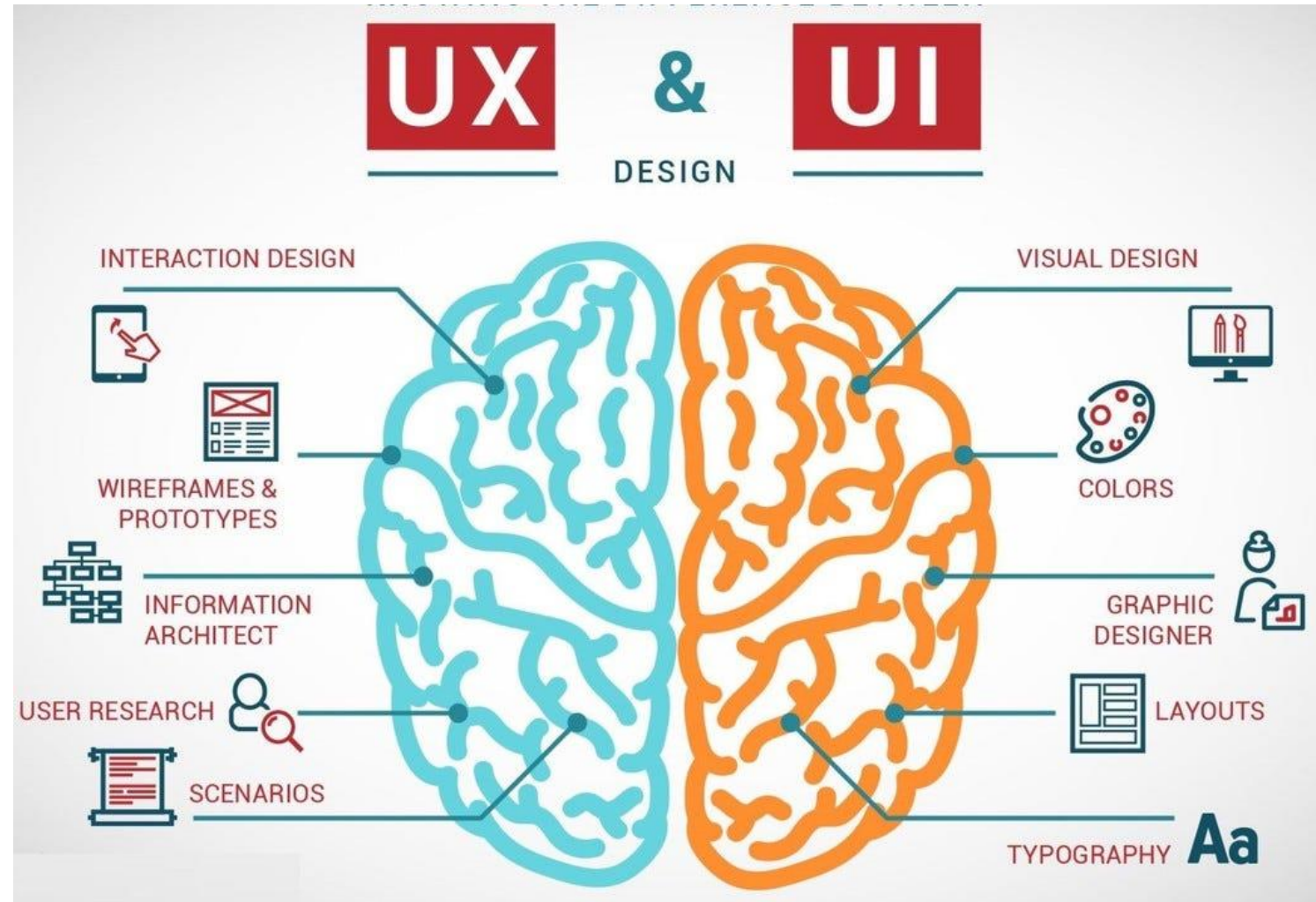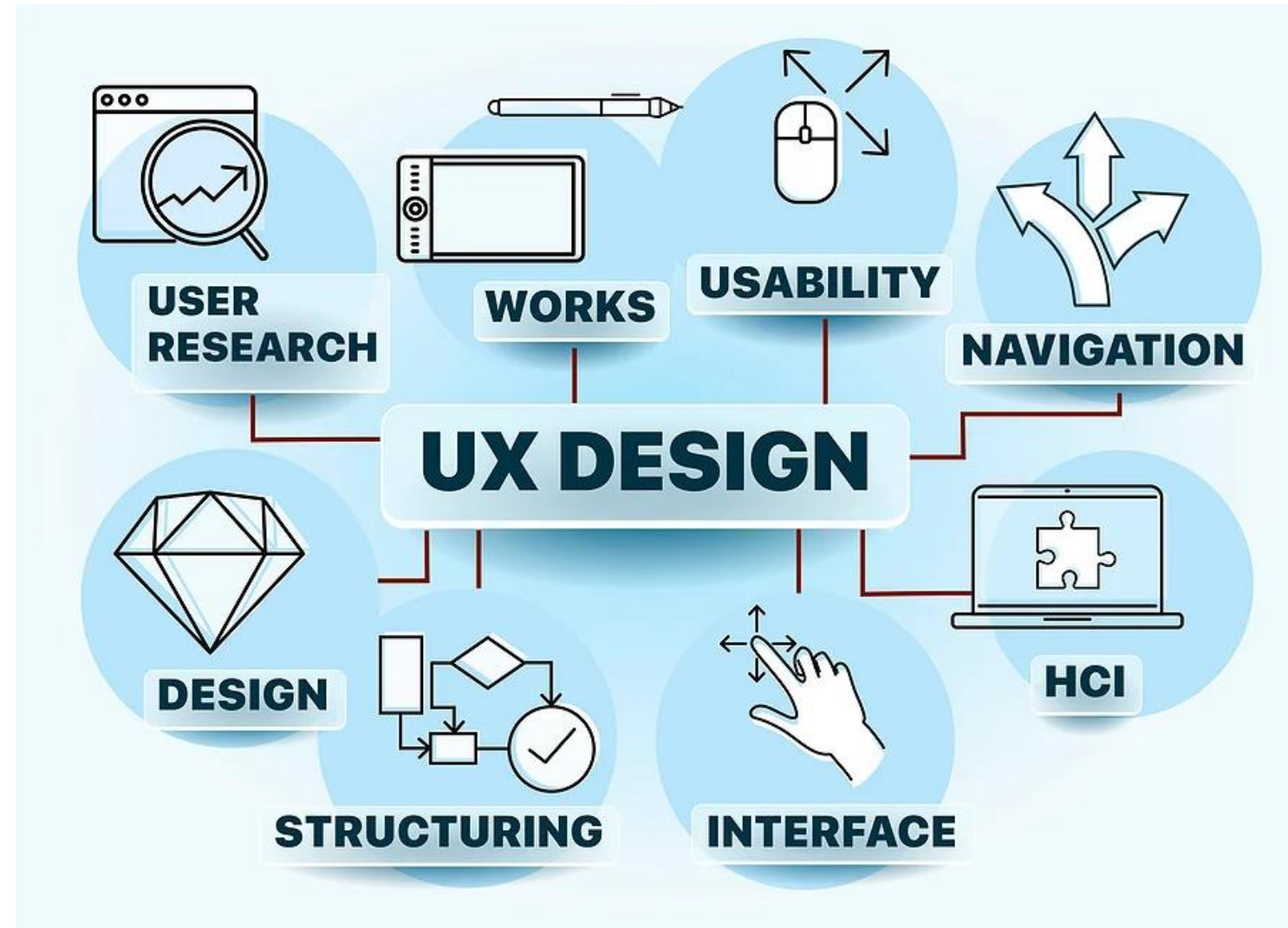# Innovation in UX/UI

Tech Seminary 2

UX vs UI

- UX (user experience designer) focuses on all aspects of the USER's interaction with the company, its services, and its products.

- UI (user interface designer) is a specialized UX
  - UI focus: visuals interaction

UX

- Task and responsibilities:
  - Strategy and content
  - Wireframing and prototyping
  - Execution and analysis

Understanding Good UX:
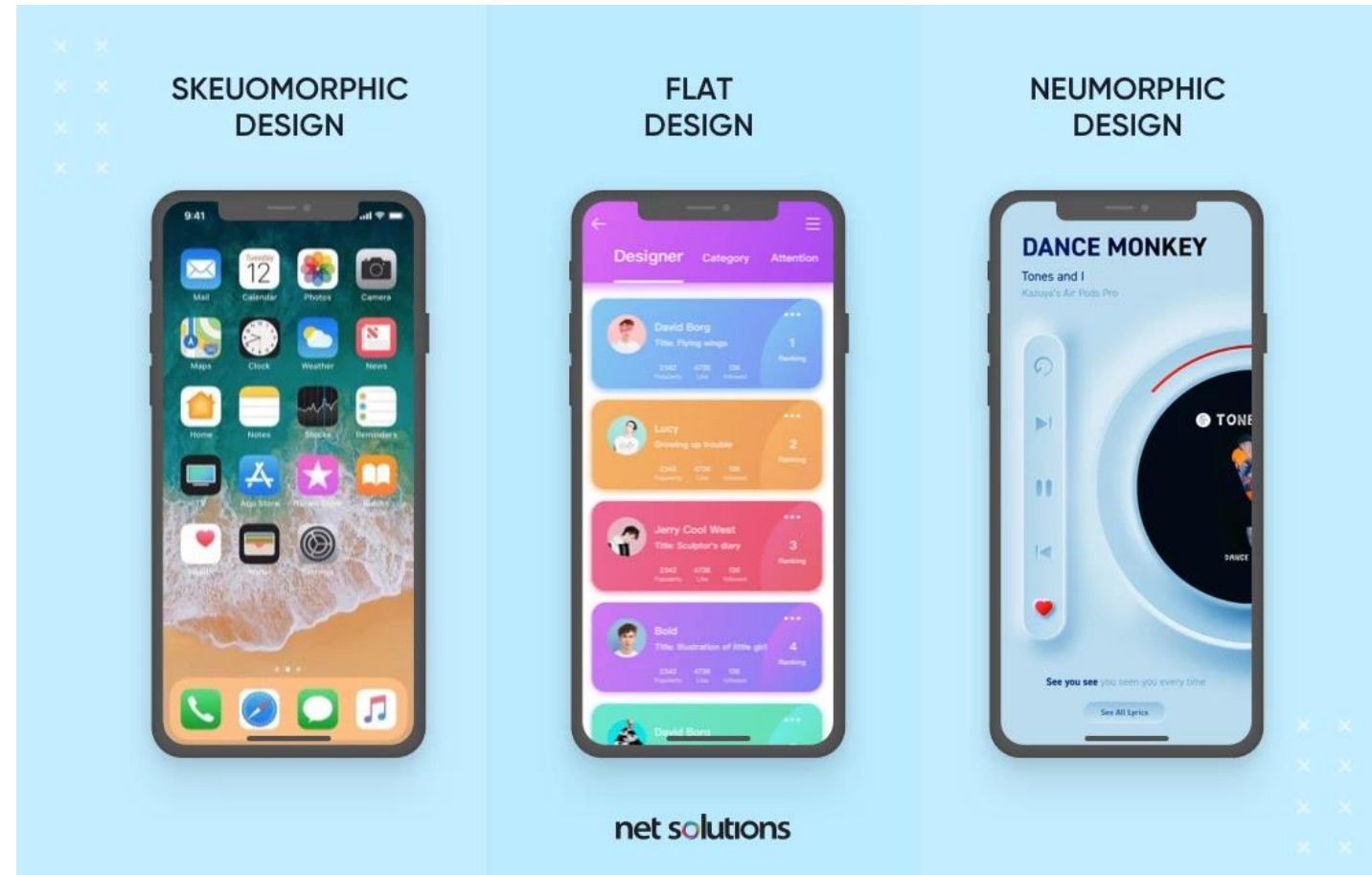# An Important Truth

UX is like a
joke.

If you have to
EXPLAIN IT
it's not good.

wix.com

UI

- Task and responsibilities:

  - The look and feel of the product

  - Responsiveness and interactivity

SKEUOMORPHIC DESIGN

FLAT DESIGN

NEUMORPHIC DESIGN

net solutions

https://www.netsolutions.com/insights/wp-content/uploads/2022/02/neumorphism.webp

# 10 Usability Heuristics for User Interface Design

Nielsen Norman Group
Ph.D Donald Norman - former VP of research @ Apple
Ph.D Jakob Neilsen – 79 US patents, making the internet easier to use

#1: Visibility of system status

- keep users **informed** about what is going on

- appropriate **feedback** within a **reasonable** amount of time

- **predictable** interactions create **trust**

Info › Shipping › **Payment** › Review

$43.23

Pay now
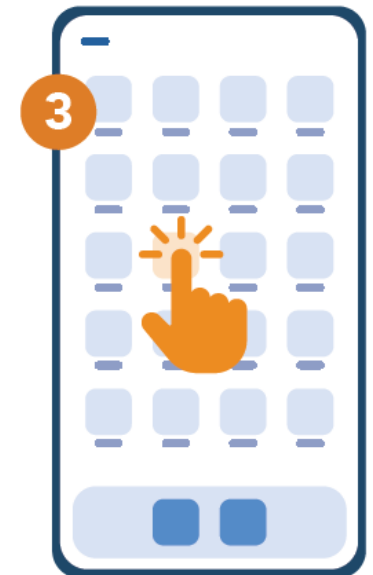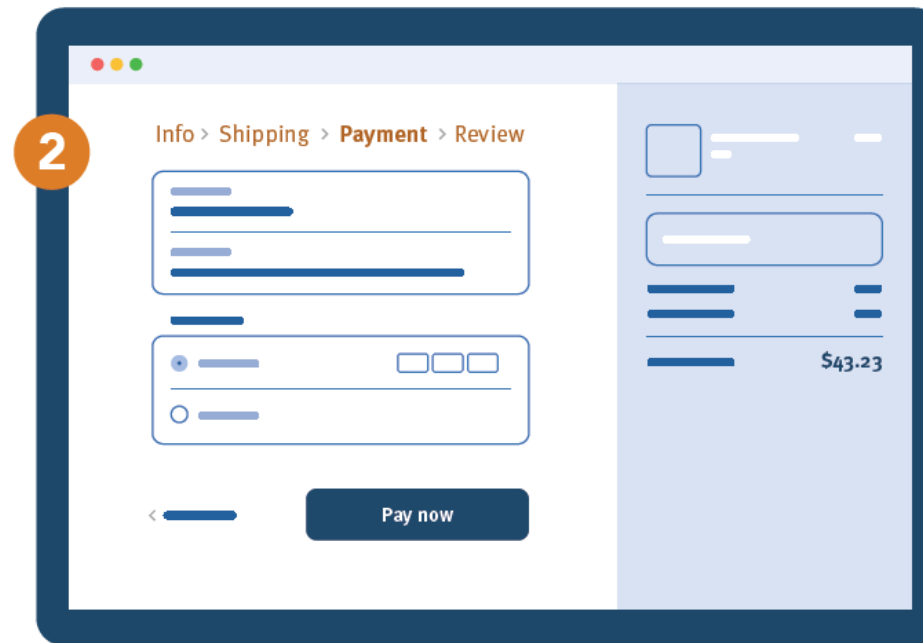
#2: Match between system and the real world

- never assume that your own interpretations of words match those of the users
- speak the users' language
- use real-world conventions
  - spatial similarity
  - conceptual or metaphorical similarity (up is more, green is go)
 - behavioral similarity ("raise to wake" gesture)
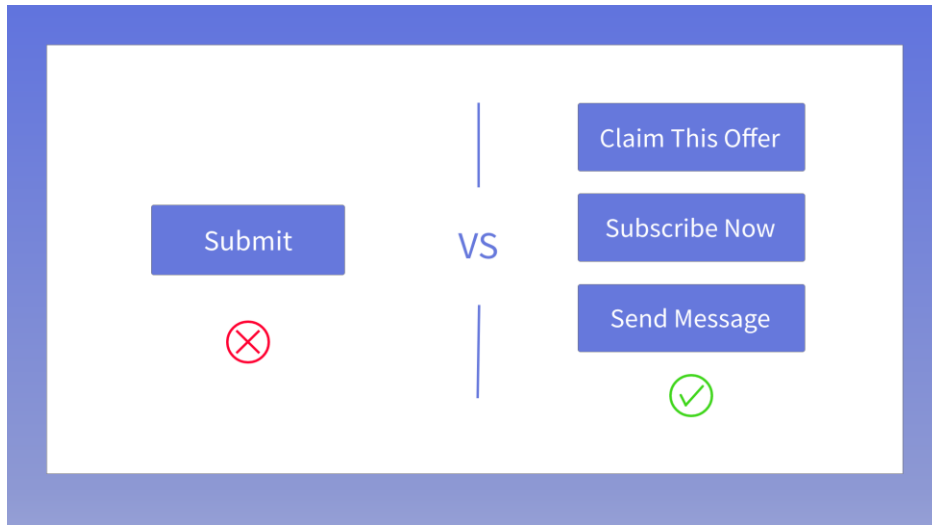
#3: User control and freedom

- Support *Undo* and *Redo*

- Allow Users to Easily Cancel an Action

- Show a clear way to exit the current interaction, like a Cancel Button

#4: Consistency and standards

- Internal Consistency
  - within a product or a family of products
    - Button Styles, Navigation Patterns, Icons
- External Consistency
  - conventions in an industry
    - Colors: green for environment, blue for airplane
- Layers of consistency:
  - Visual (icons, symbols, imagery)
  - Layout (reuse buttons, headings, navigation)
  - User-Entered Data (dates, phone number, location)
  - Content (e.g. same style on marketing and site)
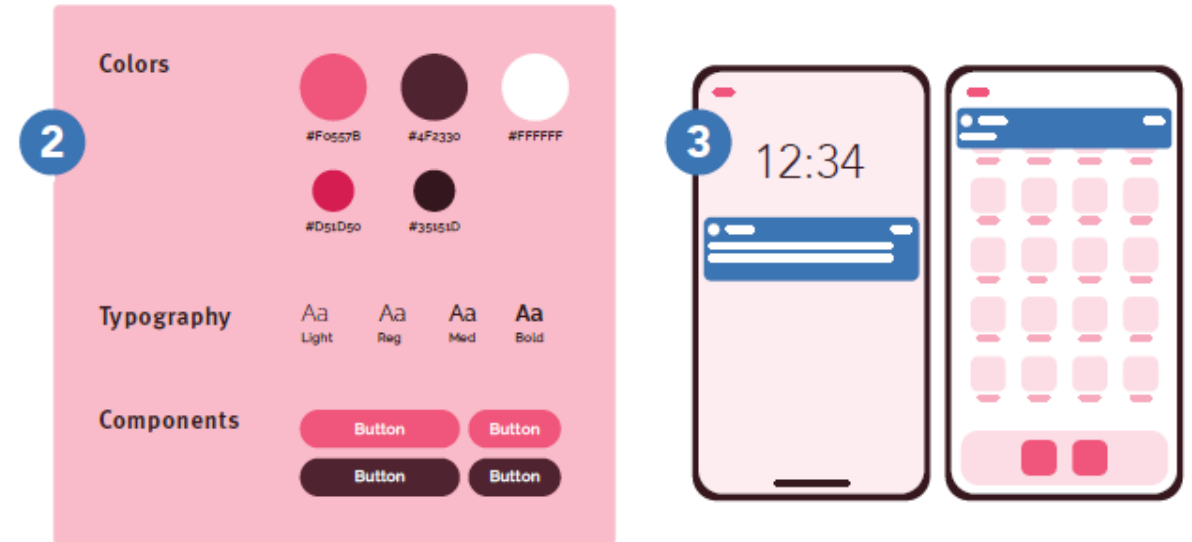
#5: Error prevention

- Include Helpful Constraints
  - e.g. date picker
- Offer Suggestions
  - e.g. on search
- Choose Good Defaults
  - e.g. location, today date
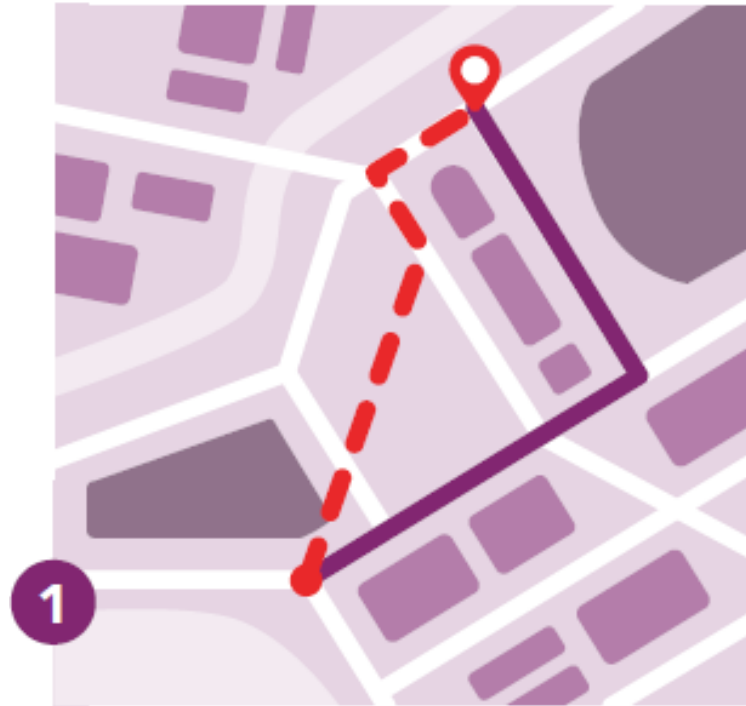- Use Forgiving Formatting
  - e.g. phone number
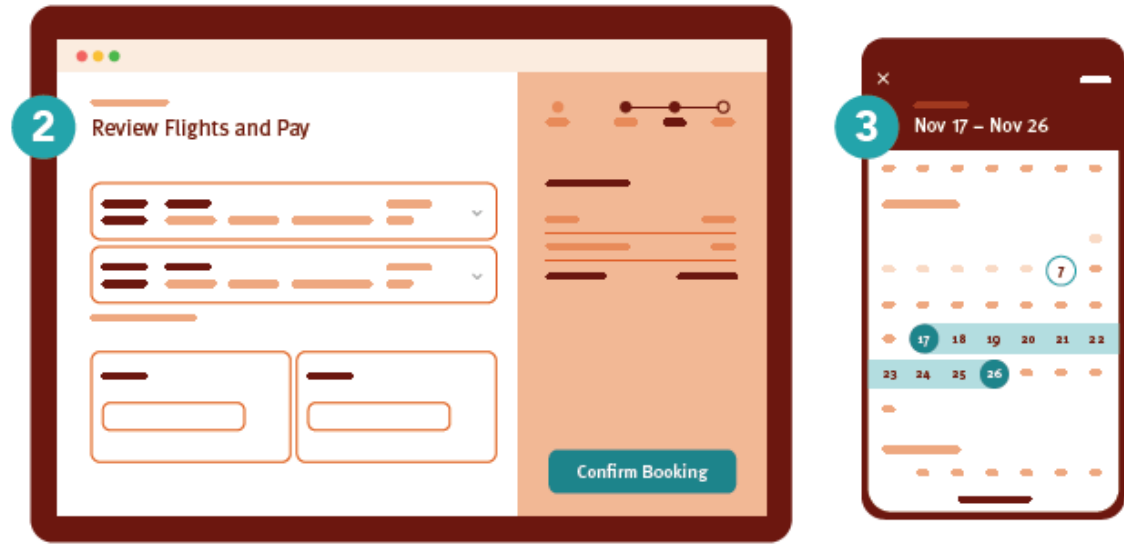
#6: Recognition rather than recall

- Reduce the information that users have to remember.

- Let people **recognize** information in the interface, rather than forcing them to remember ("**recall**") it.

- Offer help in context, instead of giving users a long tutorial to memorize.

#7: Flexibility and efficiency of use

- **Multiple methods** to accomplish the same task according to one's preferences
- **Accelerators** that don't slow down inexperienced users, but speed up advanced users
  - Keyboard swipe
  - Macros (e.g. excel procedures)
- Enable expert users to **customize** the interface to suit their needs

#8: Aesthetic and minimalist design

Keep the content and visual design of UI focused on the **essentials**.

Principles for visual communication:

- **gestalt principles** tendency to perceive the whole as opposed to the individual:
    - grouping is important

- **scale:** use relative size to signal importance
- **visual hierarchy:** color, spacing, placement
- **balance**: elements distributed on both side of an imaginary axis
- **contrast:** emphasize the elements are distinct
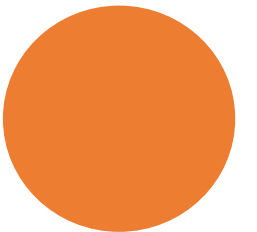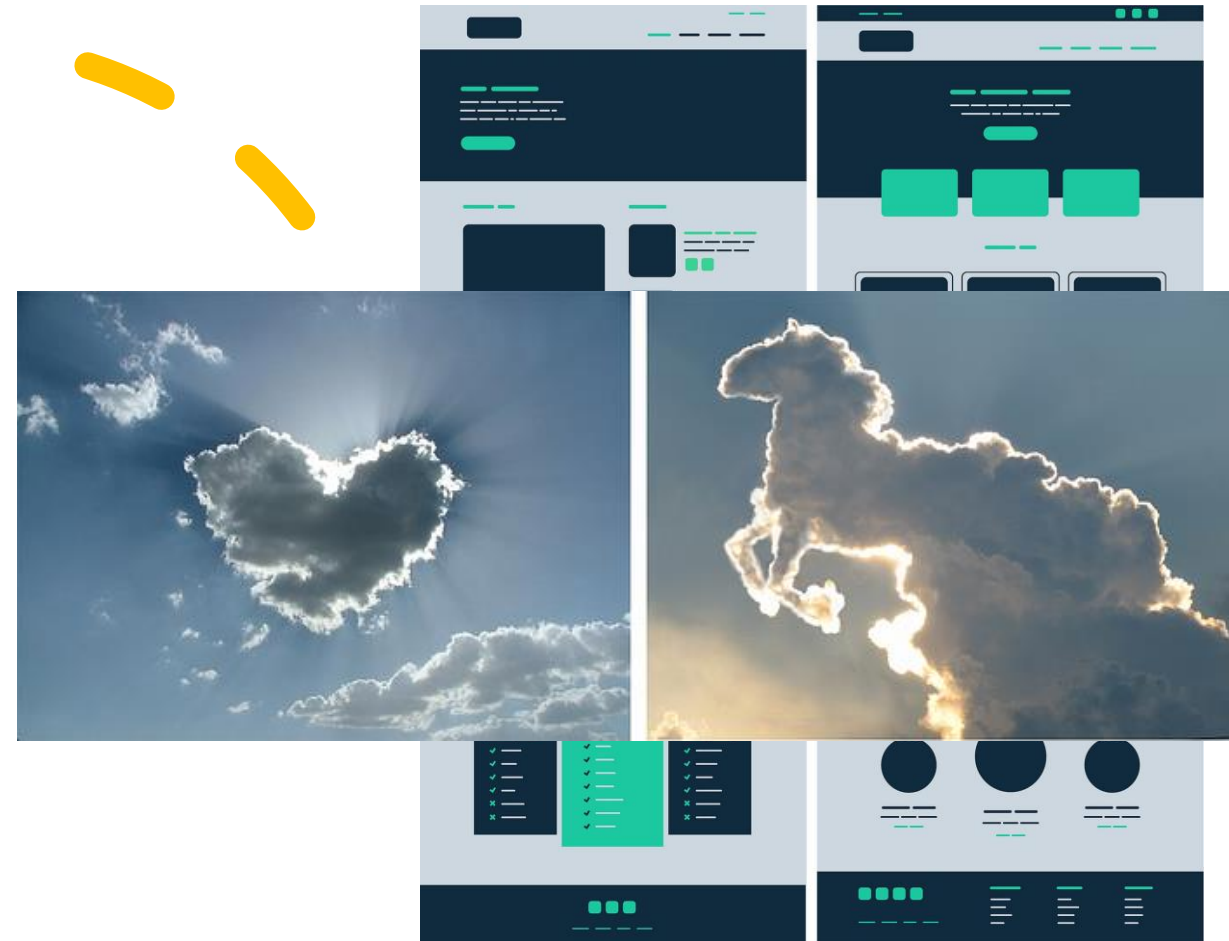
# #9: Help users recognize, diagnose, and recover from errors

- Use traditional error-messages visuals, like bold, red text

- Tell users what went wrong in language they understand

- Offer users a solution, like a shortcut that can solve the error immediately.
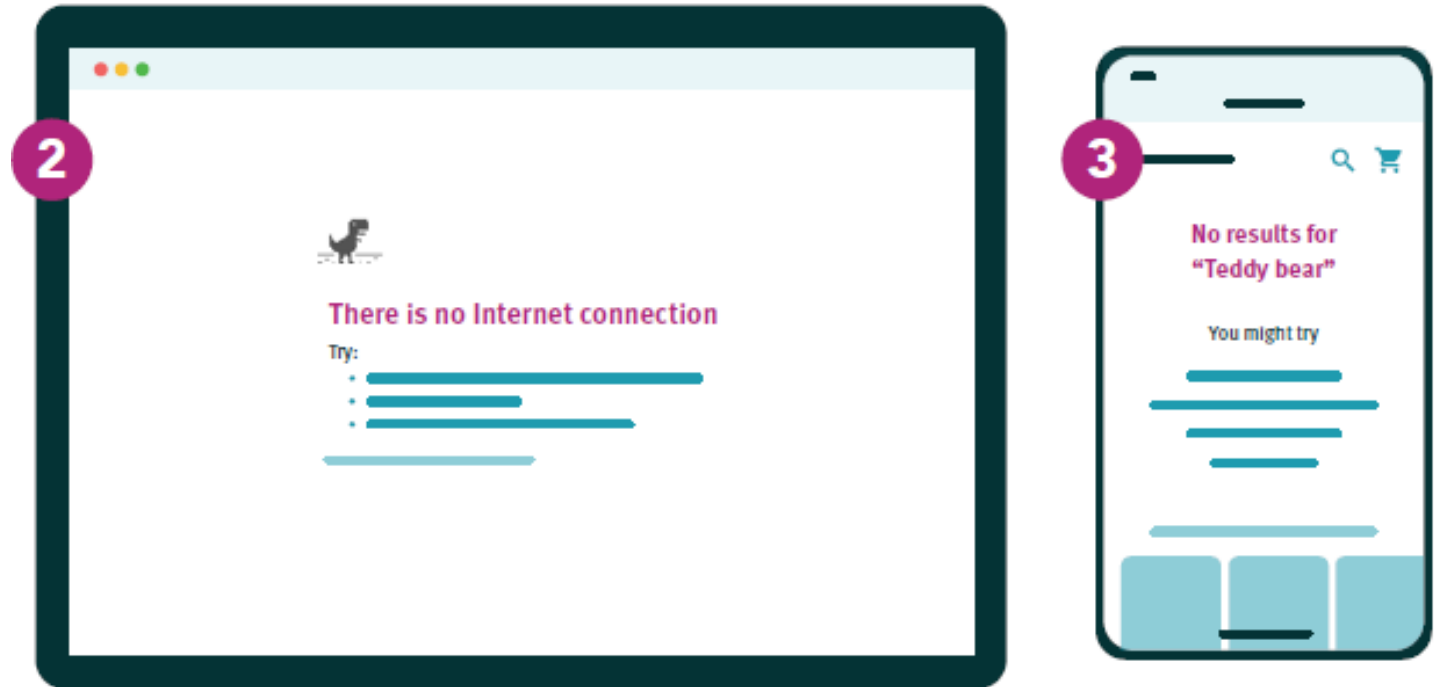
#10: Help and documentation

- Best systems don't require documentation

- Ensure that the help documentation is easy to search

- Whenever possible, present the documentation in context right at the moment that the user requires it.

- Proactive help:
  - tutorials
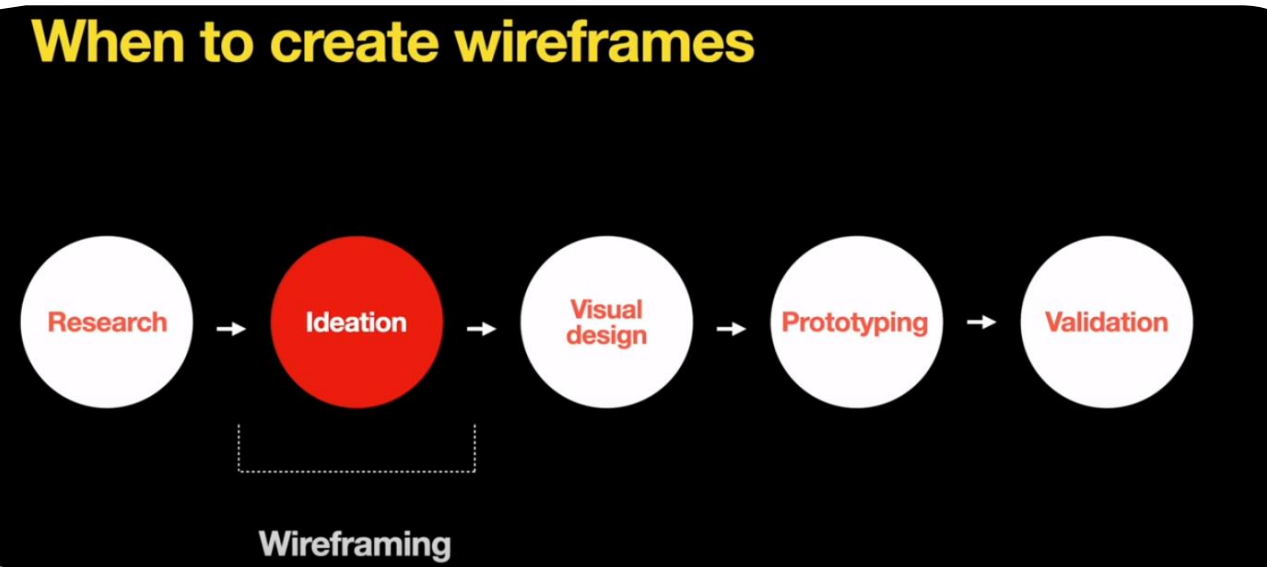 - instruction overlays
  - tooltips
  - wizards
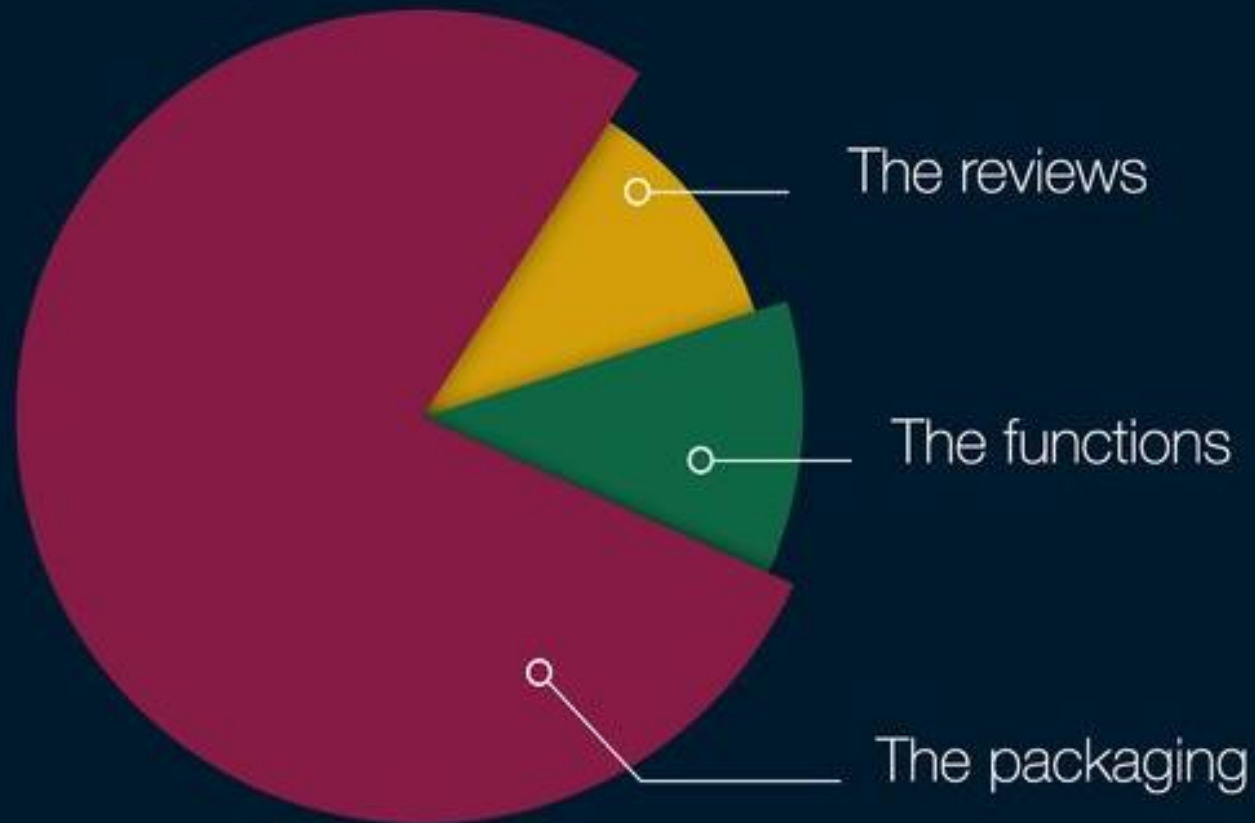
Relevance when buying something

maybe for all of us...

Wireframing

When to create wireframes

Research → Ideation → Visual design → Prototyping → Validation

Wireframing

- Test an idea and get feedback quickly

- Wireframes visualize a user **path** or **flow**, as well as **page layouts**, information **hierarchy**, and even **interactions**.

- Depending on their purpose, they can vary in fidelity — from quick sketches to detailed representations

Wireframing
| questions to ask

- What should user do on this page?

- What information need?

- What should users expect?

- How does this page fil in the flow?

Wireframing| how to?

- https://www.nngroup.com/articles/draw-wireframe-even-if-you-cant-draw/
- Template https://miro.com/templates
  - iPhone App Template
  - Low fidelity prototype
  - Website Wireframing Template
  - App Wireframe Template

Wrap-Up Innovation in UI

- Voice user interface (VUI)
- Gesture-Based interface
- AR / VR
- Micro-interaction (single purpose interaction)
- Simple/Flat design
- Dark Mode
- AI-Driven Personalization
- Gamification
- Biometrics identification

Milestones (week 5,6):

- Wireframing **(7p)**
  - Low fidelity wireframing
- Establish color theme **(2p)**
- Create a logo **(optional)**

References

- https://www.nngroup.com/articles/ten-usability-heuristics/
- https://www.nngroup.com/videos/you-are-not-user-slogan/
- https://careerfoundry.com/en/blog/ux-design/the-difference-between-ux-and-ui-design-a-laymans-guide/
- https://www.youtube.com/watch?v=1jtQ0uIIs94