

Prototyping – Workshop

24.11.2023



IT-Projektschmiede

Agenda

Goal:

1. You create your own digital prototype
2. At least one Feedback-loop



About Us– IT Projektschmiede

Software-Development Partner for ideas
with impact



Development



Consulting



Workshops



Example: 48 hours from idea to prototype



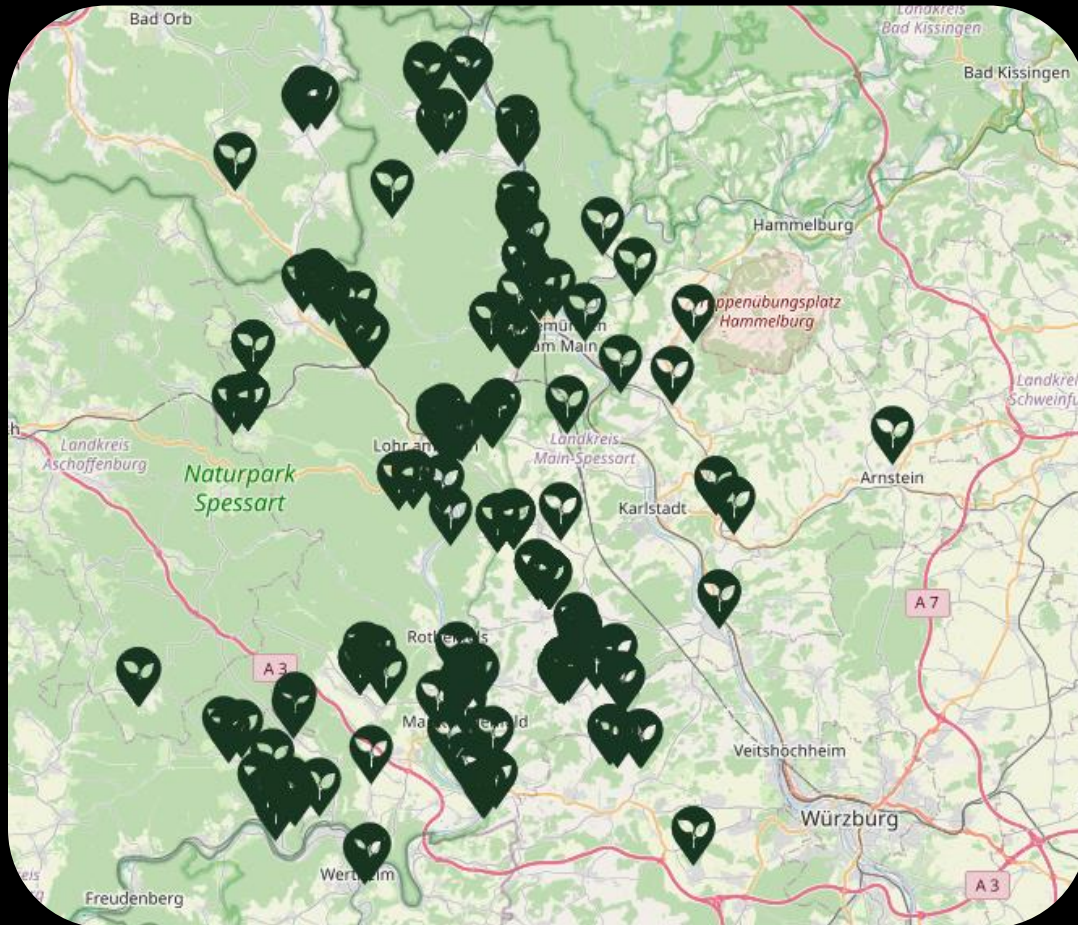
pflanzzeit.org

Initial situation:

- Group of motivated founders
- Hackathon format
- WordPress as website builder



Result



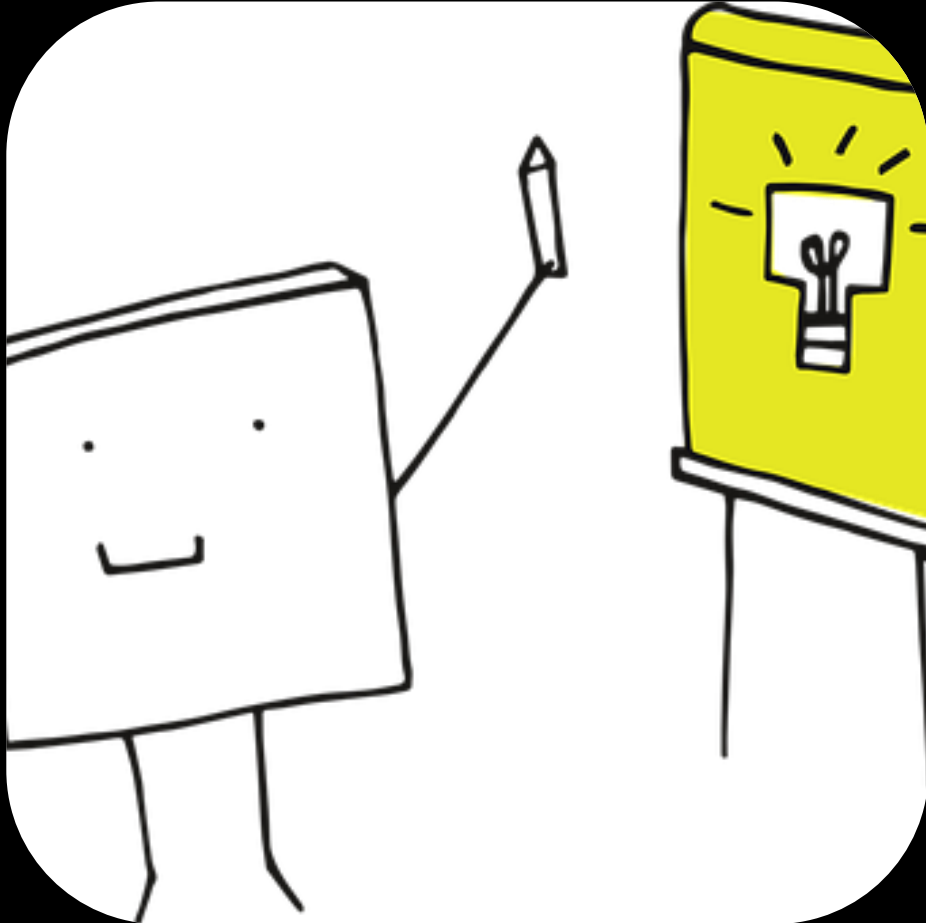
- 225 trees in 4 weeks



Basics



Prototyping-Basics: Preotyping (Pre-Prototyping)



Use just anything, that is easy accessible and keep it simple

Use Case:

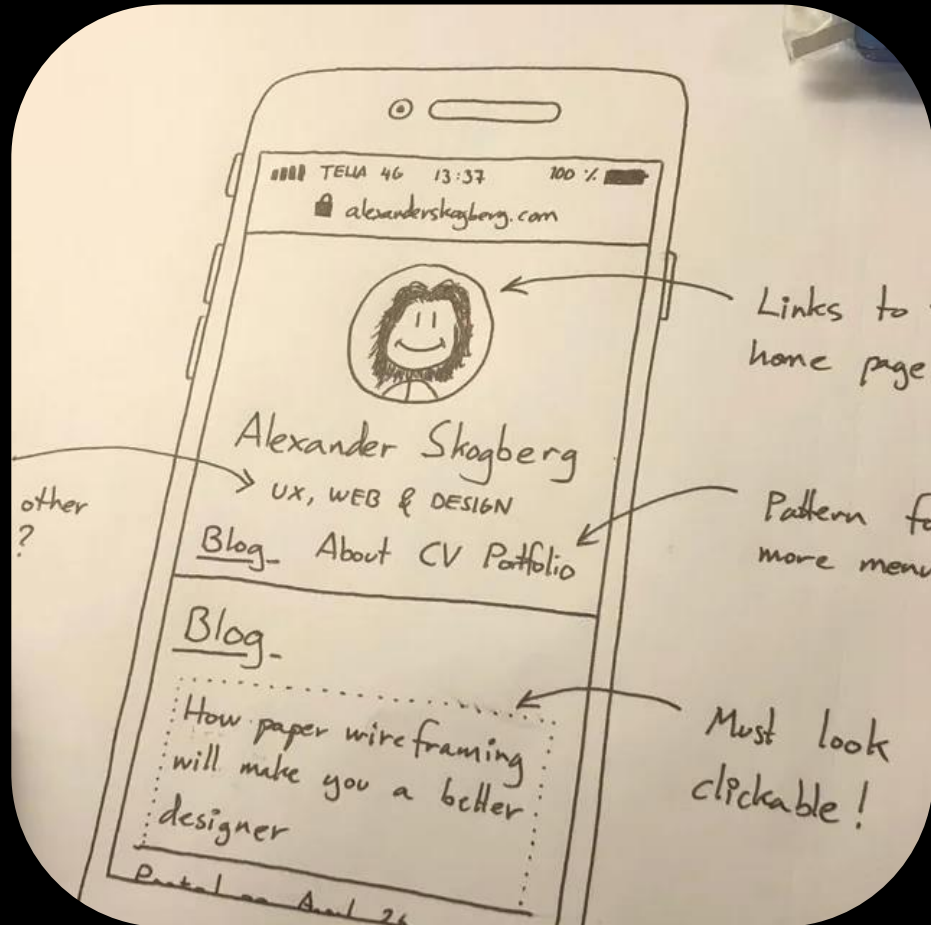
- Explain your idea to others



VIIND



Prototyping-Basics: Wireframing



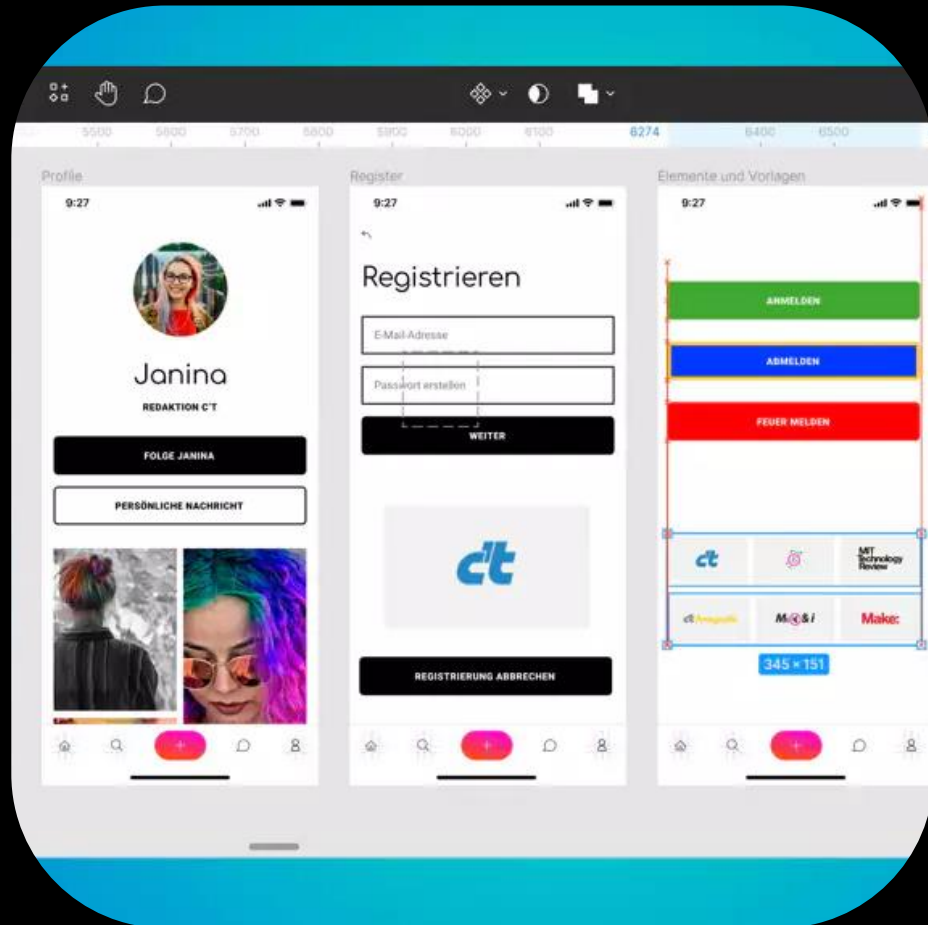
Simple sketches with pencil on paper showing basic elements und User Interface

Use Case:

- Defining structure
- Recieving early feedback
- Startingpoint for digital or interactive prototype



Prototyping-Basics: Digital Prototypes



Using graphic tools like figma or blender

Use Case:

- Customer feedback
- Finalize Design
- Estimation of costs for development



Prototyping-Basics: Code-Prototyping



```
...elementsByClassName=function...  
c();(function(m,ia){"object"===typeof...  
(a,d,a)!=c});if(b.nodeType)return d...  
on(a){return"function"===d.type(a)},isArray...  
return void 0===b||ca.call(a,b)},type:functi...  
{if(e=b.apply(a[d],c),!1===e)break}else if...  
,b){for(var c+=b.length,e=0,d=a.length;e<d...  
,2),e=function(){return a.apply(b||this,c...  
:(f=b.getElementById(h))&&f.parentNode){if...  
"}";for(h=i.length;h--;)i[h]=f+a[i[h]];...  
{for(var c=a.split("|"),e=a.length;e--;)...  
on(c,e){for(var d,f=a([],c.length,b),h=f.l...  
nodeType||d){v=b[p]||(b[p]={});if((n=v[e])...  
r(var s=j.nodeType?[j]:j,o=[],q=0,p=s.length...  
"}";for(var h=f?1:0,i=Xa(function(a){return...  
(c)}return Ya(n)},da,q,o,va,Mb,la,ab,th,aa,...  
(c)}return Ya(n)},da,q,o,va,Mb,la,ab,th,aa,...
```

Building functional Code for
demonstrating your product

Use Case

- Live-Version



Pros & Cons of Code Prototyping- Techniques



Overview about common techniques

1

Website-
Builder

Using Low-Code
or No-Code
Tools like
WordPress

2

Web-
Application

Browser based
application for
desktop and
mobile

3

Apps

Mobile
optimized
applications



Website-Builder

Pros:

- cheap
- Easy to use
- Accessibility on different devices

Cons:

- scalability
- Limited functionality
- Difficult for complex products



Web-Application

Pros:

- Scalability
- Individual functionality
- No installation necessary

Cons:

- Access to internet needed
- Less comfortable than native apps



App

Pros:

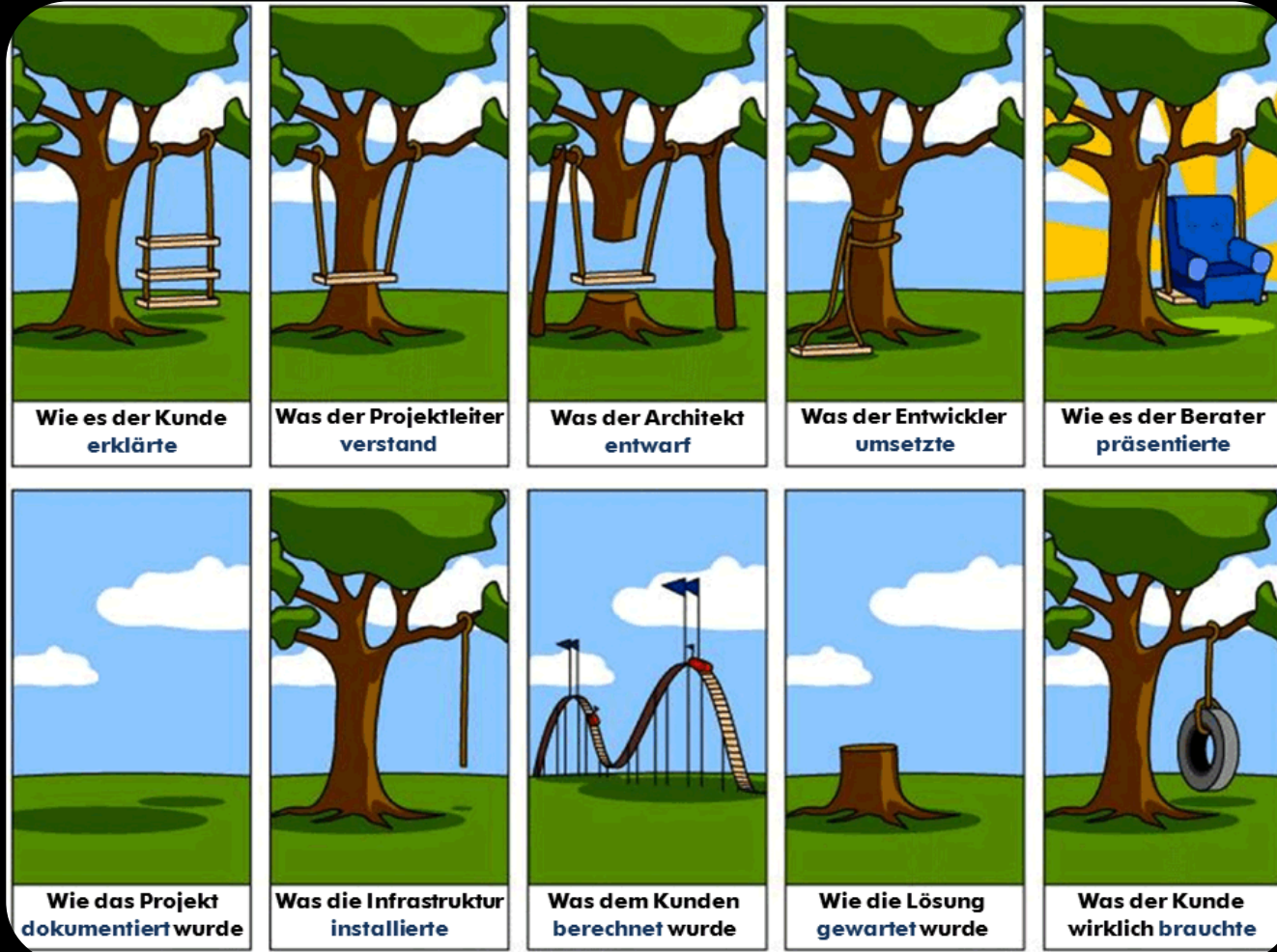
- Optimized for mobile devices
- Offline functionality possible
- Use of Smartphone functionality (Push, Bluetooth....)

Cons:

- App-Store Approvement needed
- Need to develop for different platforms (Apple, Android, Windows)
- costs



First Thoughts



Prototyping – First Steps

Goal:



Why?

Why do you want to achieve this goal?



How?

How do you do it and how do you measure it?

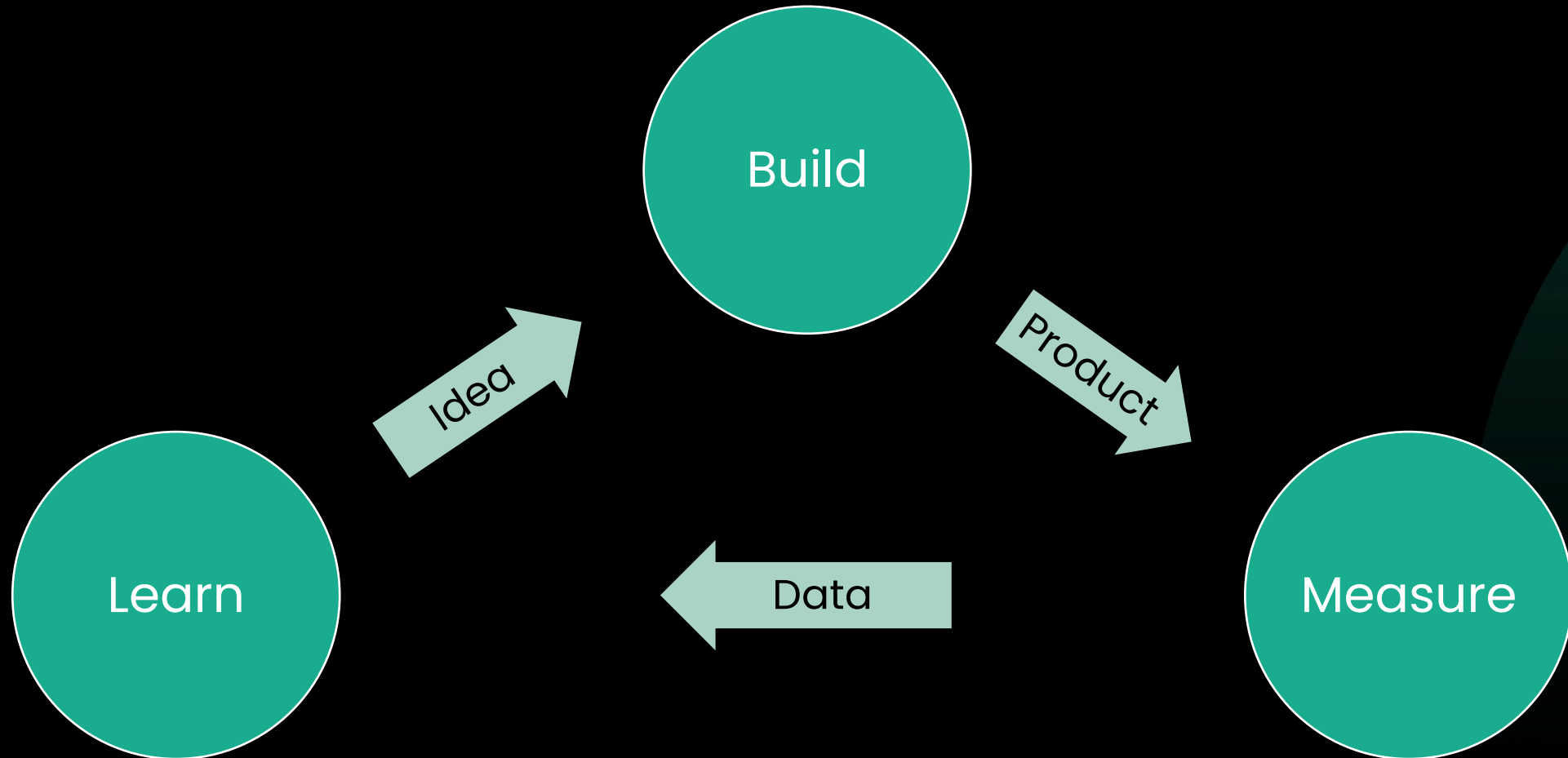


When?

When do you plan or when do you need to reach your goal



Lean Startup



Prototyping – Our goal for today

Goal: Find out the needs of the students for an app to order drinks during lessons.



Why?

Process should be very easy as students won't use it if it was more difficult than going for a drink



How?

Building a click-dummy and discussing it with other students



When?

By the end of this lesson
(today – 13:15)



Describing Functionality with User Stories

Aufbau



Role



Function



Added value

As a...

I want...

So that...

Beispiel

tree owner

An explanation how to
plant trees

I know what I need to do
next step by step



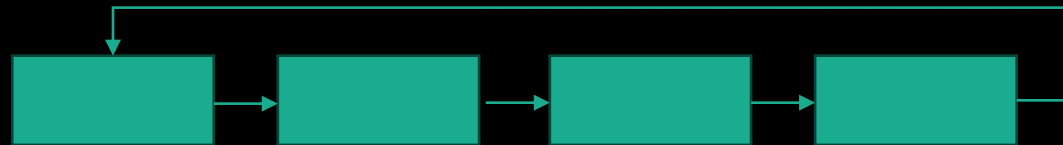
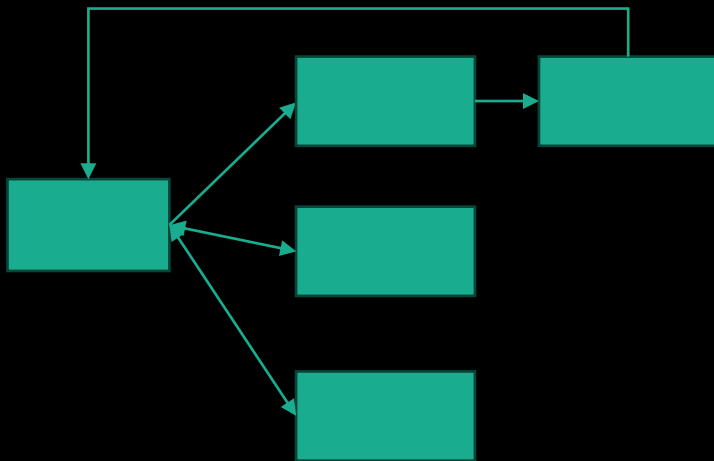
Task 1

- Define User Stories for the THWS service roboter app
- Use 1 Post-it for 1 User Story
- Think about the steps needed from „I want some drink“ to „Drink has been delivered“

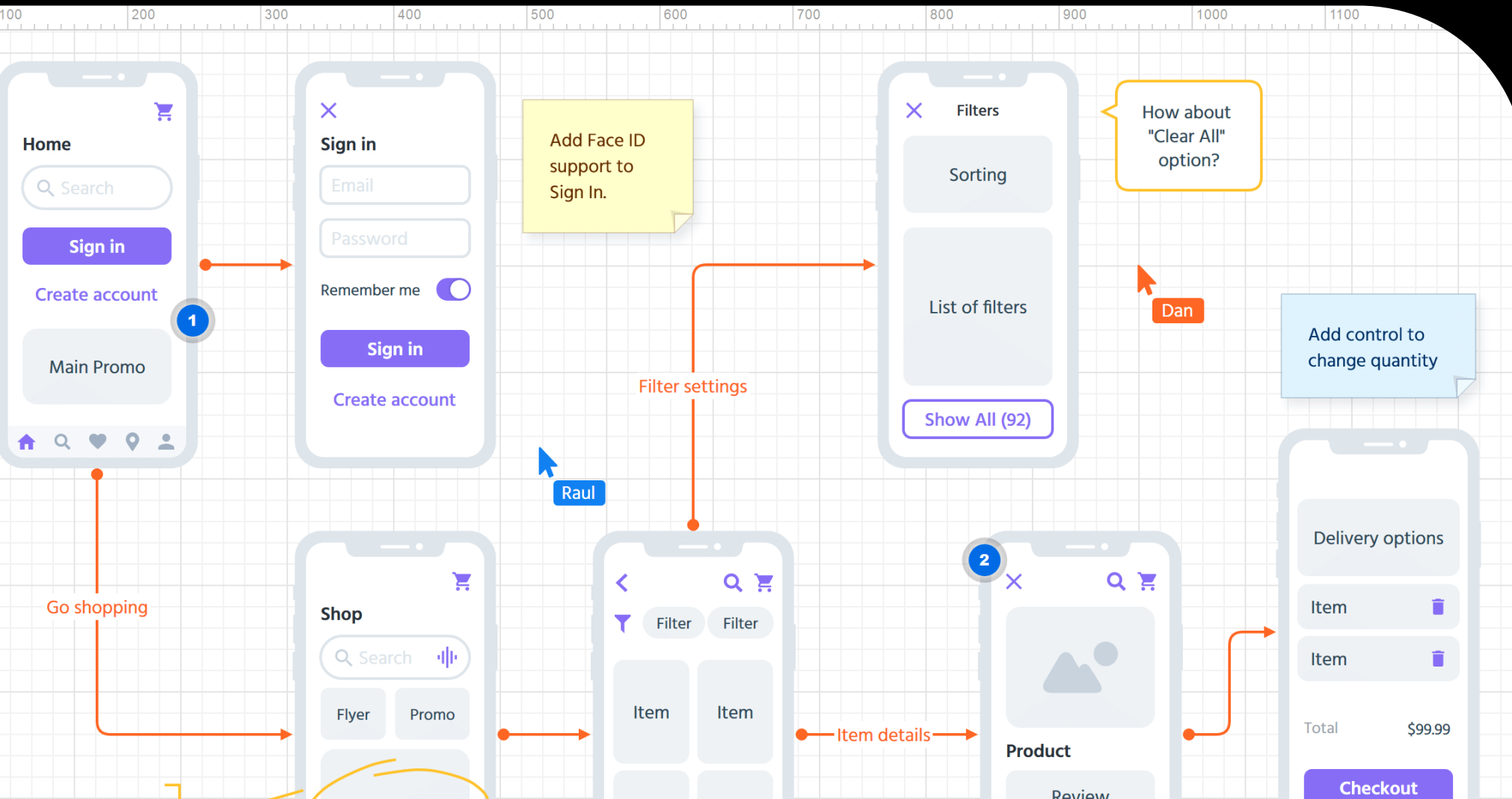


Task 2

- Build your User Journey by bringing your User Stories in an logical order
- Think about what components you need to go through the app (dashboard, menus)
 - You can write them on extra Post-ist



Wireframing



Advantages manual Wireframing

- Easy
- More creativity
- Easy colaboration



Task 3

- Think about a useful Navigation
- Draw Wireframes to your User Stories



Wireframe-Vorlagen

SMARTPHONE



Bring die Idee
aus deinem Kopf
auf Papier 📝🚀



IT-Projektschmiede

Hinweise:

- Halte es einfach (schwarz & weiß)
- Verzichte auf Details (z.B. Textformulierungen)
- 1x Navigation zeichnen reicht. Auf anderen Folien den Bereich einfach freilassen oder markieren

Beispiele:

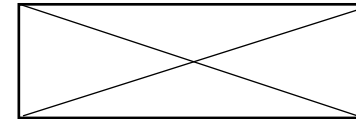
Headlines:

Feature #1

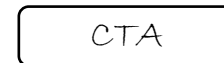
Text:



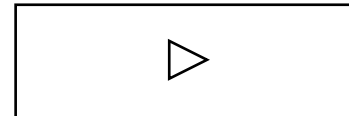
Pictures:



Button:



Video:



Profile:



Feedback

- Build teams of 3. You have 5 minutes to explain your wireframes and get feedback from others (make notes)



Figma

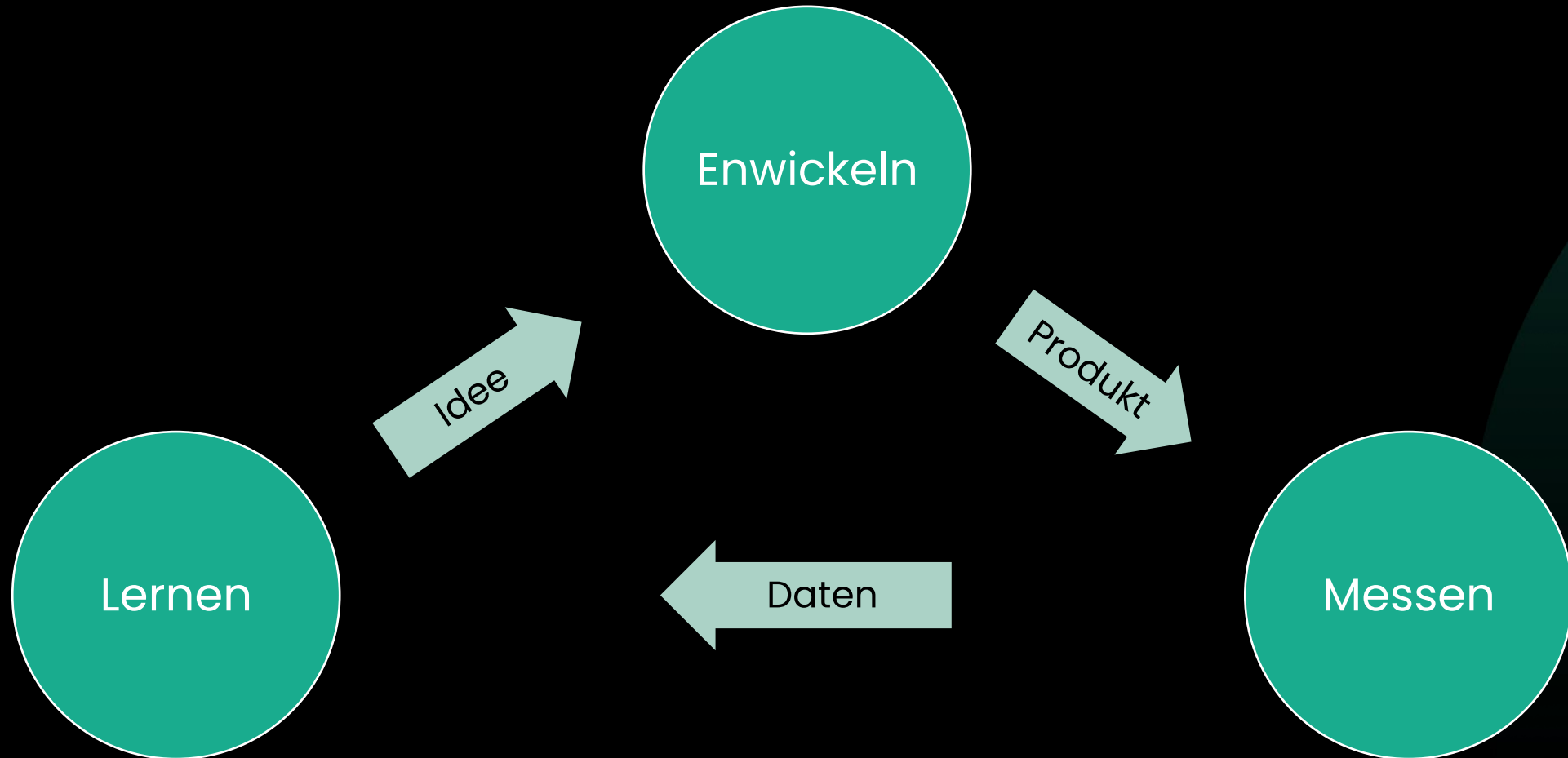
- Create your Account
- Start a Project
- Create Frames (Frame = Screen in App)
- Use components for often used assets
- Use widgets or other community elements for complex things
- Connect buttons and screens in prototype-mode



Presentation



Lean Startup



Best Practices Prototyping

- Define what you want to achieve first
- Take short Deadlines
- Use every chance for feedback
- Not every feedback is important
- Overthink your concept
- Keep it simple
- Prototypes do not need to be ugly





IT-Projektschmiede

