ATTRIBUTES OF A GREAT UX DESIGN

- **Usability**
- **Delight**

ATTRIBUTES OF A GREAT UX DESIGN - *USABILITY*

- **Usability**
  - Ease of use of the product
  - Are users able to perform the tasks they need to do to achieve their goals?
  - Whether users encounter problems along the way
- **Efficiency metrics (for usability testing)**
  - ***Effort required by the user*** to use a feature (number of clicks/taps/keystrokes/time taken can be measured)
  - User's ***perceived effort***
  - ***Ease of learning***
  - ***Cognitive load*** placed on the user by the UX (too much information? Too many choices?)

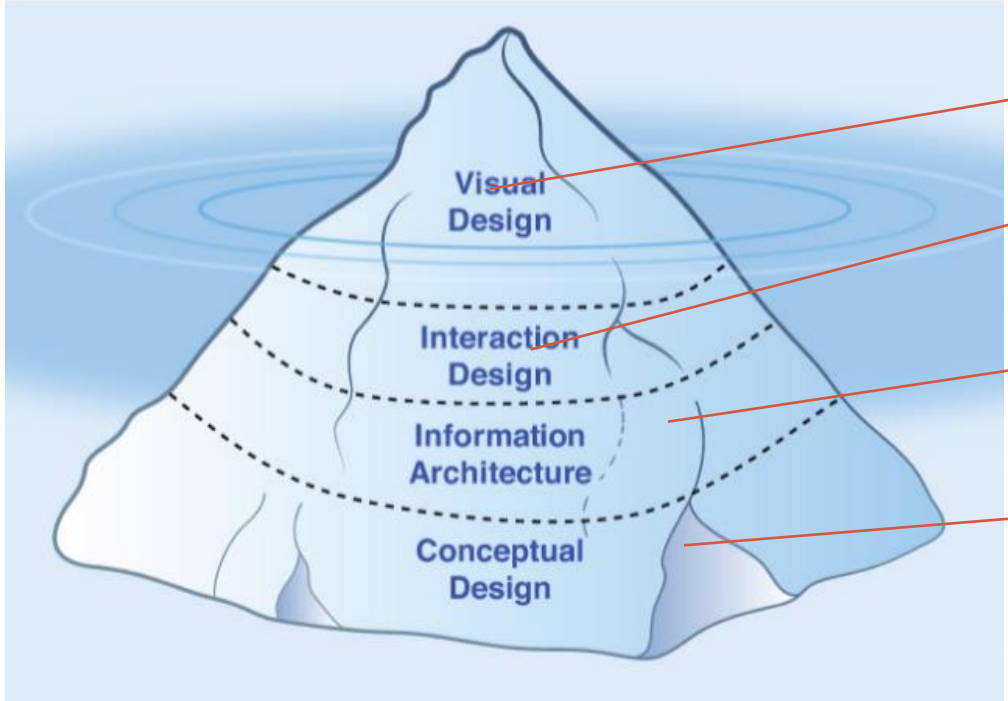
- Usability tests to be conducted through user surveys
- The more the user effort required to take an action, the lower the percentage of users who will take that action
- The less user effort required, the higher the percentage of users who will take that action
- Focus on improving the ‘conversion rate’ for user actions that are important for business

ATTRIBUTES OF A GREAT UX DESIGN -*DELIGHT*

- **Delight -** ***Do customers enjoy using your product?***
  - ***Aesthetics*** – product looks appealing to the user
  - ***Simplicity*** – eliminating visual clutter for the user – 'minimalistic design'
- **Ways to create delight**
  - Smart default choices
  - Addressing top-of-mind questions
  - Tone of language (e.g., humor)
  - Dynamic response such as animations, sound effects, chat bots, agents, etc

ELEMENTS OF UX DESIGN

THE UX DESIGN ICEBERG



How the product looks - apparent and immediately visible

How the user and the product interact with one another

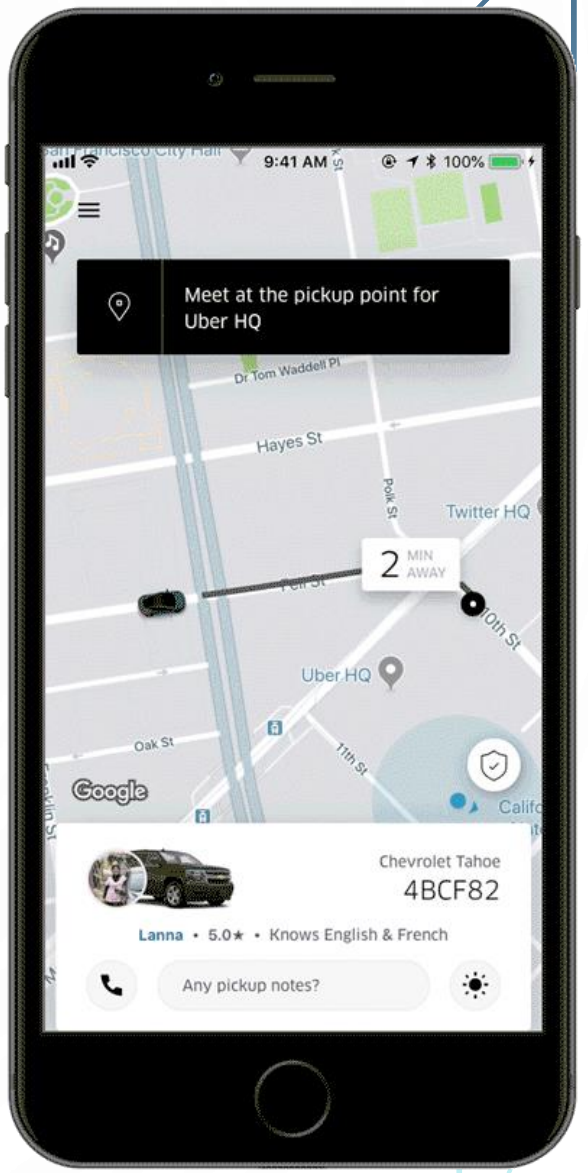
How the product's information and functionality are structured

The underlying concept that forms the essence of user experience

CONCEPTUAL DESIGN

- The conceptual layer sits on top of the feature layer of the product-market pyramid
- For an intuitive user experience *the conceptual model of the product must match with the mental models of the users*
- User research important to come up with a good conceptual design and all design layers
  - User personas
  - User technically advanced or less comfortable with technology?
  - Context in which the users will be using the product – rushed for time, more relaxed, ambient noise in the environment etc.

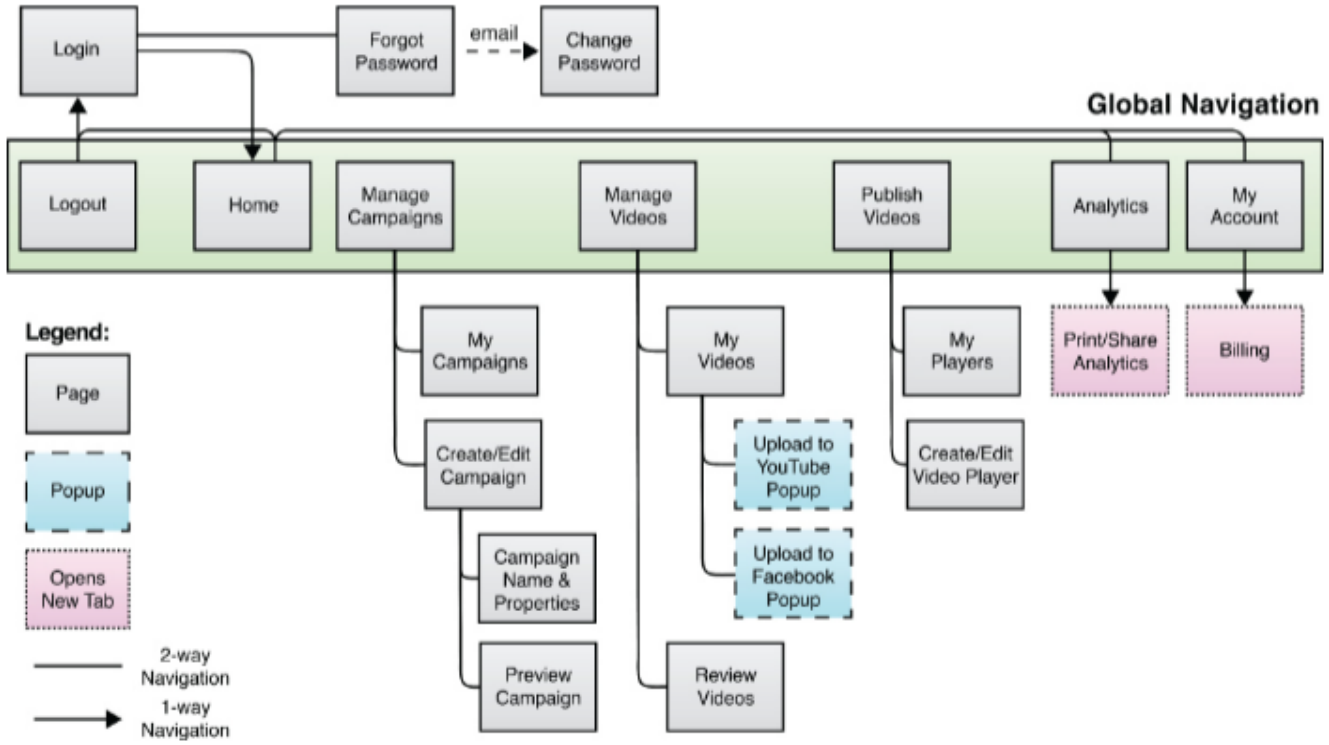
- **What is Uber’s conceptual design?**
  - Uber uses a map-centric design (required technical innovation)
  - Showing realtime location of cabs in the vicinity, tracking, etc – transparency to the users
  - Value proposition immediately visible to the users
  - Close to user’s mental model of navigation on the road!
- **Other examples?**



INFORMATION ARCHITECTURE

- Products typically have multiple screens or pages – organizing information for the user? What is the data flow?
- Deals with how the information and functionality should be structured
  - E.g., sitemap for a website, data models

A Sample Sitemap



INTERACTION DESIGN

- Interaction design is about creating a dialogue between the user and product
- Actions the user can take at each step, and the response of the product
  - E.g., clicks, swipe, slide, 3D buttons (which indicate they have to be pressed), controls to generate emotional responses, navigation, intuitive options, etc

VISUAL DESIGN

- Words, visual representations/typography, physical objects or space (through which the user interacts with the product), time (progress tracking), action & reaction
- Breakthroughs in visual designs – augmented reality & virtual reality; metaverse

USER EXPERIENCE – HOW TO DESIGN?

PRODUCT DESIGN

THE DESIGN PROCESS

1. User research	Understand users and their needs, current ways to accomplish tasks, etc. DELIVERABLE – Conceptual Design
2. Information Architecture	Create a data model - the sequence in which the information should appear to the user based on the steps to accomplish a task DELIVERABLE – data model
3. Interaction Design	Using the information architecture model, creating the navigation and controls in the digital product to enable users accomplish tasks; technical feasibility is discussed ***DELIVERABLE - wireframe***

WIREFRAME

- A low to medium fidelity representation of a product
- Not pixel-perfect, gives a sense of the product's components and how they are arranged
- Gray-scale, devoid of any visual design details such as colors, images and fonts
- Many software tools available for creating wireframes
  - Library of predefined widgets, static and clickable wireframes
  - Creating a multiple page or screen user flow – enabling the intended 'happy path' for the user to follow through the user experience that is designed

Low-fidelity wireframe

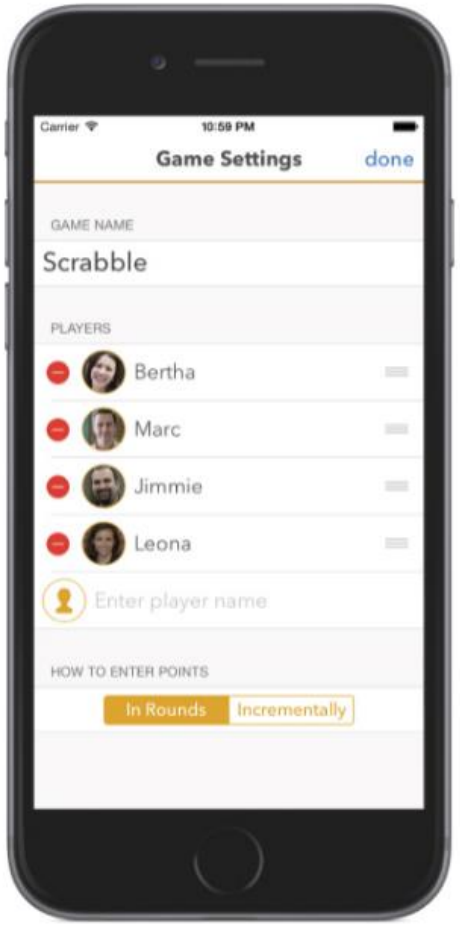
THE DESIGN PROCESS (CONTD.)

4. Prototyping	More interactive prototypes are built from wireframes (as needed for MVP testing) ***DELIVERABLE - mockups***
5. Visual design	Focus is on the product appearance. Mainly usability, emotions and consistent brand messaging (including emails, marketing website, etc.) ***DELIVERABLE – a higher fidelity prototype***
6. Content Strategy	Content curation: Making sure that the overall experience with the content aligns with the users' expectations; content consistency and presentation across the website, mobile app, marketing campaigns

MOCKUP

- High fidelity (higher than wireframes) representation of a product
- Some can be picture-perfect; Convey visual design details such as colors, images and fonts
  - Can be static or clickable
  - Creating a multiple page or screen user flow

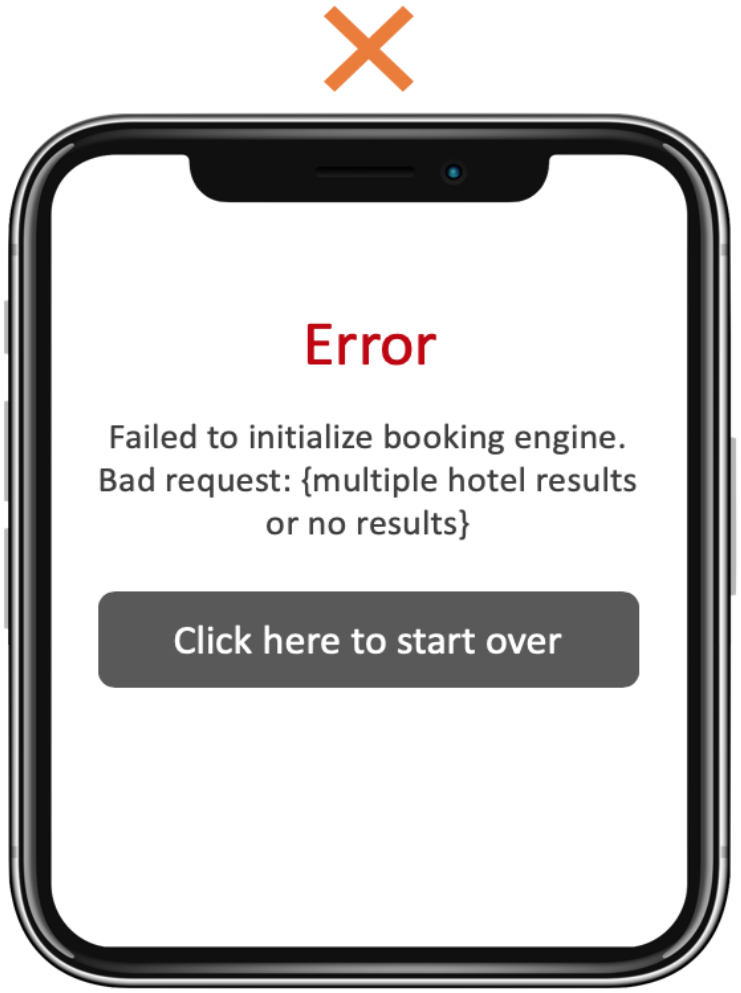
High-fidelity Mockup

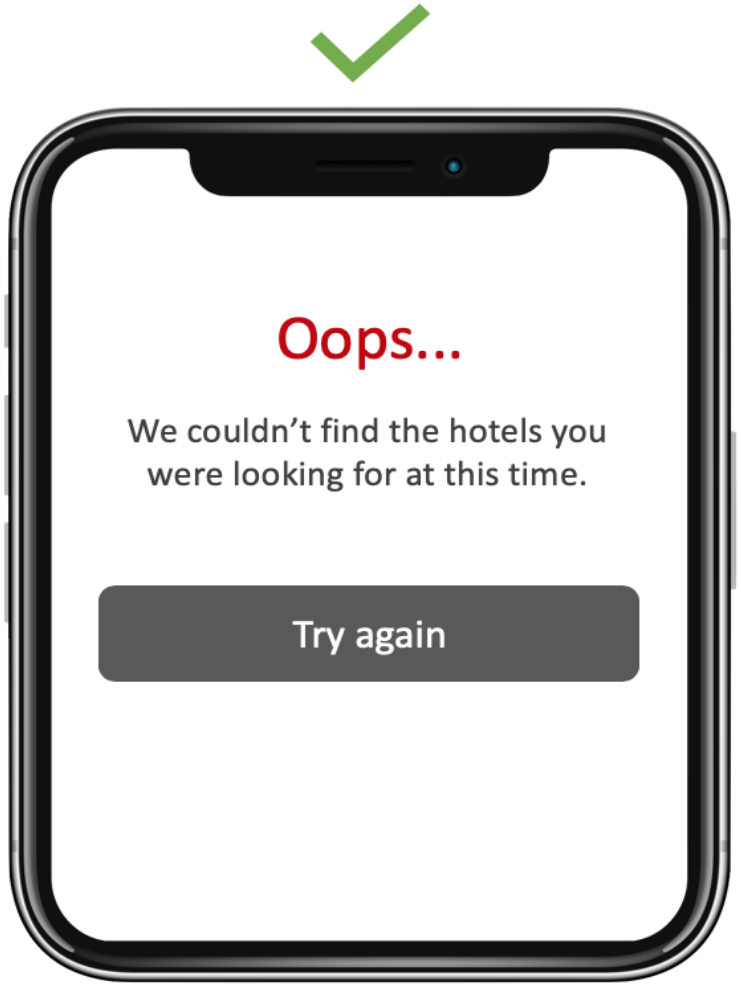


PROTOTYPE

- High fidelity (higher than mockups) representation of a product
- An interactive prototype includes many types of functioning user interface controls
  - Drop-down menus
  - Hover effects
  - Input forms
  - Audio/ video players
- Web prototypes built with developer tools - HTML, CSS, Javascript, Ruby on Rails, to name a few

EXAMPLE – COMBINATION OF INTERACTION &VISUAL DESIGN, AND CONTENT STRATEGY EXAMPLE





USER EXPERIENCE & CUSTOMER EXPERIENCE

- Does a great user experience guarantee a great customer experience?
- The difference between these two:
  - UX – focus is on the design of a screen or set of screens/device for the digital product and the interactions of the user that occur on it
  - Customer experience – can have may other touch points for the customer e.g., front-line staff, promotional emails, store environment, etc.

OTHER DESIGN CONSIDERATIONS

DESIGN PRINCIPLES

- **Responsive design –** allow users of different screen sizes to see different versions of your interface - wrapping, size alterations, other dynamic changes
- E.g., apple watches and other wearables
- **Designing for multiple screen sizes –** amount of content; use of mobile software development kits (SDKs) that enable an app to have different layouts optimized for different screens

DESIGN PRINCIPLES

- **Gestalt principle of similarity** –objects that are similar or related should look similar and placed accordingly
- **Visual hierarchy** – influencing user's attention to the most important things
- Principles of composition
  - Unity – UI must look like a unified whole
  - Contrast – enough variation to reveal visual interest
  - Balance – visual weight of your design elements
  - Use of space – cluttered or sparse with white spaces

DESIGNING FOR ACCESSIBILITY

ACCESSIBILITY

- Accessibility a technical component and user interface component, includes assistive technologies
- Whether a product or service is accessible to people with a wide range of disabilities or functional limitations including hearing, movement, visual, cognitive, language and neurological disabilities
  - Also counts temporary conditions and situational limitations (e.g., broken arm, noisy environment, bright or dark surroundings, when busy, language, etc.)

COMMON ACCESSIBILITY ISSUES

- Low color contrast
- Lack of keyboard navigation
- Use of inaccessible fonts
- Lack of alt text
- Unclear link text
- Inconsistent design
- Lack of transcripts for audio and video content

GUIDELINES FOR ACCESSIBILITY

- Some known guidelines:
  - For web accessibility - Web Content Accessibility Guidelines (WCAG) requirements
  - Create specific accessibility acceptance criteria (A11yAC) based on existing user stores that do not consider disability
    - A generic user story can be modified to cover a wide variety of disabilities

EXAMPLE: USER STORY

- In addition to our earlier user stody template the following can be sued for a scenario-based format:

  Given I am [specific user type],

  When [situation],

  Then [expectation],

  And [additional expectation].

- Example : User story for a specific disability
  - As a ‘non-sighted screen reader’ user, I need informative images to include descriptive alt text, so that I have the same information as a sighted person.

DESIGN ARTIFACTS

AND DESIGN MVPS

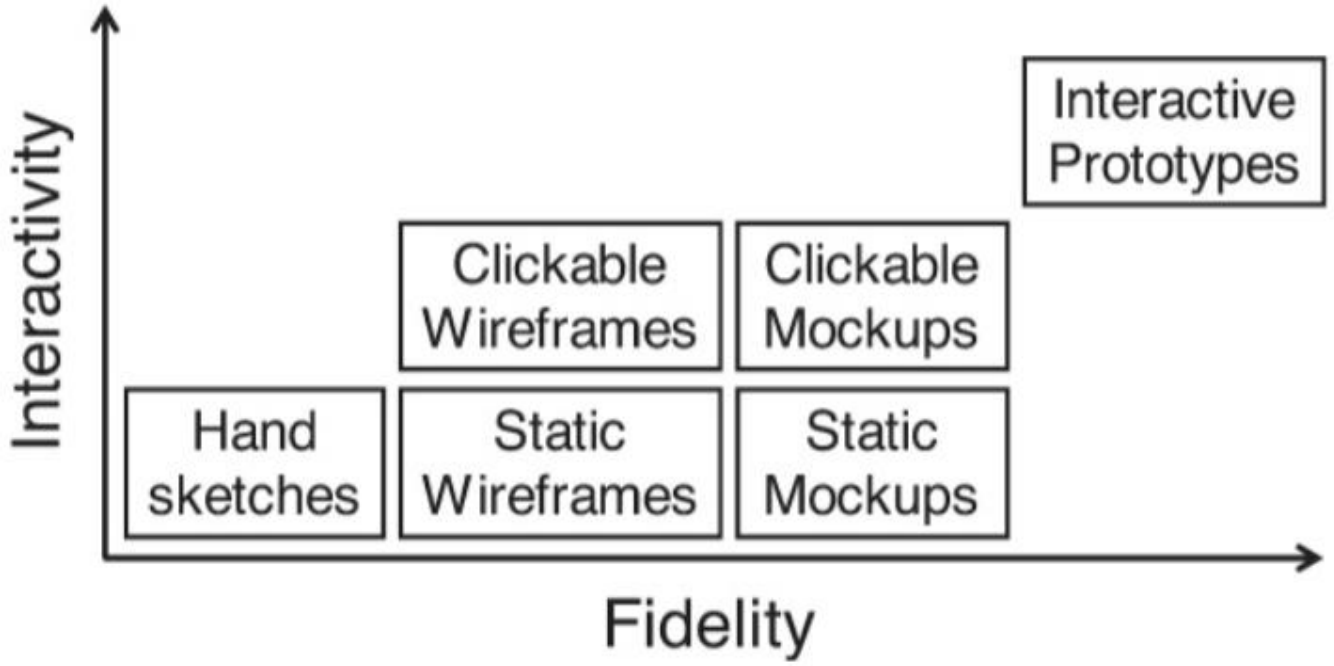
MVP TESTS CATEGORIZED BY TYPES

- A combination of : Product & Marketing tests AND Qualitative and Quantitative tests

	Qualitative Tests	Quantitative Tests
Marketing Tests	Marketing materials	Landing page/Smoke test Explainer video Ad campaign Marketing A/B tests Crowdfunding
Product Tests	Wireframes Mockups Interactive prototype Wizard of Oz & Concierge Live product	Fake door/404 page Product analytics & A/B tests

DESIGN ARTIFACTS BY FIDELITY AND INTERACTIVITY

- Design artifacts vary in terms of ‘fidelity’ – i.e., how closely they represent the real product
- Design artifacts also vary in ‘interactivity’ – i.e., the degree to which a customer can interact with the artifact relative to a live, working product



- Paper prototypes (lo-fi prototypes) can be used for usability testing

Low fidelity prototype testing of the EE app – YouTube

Low-fidelity wireframe

High-fidelity Mockup

High-fidelity Clickable prototype