

Concept vs. product,
open versus proprietary:
—
where a master thesis
should stand

Proof of Concept (POC)

- Is a small exercise to test the design idea or assumption
- The main purpose of developing a POC is to demonstrate the functionality and to verify a certain concept or theory that can be achieved in development
- Is designed purely to verify the functionality of a single or a set of concepts to be unified into other systems.
- The usability of it the real world is not even taken into consideration when creating a POC because integration with technologies is not only time-consuming, but also might weaken the ability to determine if the principle concept is viable.

More about POC

- In some cases, a POC maybe a simple research that would further lead to a concept of the upcoming project, or a more complex concept
- The final POC does not have to be bug-free but should ultimately show the functionality of the concept
- This exercise is to identify the product features before jumping into development.
- POC explore emerging technologies, and provide an evidence of concept to the client for their product.

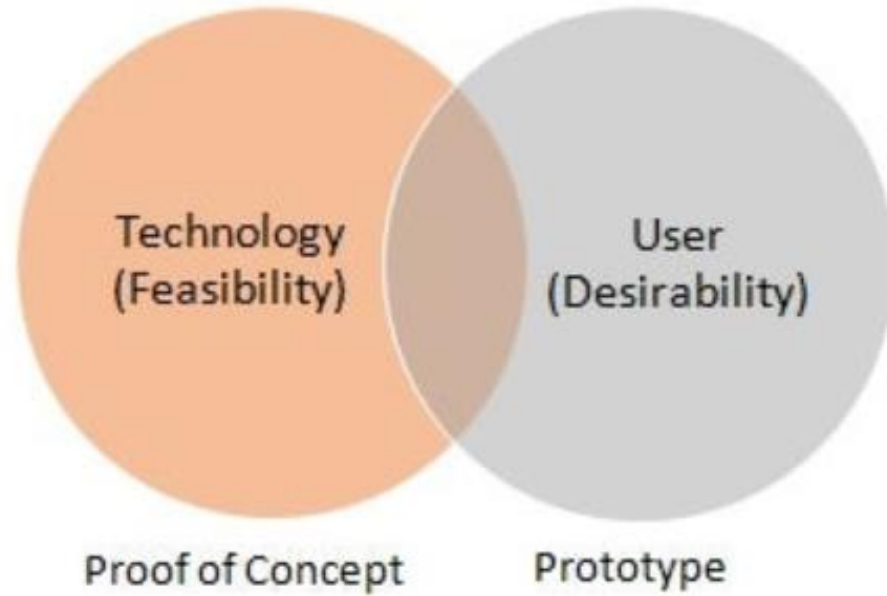
POC – a small step towards a product

- is built to verify some minor technical assumptions before getting down to development
- is like small research that gives you green light to go further with the development of a product
- covers a small part, not the entire system, and users will never get to see it because POCs are used inside the company just to clarify which way to go with the development

Integration of Technology and User experience creates a Product

1. First, the developer assigned to the POC conducts research and begins to develop the feature with the goal of proving that it's feasible.
2. Once this is proven, the POC is extended to develop an integrated working model to provide a snippet of the final product.
3. After that it's either presented to the client and the product team to sell the idea for an upcoming project or it can be used internally within the development teams to share knowledge and stimulate innovation.

POC vs. Prototype



POC vs Prototype

POC

- Shows that a product or feature can be developed
- Offers a model of just one product's aspect,
- Says that the product can be developed and validates the technical feasibility
- Is small and can verify only a single issue.

Prototype

- Shows how will be developed the product or feature
- Working model of several aspects of the product
- Shows a potentially buggy, unrefined attempt at the final product
- Used to discover errors in the system, to test the product's design, usability, and often functionality.

Prototyping (1/2)

- Is a valuable exercise that allows the innovator to visualize how the product will function
- It is a working interactive model of the end product that gives an idea of the design, navigation and layout.
- Is a first attempt at making a working model that might be real-world usable.
- This technique also helps in documentation and provides the team with a more accurate estimation how long it will take to complete.

Prototyping (2/2)

- Prototyping is a quick and effective way of bringing a client's ideas to life and serves a sample for the potential users to evaluate, test and share their feedback to make improvements.
- Things go wrong in the process, but identifying these errors and stumbling blocks is principle purpose of building a prototype.
- A prototype has almost all the functionalities of the end product, but will generally not be as efficient, artistically designed, or durable
- A prototype's main purpose is to help making decisions about product development and reduce the number of mistakes.

Minimum viable product (MVP)

- Is a version of a product that has just enough features to stay viable
- It is not packed with dozens of cool features and only has the core functionality
- The purpose of building an MVP is to get the minimum version of the product to the market

MVP vs Prototype

MVP

- Feels like a separate product itself,
- Is a minimum version of the final product and it is delivered to the market right away.
- It has to be simple and well-polished, without any bugs or other problems.

Prototype



- Is more of a draft
- Usually do not make it to the market, but they still get to be in the customer's hands. Helps to get a sneak-peek at how real people will interact with the product
- Created for the sake of finding those errors and often are far from being perfect.

Where a master thesis should stand?

- Main target: POC
- A prototype can be a plus
- MVP can be developed after the master thesis (start-up?)

Open source vs. proprietary software

COMPARISON OF OPEN SOURCE AND PROPRIETARY SOFTWARE

	proprietary software	open source software
license fee		
maintenance and support	commercial support	community or commercial support, if available
source code access	no access	access, modification possible

Where a master thesis should stand?

- A (software) POC/Prototype for the master thesis is done in a public institution
- It is expected that the (software) POC/Prototype is open-source