

# Starting a Project

- Often adding a feature to existing app/site
- Sometimes a new site/app

Key Questions:

- What do you do?
- What do you NOT do?

# How it begins

You are given the idea of how it should "work"

- Could be a wireframe/mockup
- Could be a prototype
- Could be a spec document

# The Real Questions

Confusingly, they may not actually ASK these aloud

- Can you do this?
- How long will it take?

But they NEED these answers

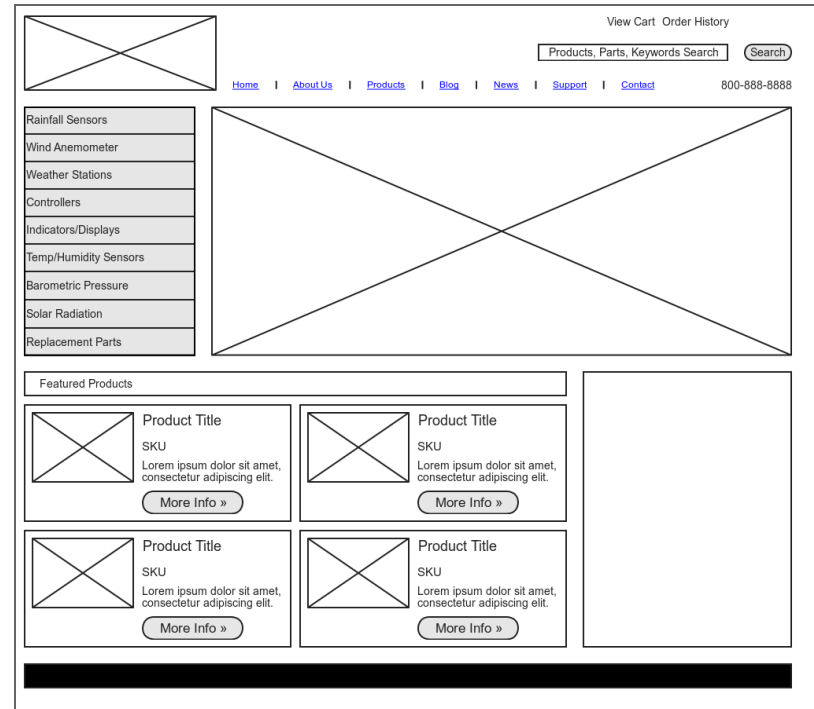
- And will assume them if you aren't explicit

# **Ways they convey their hopes**

- Wireframe
- Mockup
- Prototype
- Spec document

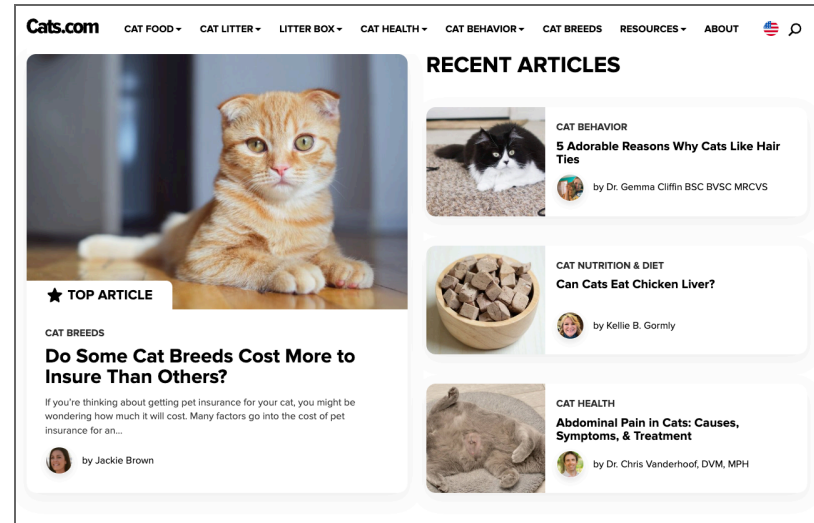
# Wireframe

Basic arrangement, No specific colors/distances, No interactivity shown



# Mockup (Hi Fidelity)

Image of the imagined webpage



# Limits of these options

- **Wireframe**: A rough picture of the page
  - Focus on arrangement, not appearance
  - Images just boxes, content faked
  - No interactions shown
- **Mockup**: A picture of the page
  - Specific appearance
  - Content usually faked
  - No/Few interactions shown

# Design Prototype

- Potentially confusing word choice
- Devs call a **Proof-of-Concept** (POC) a "prototype"
  - Functionally "work", but technically weak
  - Often used to gather support/funding
- Designers have design **prototypes**
  - Shows visuals and interactions
  - But doesn't functionally work
  - Like a facade or stage prop
  - Demonstrates the look/feel/behaviors

A web app showing pages/interactions with fake data



# Spec Document

- **Spec Document** is *specification*
- You may be given one
- You may be asked to create!
- Lists all the relevant behavior and design
- Similar to my assignments
  - More technical detail
  - Less implementation detail
- Given the same spec:
  - Devs should create the same basic app

# What should you do?

- NEVER immediately accept
  - BAD: "Looks good"
  - BAD: "Sure"
  - BAD: "a couple of days"
- Your role is to give GOOD answers
  - Requires close consideration

# You need to identify **needs** and **concerns**

- Making the app/feature is not your job YET
- Your job is to say *if you can*
- Your job is to say *at what cost*(resources)
- Your job is to *accurately estimate*
  - And we know how hard that is

Agreeing before consideration is AGAINST your job

# Some Questions about the Data

- Do you have the needed data?
  - Do services exist?
- Are there security/access concerns?
  - Can the user SEE/change this data?
- How many service calls will this need?
  - Performance? Scalability?

# Questions about the Presentation

- Mobile? (responsive/adaptive)?
- a11y?
  - Often overlooked until hard to fix
- i18n/l10n?
  - Swapping text/numbers/dates?
    - Room for different text sizes?
- Mockup gaps?
  - Does the UI fit data of different sizes?
- Validation
  - Where do validations/errors go?
  - When does validation happen?

# Questions about the Architecture

- Does Security team need to review?
- Authentication? Authorization?
  - Expiration?
- What is server-generated and what is front-end?
  - Any changes/extensions to services?
- Database impacts?
- Does this impact existing code?
  - Adding features often complicated!
- What docs(internal/external) are needed?
  - Existing docs changed?

# **Example: A Social Media clone**

## Users

- Can login using same logins as Project 2
- Have Profile of personal data
  - Name, Location, Pic, Followers, Followed
- Can search for other users to Follow
- Can Follow other users
- See their Timeline of posts by Followed
- Can make posts (250 characters)
- Can "amplify" others' posts (show to Followers)

How long will it take you?

# **Do not answer that! Do not start work!**

Simple questions:

- What is default page?
- What do they see when not following anyone?
- What are details about user info?
- What info does a "post" have beyond the words?
  - What info about posters on post?
- What "pages" do we have?
  - Deeplink URLs for seeing a person/post?
- What requires user be logged in?
- Validations/Error messages?



# These are just the start

Incomplete Advanced questions:

- How many posts are shown?
- Infinite scrolling/Pages/Load More?
- Is Polling expected? Details?
- Can a user prevent someone following them?
  - Other Block/Mute/Safety behavior?
- Can a post be edited? (complex!)
  - Can Profile be edited?
  - Where can we edit Follow status?
- Languages?

# Delayed Questions means Wasted Work

- Chosen data structures may be completely wrong
- Created services may be completely wrong
  - Chosen *resources* may be completely wrong

Worse, if you assume wrongly, *product* may be wrong

- Everyone frustrated

Asking later and waiting for answers:

- Counts under "development" time
- Not "planning" time
- In other words: counts against your success