



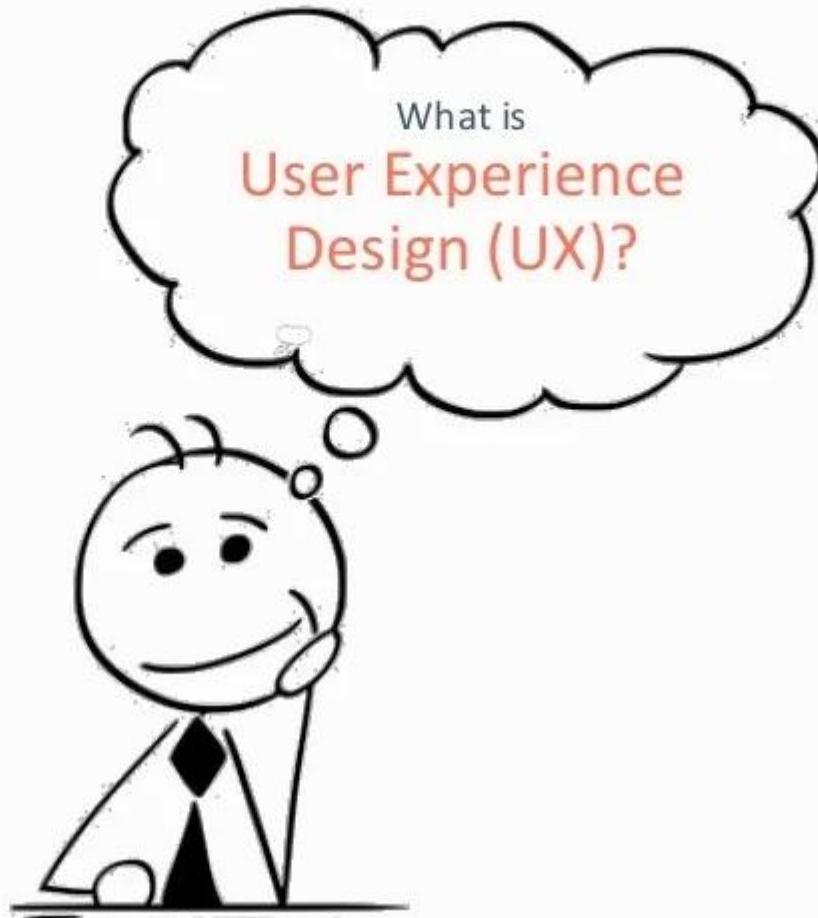
# User Experience

# Agenda

*Embedding User Experience  
in Product Lifecycle*



- I. User Experience (UX)
- II. User Interface (UI)
- III. User Expérience (UX) vs User Interface (UI)
- IV. Solving problem the UX way
- V. Integrating UX Design Process into Product life C
- VI. Methods of UX Process
- VII. Integrating UX into Agile Development
- VIII. Good UX vs Bad UX
- IX. Benefits of the UX Design Process
- X. UX design requirements. When & Why?



# User experience

How a person, the user, feels about interacting with, or experiencing, a product

# Product

A good, service, or feature



# User Experience (UX/UCD)

User experience<sup>ii</sup> surrounds all aspects of the end-user's interaction with the company, its services, and its products.

It includes all the users' emotions, beliefs, preferences, perceptions, physical and psychological responses, behaviors and accomplishments that occur before, during and after use.

UX Designers consider the Why, What and How of Product Use

## Elements of UX/UCD:

- Active involvement of Users
- Clear Understanding of User Requirements, Task and Environments
- Allocation of Function between Users and Technology
- Iteration of Design Solutions
- Validation Testing with Users

## User Experience is about Measuring and Improving:

- **Effectiveness:** Can user achieve what they need by using the product
- **Ease of Learning:** How fast can user who have never seen the interface learn to use it
- **Efficiency of Use:** How fast a user can complete a task
- **Memorability:** Can user remember enough to reuse the interface effectively
- **Error prevention:** Can user complete task without making errors
- **Satisfaction:** How much do users like using the product



# User Interface (UI)

User interface design or UI design refers to the visual layout of the elements that a user might interact with in a website, or technological product. It focusses on the look, feel and presentation of a product

## Parameters for the UI:

- Font Family
- Style of icons and images
- Color Schemes
- Highlighting the important things on screen
- Differentiating things we want the user to click versus things that can be clicked
- Replacing text with icons or images,
- Background textures

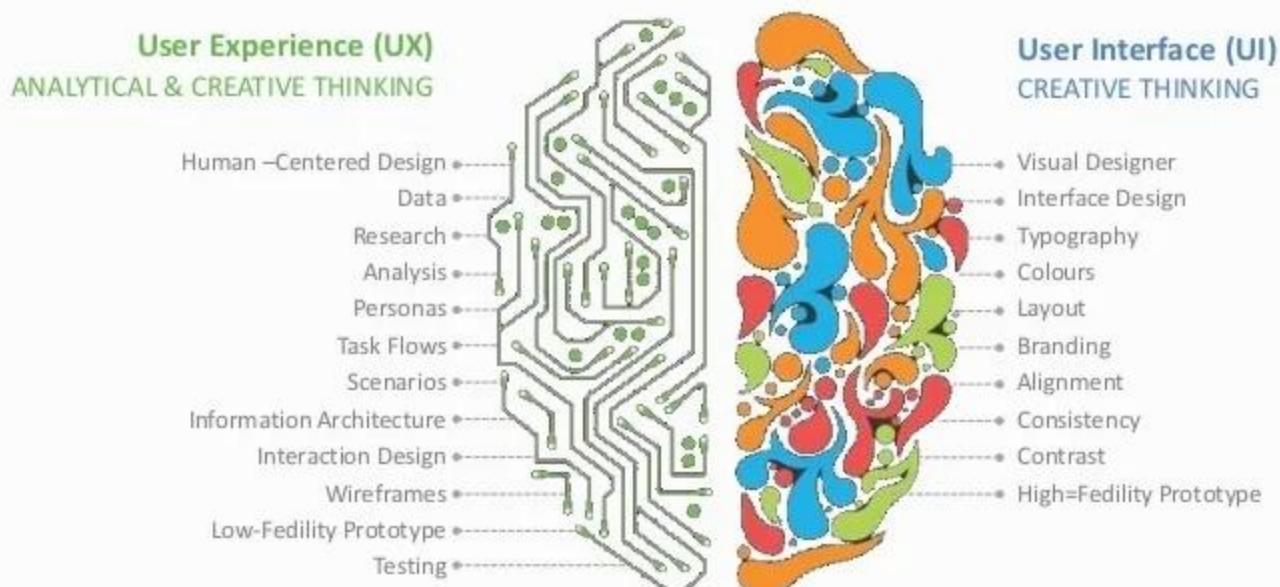
## UI Developer

- A UI Developer is the bridge between presentation layer and the backend layer, who understands both and creates the translational layer in between, so that both lives up to its full potential and are not compromised because of each other.
- They create user interface by tech stack and frameworks such as, HTML, CSS, JavaScript, Angular, ReactJS, VueJS, Typescript, AJAX, etc.



# User Experience (UX) vs User Interface (UI)

"User Experience (UX) and User Interface (UI) are some of the most confused and misused terms in our field. A UI is only small part of UX. A UI without UX is like a painter slapping paint onto canvas without thought; while UX without UI is like the frame of a sculpture with no paper match on it. A great product experience starts with UX followed by UI. Both are essential for the product's success."



# User Experience (UX) vs User Interface (UI) Example



# When & Why to Apply UX Design

## When

- Ideally early or on Project Start.
- UX is also valuable at latter project stages and in future release.

## Why

- Build the right thing for right User
- Fulfill the user's needs
- Improve efficiency
- Create Business Opportunities



# Solving problem the UX way



Persona

Who has the Problem?

Problem

What is the Problem?

Strategy

How will we solve the problem?

Objective

What will the solution achieve?

Features

What features are required to accomplish the objectives?

Solution

What will the product look like and how it will function?

# Integrating UX Design Process into Product life Cycle

10



# Methods of UX Process | 9 basic steps to go through when developing user experience

11

## User Roles and Personas

A User Role is:

- Roles correspond to specific classes of visitors interacting with your site. They are defined by their relationship to your Web site and call to action.

A Persona is:

- A user persona is a fictional representation of your ideal customer. represent the needs of a larger group's goals, requirements, and personal preferences.
- Personas describe customers while roles describe relationships between customers and the product or service.

What should be included in a Persona?

- Persona name, Photo
- Demographics (gender, age, location, marital status, family)
- A short description about the user
- The daily objectives and behaviors/Goals and Task
- Frustrations (or "pain points")
- Technology
- other products the user likes

A Persona's role is:

- Benchmark for User Stories and UX design
- Help everybody in the team have a common understanding about target user
- Help in developing informed wireframes and site architecture
- It is a "face" to the user story,



# Methods of UX Process Contd.

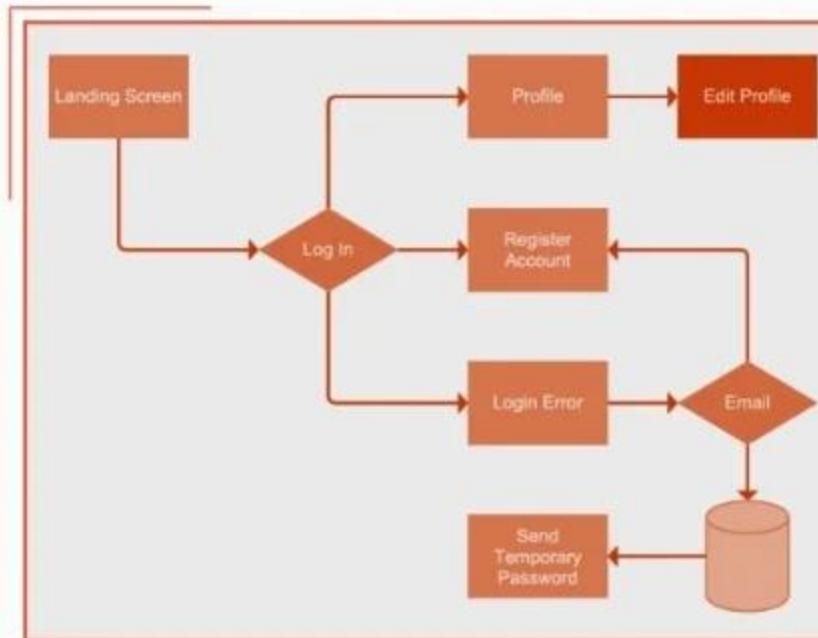
## Task Flow / Work Flow

A Task Flow is:

- High-level steps that a User would take to get to a specific goal or end point  
*Eg: such as creating an account or going through a checkout process*

A Task Flow's role is:

- Helps you built your product in a logical way (Navigation and Action)
- Helps in Content Strategy and Site Structure
- Helps in Wireframing and Prototyping
- Helps to improve User Experience



# Methods of UX Process Contd.

## User Stories

A User Story is:

- Descriptions of who the user is, what they want, and why
- It describes something that the user wants to accomplish by using the software product.

User Story written in following format:

- As a < type of user >, I want < some goal > so that < some reason >.
- Details can be added by two different ways
  - By splitting a user story into multiple, smaller user stories.
  - By adding “conditions of satisfaction” (Acceptance criteria)

A User Story role is:

- Help keep users always in the center of the design process
- Help to achieve cross-team clarity
- Help in defining the entire product
- Safeguards Against Feature Creep

As...	Conditional	I want...	So that...
As an HR Rep	who is authorized to initiate reviews for new employees	I want to be notified when new hires have reached their 90 day mark	so that I can initiate a 90-day review.
As an HR Rep	who has initiated a 90-day review	I want to notify the new hire of all of the requirements of the 90-day review	so they can begin to submit their evaluation in the system.
As an HR Rep	who has initiated a 90-day review	I want to notify the new hire of all of the requirements of the 90-day review	so they can begin to submit their evaluation in the system.
As an employee	who is under 90-day review	I want to create a log in for the HR review system	so that I can log in to submit my 90-day evaluation.
As an employee	who is under 90-day review	I want to log in to the system	so that I can view the requirements for my 90-day evaluation.
As an employee	who is under 90-day review	I want to submit the names of two peers I have worked with since being hired	so that they can contribute to my 90-day review.
As an employee	selected to peer review a new hire	I want to be notified when I have been selected to review a new hire after 90 days	so that I can log in to the system and submit my evaluation.

# Methods of UX Process Contd.

## Information Architecture

Information architecture (IA) is:

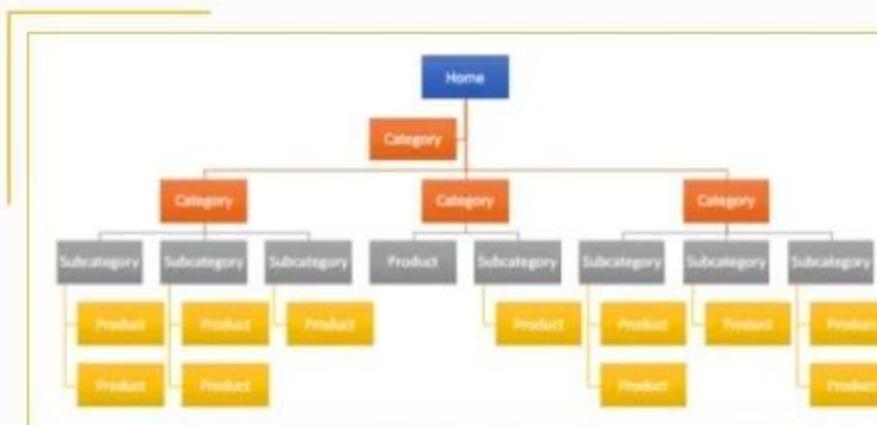
- A science of organizing and structuring content of the Product/application
- IA may also include navigation, application functions and behaviors, content, and flows.
- Factors that are valued by information architects: Mental Modal, Cognitive Load, Decision Making

Information architecture (IA) includes:

- **Organization Schemes and Structures:** How you categorize and structure information
- **Labeling systems:** How you represent information
- **Navigation systems:** How users browse or move through information
- **Searching systems:** How users look for information

A Good Information Architecture role is:

- Increases user satisfaction
- Help conversions or bring more sales
- Reduces user errors
- Decreases training costs
- Reduces customer support costs and time



# Methods of UX Process Contd.

## Whiteboard/Paper Prototype

Prototype is:

- A prototype is an early sample, model or release of a product created to test a concept or process.

Types of Prototype:

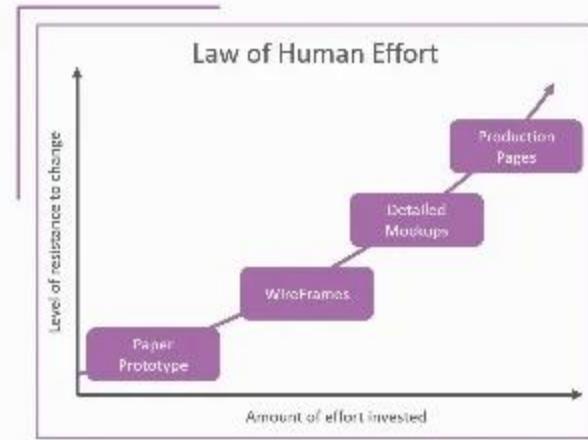
- Low-Fidelity Prototypes**
  - Paper Prototypes
  - Wireframes
- High-Fidelity Prototypes**
  - Interactive prototypes
  - Coded prototypes

Paper Prototype is:

- Early-stage conceptualizing in user-centered design process.
- Allows quickly visualize and test various ideas.

Paper Prototype Benefits:

- Easy to change
- Cost-effective
- No design or coding skills needed
- Rapid evaluation and testing



# Methods of UX Process Contd.

## Navigation Flow

Navigation Flow is:

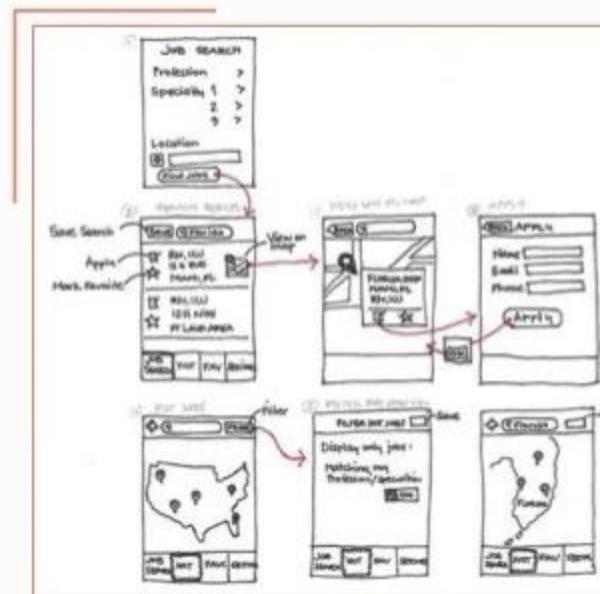
- Navigation plays an integral role in how users interact with your products.
- It is how your user can get from point A to point B and even point C in the least frustrating way possible.
- Navigation is about Where I am , What can I do, Where I can go from here

Common Navigation Pattern:

- Hamburger menu
- Tabs
- Vertical navigation
- Call-to-action button
- Breadcrumbs

Good Navigation can:

- Enhance a user's understanding
- Give them confidence using your product
- Provide credibility to a product
- Tells users their location
- Provides access to information



# Methods of UX Process Contd.

## High Fidelity Design/Mockup

Mockup is:

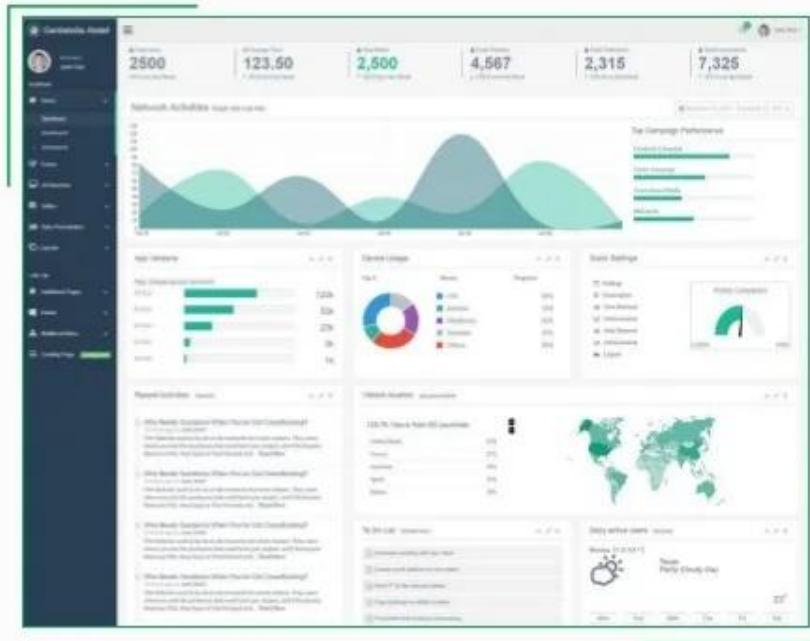
- It is a mid to high fidelity static picture
- It is what your final project appearance and user experience will look like.

Mockup Consist of:

- Content layout
- Color scheme
- Typography
- Spacing
- Navigation visuals
- Icons
- Image

Mockups Benefits:

- Mockups are realistic.
- Mockups are convincing
- No mockup – no markup estimate!
- No mockup – no HTML coding!
- No mockup – no investors!
- No mockup – no users!



## Heuristic Evaluation

Heuristic Evaluation is:

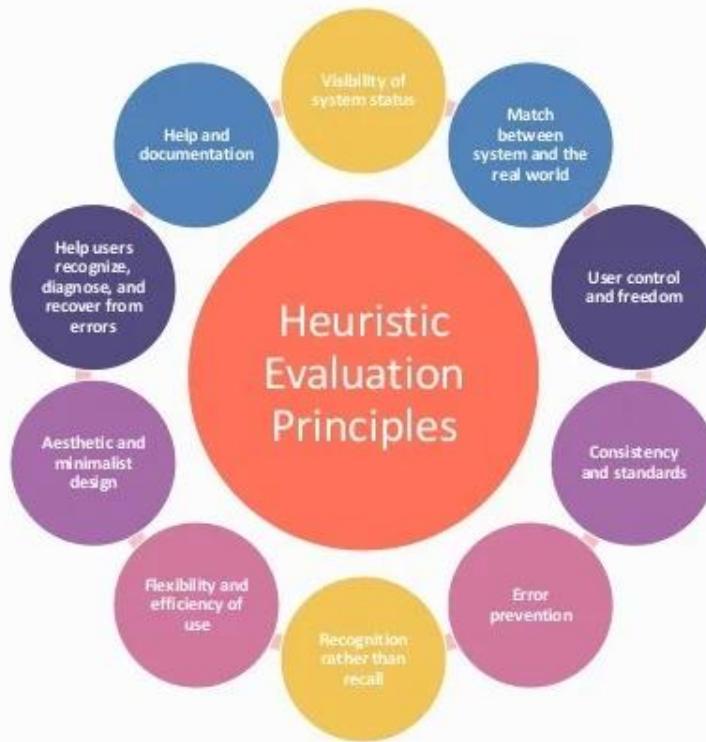
- It is a way to test whether a website is user friendly against the set of thumb rules
- It is a method for finding both major and minor problems in a user interface.
- Identify each issue and any associated recommendations or solution.

When to Use Heuristic Evaluation:

- When you need to pinpoint the problems within your product
- Early stages of your design
- Before user testing
- Along with other tests
- Before redesigning
- Before releasing software

Heuristic Evaluation Benefits:

- Improves a product's UX
- Reduce mental effort needed to make decision
- Fast and accurate
- Help with problem solving
- Cost Efficient





Product Goal  
**BETTER  
USER  
EXPERIENCE**

# **Testing Inspecting Evaluating**



**Evaluation of Design in terms of Usability**



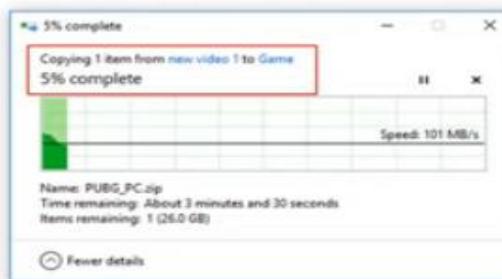
**Jakob Nielsen**

# **HEURISTIC**

enabling a person to discover or learn something for themselves.

# 1. Visibility of System Status

HEURISTIC EVALUATION



A screenshot of a cleartrip travel booking interface. The booking process is shown in three steps: 1. Itinerary, 2. Travellers (highlighted with a red box), and 3. Payment. The booking details are for a train journey from Lokmanya Tilak T. to Mangaluru Jn on Sat, 26 Oct, 2019. The train is the Netravati Exp (AC 2 Tier (2A) / General), departing at LTT 11:40 and arriving at MAJN 05:45. The total fare is Rs. 12,225, which includes Adult fare (Rs. 11,260.00), Other railway charge (Rs. 917.40), Agent Service Charge (Exclusive of GST) (Rs. 40.00), and Total (Rs. 12,225). The payment method is Debit/Credit Card. The booking is subject to cleartrip's terms &amp; conditions. A note states that changing the boarding station may affect train availability. A checkbox for accepting terms and conditions is checked, and a 'Continue Booking' button is visible at the bottom.

## 2. Match between System & Real World

HEURISTIC  
EVALUATION

### Apply for Changes Or Correction in PAN Data (for DSC users)

#### Pre-requisites to apply for DSC application

1. Please download the utility and install [Click here](#)
2. [Click here](#) if the utility already downloaded

नये पैन कार्ड या/और पैन लेटा में परिवर्तन या संशोधन के लिए अनुरोध हेतु ऑन-लाइन आवेदन के लिए दिशानिर्देश

(क) आवेदक पैन परिवर्तन के लिए अनुरोध फॉर्म ऑन-लाइन भरेगा।

(ख) यदि प्रस्तुत लेटा किसी फॉर्मेट ऐधीकरण स्तर पर प्रस्तुत नहीं हो पाते हैं तो गलती को इग्निट करते हुए संदेश स्क्रीन पर दिखाई देगा।

(ग) आवेदक गलती को ठीक करेगा और फॉर्म पुनः प्रस्तुत करेगा।

### Create your account

Name

indiauiux

9/50

Email

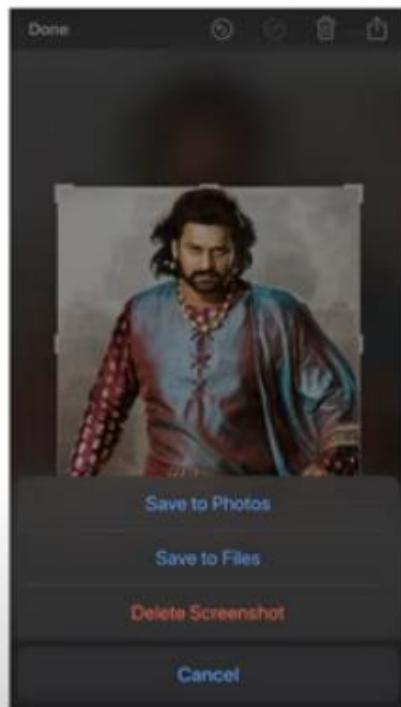
indiauiux@gmail.com

Please enter a valid email.

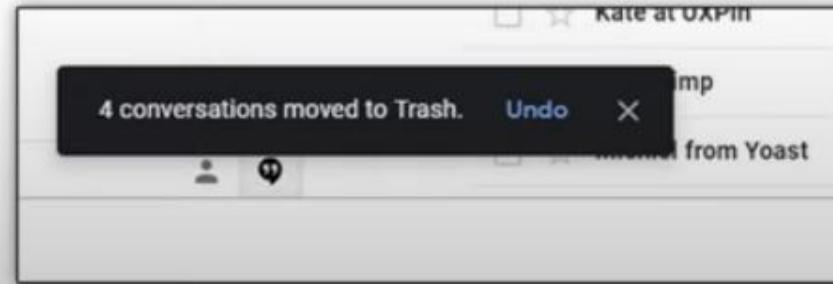
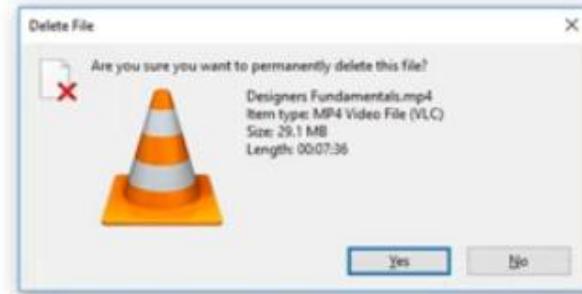
Use phone instead

### 3. User Control and Freedom

HEURISTIC  
EVALUATION

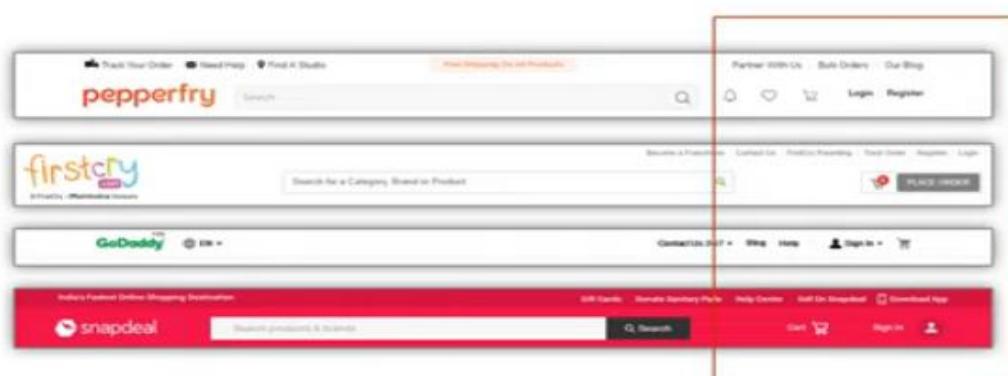
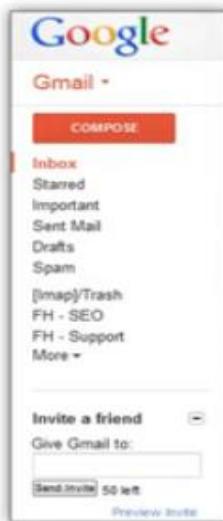


A screenshot of a food delivery application. It shows a cart with three items: "Chicken Pahadi Kebab - 8 pcs" (quantity 2, ₹730), "Veg Pulao Combo" (quantity 1, ₹249), and "Crispy Noodles With Ice cream" (quantity 1, ₹185). Each item has a minus, plus, and quantity input field. Below the cart is a text input field with placeholder text: "Any requests for the restaurant? Write them here...".



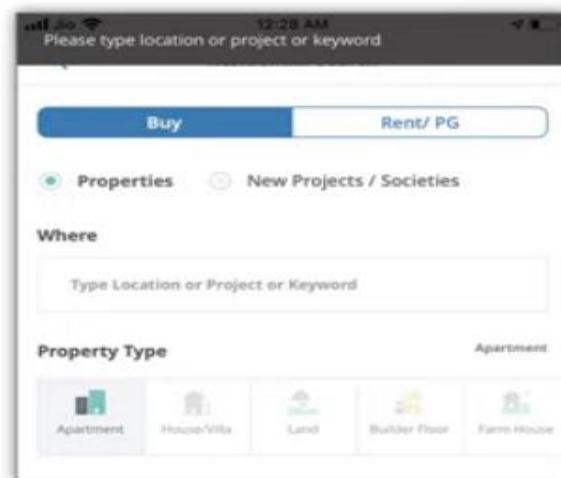
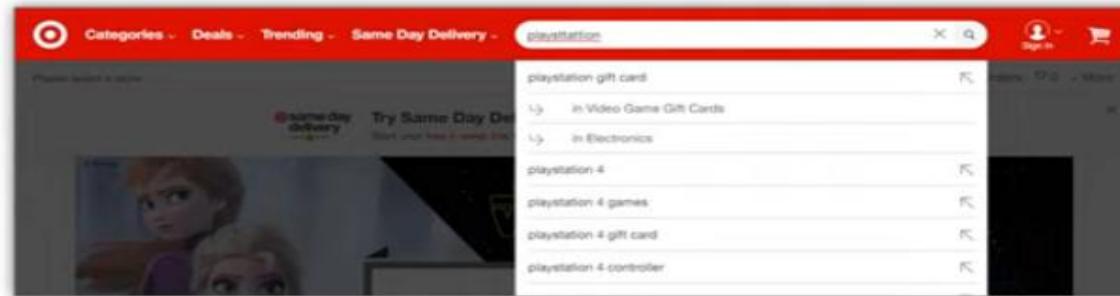
## 4. Consistency and Standard

HEURISTIC EVALUATION



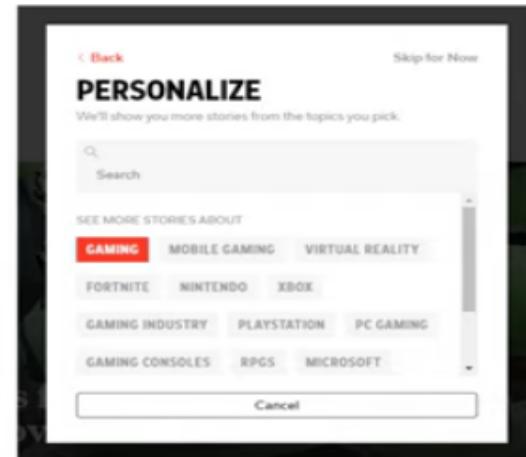
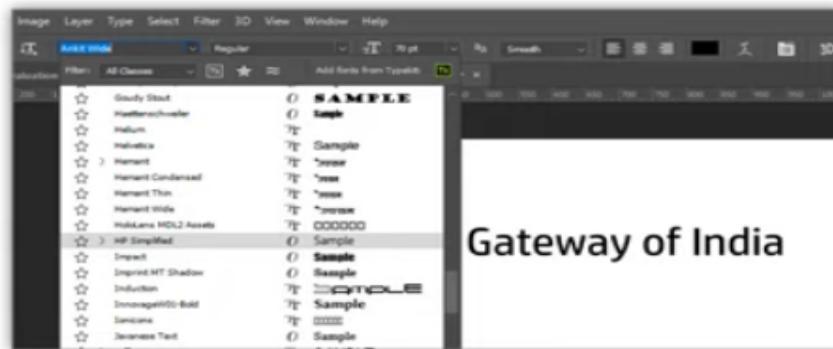
# 5. Error Prevention

HEURISTIC  
EVALUATION



# 6. Recognition Rather than recall

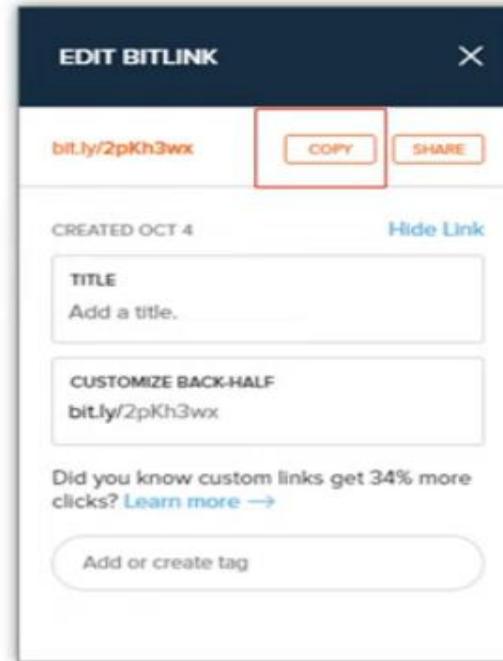
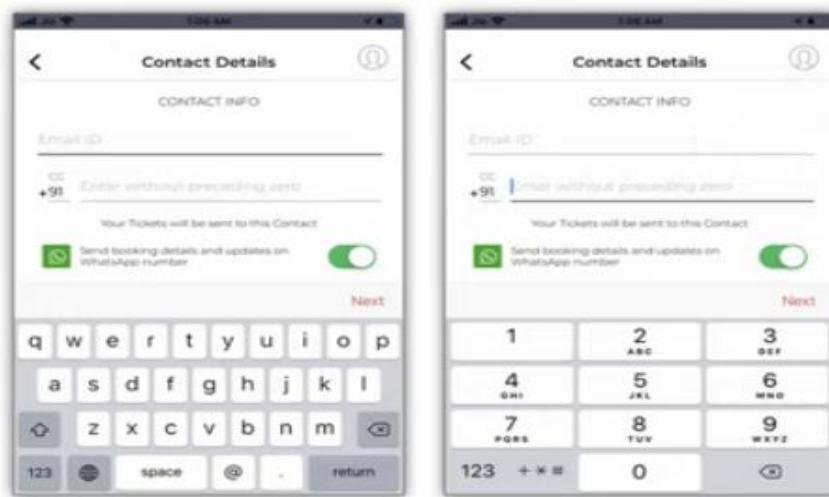
HEURISTIC EVALUATION



A screenshot of the Quora homepage. At the top, there's a navigation bar with 'Quora', 'Home', 'Answer', 'Spaces', 'Notifications', and a search bar containing 'Search: seo tips for'. Below the search bar, there's a list of questions related to SEO tips. The first few questions are: 'What is the single best piece of SEO advice?', 'What are your tips for using Twitter for SEO?', 'What are the SEO tips for Chrome Web Store?', 'What is the single most important SEO tip for a new website?', and 'What are the best SEO tips for a new startup?'. On the left side, there's a sidebar with user profiles and a sidebar for 'Top Stories'.

## 7. Flexibility and efficiency of use

HEURISTIC EVALUATION



## 8. Aesthetic and Minimalist design

HEURISTIC EVALUATION

iPad

PLAY NEW APPLE ARCADE GAMES

It's go time for gaming. The A10 Fusion chip delivers amazing performance, so games are immersive, fluid, and incredibly detailed. And you can pair an Xbox Wireless Controller with Bluetooth, PlayStation Dualshock 4 controller, or MFi game controller with your iPad to create the ultimate portable game console.<sup>1</sup> You can also try out Apple Arcade, a game subscription service unlike any other, with over 100 incredibly fun new games to play.<sup>2</sup>

[Learn more about Apple Arcade >](#)

PAIR WITH A PS4 OR XBOX CONTROLLER

mailchimp

Why Mailchimp? Marketing Platform Pricing Resources

What you can do with Mailchimp

Put your audience first

Know who you're talking to so you can say the right things.

[Learn more](#)

Bring your brand to life

Look like a pro with elegant, easy-to-use design tools.

[Learn more](#)

Create integrated campaigns

Spread the word with social, email, ads, and more.

[Learn more](#)

Turn data into insights

Our recommendations get smarter as you go.

[Learn more](#)

Google

Google Search I'm Feeling Lucky

Google offers in: [Find news stories worth reading](#) [Search Google News](#)

## 9. Help users recognize, diagnose, and recover from errors

Google

Create your Google Account

First name: soumya      Last name: singh

Username: soumyasingh@gmail.com

● That username is taken. Try another.

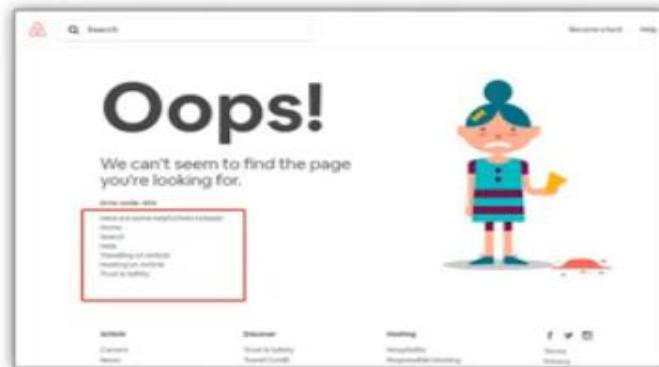
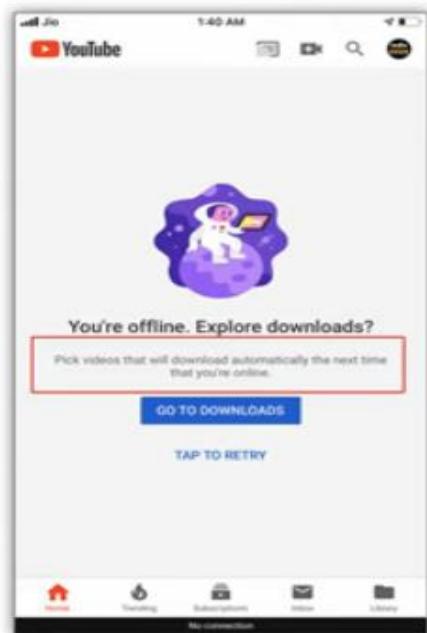
Available: singhsoumyas13

Use my current email address instead

Password:  Confirm:  

One account. All of Google working for you.

Sign in instead [Next](#)



# 10. Help and Documentation

HEURISTIC EVALUATION

The screenshot shows the Flipkart Help Center website. At the top, there's a navigation bar with categories like Electronics, TVs & Appliances, Men, Women, Baby & Kids, Home & Furniture, Sports, Books & More, Grocery, and Offer Zone. Below the navigation is a search bar with placeholder text "Search for topics or questions e.g. status, return, recharge, payments". On the left, there's a sidebar titled "How can we help you?" with sections for "RESOLVE ISSUES" (Recent orders, Non-order related, Current issues), "HELP TOPICS" (Offer Related Queries, Report an issue, Flipkart Plus, Travel, Others), and a footer note about privacy. The main content area is titled "Select Non-Order Related Issue" and lists "Account Related Queries", "Payment Related Queries", and "Flipkart Service Queries".

The screenshot shows the LinkedIn Help Center mobile application. The top bar shows the time as 2:27 AM. The main title is "Help Center". Below it, there's a search bar with the placeholder "Search LinkedIn Help". The content is organized into several sections: "LinkedIn App" (described as making the most of wherever you are, staying engaged with who you know, discovering industry insights, and sharing your expertise), "Manage Your Account" (with sub-sections for Editing Your Profile, Changing Your Password, and Adding or Changing Your Email Address for Your LinkedIn Account), "Managing Your Feed" (with sub-sections for Managing Your LinkedIn Feed Preferences, Deleting Content You've Shared, and Navigate the LinkedIn Mobile App), and "Grow Your Network" (with sub-sections for Inviting or Connecting with People on LinkedIn and Viewing Your Connections). At the bottom, there's a navigation bar with icons for Home, People, Plus, Notifications, and Messages.

The screenshot shows the Ola Help and Support mobile application. The top bar shows the time as 2:27 AM. The main title is "Help and Support". Below it, there's a search bar with the placeholder "Q. Search by keyword e.g. internet, services". The content is organized into several sections: "My Account" (with a person icon), "Recharge" (with a yellow circle icon), "Top up and Services" (with a green circle icon), and "Unable to view channels" (with an exclamation mark icon). At the bottom, there's a section titled "Your Service Requests" with a list of items.

# Methods of UX Process Contd.

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## Usability Testing

**Usability Testing is:**

- Process which enables you to evaluate your product or service with real users and enables you to create human-centric products.

**Types of Usability Testing:**

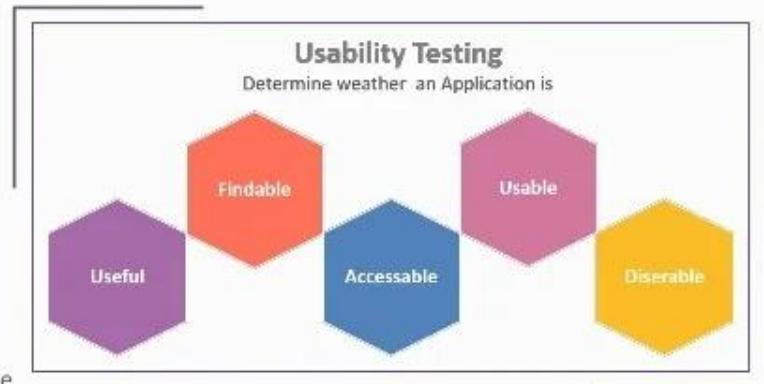
- A/B testing
- Guerilla testing
- Eye Tracking
- Remote testing

**Difference between Heuristic Evaluation and Usability Testing?**

- Heuristic evaluation, relies on usability experts rather than target users whereas, Usability testing involves actual target users and matches real-world experiences.

**Usability Testing Benefits:**

- Saves time for both the company and users
- Provides a better user experience
- Offers insight into how satisfied users are with the product
- Identifies problem areas within the product which may not have been obvious otherwise
- Provides an unbiased examination of the product



# User Testing



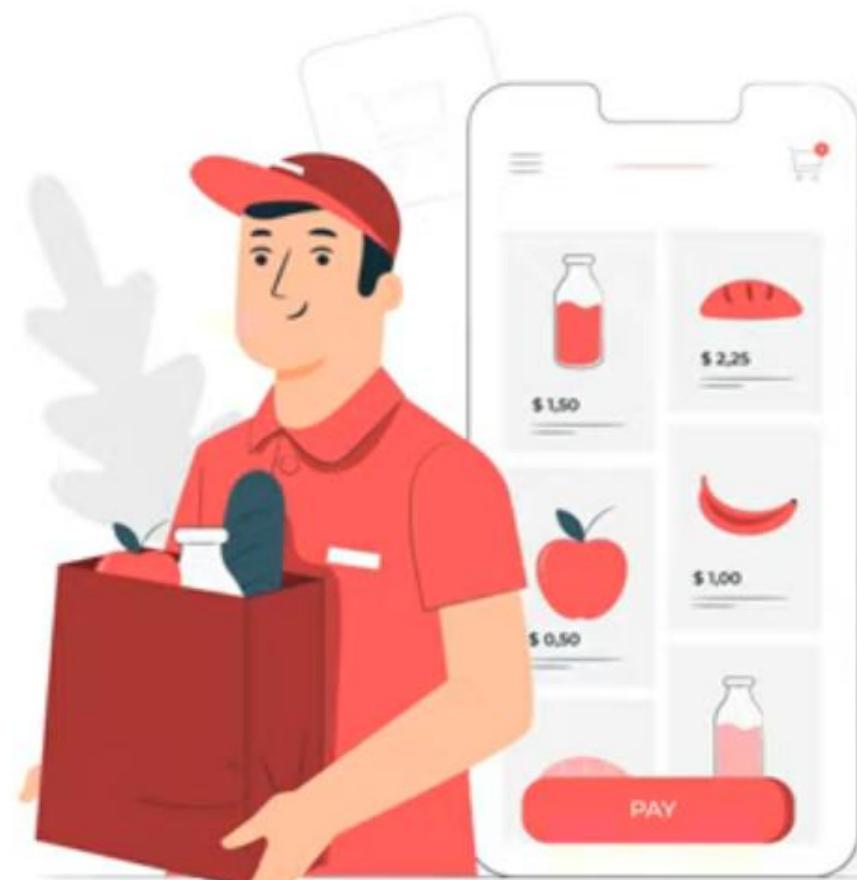
# Usability Testing





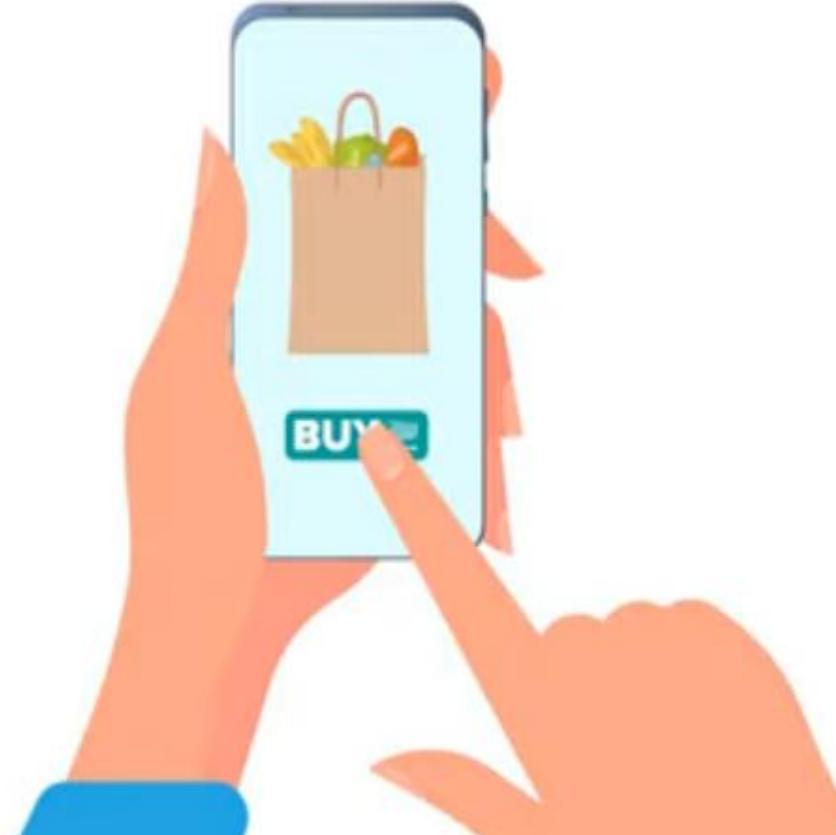
**USER TESTING**

# Home Delivery Service



**USABILITY TESTING**

# Ordering Food Online





# Integrating UX into Agile Development

## Agile and UX:

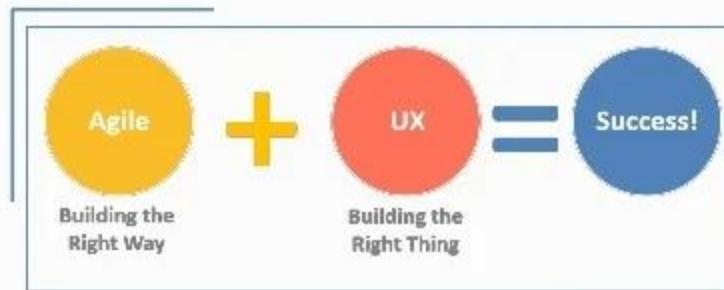
- Agile is usually a development-centric philosophy, espousing engagement with the business and using stories and code as the model for communication.
- User-centered design extends the approach, it uses visualization to articulate the solution.
- Through collaborative workshops, creating Persona, User stories then translating them into low-fidelity prototypes enables iterations to be showcased on a basis. Engaging all stakeholders in the process ensures that when the developers start cutting code the focus will be on ensuring code quality,

## Agile UX Process:

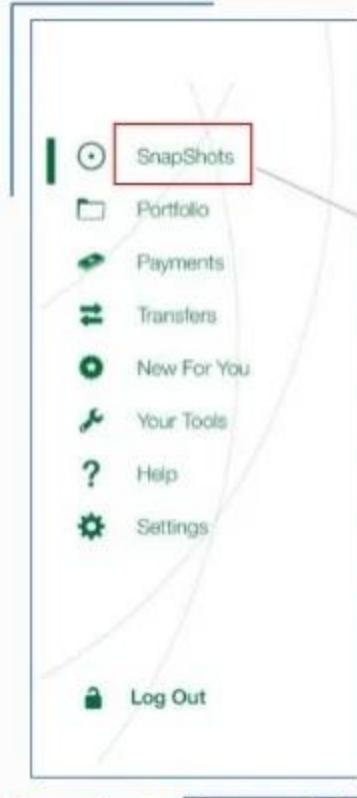
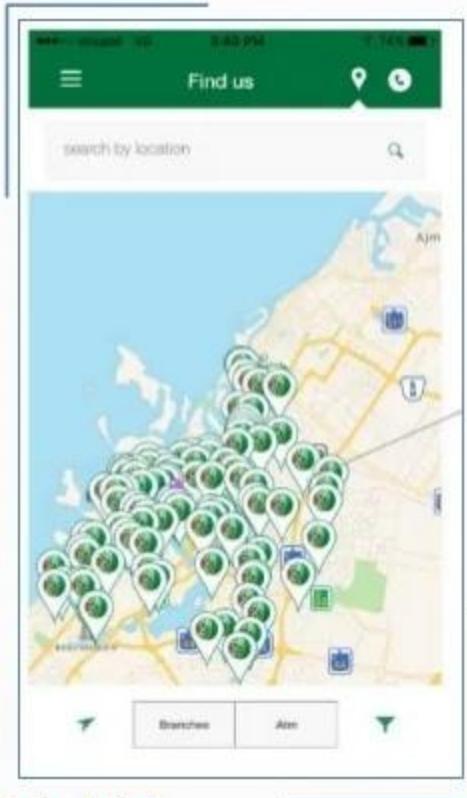
- UX should be included in a project as early as the ideation phase and involved through the project's life cycle.
- UX should work in close cooperation with the product team and the stakeholders.
- Set clear roles and responsibilities
- Have design work on sprints in advance
- Plan adequately
- Have a developer present during UX deliverable discussions

## Combined with Agile, User-centered design has the following benefits:

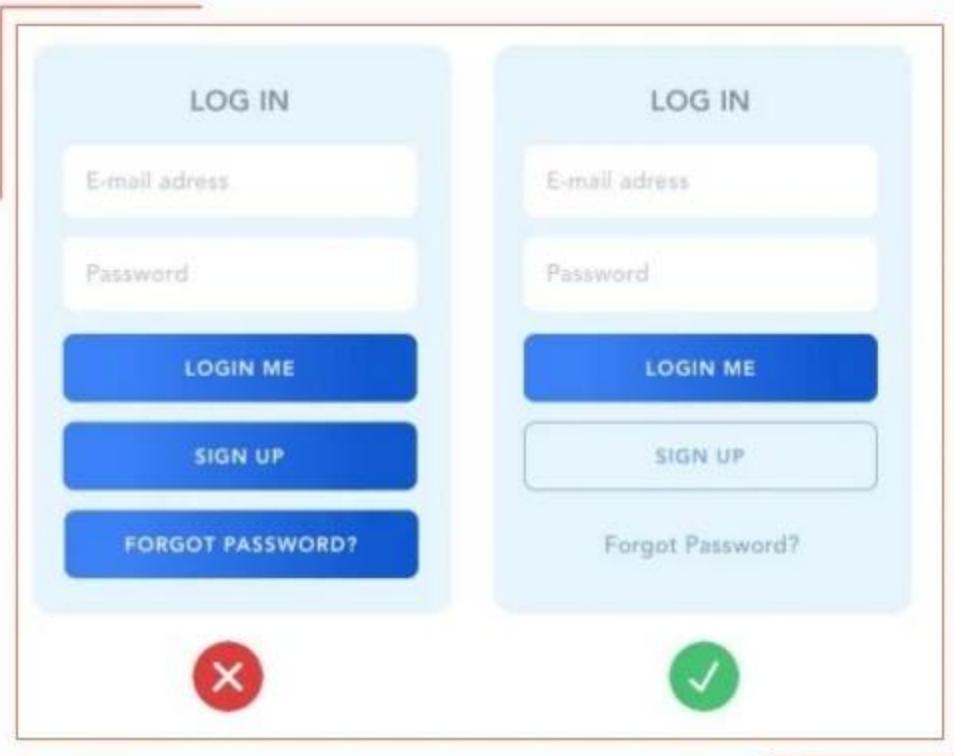
- Better understanding of the problem.
- Allows rapid testing and validation of story concepts before time consuming coding.
- Provides a clear, sociable visual representation of the project vision.
- Provides usability by stealth.
- Improves basis for estimation.
- Mitigates project risk.



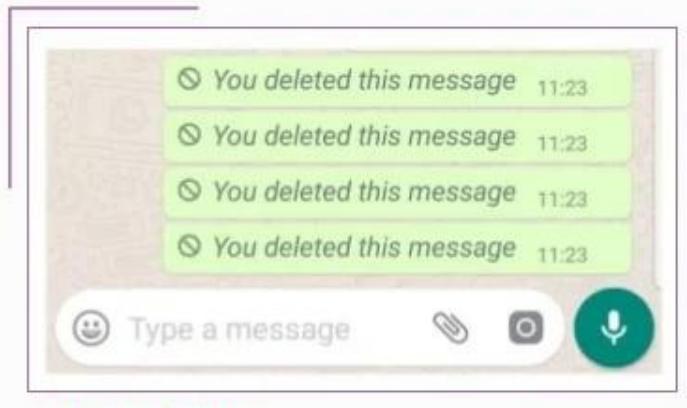
## Good UX vs. Bad UX



## Good UX vs. Bad UX Contd.



## Good UX vs. Bad UX Contd.



### Why it is bad UX

Looks more suspicious and awkward

Its not deleting, its blocking the message, may be they can call it obscure this message"

# Benefits of the UX Design Process

User-centred design improves the **customer experience** associated with a product or a service.



More  
Satisfied  
Customers



Reduce  
Design Time  
And Cost



Reduced  
Development  
Time



Reduce Design  
Defects



Reduction In  
Support Costs



Increased  
Conversion  
And Revenue

When a project team is united in serving the needs of their users, they often find that they develop a **far better solution** as they are focused on a **clear direction** throughout the **project life-cycle**.

# UX design requirements, When & Why?

## Defined User Roles & Persona (Early Stage):

- They drive design decisions by taking common user needs and bringing them to the forefront of planning before design has actually started.
- Each primary persona requires a different user interface.
- **Personas** provide the team with a shared understanding of users in terms of goals and capabilities.

## Work Flow/Task Flow (Early Stage):

- it'll help in flushing out the requirements. The diagram starts to identify what the user and the system need to do.
- It delineates a repeatable pattern of activity. It answers the question: "How do I \_\_\_\_\_".

## User Stories (Early Stage):

- User Stories play a vital role in design process, It keeps users always in the center.
- Help designers focus only on the features that help users achieve their goals
- For each user story, it should be broken down into smaller, more specific stories.
- User stories help prevent feature creep and design dead-ends.
- They provide an essential foundation for the consequent stages of design.

