ITI8740/ITX8522: Software Development Team Project

06. Minimal Viable Product

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Minimum Viable Product

2001. Frank Robinson. CEO of SyncDev:

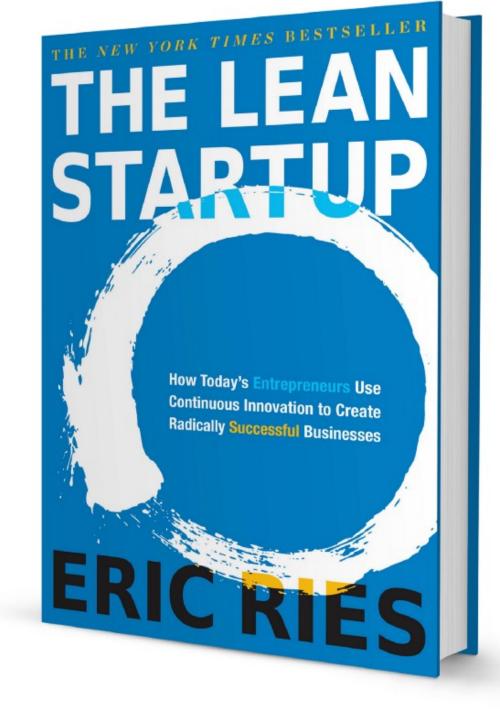
Unique product that maximizes return on risk for the customer.

or

A simplest version of a deployable product

Minimum Viable Product is that version of a new product that allows a team to collect the maximum amount of validated learning about customers with the least effort.

Eric Ries. Lean Startup



A Minimum Viable
Product is the smallest
thing you can build that
delivers customer value
(and as a bonus captures
some of that value back).

Ash Maruya. Running Lean



O'REILLY® Yevgeniy Brikman hello, A programmer's guide technologies, and teams

to building products,

startup

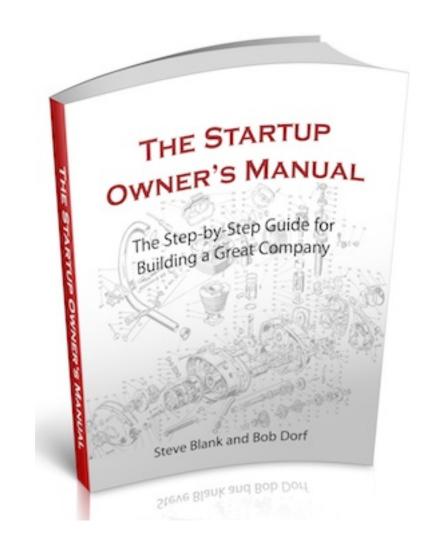
An MVP is a process that you repeat over and over again: Identify your riskiest assumption, find the smallest possible experiment to test that assumption, and use the results of the experiment to course correct.

Jim Brikman. Hello Startup.

MVP is ..

- A tactic for cutting back wasted engineering hours
- A strategy to get the product into earlyvangelists hands as soon as possible
- A tool for generating maximum customer learning in the shortest possible time.

Steve Blank. The father of customer development



MVP is not just a product with half of the features chopped out, or a way to get the product out the door a little earlier. In fact, the MVP doesn't have to be a product at all. And it's not something you build only once, and then consider the job done.

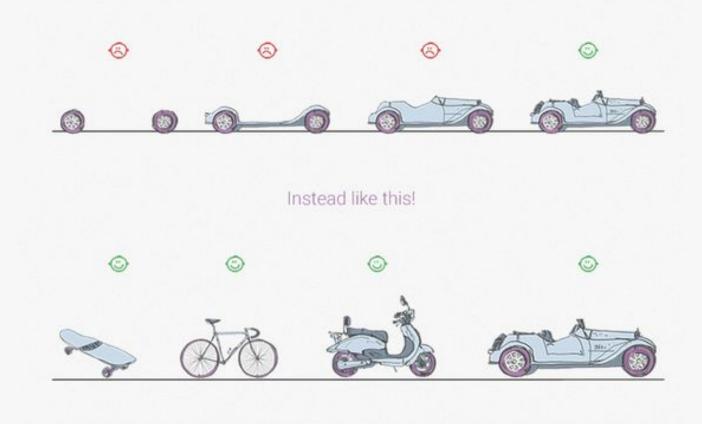
"What is the smallest or least complicated problem that the customer will pay us to solve'

Examples: Spotify & Minecraft

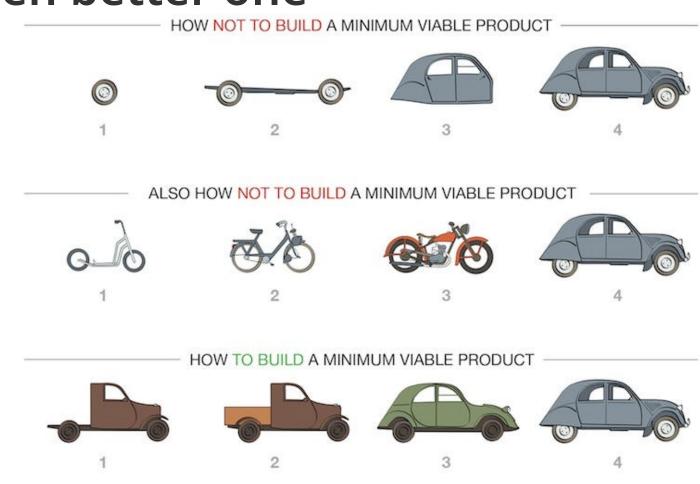
https://blog.crisp.se/2016/01/25/henrikkniberg/making-sense-of-mvp

Good Way to build MVP

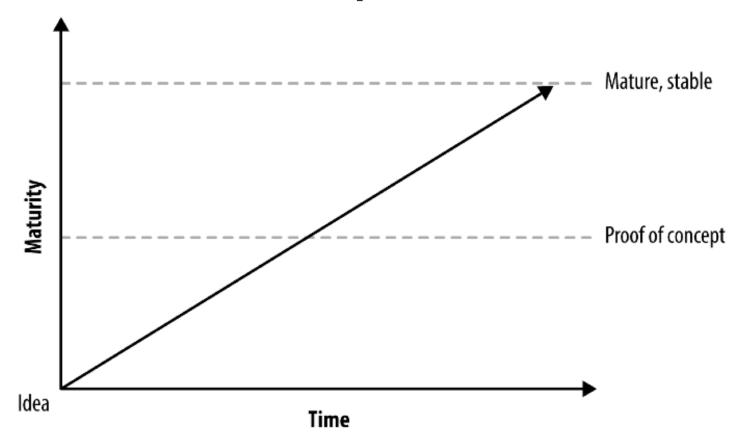
Not like this...



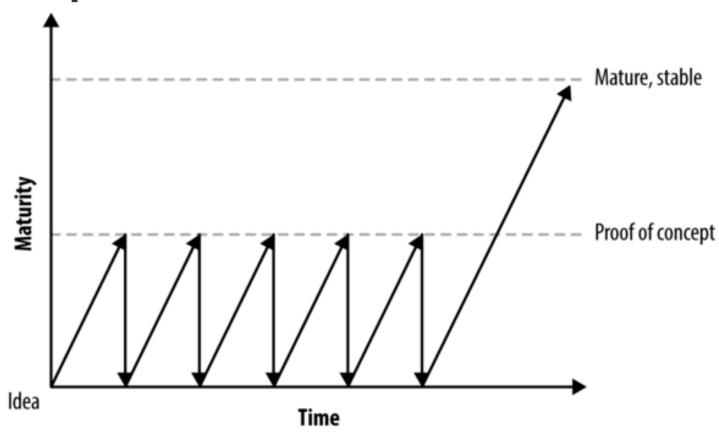
... and even better one



Regular Product Development



MVP Development



MVP is a prototype that focuses on the most important part of a product or service.

Typically offered to a group of potential customers, the most important aspect is viability in order to test the core of the value proposition; to learn from it; and to be able to replicate the idea

Define the Features

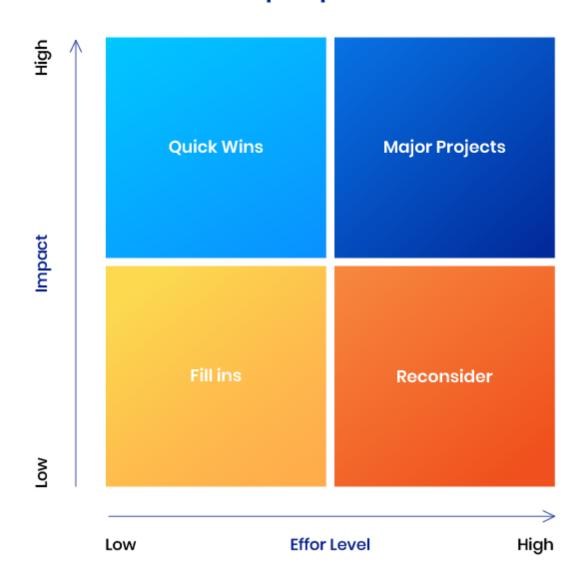
- Define your target audience.
- Find out their biggest issues.
- Decide how your product will solve these issues.
- Learn how customers solve these issues right now.
- Research who your direct competitors are.
- Research who your indirect competitors are.
- Define killer features.

Scoping the Features

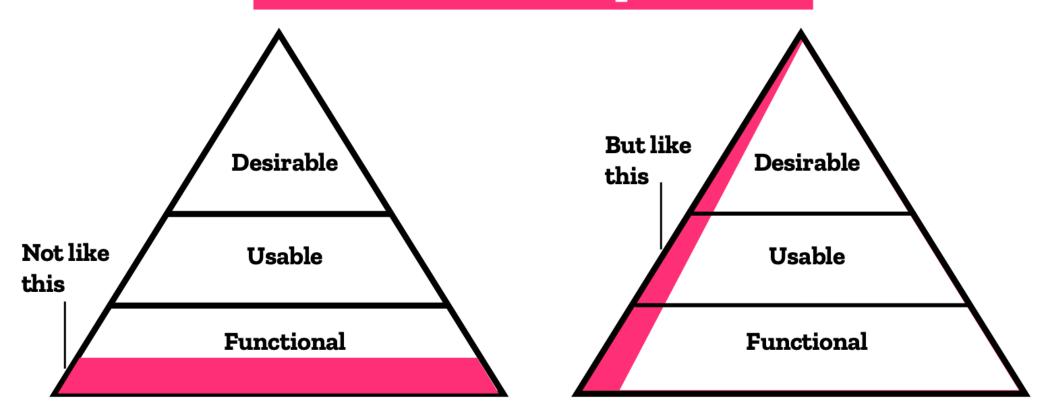
- *Business value:* Can we measure the cost of a feature?
- Relation between the feature cost and its https://slobodastudio.com/blog/how-to-decide-on-mvp-features/complexity:_ How complex is a new feature? Can we use a simpler one?
- *Timing:* How much time do we need to create a new feature?

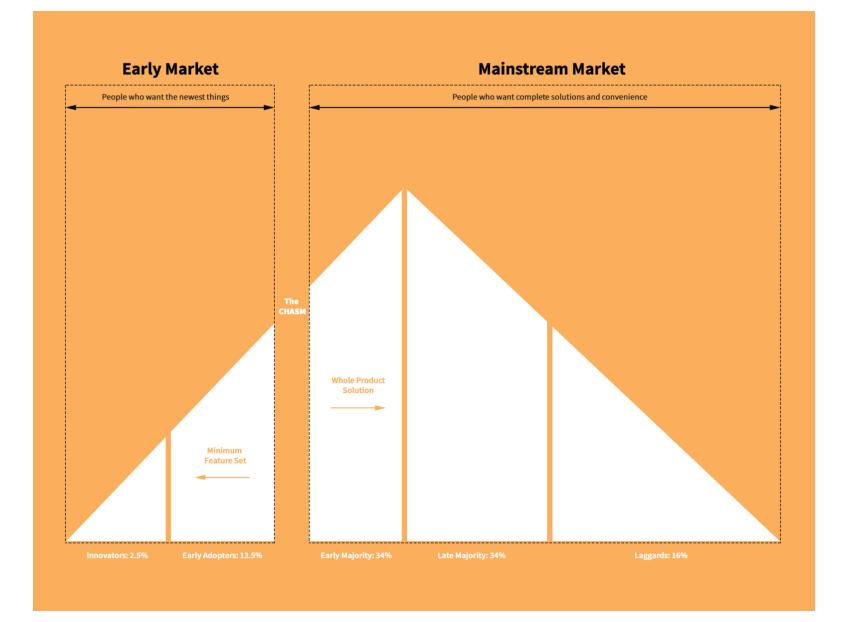
See: https://sloboda-studio.com/blog/how-to-decide-on-mvp-features/

Effort and impact prioritization



Minimum viable product





Sometimes little is too little









@2017 1-55 1-5 --

unita Lita Carra da mateira da carra

Outcomes of MVP

- The hypothesis is **completely correct**: development continues
- Hypothesis is partially true: customer feedback helps to refine the idea
- Hypothesis is **refuted**: at least most of the funds are retained that would have been used or implementation.

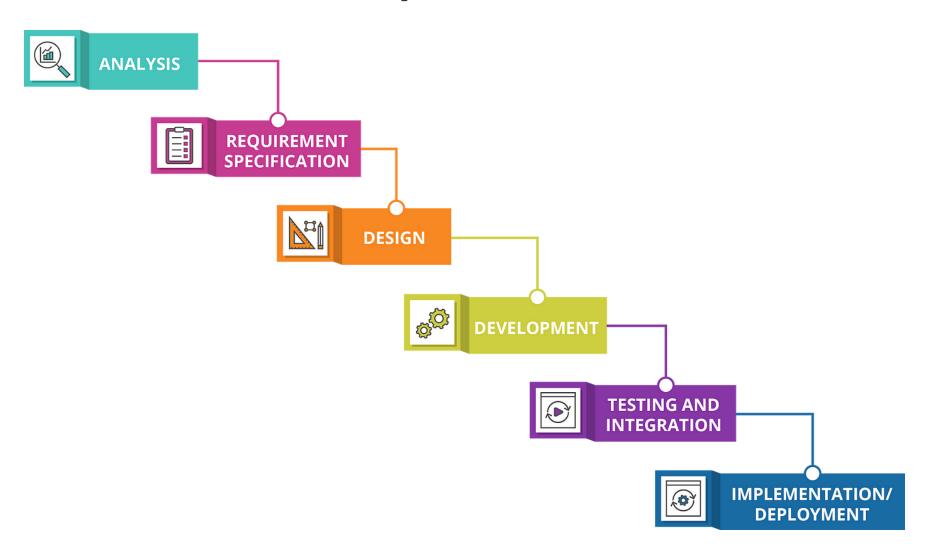
Key takeaways

- MVP is a process not a one-off thing.
- Figure out the minimal for your specific case.
- MVP is not an excuse for a s***y product.
- Frontend-oriented for especially business-to-customer cases.

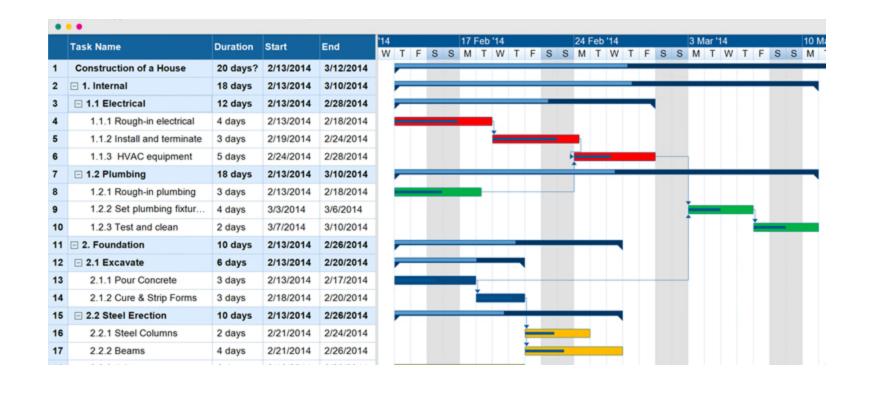
Overview of Methodologies

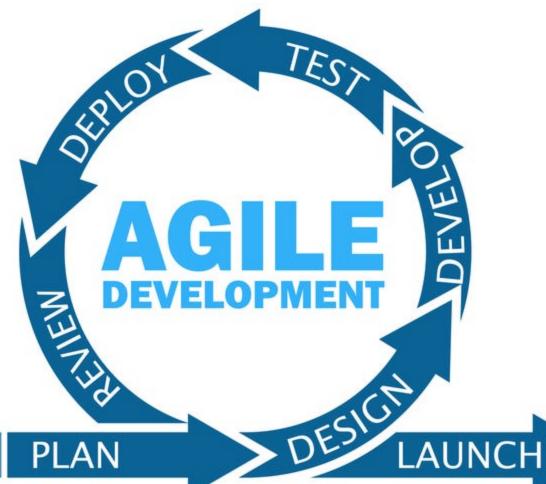
Two different approaches.

Waterfall Development









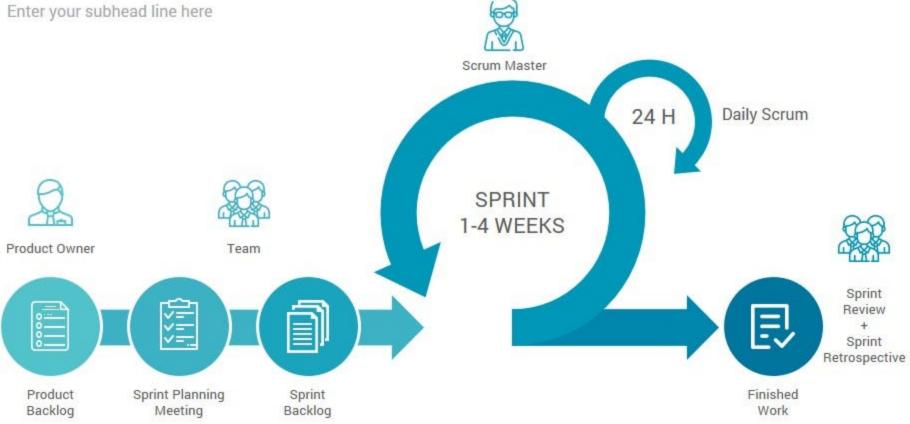
Benefits

- Reduction of uncertanity
- Minimal time to market
- Measurability
- Traceability
- Right action right time

Manifesto for Agile Software Dev

- INDIVIDUALS AND INTERACTIONS OVER PROCESSES AND TOOLS
- WORKING SOFTWARE OVER COMPREHENSIVE DOCUMENTION
- CUSTOMER COLLABORATION OVER CONTRACT NEGOTIATION
- RESPONDING TO CHANGE OVER FOLLOWING A PLAN

Scrum Process



Scrum: Roles

- **Product Owner** Represents the stakeholders and is the voice of the customer.
- **Development Team** Self-organizing, cross-functional team of people who are responsible for building the actual product.
- Scrum Master accountable for establishing the Scrum process

Scrum: Elements

- **User Story** Iinformal, general explanation of a software feature written from the perspective of the end user. Its purpose is to articulate how a software feature will provide value to the customer.
- **Sprint** short, timeboxed period when a team works to create a done, usable, and potentially releasable product increment.
- **Product Backlog** prioritized list of all the functionalities that we need in the product. It is a single source of truth for all the product requirements.
- Sprint Backlog Set of Product Backlog items that we select for the sprint.

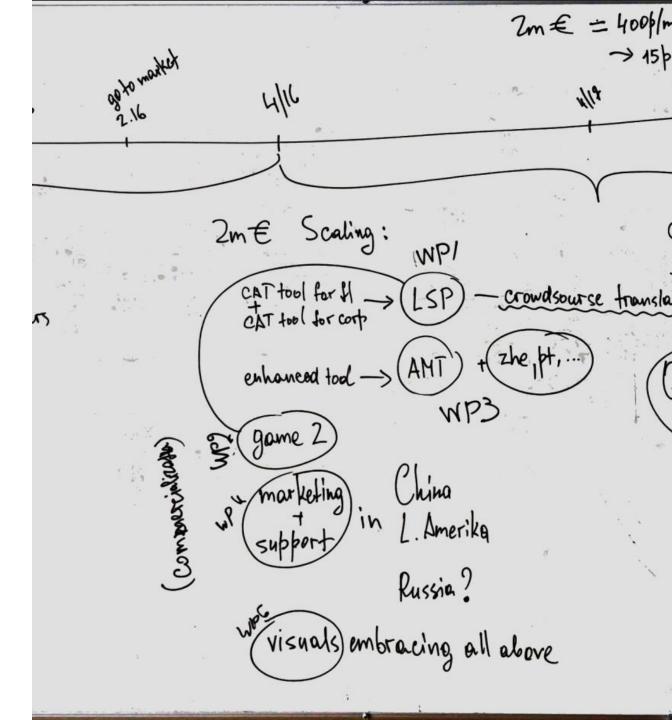
Scrum: Practices

- **Sprint Planning** event in Scrum that kicks off the sprint by defining the scope of delivery and how to accomplish that work.
- Stand Up (Daily Scrum) 15 minute PPP event to keep track of progress.
- **Sprint Review** event that takes place at the end of the sprint to inspect the increment and adapt the product backlog.
- Retrospective Meeting event that solely focuses on improvements on every aspect of Sprint

Scrum: How does it work in practice?

Prerequisites

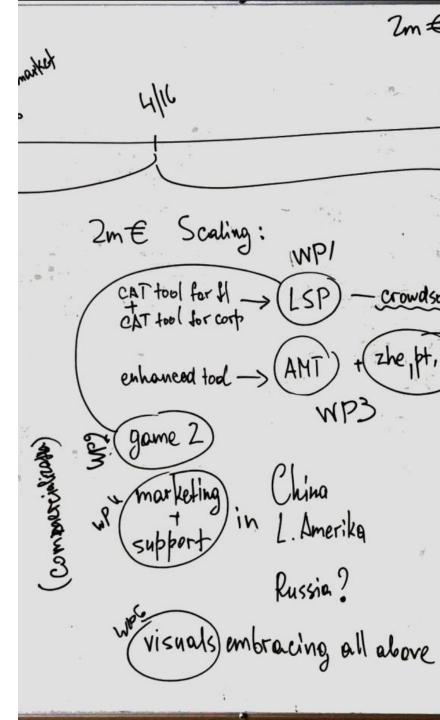
- Describe the desired end result in general terms.
- Define the sprint cycle length.

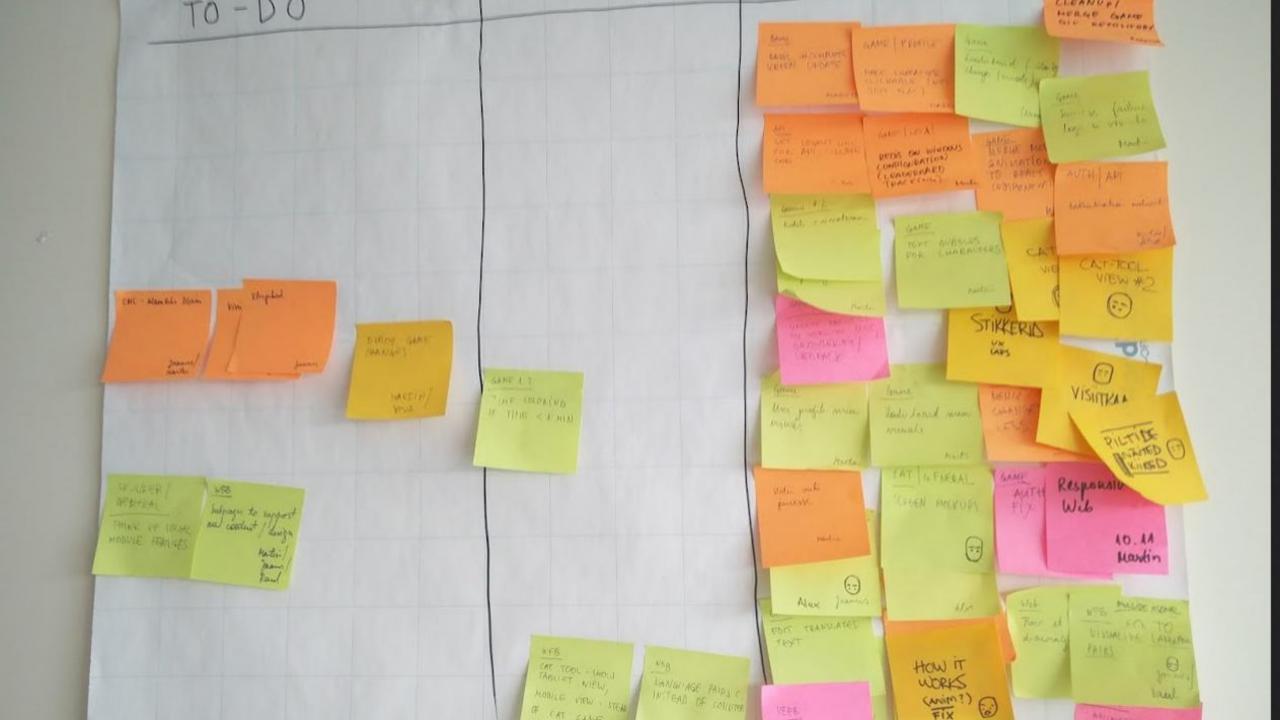


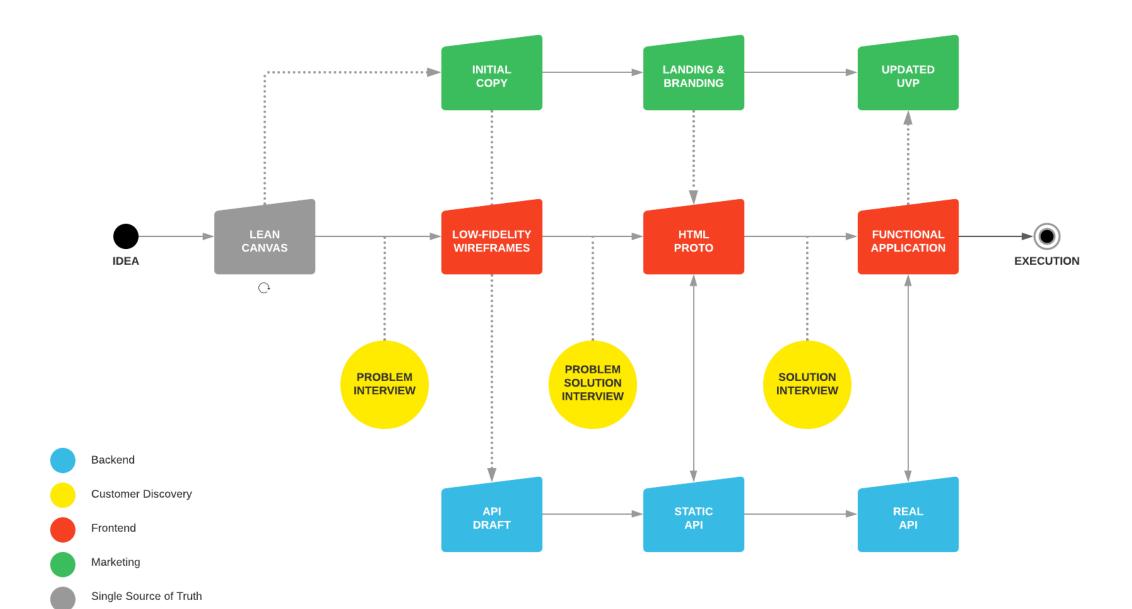
Scrum: How does it work in practice?

Running the sprint

- Set general goals for next sprint
- Brainstorm
- Build consensus what to build next
- Define clear tasks and clear measure of success
- ... work ... and share the testing load
- Evaluate the results







Do not invent the wheel

- Lean Validation Playbook: https://guides.co/g/the-lean-validation-playbook/60783
- Startup Playbook https://playbook.samaltman.com/
- Thoughtbot Playbook https://thoughtbot.com/playbook

References

- What is a Minimum Viable Product. https://blog.leanstack.com/minimumviable-product-mvp/
- Don't Start With an MVP. https://blog.leanstack.com/dont-start-with-an-mvp/
- How DropBox Started As A Minimal Viable Product.
 https://techcrunch.com/2011/10/19/dropbox-minimal-viable-product/
- Our Dangerous Obsession With The MVP. https://techcrunch.com/2014/03/01/our-dangerous-obsession-with-the-mvp/.
- A Minimum Viable Product Is Not a Product, It's a Process. https://www.ycombinator.com/library/4Q-a-minimum-viable-product-is-not-a-product-it-s-a-process

References

- How to set up a Minimum Viable Product (MVP).
 https://medium.com/innovation-machine/from-a-problem-to-a-well-defined-mvp-in-8-steps-88efa12c1345
- A Step-by-Step Guide to Build a Minimum Viable Product (MVP). https://www.netsolutions.com/insights/how-to-build-an-mvp-minimum-viable-product-a-step-by-step-guide/
- Making sense of MVP (Minimum Viable Product) and why I prefer Earliest Testable/Usable/Lovable.
 https://blog.crisp.se/2016/01/25/henrikkniberg/making-sense-of-mvp
- Why a minimum viable product can be bad for your business. https://qvik.com/news/mvp-minimum-viable-product-can-be-bad-for-your-

Thank you!