Design thinking steps

| Step	Goal	Tools	Output
Scope	Do you understand the challenge?		给谁解决了什么问题 stakeholder 有哪些人
360° Research	Gain empathy for your users	Empathy Map Interviewing Talk to end user Look for extreme users	
Synthesize	For whom do we solve which problem?	Storytelling Synthesis Grid Clustering Persona	Story Line Persona
Ideate	Find as many ideas as possible	Brainstorming Prioritize	排序后的解决方案
Prototype	Make your ideas tangible	Roleplay Physical prototype Storyboard Paper prototype Digital click dummy	原型
Validate	Learn and iterate	Feedback Grid Storyboard（可以用于验证）	
Iterative Sprint			

Sprint 0 Define Phase Tools

Tool	Deliverable	Relevance	Participants	During
Business Requirements	**Vision & Scope Document**	The **expected values** are the basis to define the scope and to prioritize the backlog items	Product Owner UX Designer Architect	0.5 – 2 days
Persona	**User Profile**	Personas enable creative teams to develop a shared understanding of their user and validate it with the customer	Product Owner UX Designer	1d per Persona v1* 1d per Customer Workshop
Customer Journey Map	**Customer Journey Map**	The CJM defines the required process flow and key customer needs, that should be incorporated into the product backlog	Product Owner UX Designer Architect	2d per Process v1* 3d per Customer Workshop

End User Research	**User Research Report** Incl. business & user requirements, user needs and pain points	Understanding the users needs will greatly benefit the definition of user stories and their prioritization, the UI design as well as avoiding scope creep.	Product Owner UX Designer	6d per Workshop
Storyboards	**Storyboard**	Storyboards are a good tool for communicating and validating ideas while putting the user into the center of a solution.	Product Owner UX Designer	1d per Storyboards v1* 2d per Customer Workshop
User Stories & USM	**Product Backlog**	Contains the contractually binding description of the solution features	Product Owner UX Designer Architect	3d per Processes v1* x0,1 per Process Step x1 per Role v1* 3d per Customer Workshop
User Validation	**Usability Test Report** (incl. references how to improve the solution)	It is not unusual that 80% of software functions are not used at all by users. Validations are a low invest to ensure the development is spend on relevant features.	Product Owner UX Designer	6d per Session (prepare, conduct, analyze)
Information Architecture	**Object Action Model**	The object action model is the baseline for understanding the end user mental model of the interaction with the system. It describes key concepts/data that the system will address and provides a definition of all UI fields and actions	Product Owner UX Designer Architect	2d for initial Version v1*
Software Architecture	**Vision & Scope Document**	Basis for the estimation and development	Product Owner UX Designer Architect	0.5 – 2 days
Interaction Design	**UI Wireframe**	The interaction design establish the user interface layout for the system	Product Owner	2d per Screen v1*

		based on the requirements and information architecture. It allows for early internal, customer and end user feedback before any (UI) development takes place and can be iterated on quickly.	UX Designer Architect	
Visual Design	**UI Mockup**	The visual design allows the alignment of the look and feel with customer and end users to receive sign off before UI development (of the particular starts). The mockups provide the self-descriptiveness of all UI elements and defines the implicit user guidance	Product Owner UX Designer Architect	2d per Screen v1*
Software Prototype	**Prototype**	Basis for the estimation and development	Developer	Independent estimate

工具介绍

Empathy Map:
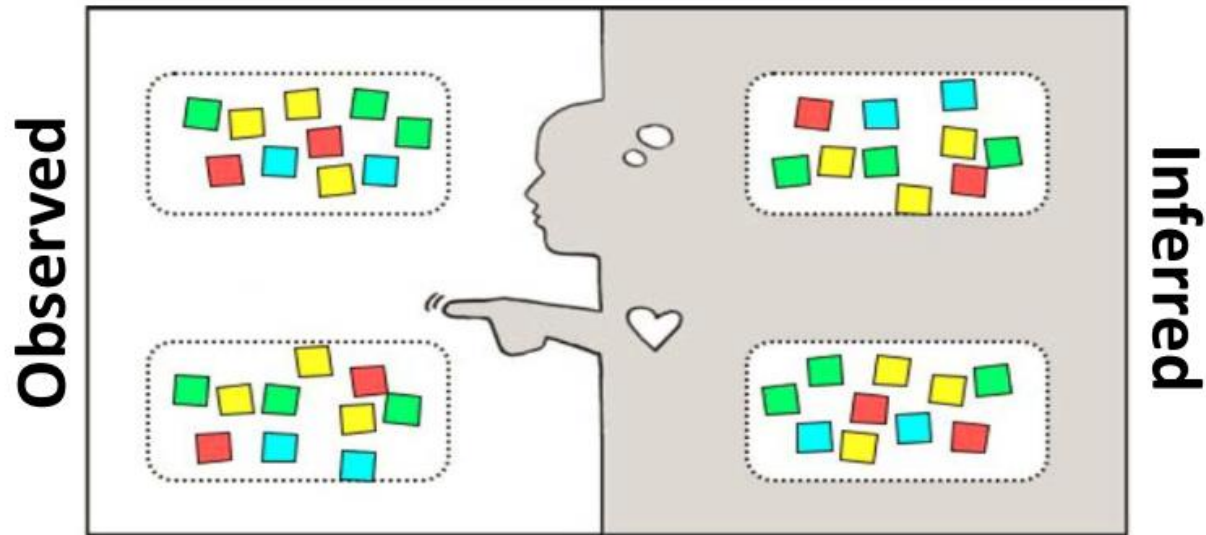
SAY

What are some quotes and defining words your user said?

THINK

What might your user be thinking? What does this tell you about his or her beliefs?

DO

What actions and behaviors did you notice?

FELL

What emotions might your subject be feeling?

如何做调研：

Create a dialog

Be well prepared for the interview, but be open and flexible enough for a lively conversation

Look for stories
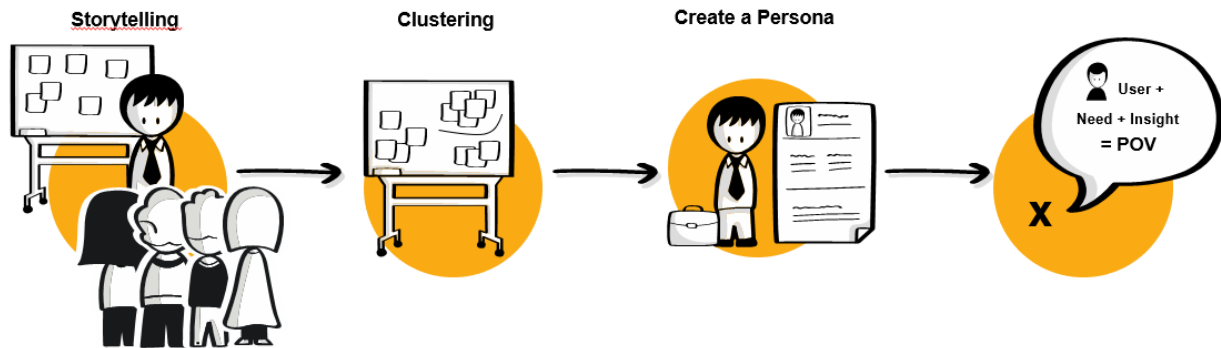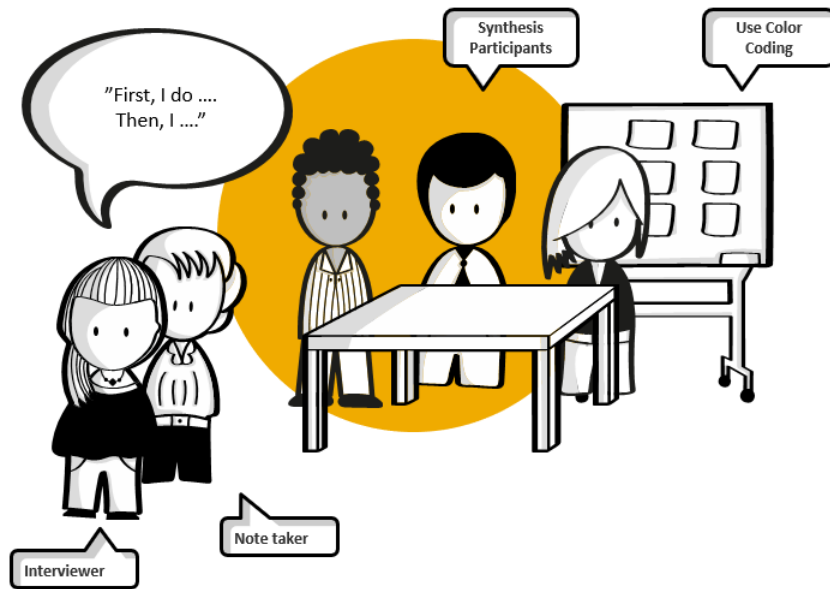
How was it the last time when you … ?

Please tell me more about …

Ask for emotions

How was it for you when you … ?

How do you feel when you …?

Pay attention to body language

Storytelling

Storytelling

Synthesis Participants

Use Color Coding

"First, I do ....
Then, I ...."

Interviewer

Note taker

Storytelling

Clustering

Create a Persona

User +
Need + Insight
= POV

X
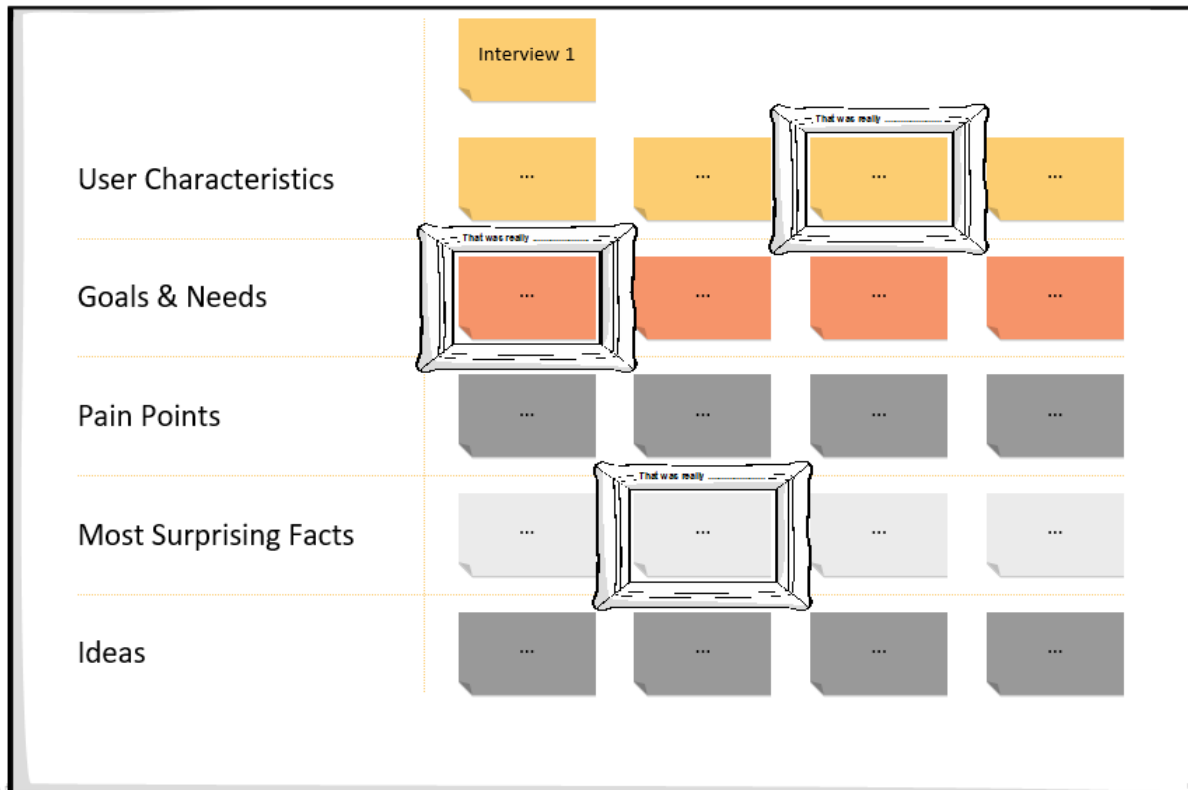
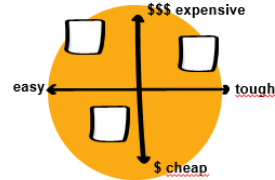**Synthesis Grid**

Clustering 的工具

Different frameworks

Use different tools to gain different perspectives regarding the data

Process Map Circular
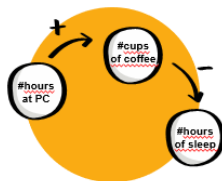
Floorplan

2x2 Matrix
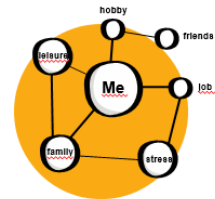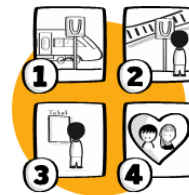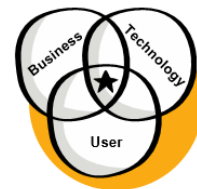
Concept Map

Causal Map

Geographic Map

Scenario/ Experience Map

VENN Diagram

Persona

Persona

Typical but fictional user based on research

What are typical characteristics that best reflect the users?

What goals, tasks does the persona have?

What does the persona like/frustrate?

Brainstorming rules

Follow the brainstorming rules

Be visual

Stay on topic

Build on the ideas of others

Go for quantity

Defer judgments

One conversation at a time

Encourage wild ideas

Validate 步骤

Develop a test scenario:

- WHAT to test?

- HOW to test?

- WHY is it relevant?

The right mindset for validating

Foster a dialog with participants

Make participants feel comfortable

Remain focused on testing the prototype

Encourage participants to think aloud

Observe, listen and record

Refrain from defending your idea

Feedback Grid

Feedback grid

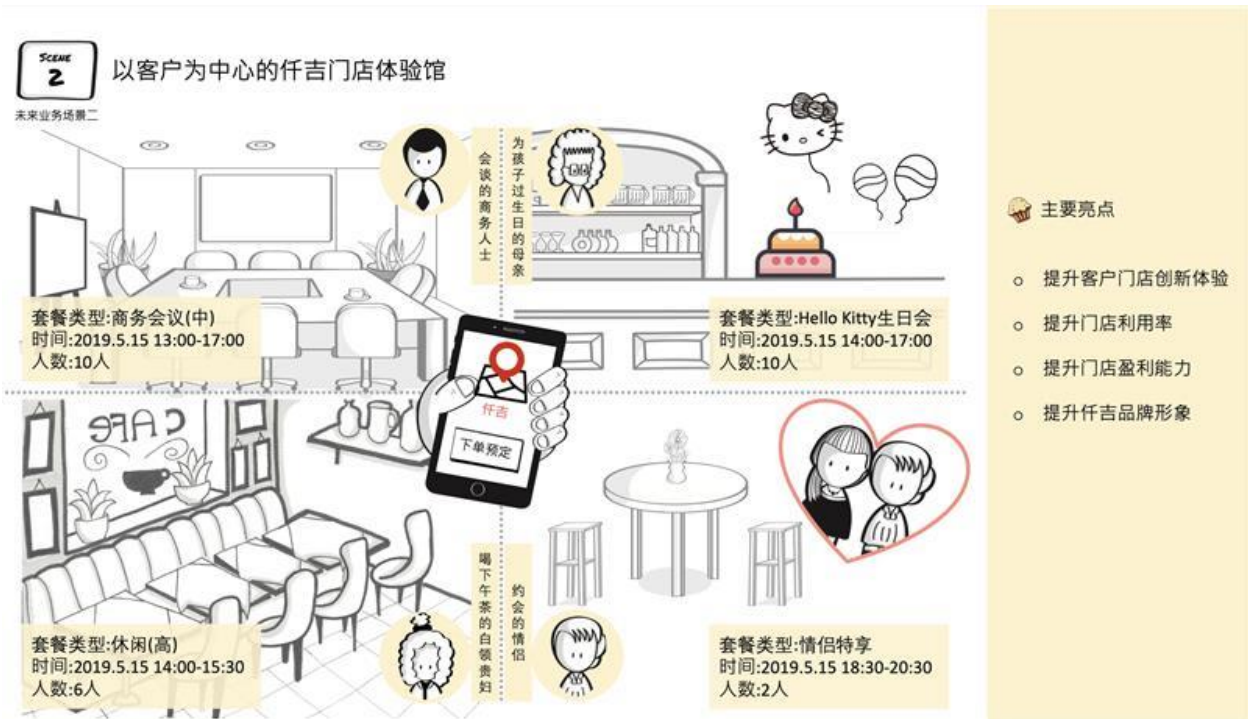|	
⊕ **What worked**	**What could be improved** ⊖
⦿ **Questions**	**Ideas** ⓘ

Storyboard

Storyboarding

Use this template to visualize how people experience or will experience a given scenario.

1

Define your scenario.

②

Visualize each step.

Describe the scene...	Describe the scene...	Describe the scene...

Describe the scene...	Describe the scene...	Describe the scene...

SCENE 1 冷冻面团的智能供应链

未来业务场景一

智能冰柜面板显示

2019年5月15日

仟吉合作门店

7:00 AM

冷面团库存为 132
今日预估客流量 360
在途面团 230
预估冷冻面团采购订单量 60
一键采购

欢迎来到面包制作世界

冷冻面团使用说明
操作说明
注意事项
牛角面包制作工艺
芝士蛋糕制作工艺

主要亮点

o 更好的供应链协同
o 降低库存
o 提升产品口感和质量
o 操作更便捷
o 减少培训成本

o 标准化产品制作工艺
o 提升顾客一致体验和满意度
o 可视化操作培训提高效率
o 降低对门店人员操作培训时长

CJM

	Usage Step1	Usage Step2	…
Persona A	Action A1	Action A2	…
Persona B	Action B1	Action B2	…
Feeling			
Channel			

Feeling: draw a line of emotions with each action to visualize their feelings.

Channel: which channel does your customer use during the defined phases.