**Research on UI & UX**

**Introduction**

UI and UX are integral parts of the tech industry. In 2018, 205.4 billion downloads by the user, And the expected downloads were 258.2 billion by 2022.

* UI & UX employment increased by every product based company and it became necessary by every product based company to use UI/UX.
* Big companies like Myntra, Facebook and Google invest heavily in UI/UX and improve User Interface and User Experience.
* Almost every business is moving to world wide web (www) so, for them user experience is a must for improving their services.

* If we want to create a successful product, it all starts with a good user-interface and user-experience.

**What is UI?**

UI stands for “user-interface”, UI is a process of transforming wire frames into a graphical user interface

* UI improves the experience and connects the end user and product.
* UI is also known as the communication in a device, It includes screens, display, mouse and also includes the appearance of desktop

There are different types of User-Interfaces:

* Graphical user interface
* Command line interface
* Menu-driven interface
* Touch user interface
* Voice user interface

**What are Wireframes?**

Wire Frames is a diagram or a set of diagram that consists of simple lines and helps representing the skeleton of website or an application user-interface and their functionality

**What is UX?**

UX stands for “User-experience”, which is made up of many interfaces and many interfaces provide seamless flow to create products.

User-Experience is referring to how people react to the product.

* User-experience is about what users think and feel about the products.
* Users are both rational and emotional
* For designing a good product you need to understand the concept of the product. For eg. What the product is, What is the use of the product etc.

**What is role of UX:**

1. To understand the customer’s journey : It includes the basic idea of the company and basic details about what the company is doing on the basis that a user-experience makes a basic idea.
2. Targeting Customers : After the first step, they figure out the customers that will be in contact with the product or company for the experience. It is also a crucial part of the UX.
3. Interviewing Customers : After the second step, The UX role is to interview their experience about the design and idea.
4. Defining User flows
5. Conducting user tests

**What are Good UI/UX designs?**

There are three main key points for good UI/UX designs which are as follows:

1. **Simplicity** :

* It must be simple so that the users can use the application or website very easily.
* One thing to keep in mind while making design is that the design is made for every age group.
* So keeping it simple makes the user understand.

1. **Usability** :

* As earlier discussed, simplicity and usability goes in one hand.
* If the website is simple it is easy to use and the user gets a friendly environment to use and work upon.

1. **Visual Aesthetics** :

* All the visual elements must be clear for the user experience.
* The user may know their topics but visuals must clear their head by just seeing visual aesthetics.

**Advantage of UX/UI**

* Less time consuming
* User friendly
* Easy to use
* Increase profit
* improve customer retention
* Gives satisfying results
* Provides results in fraction of seconds
* Less lagging
* Create things world haven't seen
* Innovation and creativity plays a big role
* Environment friendly

**Disadvantage of UX/UI**

* Can be expensive
* testing might be complex
* Large project can take time

**WHAT IS GOOD UX?**

* A good UI gives user all comfort and accessible
* It completes user requirements.
* It makes the work easy
* It gives more info in less time
* It's first priority is user requirement
* It upgrades time to time
* Doesn't lag

**WHAT IS A BAD UX?**

* Doesn't have specific elements
* Doesn't complete user requirement
* Bad UX is time consuming
* Doesn't make user work easy
* User can't understand the software

**WHAT IS A GOOD UI?**

* All the elements are aesthetically appealing
* Good colour palette
* Good animation
* High quality graphics
* User work is easy

**WHAT IS BAD UI?**

* Dull colour palette
* Lack of information
* User can't understand software
* Time consuming
* Not attractive
* Less elements

**DIFFERENT UI/UX APPLICATION**

* Muzli
* Adobe xD
* Justinmind
* Proto. Jo
* Material Design
* Adobe Photoshop
* Blinkist
* Sketch
* Axure
* Framer X
* Craft
* Webflow
* FlowMap

**TRENDS IN UI/UX**

* Neomorphism
* Animations
* Advanced micro-interactions
* Bold Typography
* Smooth gradients
* Empty and error states illustration
* Remote and virtual collaboration
* Augmented & Virtual Reality
* Voice User Interface (VUI) and touchless interactions
* Great user onboarding experience
* Frictionless authentication
* UX writing and microcopy

**CONCLUSION**

UI / UX are used widely in this era. It is a very important factor in the digital world. UI/UX gives a new look to the software, products. We can say that UI/UX can take over in future

**TECHNOLOGY FOR FRONT END**

* Html
* Css
* Angular
* Angular js
* Bootstrap
* TypeScript
* Flutter
* Js
* Vue
* Html 5
* Iconic
* Marvel

**Which technology is used where**

1. **HTML** : Hyper text markup language . It is used to develop web pages on browsers.

HTML is easy to learn and code.

1. **CSS** : Cascading style sheet is a language used to design and present the HTML or XML document. In simple words, CSS is used to design the HTML webpage
2. **Angular** : Angular is used for building web applications on mobile and desktop. Angular is used for building single-page client application using HTML and typescript
3. **Angular JS** : Angular Js discontinued open and free source web framework used to develop the single-page applications.
4. **Bootstrap :** Bootstrap is a HTML, Css, Javascript framework for developing responsive mobile website.
5. **Typescript :** It is a free and open source programming language developed by microsoft to develop and maintain. It is a strict Javascript super class. It is designed to develop large applications.
6. **Flutter** : Flutter is an open-source UI software development kit created by Google. It is used to develop cross-platform applications for Android, iOS, Linux, macOS, Windows, Google Fuchsia, and the web from a single codebase. First described in 2015, Flutter was released in May 2017.
7. **JS** : Javascript is the world’s most light-weight, interpreted, compiled programming language. It is also known as the scripting language for web pages. It is also known as client and server side development.