

The background features abstract, overlapping purple geometric shapes, including triangles and polygons, in various shades of purple, creating a modern and dynamic aesthetic.

# Innovative Entrepreneurship Theory and Practice

# Lesson 15: Design

Innovative Entrepreneurship theory and practice (888111)

today

- in groups create a storyboard
- first
- design thinking
  - prototyping
  - design walkthrough
  - MVP
  - storyboards

# Design Thinking

The background features abstract, overlapping geometric shapes in various shades of purple, ranging from light lavender to dark, almost black tones. The shapes are primarily triangles and polygons, creating a dynamic, layered effect. The overall composition is clean and modern, with the text centered in a white space.

## Design thinking

- Design thinking is not just about the ‘design stages’ of product development
  - e.g. product design, look, shape
- it is
  - a collection of processes
  - which lead to a **better understanding**
  - **of the needs of a user** and
  - ways to find solutions to those needs

## Design thinking

Steve Jobs famously said,

“Most people make the mistake of thinking design is what it looks like.

People think it's this veneer – that the designers are handed this box and told, ‘Make it look good!’

That's not what we think design is.

It's not just what it looks like and feels like.

**Design is how it works”**

## Design thinking

Design thinking draws on

- logic, imagination, intuition, and systemic reasoning
- to explore the possibilities of what could be and
- to create desired outcomes that benefit the end user (the customer)

## Design thinking

good for ‘wicked problems’,

- where the challenge itself is ill-defined or tricky,
- as opposed to challenges where you can often find a solution based on applying experience or technical knowledge
- first need to find out what is causing the challenge for the customer



## Design thinking

match people's needs with what is technologically  
feasible and  
what a viable business strategy can convert into  
customer value and market opportunity

## IDEO process

- **Diverse design teams** – mixture of skills, expertise
- **Design research** – qualitative research and quantitative analysis, observation, in-context interviews, thinking about analogous industries
- **Synthesizing research, observations etc** – to spot themes and patterns, look for relationships, and discover insights
- **Experimentation and rapid prototyping** – to test hunches
- **Feedback and iteration**
- **Implementation** – piloting ideas in practice

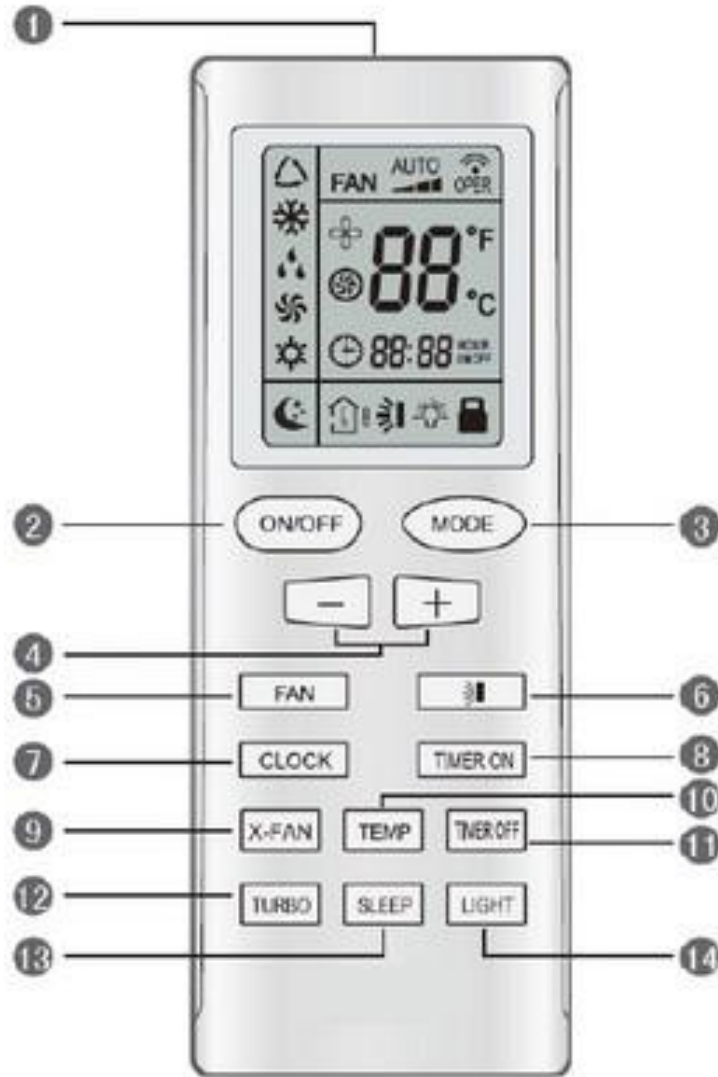
## Advice

1. Be humble and flexible, and **adapt to customer's needs**
2. Deliver something **new or deliver in a novel way** that competitors can't
3. **Solve a real 'pain point'** that is relevant to many people
4. **Execute the vision** – in all aspects, not just a product
5. Think about a problem/need in a way customer haven't and makes perfect sense to them when they hear/see/experience it

# Prototyping

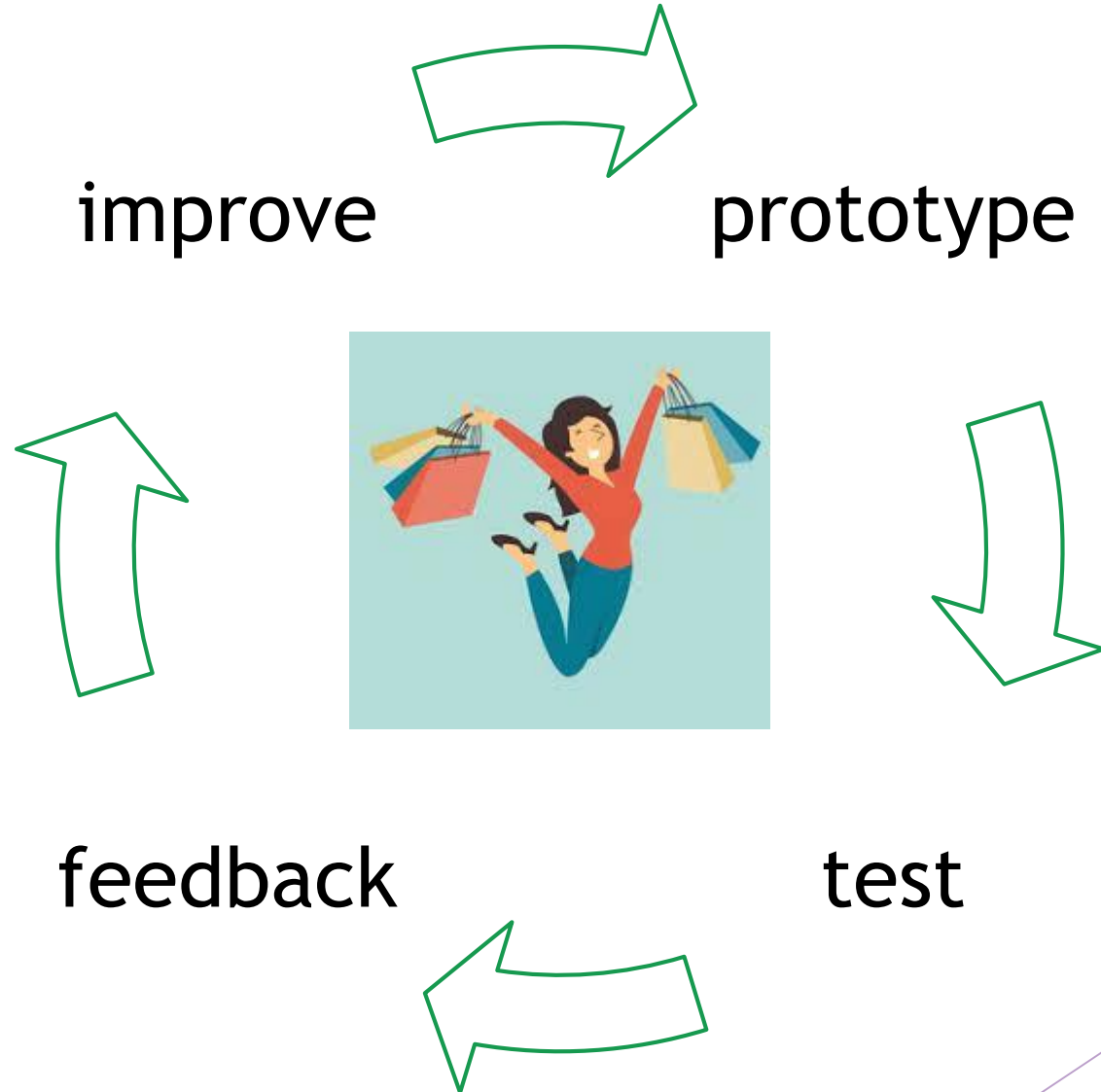
The background features abstract, overlapping geometric shapes in various shades of purple, ranging from light lavender to dark indigo. These shapes are primarily located on the right side of the frame, creating a modern, layered effect.

# Bad design



# What is Prototyping?

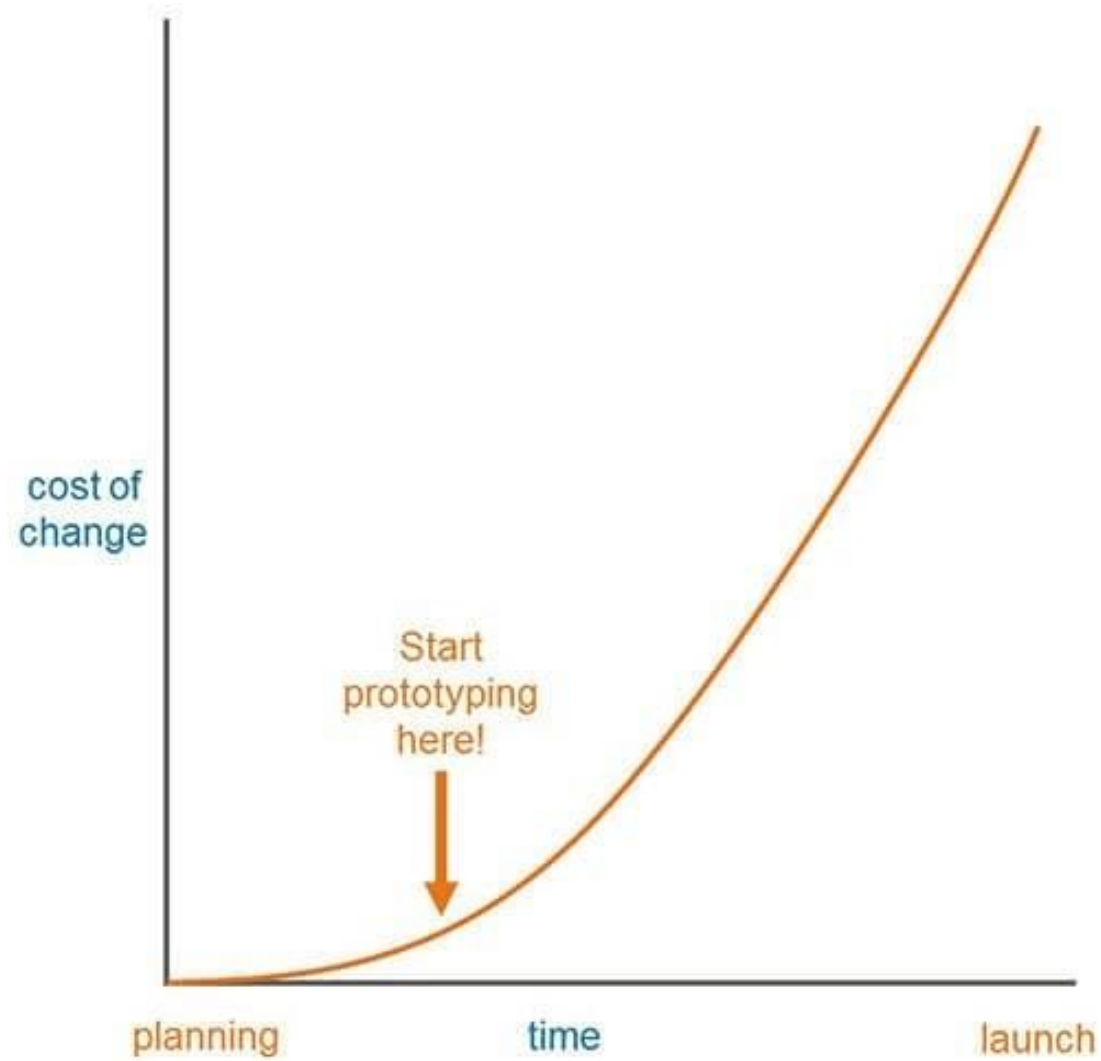
## Noodle shop in Chiang Mai



## Prototyping

- A prototype is an **early** sample, model, or release of a product built to **test a concept or process**
- A prototype is used to **evaluate a new design**.
- Helps to **visualize a product/service** for users, and **get feedback**

# Prototyping



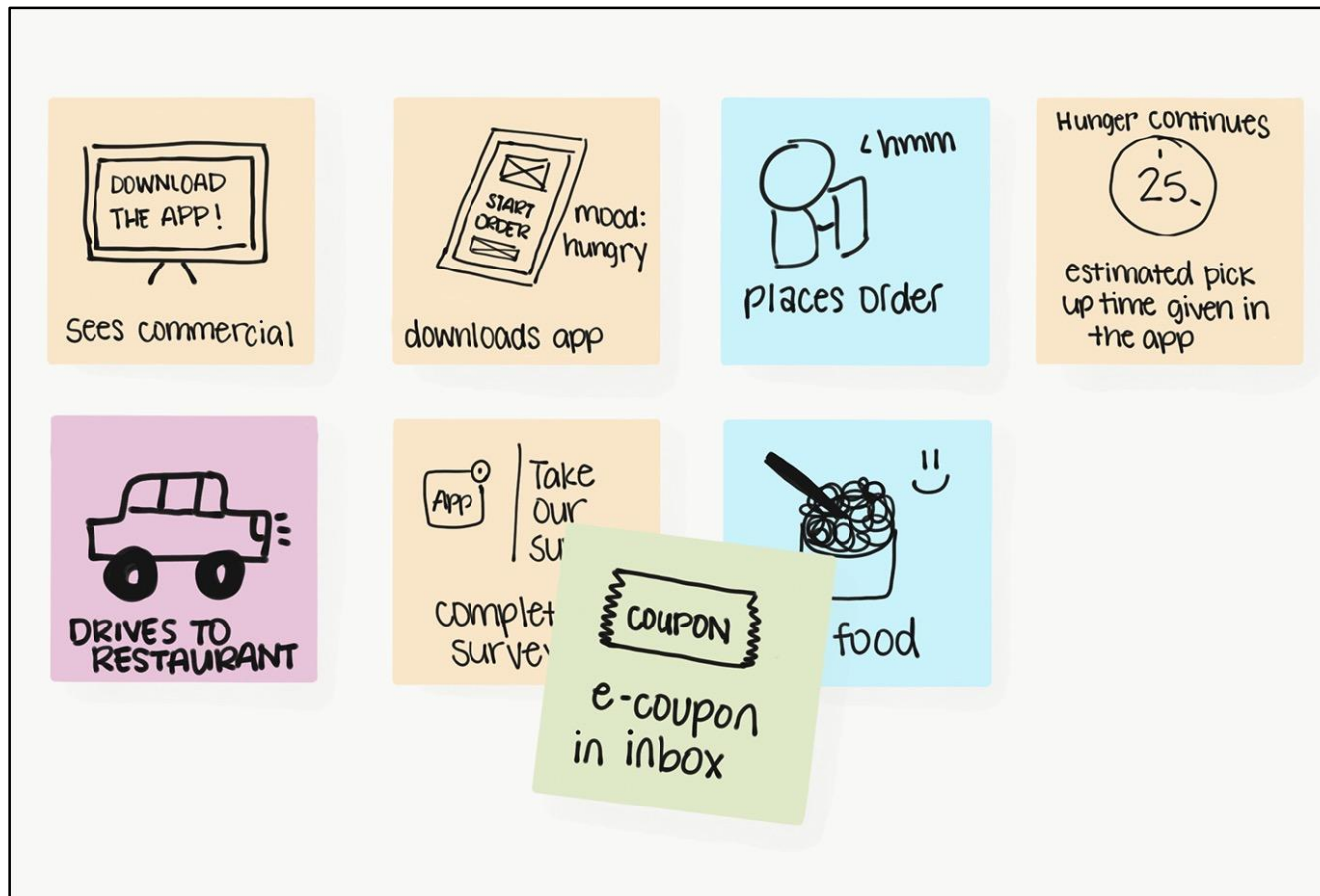


## Service prototypes

- Storyboarding – the customer/user journey through your service
- Service advertisement - a visualization of your service
- Video prototyping – a film illustrating how your service could look
- Desktop walkthrough – small-scale representations of service concepts and part of the service systems and processing by using handcraft materials and toys
- Roleplaying – acting out the service with colleagues and/or potential users
- Experience prototyping – allowing potential users to feel what a service could be like
- Live service prototypes – pilot services to test out the idea in practice

# Service prototypes

E.g. Storyboarding – we will see soon



# product design walkthrough



## PRODUCT DESIGN IS

The process of **identifying** an opportunity, **defining** the problem, **developing** a solution for that problem and **validating** the solution with real users.

- Nick Babich (Smashing Magazine)

# The Design Process





## PRODUCT MARKET FIT

In order to build useful products, we need to understand whether there is a need for our product.



example - health app

# Affinity mapping

## Unhealthy habits

Working longer hours than usual

Back pain from improper desk setup

Becoming more sedentary and exercising less

## Isolation

Mental health issues can arise e.g. depression

Loneliness for people living by themselves

## Distractions

Pet and children distractions

Poor internet connection



# Create personas

## Clark Andrews

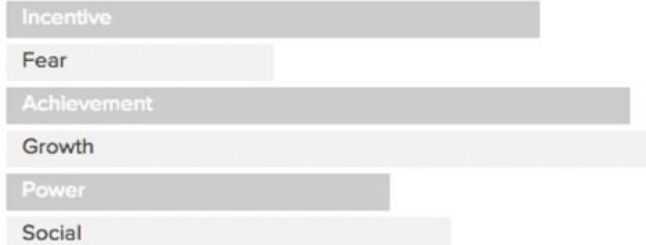
**AGE** 26  
**OCCUPATION** Software Developer  
**STATUS** Single  
**LOCATION** San Jose, CA  
**TIER** Experiment Hacker  
**ARCHETYPE** The Computer Nerd

Friendly   Clever   Go-Getter



"I feel like there's a smarter way for me to transition into a healthier lifestyle."

### Motivations



### Goals

- To cut down on unhealthy eating and drinking habits
- To measure multiple aspects of life more scientifically
- To set goals and see and make positive impacts on his life

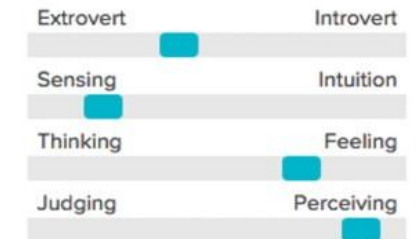
### Frustrations

- Unfamiliar with wearable technology
- Saturated tracking market
- Manual tracking is too time consuming

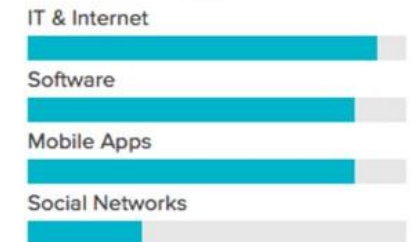
### Bio

Aaron is a systems software developer, a "data junkie" and for the past couple years, has been very interested in tracking aspects of his health and performance. Aaron wants to track his mood, happiness, sleep quality and how his eating and exercise habits affects his well being. Although he only drinks occasionally with friends on the weekend, he would like to cut down on alcohol intake.

### Personality



### Technology

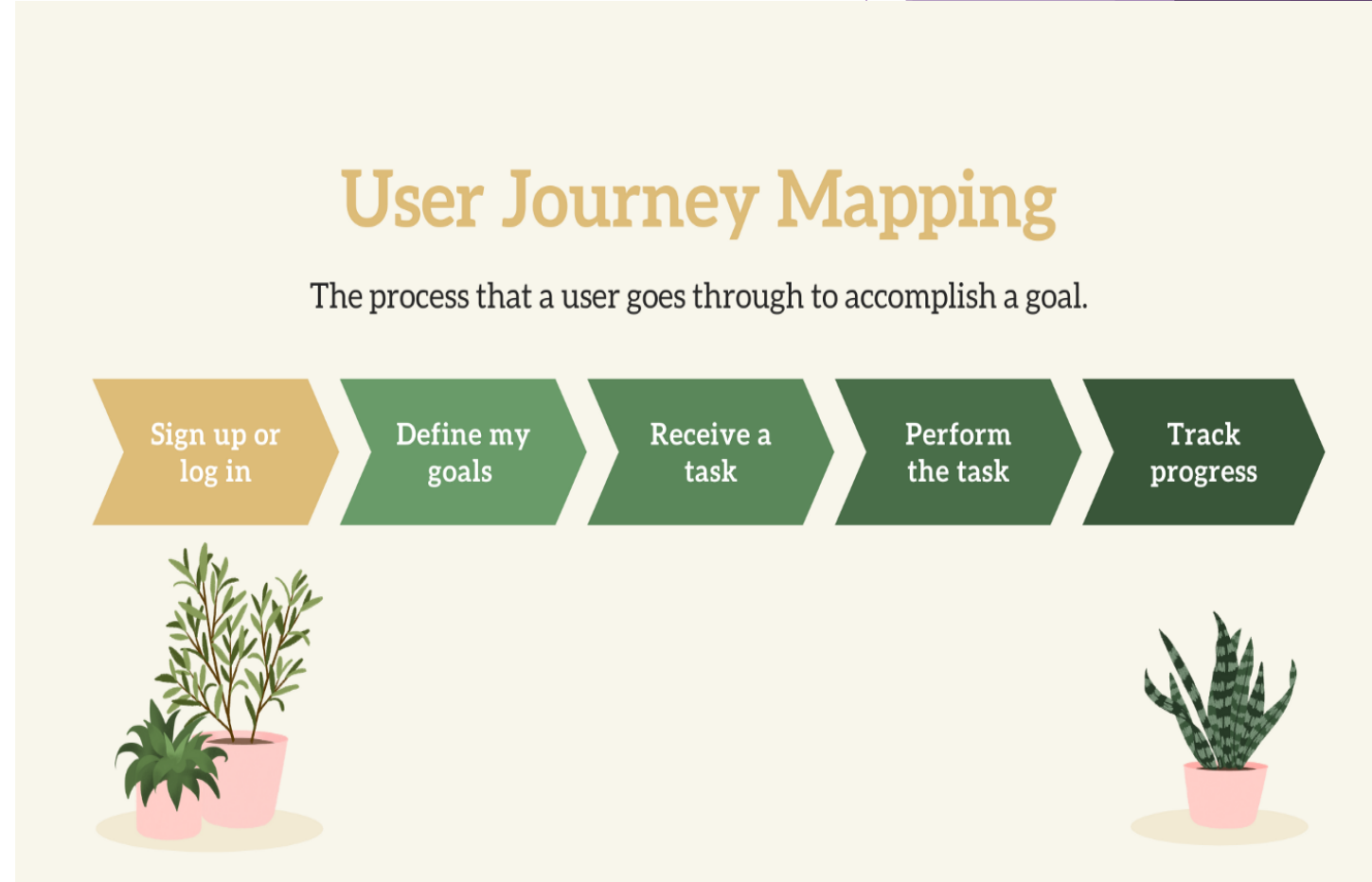


### Brands



# User Journey Mapping

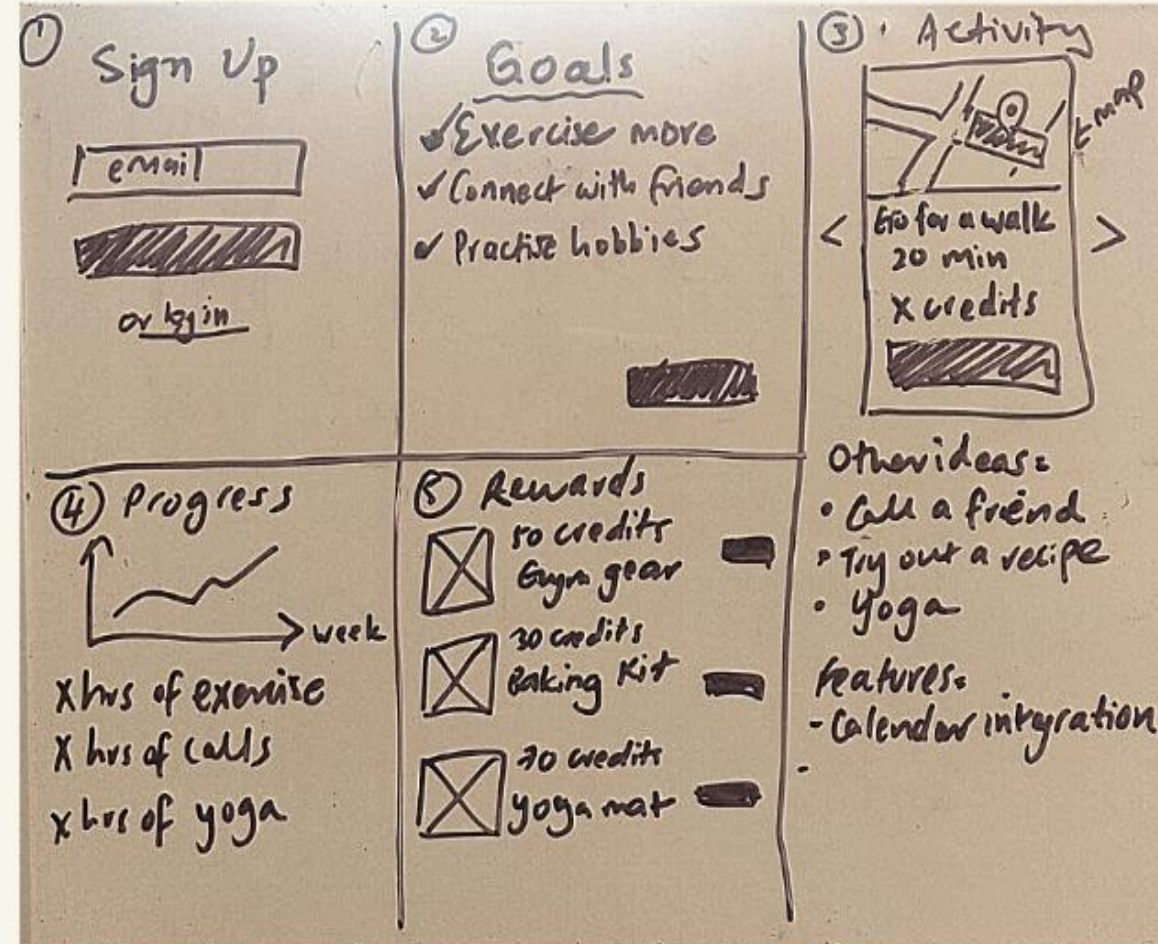
- is a process that a user must go through in order to accomplish a goal. A user journey is presented as a series of steps and actions in a timeline skeleton. Such a layout
- makes it easier for all team members to understand and follow the user's narrative.

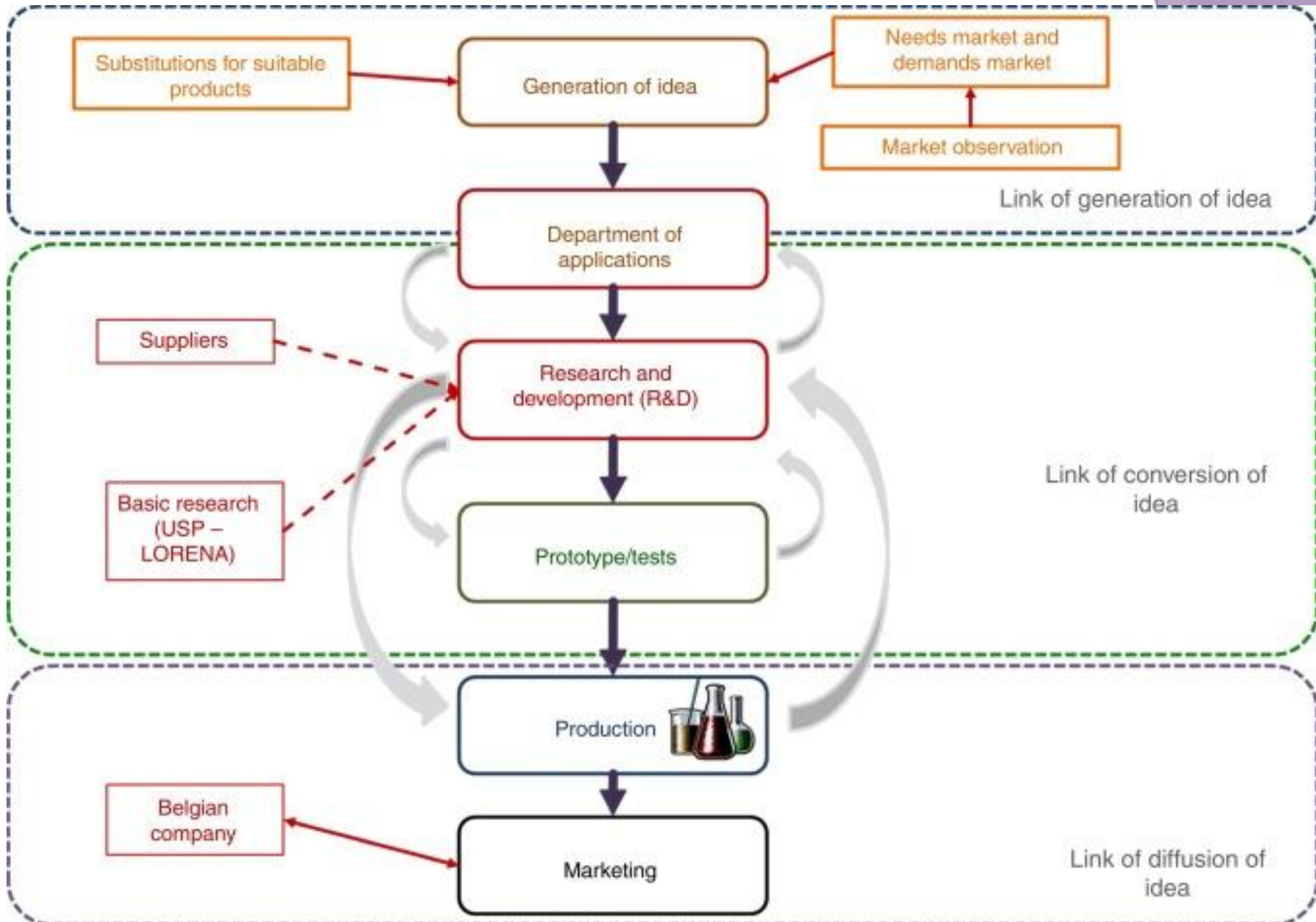


# Design the Solution

## Example

An app that nudges you to take a break by providing you with personalised health and wellness activities.





# Testing the Prototype MVP

Minimum Viable Product

Minimal Cost  
+  
Maximum Learning

## Minimum Viable Product (MVP)



- Test, develop, test, develop, cycle
- Maximum amount of learning about customers with the least effort

## Key principles for experiments

- Learn early
- Be fast and iterate
- ‘Fall in love’ with the problem – not the solution
- Get credible feedback
- Measure what matters now
- Test your assumptions
- ‘Fail smart’



storyboards

# Storyboards

## Constructing a storyboard

- cartoon
- from filmmaking
- notes key moments and interactions
- the 'feel' or 'flow' of the experience



1) on arrival at the hotel, the guest goes straight to the reception desk.



2) At the Reception desk, the receptionist types details of the guest into the computer and checks the guest in.



3) The receptionist asks for a credit card from the guest as a deposit.



4) The receptionist then gives the guest the key to their room.

Figure 13.4 A hotel storyboard showing a high-level impression of the registration process

# Storyboards

## Constructing a storyboard

1. identify key tasks, choose one, review the models
2. draft a detailed design
  - consider alternative options
  - consider implications of the alternatives
3. check the redesign against the sequence models
  - are the intents OK?
4. sketch
5. repeat for all the tasks & review

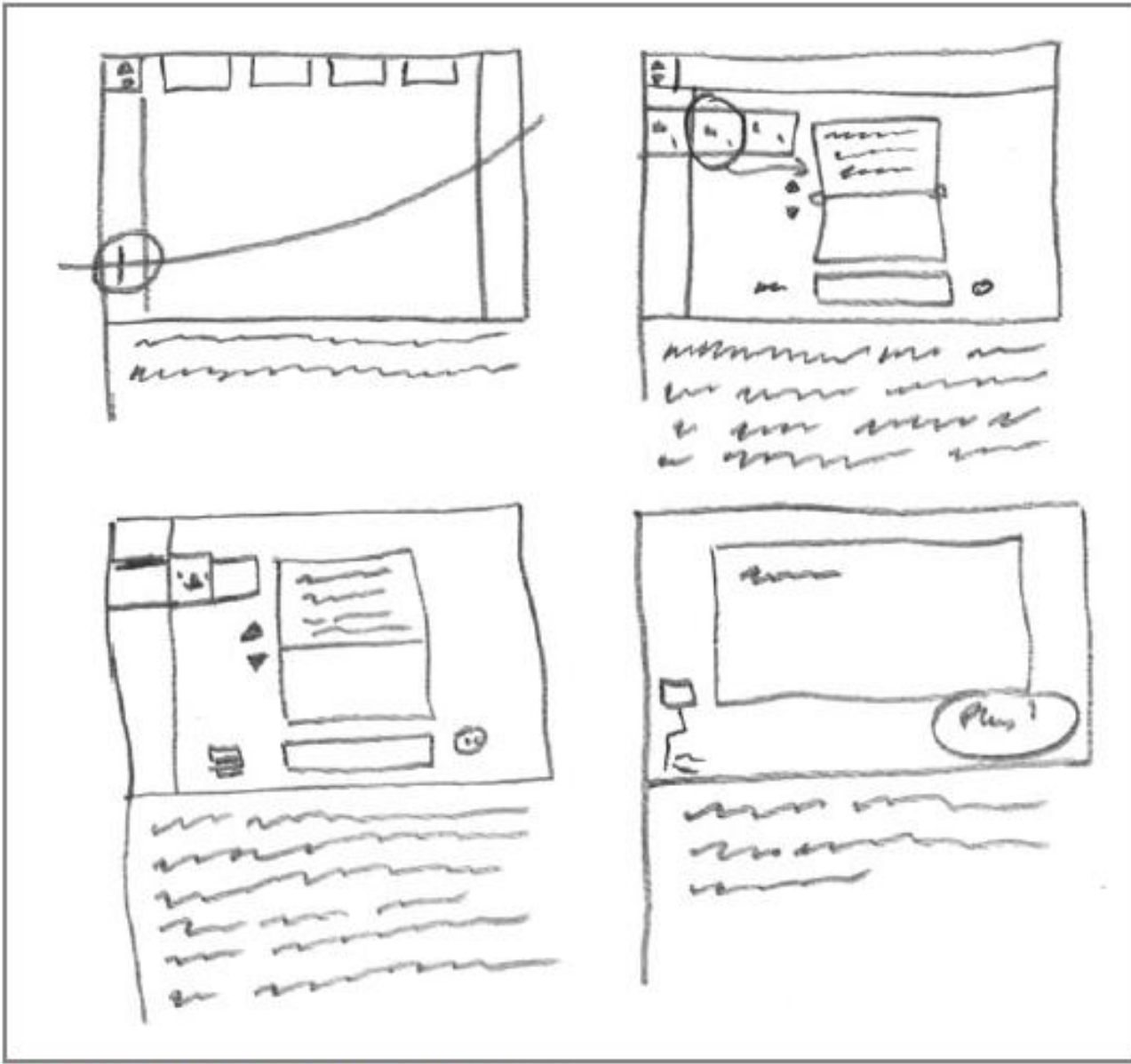


Figure 8.3 Sketched storyboard for the HIC

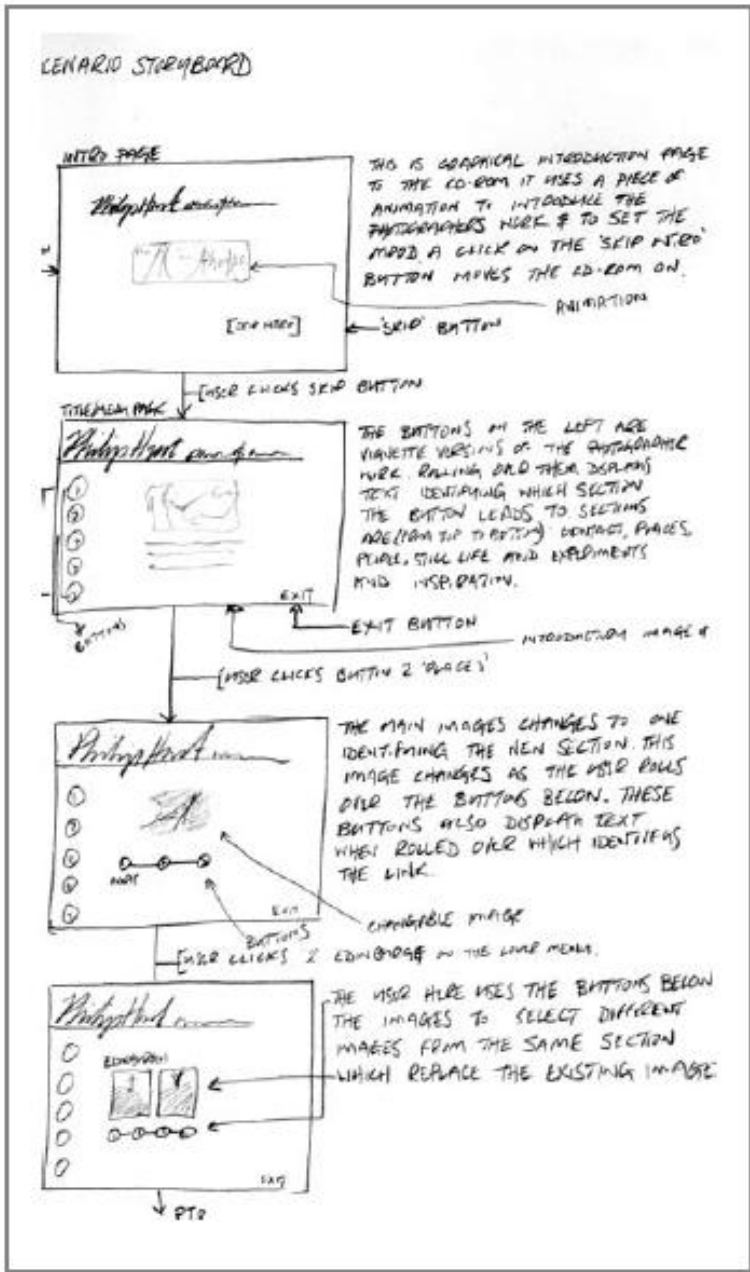


Figure 8.4 Part of a storyboard for a photographer's website



1) on arrival at the hotel, the guest goes straight to the reception desk.



2) At the reception desk, the receptionist types details of the guest into the computer and checks the guest in.



3) The receptionist asks for a credit card from the guest as a deposit.



4) The receptionist then gives the guest the key to their room.

Figure 13.4 A hotel storyboard showing a high-level impression of the registration process



1) On arrival at the hotel, the guest goes straight to the reception desk.



2) At the reception desk, the receptionist types details of the guest into the computer and checks the guest in.



3) The receptionist asks for a credit card from the guest as a deposit.



4) The receptionist then gives the guest the key to their room.

Frame 1. The guest arrives at the reception desk and announces 'I have a reservation and I wish to check in'. The receptionist stops what she is doing and asks for the guest's name.

Frame 2. The receptionist then consults the hotel's information system *and* accesses the database to match the guest's name against reservations. The name is found and the receptionist updates the database to indicate that the guest has arrived and allocates a room to her.

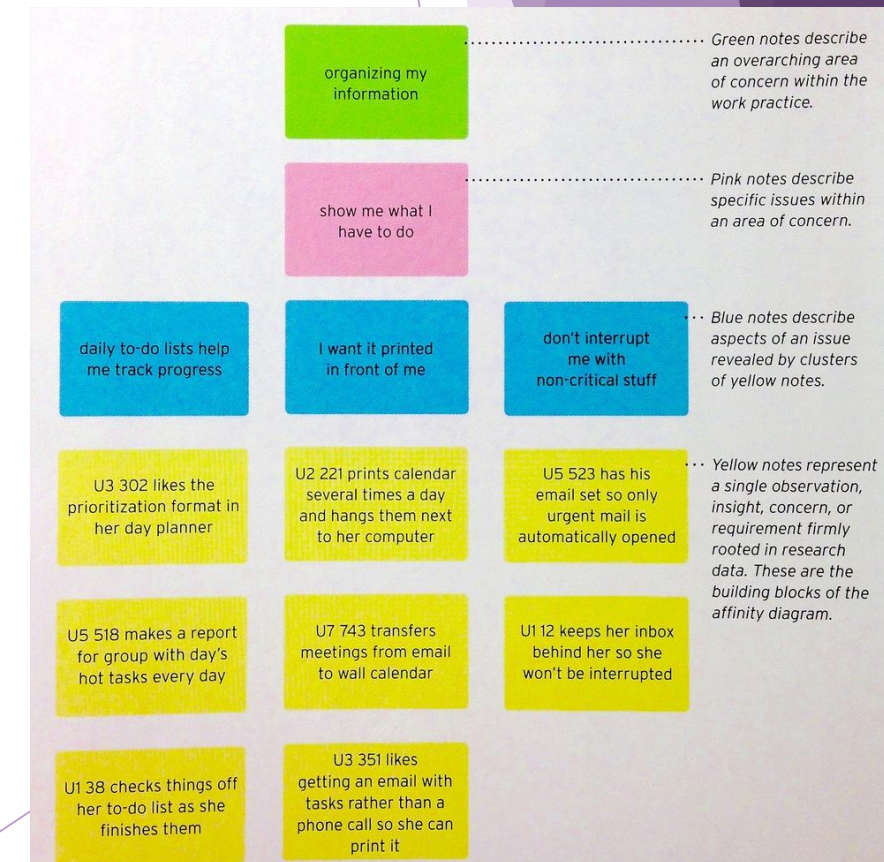
Frame 3. The receptionist then asks the guest for her credit card in order to secure payment. The card is swiped and its details are entered into the hotel's information system.

Frame 4. Finally, the receptionist gets the room key from the key board and hands it to the guest.



## Choose a storyboard

- represent a ‘user intent’
- use a model (e.g. flow or sequence model)
- or,
- use your affinity diagram from last week
- file copy is in teams and mango



your group task - create / draw a storyboard

- choose one (important) activity
- related to your business
  - e.g. customer looking for your product, finding it, buying it, giving good feedback
- draw a storyboard
  - about 4 or 5 images
  - explain in text under the image or after (numbered)

the idea of the storyboard is to be able to understand something very easily



**Thank you!**  
any questions?