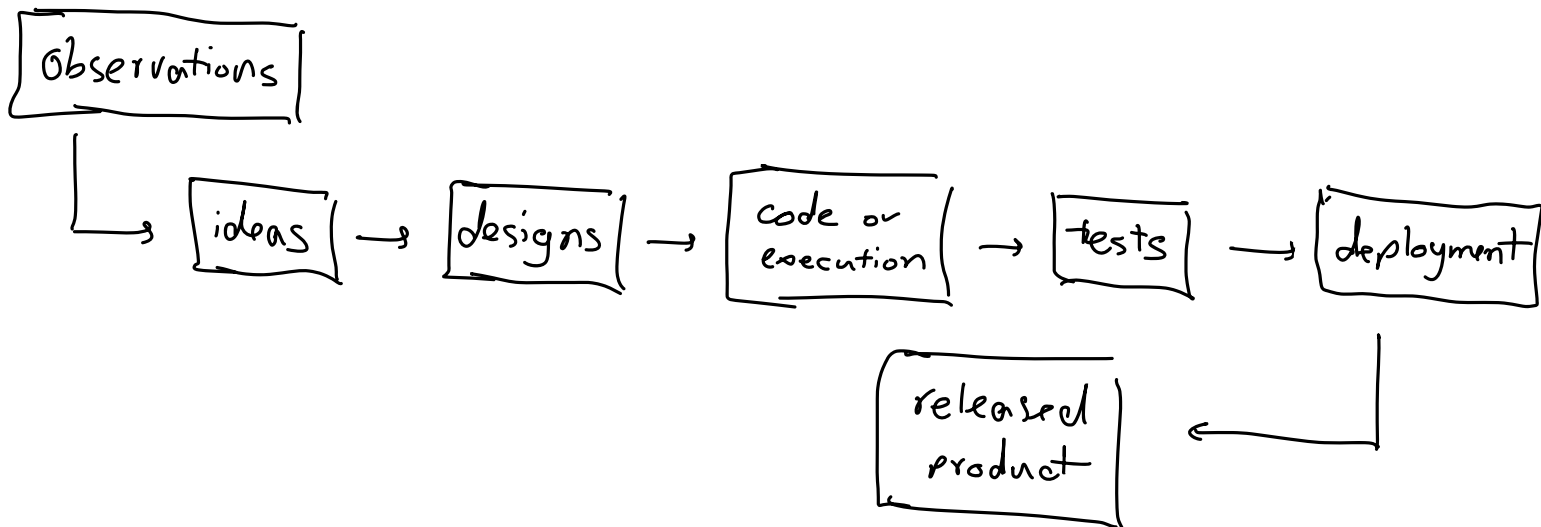
⚠ Continuous Design ～ features w/ high engagement
                            total features released

⚠ Agile Development ～ total features released

⚠ Continuous Delivery ～ frequency of releases

⚠ A healthy durable persona or set of personas is going
to be a constant part of your conversations about what
you're designing, what you're building, how you've supporting
it, ...

⚠️ The MVP is not v1.0.0. The idea is that the MVP is some kind of product proxy that we create so that we don't generate the waste of actually building out a full product
  ↳ goal : test hypothesis before investing in building a full feature

⚠️ Interview : choice of venue

in-person
in-situ > in-person
            ex-situ > video call > voice call

⚠️ Interview template
  ↳ ① tell me about [yourself in the role of persona] ?

    ② tell me about [your area of interest] ?

    ③ tell me your thoughts about [area] ?

    ④ what do you see in [area] ?

    ⑤ How do you feel about [area] ?

    ⑥ what do you do in [area] ?

⚠️ Design Sprints are a way that teams make time to do the work of continuous design in their Agile cadences

⚠️ 5 phases of design sprint

- → ① understand
- → ② sketch
- → ③ decide
- → ④ prototype
- → ⑤ validate

⚠️ Testing a demand hypothesis with lean startup

|	
Do I have real evidence from buyer that this is compelling	idea
What's our demand / value hypothesis? and its key components / child hypothesis?	Hypothesis
How do I prove or disprove The assumptions with a minimum of time and effort?	Experimental Design
Am I reacting or Am I focused on validating my pivotal assumptions	Experimentation
Pivot or Preserve?	Pivot or Preserve

⚠️ MVP types

MVP Archtype	Notes	Depth	Definition
Concierge	Hand create user experience	High	Low
Wizard of OZ	show or fake the customer interaction	Medium	Medium
Smoke Test	See if you can sell some	Low	High

⚠️ Asking the right question at the right time

Finding the right problem   Finding the right solution

demand/
value hypothesis
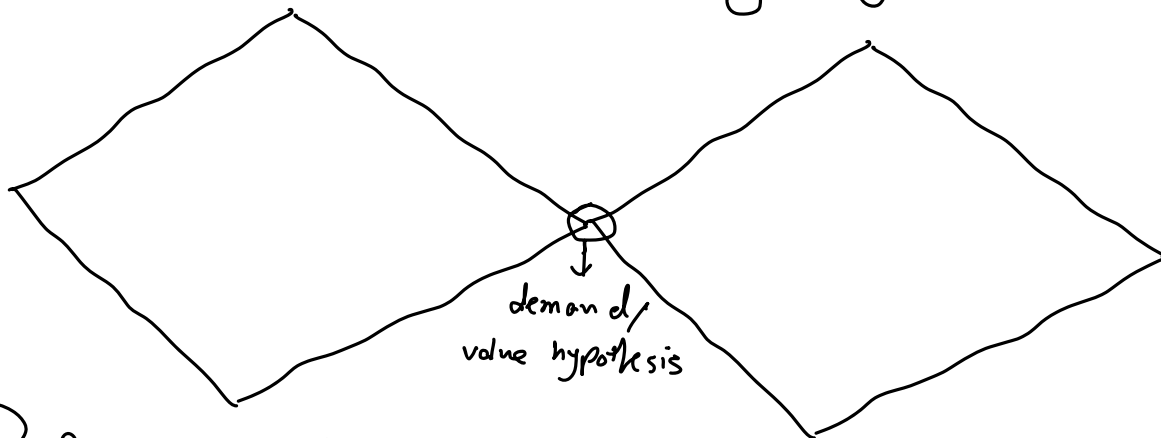
(n) Persona hypothesis
② Problem/ JTBD hypothesis

① usability hypothesis

⚠️ Design Process
- focus
- consistancy
- experimentation

⚠ strategy
 └→ what's the company (or product) about?
   └→ starting point: positioning statement

⚠ Usability test suites

① exploratory ──X──→ ② Assessment ──Y──→ ③ Validation

                                              ←─2─┘

X ⟹ It looks like this approach will fundamentally work

Y ⟹ The implementation is sound and ready for tuning
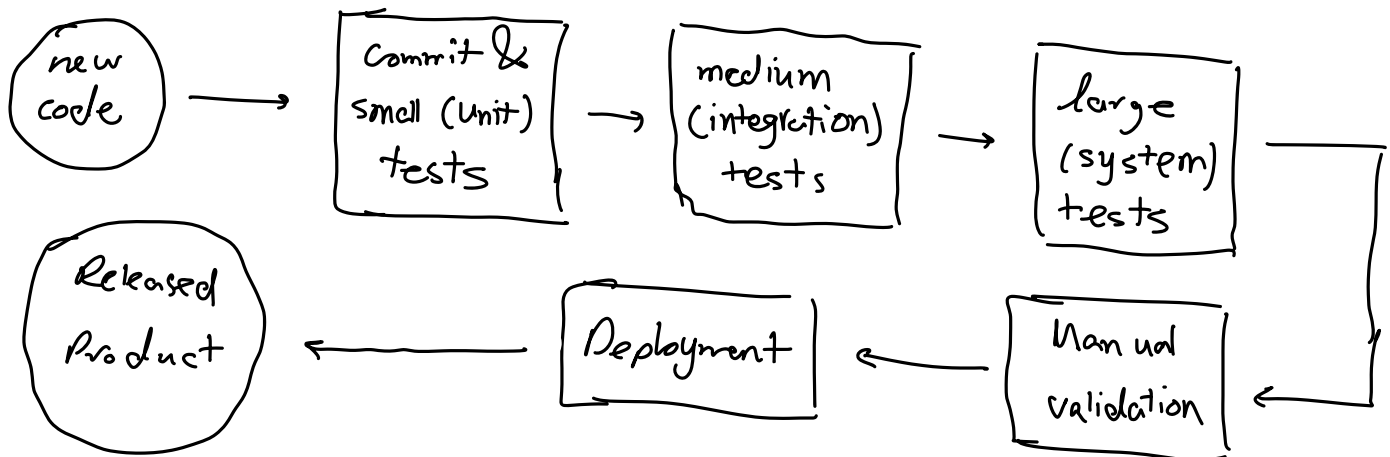
Z ⟹ ready for prime time

⚠ Top 3 reasons why teams don't test more
   ├→ It's painful to see how wrong you were about the user
   ├→ Members are have been turned off by phase-
   │ inappropriate testing
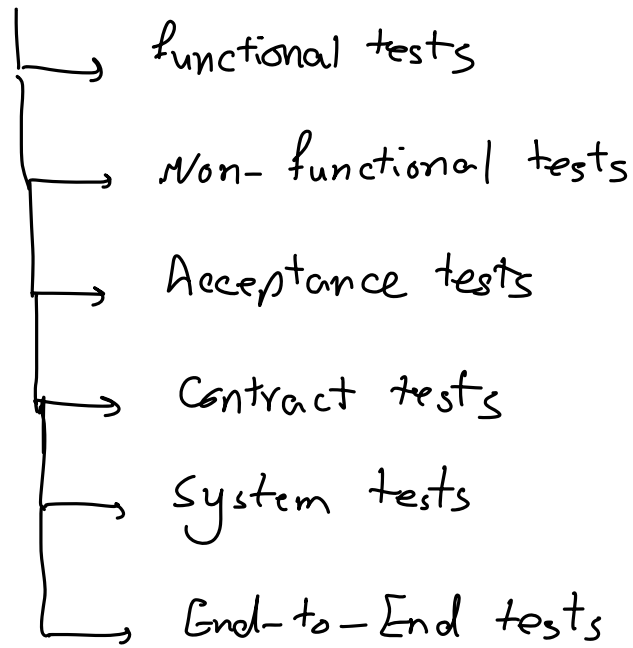   └→ Getting infront of real users is kind of a pain

⚠ Running a usability design sprint

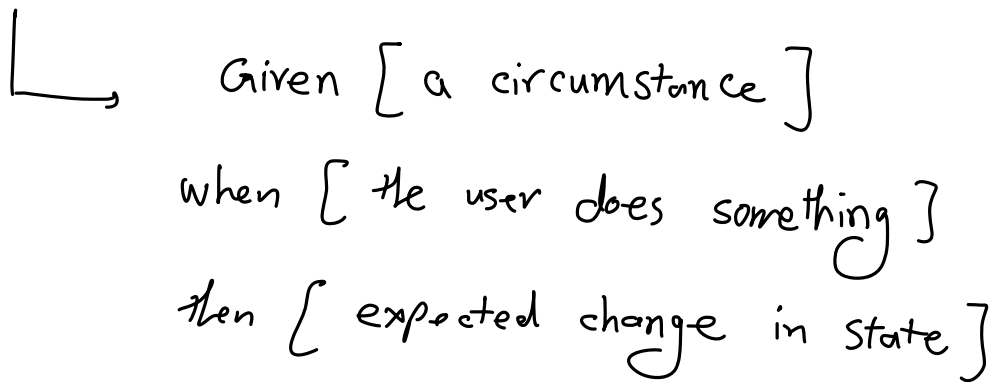| Day	Inputs	Outputs
1	Sprint checklist, Subjects Practice on testing User Stories, local assumptions	working test plan interactive mockups
2,3	working test plan interactive mockups	validated test plan test plan results
4	test plan results	Top learnings revised user stories revised wireframes

⚠ Continuous Delivery Pipeline

new code → Commit & small (Unit) tests → medium (integration) tests → large (system) tests → Manual validation → Deployment → Released Product

⚠️ large (system) tests

- → functional tests
- → Non-functional tests
- → Acceptance tests
- → Contract tests
- → System tests
- → End-to-End tests

⚠️ The Given - When - Then Pattern

→ Given [a circumstance]

when [the user does something]

then [expected change in state]

⚠️ Use case, what's included

① title: primary actor   ② Goal in context   ③ Scope   ④ Level

⑤ stakeholders and interest   ⑥ Pre condition   ⑦ Minimal Guarantees

⑧ Success Guarantees   ⑨ Trigger   ⑩ Main Success Scenario

⑪ Extensions   ⑫ Technology & Data Variations