

UNIT 5

CONCEPT DEVELOPMENT

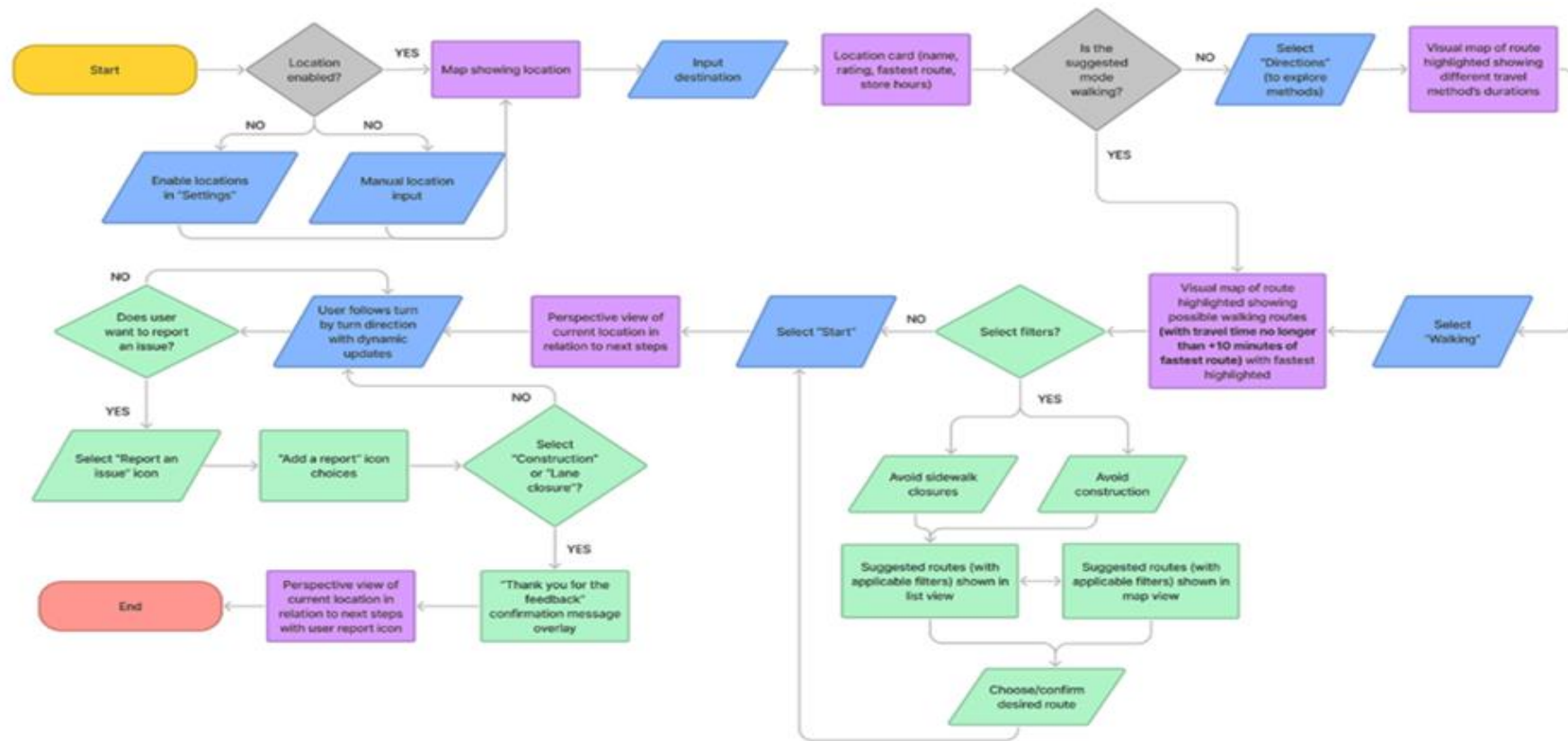
Task Flow

- A task flow is a diagram that represents a user's journey through a specific task.
- Instead of viewing a single piece of content in isolation, a task flow allows you to consider how one piece of content connects to the next. These connections form the paths that users travel to arrive at their endpoint.
- Before beginning content planning or creation, you can use task flows to figure out what your users are trying to accomplish. What are their main goals as they navigate your content.
- Task flows tend to be linear, showing the high-level steps that a person would take to get to a specific goal or end point.

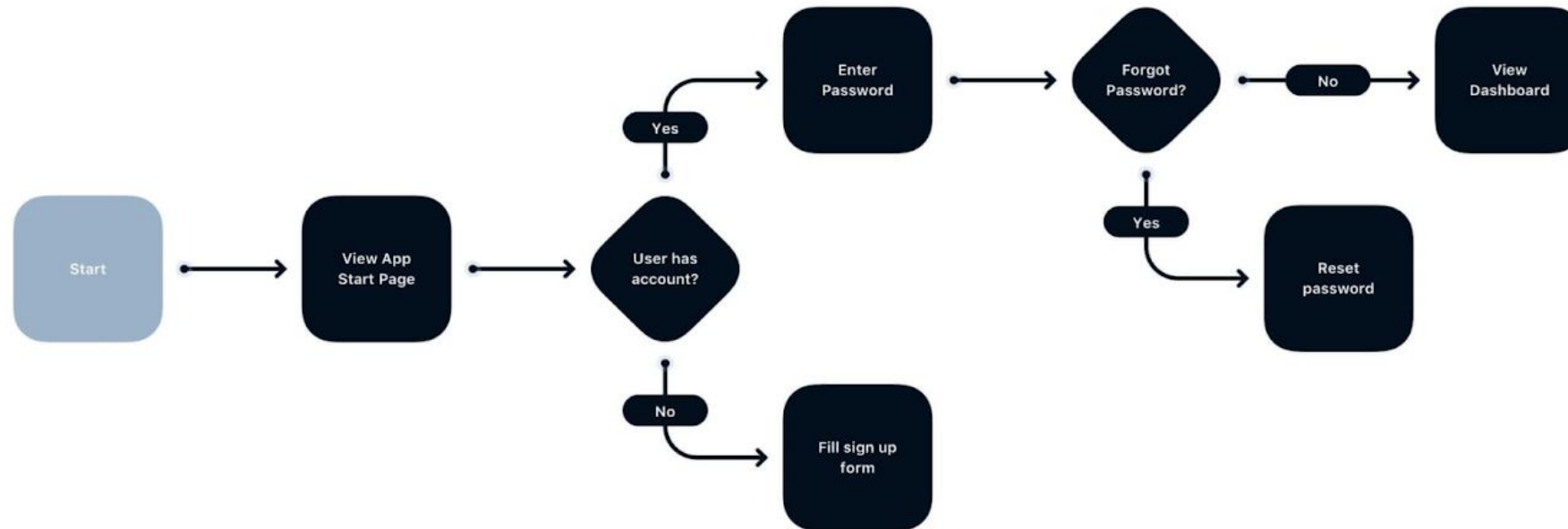
Task flow analysis

- A step-by-step analysis of how a user will interact with a system in order to reach a goal.
- This analysis is documented in a diagram that traces a user's possible paths through sequences of tasks and decision points in pursuit of their goal.
- The tasks and decision points should represent steps taken by the user, as well as steps taken by the system.
- To validate a design team's understanding of users' goals, common scenarios, and tasks, and to illustrate in a solution-agnostic way the overall flow of tasks through which a user progresses to accomplish a goal.
- Task flow diagrams also help surface obstacles in the way of users achieving their goal.

Google Maps Task Flow - Adding a feature to filter walking routes



TASK FLOW

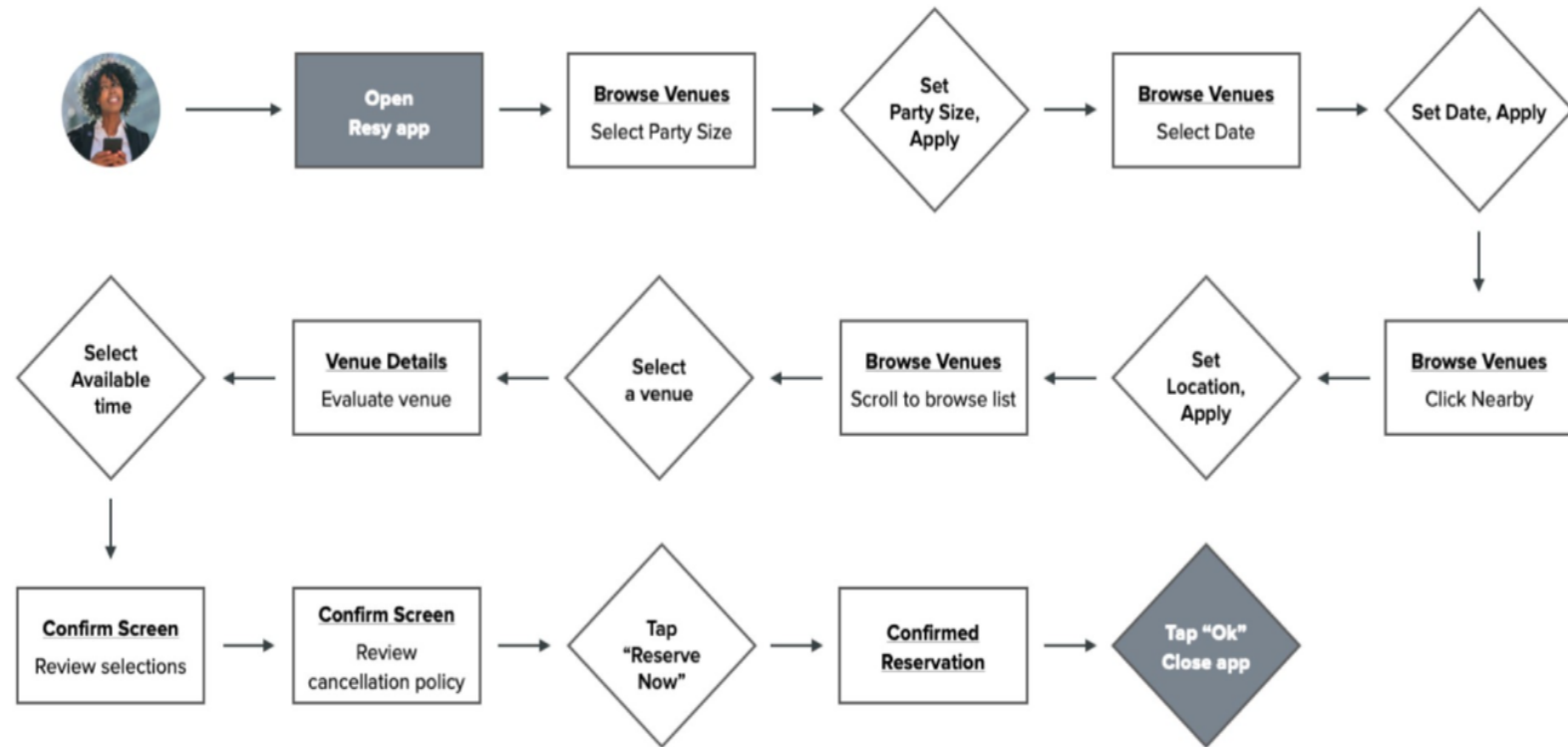


Task flow :

KARLA'S TASK FLOW:

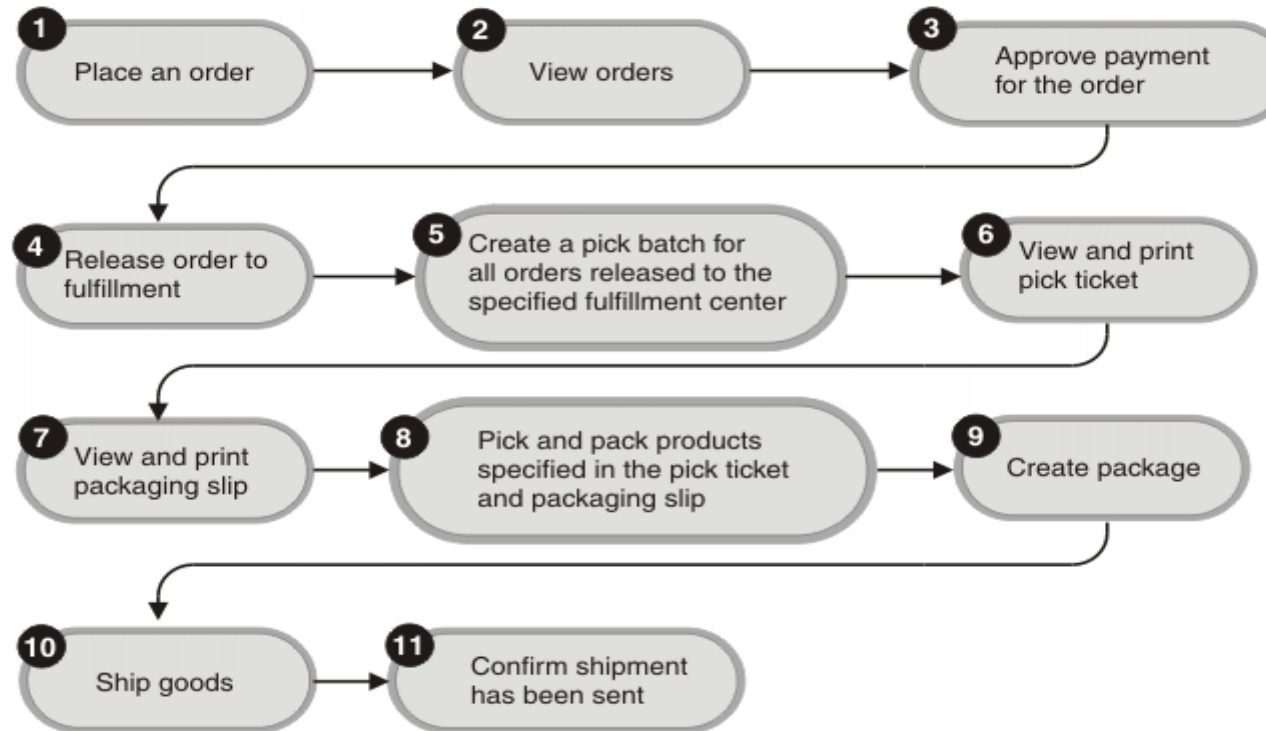
Karla is looking to find a nice restaurant and book a reservation during an upcoming vacation that her and 3 of her friends are taking in Boston.

She uses the Resy app to find and book reservations at local restaurants in NYC and would like to use the app for this booking as well.



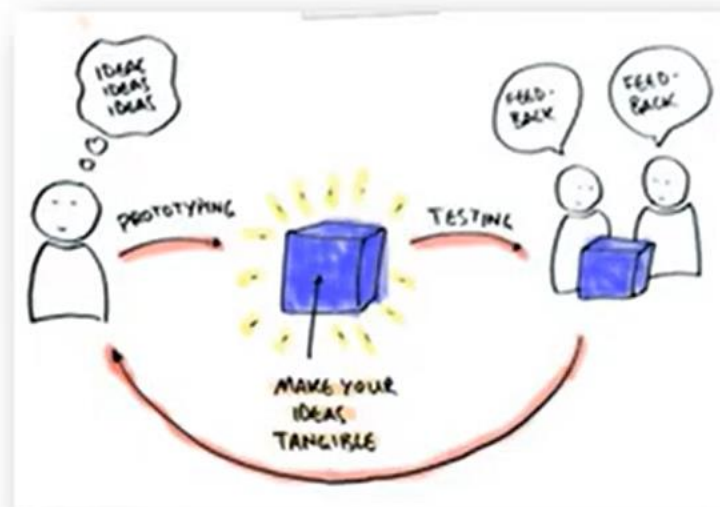
achieving their goal. Define the edge cases later.

Task flow for Order Management



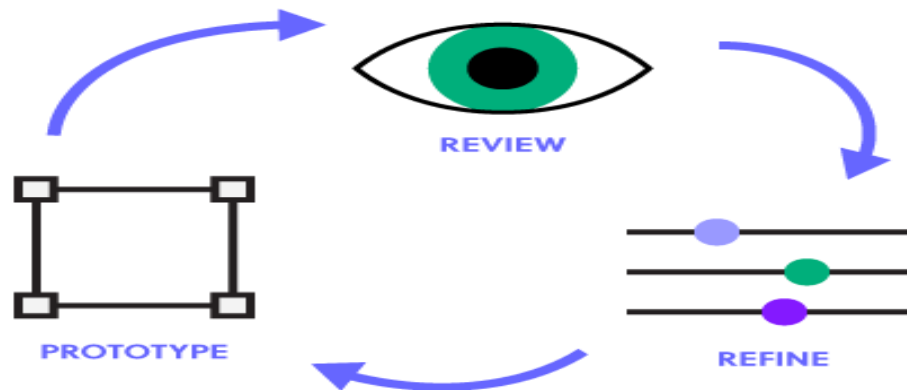
What is Prototyping?

- A Prototype is the concrete representation of all interactive system.
- A Prototype is tangible artifact or model, not a detail description of project.
- Every stakeholders like Designers, Managers, Developers, Customers & End Users can use this model.



Prototype

- A prototype is *“A simulation or sample version of a final product, which UX teams use for testing before launch.”*
- The goal of a prototype is to test and validate ideas before sharing them with stakeholders and eventually passing the final designs to engineering teams for the development process.
- Prototypes are essential for identifying and solving user pain points with participants during usability testing.
- Testing prototypes with end-users enables UX teams to visualize and optimize the user experience during the design process.



Prototypes have four main qualities:

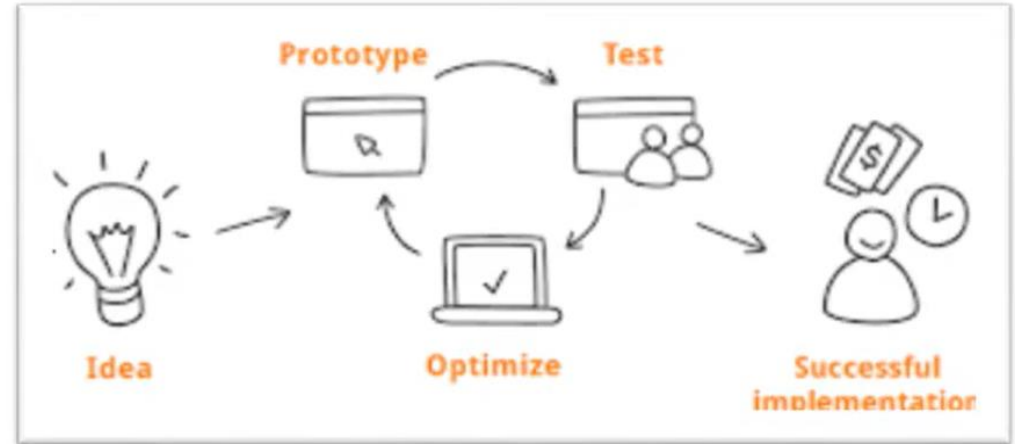
- **Representation** — The prototype itself, i.e., paper ,model, HTML and desktop application.
- **Precision** — The fidelity of the prototype, meaning its level of detail—low-fidelity or high-fidelity.
- **Interactivity** — The functionality open to the user, e.g., fully functional, partially functional, or view-only.
- **Evolution** — The lifecycle of the prototype. Some are built quickly, tested, thrown away, and then replaced with an improved version (known as “rapid prototyping”). Others may be created and improved upon, ultimately evolving into the final product.

Format of Prototyping

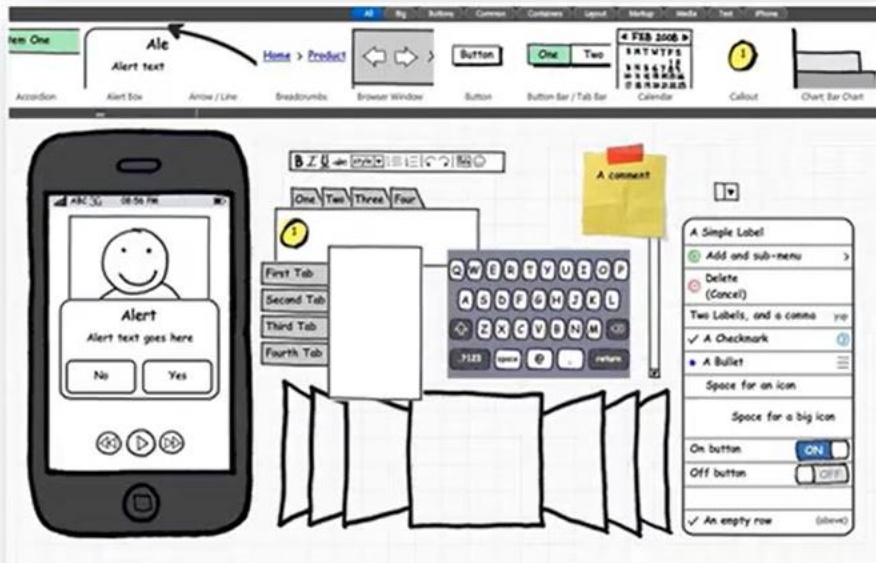
- In interaction design it can be any of the following (and more):
 - a series of screen sketches
 - a storyboard, i.e. a cartoon-like series of scenes
 - a PowerPoint slide show
 - a video simulating the use of a system
 - a lump of wood or a cardboard mock up
 - a piece of software with limited functionality written in the target language or in another language

Need for Prototyping

- Evaluation and feedback are central to interaction design.
- Stakeholders can see, hold, interact with a prototype more easily than a document or a drawing.
- Team members can communicate effectively
- You can test out ideas for yourself.
- Aim is to save on time and money
- Aim is to have something that can be tested with real users.

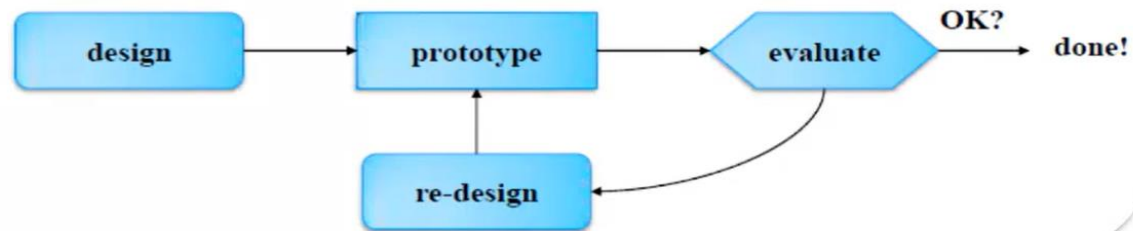


Examples of Prototyping

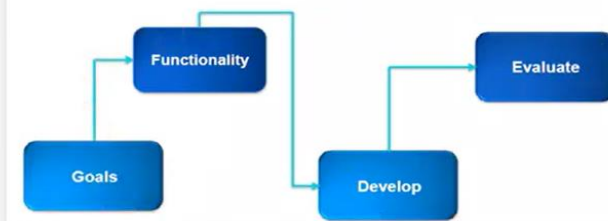


Concept of Prototyping

- You never get it right first time
- If at first you don't succeed ...



JOURNEY OF THE PROTOTYPING PROCESS



Goals Of Prototyping

- **Exploring Requirements:**

Market analysis, participatory design.

- **Choosing Among Alternatives:**

Risky or critical features, go/no-go decisions.

- **Empirical Usability Testing:**

As early as possible, try out ideas with target users.

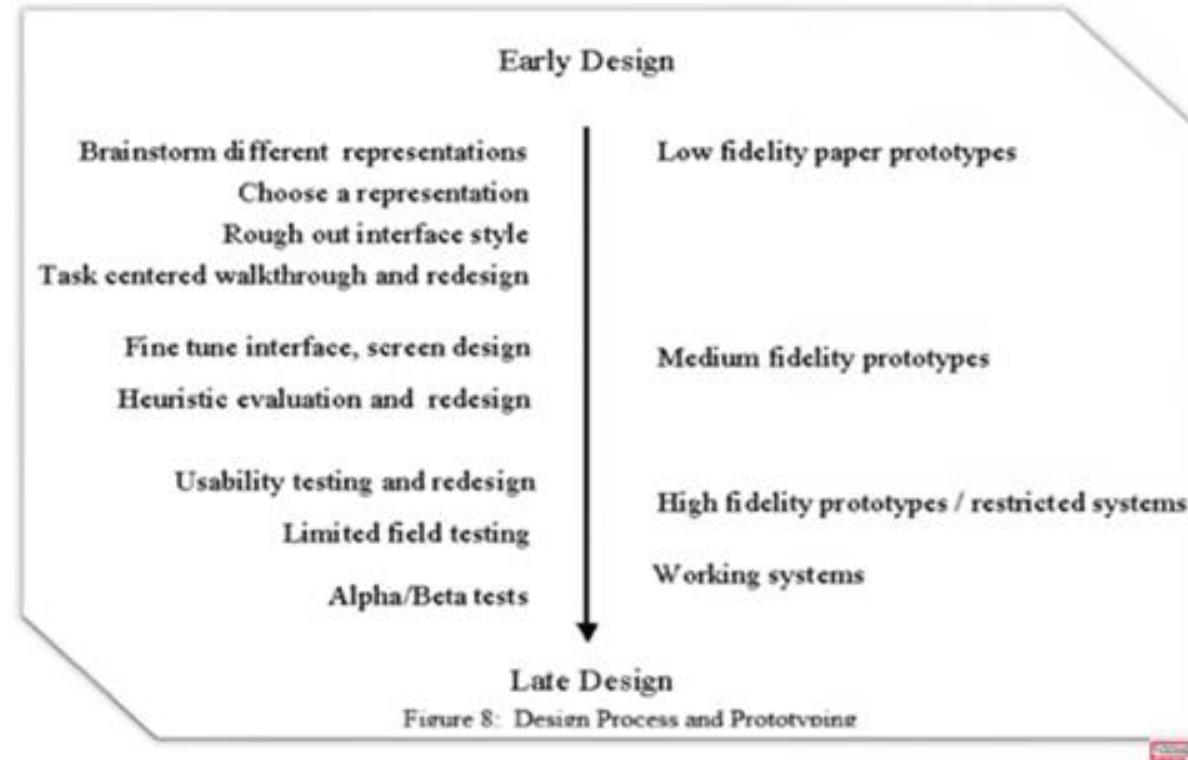
- **Evolutionary Development:**

May deliberately choose a malleable software platform, building software incremental, iterative fashion.



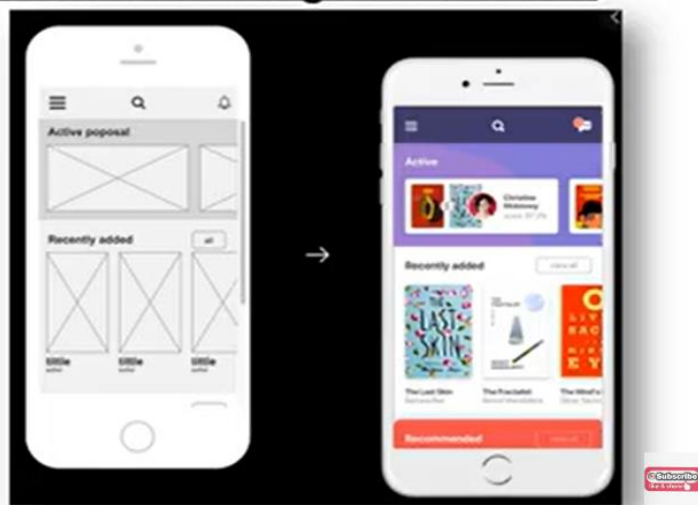
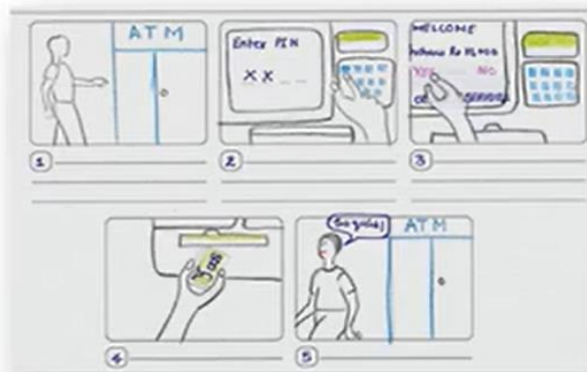
Types of Prototyping

1. Low Fidelity Prototyping
2. Medium Fidelity Prototyping
3. High Fidelity Prototyping



Type 1: Low Fidelity Prototyping

- Uses materials that are very different from the intended final version, such as paper and cardboard rather than electronic screens and metal.
- Used during early stages of development.
- Cheap and easy to modify so they support the exploration of alternative designs and ideas.
- It is never intended to be integrated into the final system.
- They are for exploration only.

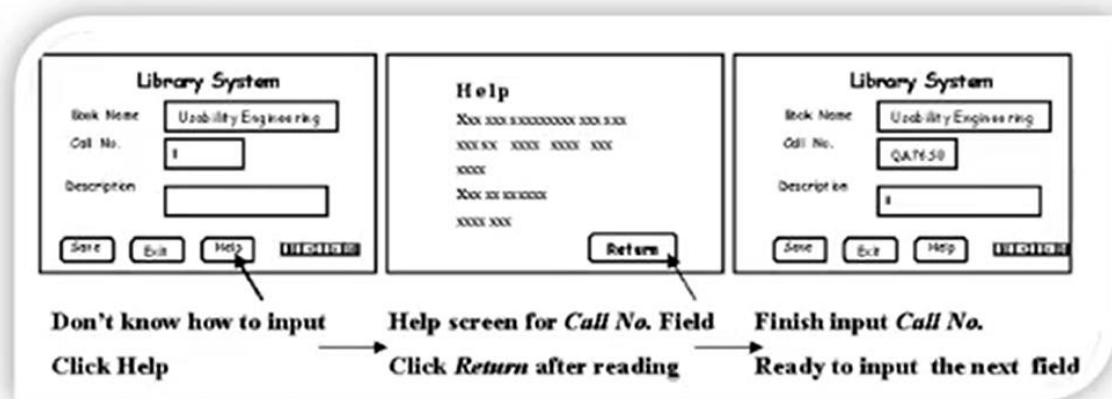


Examples of Low Fidelity Prototyping

Examples:

1. **Storyboards:** Described in detail scenarios & use of system.

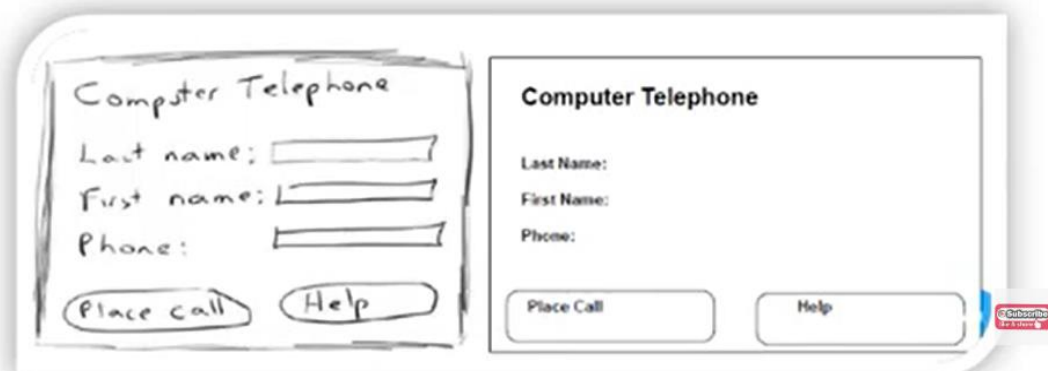
A series of key frames as sketches



2. **Sketching:** Sketch only outwear appearance,

Focus on high level concept.

Difficult to visualize internal structure.



Type 2: Medium Fidelity Prototyping

- This type of Prototype Built Using Computers.
- Its More Powerful than Low Fidelity Prototyping.
- It engaging more users in the system.
- It implemented through screen design tools.

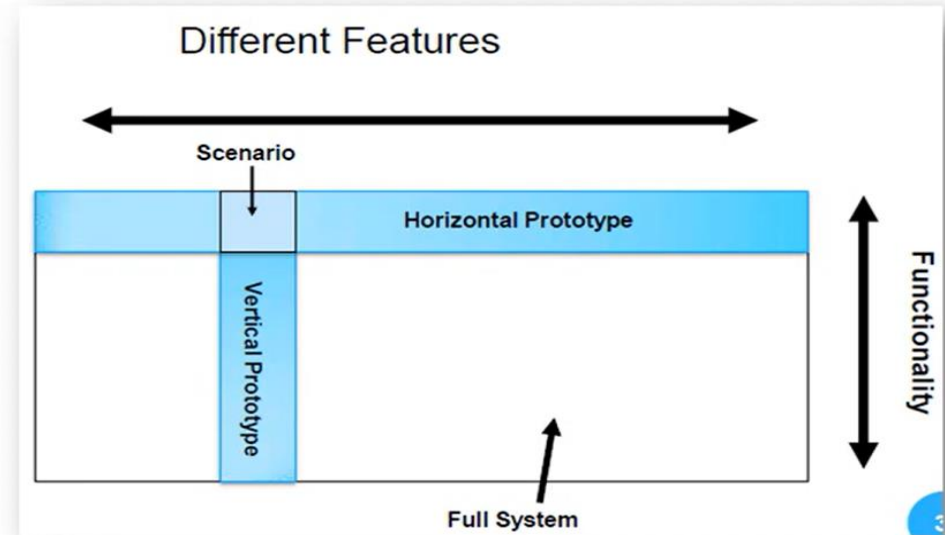
It has two types:

1. **Vertical Prototype:** Implemented in depth & limited no. of features.

Examples: Menu Items.

2. **Horizontal Prototype:** Implemented in sequential mode.

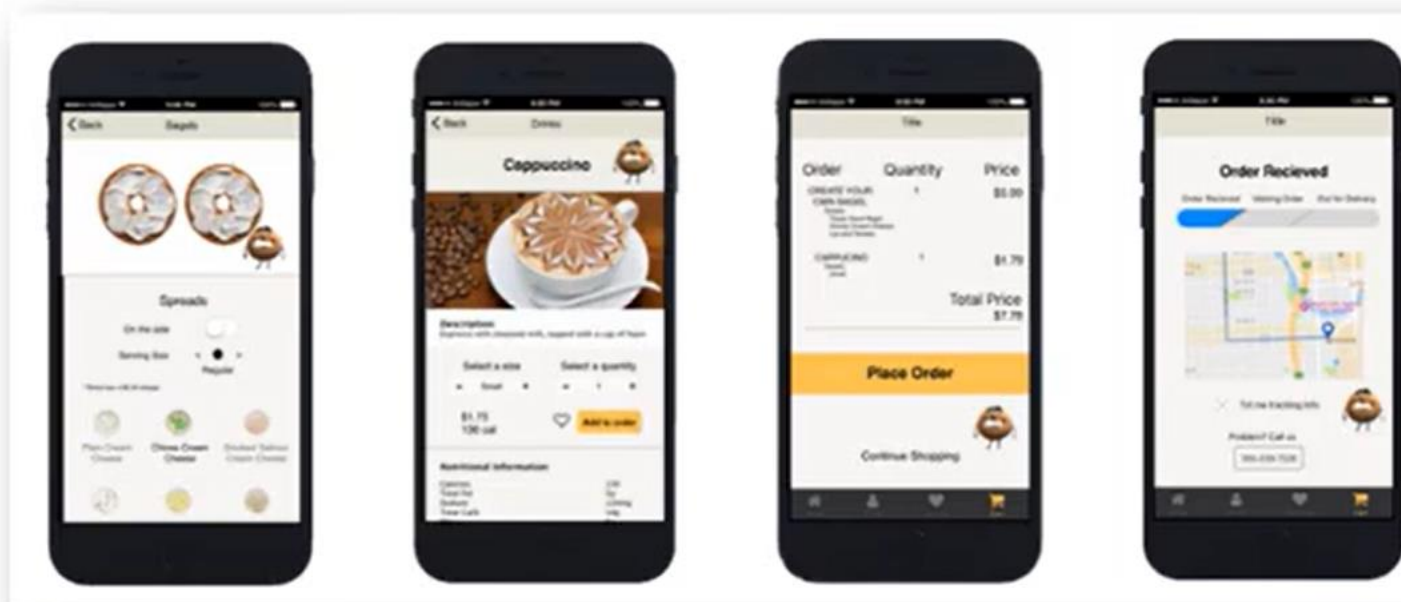
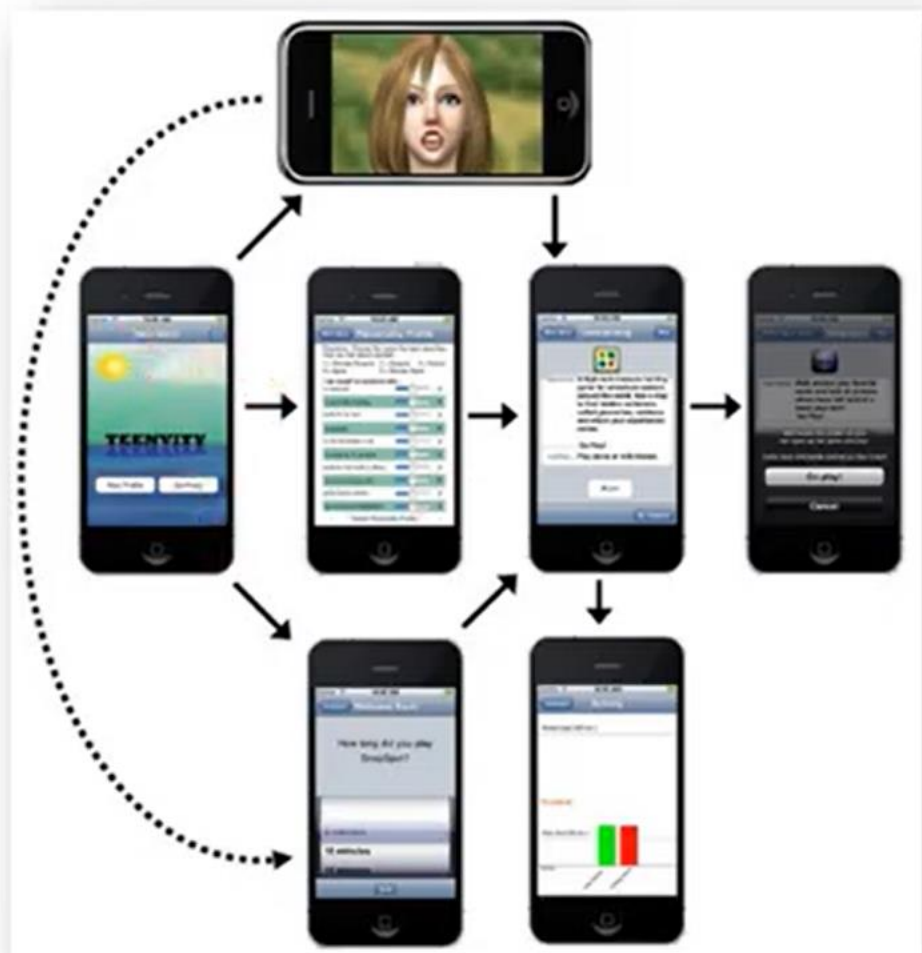
Examples: Animations, Slides etc.



Type 3: High Fidelity Prototyping

- High-fidelity prototypes represent the core functionality of the products user interface.
- High fidelity prototypes are fully interactive systems.
- Users can enter data in entry fields, respond to messages, select icon to open windows and interact with user interface as if it were a real system.
- They trade-off speed for accuracy.
- Building high fidelity prototypes consume resources and have high cost.
- It includes full Software Implementation, Manpower, Time, Efforts, Money etc.

Examples of High Fidelity Prototyping



Comparison of Low Fidelity And High Fidelity Prototyping

Type	Advantages	Disadvantages
Low-fidelity Prototypes	<ul style="list-style-type: none"> • Lower Development cost • Evaluate multiple design concept • Useful communication device • Address screen layout issues • Useful for identifying requirements 	<ul style="list-style-type: none"> • Limited error checking • Facilitator driven • Limited utility after requirements established • Navigational and flow limitations • Poor detailed specifications to code
High-fidelity Prototypes	<ul style="list-style-type: none"> • Complete functionality • Fully interactive • User Driven • Clear definition of navigation • Look and feel of final product • Use for explorations and tests 	<ul style="list-style-type: none"> • More expensive to develop • Time-consuming to create • Not effective for requirements gathering

SKETCH



LOW-FI



HI-FI

