

# What is a Prototype and Where do I start?

🕒 READ TIME: 2 MINS

👥 AUDIENCE: BUSINESS & TECHNOLOGY

## WHAT IS A PROTOTYPE?

Prototyping is a huge part of any product design journey. It can be considered pre-emptive testing before lots of time, money and resource is used. However, prototyping isn't just one thing. There are lots of different styles of prototyping

Although there are a lot of different styles of prototypes, they can be categorised within two axes: Fidelity and Feature Depth. Fidelity is how close to the final product your prototype is and Feature Depth is how focused your prototyping is.

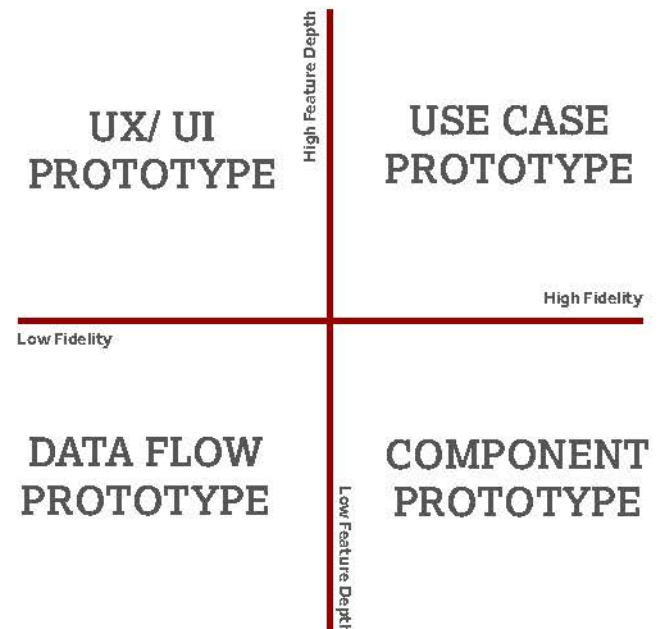
### 1. DATA FLOW PROTOTYPING

Low Fidelity, Low Feature Depth

It's a rough basic outline of how data is sent around the system. For instance, in a photo editing app data flow design, you might outline the following low fidelity data flow prototype.

### 2. UX/ UI PROTOTYPING

Low Fidelity, High Feature Depth



User Experience (UX)/ User Interface (UI) Prototypes are very common and give an overall visual view of the system and how users will interact with it. This prototype tests how your users will interact and experience your technology and often highlight issues around visual elements. You may go through several iterations of prototypes at this point starting with quite low fidelity designs which become higher as feedback is given and they're reviewed.

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### 3. COMPONENT PROTOTYPING

High Fidelity, Low Feature Depth

Component prototyping looks at specific components to test if they will work. These prototypes are only really used if there is a part of the system that you're unsure how it would work. For instance, if you were developing a nuclear reactor, there are lots of very complex parts with specific functions. Before spending lots of money on building the whole reactor, you first would want to identify any issues that may arise with those component parts.

### 4. USE CASE PROTOTYPING

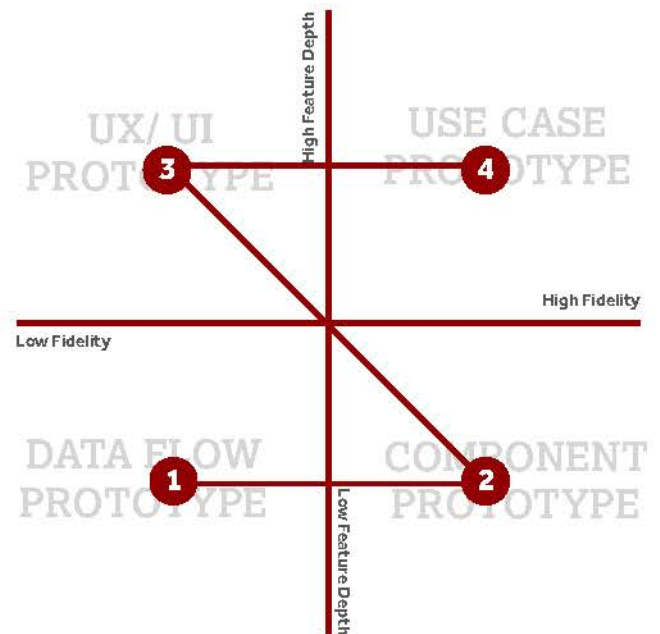
High Fidelity, High Feature Depth

A Use Case Prototype is what most people would imagine if you said prototype. It's a fully working demo of a product or service. Every element is represented and you're mainly testing whether the prototype meets the users use cases (requirements).

### A SIMPLE EXAMPLE

This is perhaps quite a common

prototype journey, where a business first draws their idea at a high level and identifies some complex components (1). They then test that single component to see how viable the whole project is (2). Off the back of that success they then design a UX wireframe for the whole system (3). Using that wireframe then create a more functional prototype to demo to investors (4).



We also have a SME Prototyping Cheat Sheet that you're able to download from [lancashirecyberfoundry.co.uk/resources](http://lancashirecyberfoundry.co.uk/resources)

## ABOUT THE AUTHOR

# Geraint Harries

Before starting at Lancaster University over 4 years ago, Geraint had worked in software development roles in both IBM and the Civil Service. In addition to being a qualified teacher, Geraint has worked freelance with a varied client base as a software developer and graphic designer.

