**Research Document**

**What is UX (User Experience) Design**

User Experience (UX) Design is the process design teams use to create products that provide meaningful and relevant experiences to users. This involves the design of the entire process of acquiring and integrating the product, including aspects of branding, design, usability, and function. UX designers need to consider the Why, What and How of the Product use. UX designers start with the Why before determining the What and then, finally, the How in order to create products that users can form meaningful experiences with. In software designs, you will need to ensure the product’s “substance” comes through an existing device and offers a seamless, fluid experience. UX design is User-Centred as it encompasses the entire user journey. You need to create User Stories and a UX/UI Design Brief before development.

**Research Links**

<https://www.interaction-design.org/literature/topics/ux-design#:~:text=User%20experience%20(UX)%20design%20is,%2C%20design%2C%20usability%20and%20function>.

<https://uxdesign.cc/>

**What is UI (User Interface) Design**

User interface design or user interface engineering is the design of user interfaces for machines and software, such as computers, home appliances, mobile devices, and other electronic devices, with the focus on maximizing usability and the user experience. The UI is a critical part of any software product. When it’s done well, users don’t even notice it. When it’s done poorly, users can’t get past it to efficiently use a product. You need to follow interface design principles. Interface design principles represent high-level concepts that are used to guide software design. It is important to use the UX User Stories to help with the Mock-ups of the UI Design.

**The UI design principals are:**

1. Place users in control of the interface
2. Make it comfortable to interact with a product
3. Reduce cognitive load
4. Make user interfaces consistent

**Research Links**

<https://xd.adobe.com/ideas/process/ui-design/4-golden-rules-ui-design/>

<https://mobidev.biz/blog/ui-ux-design-stages-deliverables-checklist>

**Fonts**

Here are some of the fonts picked out to use.

1. Mont
2. Bebas
3. Bebas\_neue
4. Coolvetica
5. Mouser

All fonts are free fonts and were found on dafont.com

<https://www.dafont.com/>

**Colour Scheme**

The colour scheme will consist of white, green, and black. As it is a service application using nice simple and bright colours makes it stand out.

White #FFFFFF

Black #000000

Green Hex Code: #06A595

Red Hex Code: #FF0000

Amber Hex Code: #FFBF00

**Colour Blind People**

<https://uxdesign.cc/color-blindness-in-user-interfaces-66c27331b858>

<https://resource.esriuk.com/blog/2018-10-1-designing-for-colour-blind-users/>

<https://reactnative.dev/docs/accessibility>

<https://www.gatsbyjs.com/plugins/gatsby-plugin-colorblind-filters/>

<https://www.npmjs.com/package/color-blind>

**Background Image**

Used Pixababy.com to find a suitable background images for the app.

<https://pixabay.com/vectors/car-service-icon-logo-wheel-repair-6299745/>

**Software Testing**

**What is User Testing?**

User testing within software development is where the user will test the application at various stages to get feedback so it can be updated or changed so that it is doing what it is meant to do. Tests can include testing the UI prototype, the User Stories and the application at different stages in production. User testing should be done at every point within the production.

The basic elements and process of User Testing include:

* Create a Prototype
* Develop/Create a Test Plan
* Recruit participants for User Testing
* Choose a suitable test location
* Run/Perform the test
* Record/Document test results

<https://www.testingxperts.com/blog/user-testing>

There are 5 main types of software testing that include

1. Functional Testing
2. Non-Functional Testing
3. Manual Testing
4. Automated Testing
5. System Testing

<https://www.testingxperts.com/blog/types-of-software-testing>

**Acceptance Tests**

<https://www.guru99.com/user-acceptance-testing.html>

**User Persona/Case Testing**

<https://www.inspiredtesting.com/news-insights/insights/341-what-is-a-use-case>

**UI Testing**

<https://www.testim.io/blog/ui-testing-beginners-guide/>

**React JS/TSX Elements**

<https://youtu.be/KflcnV7sYOk>

**Typescript**

<https://reactnative.dev/docs/typescript>

**JavaScript**

<https://reactnative.dev/docs/components-and-apis>

**Text Boxes**

<https://reactnative.dev/docs/sectionlist>

<https://reactnative.dev/docs/textinput>

**Image Gallery**

<https://www.npmjs.com/package/react-native-image-gallery>

<https://www.crowdbotics.com/blog/how-to-create-a-custom-gallery-view-in-react-native>

<https://bestofreactjs.com/repo/georstat-react-native-image-gallery>

<https://www.youtube.com/watch?v=YRrji3BmHY4>

<https://www.youtube.com/watch?v=QwhrAjp4X_Y&t=46s>

**Images**

<https://reactnative.dev/docs/image>

<https://reactnative.dev/docs/imagebackground>

**Camera Picker Element**

<https://www.youtube.com/watch?v=iXj330URWhU>

<https://morioh.com/p/6044a7c31551>

<https://reactscript.com/cameraroll-picker-component-react-native/>

**Forum**

<https://medium.com/@samwsoftware/building-a-forum-with-react-and-node-242a2a3c2995>

<https://reactjs.org/docs/forms.html>

<https://hackernoon.com/creating-a-forum-cms-with-reactjs-and-ruby-on-rails-oz4t35ql>

<https://dev.to/karan316/build-forms-using-react-the-easy-way-with-typescript-46bh>

<https://reactnative.dev/docs/handling-text-input>

<https://levelup.gitconnected.com/adding-a-form-to-react-native-2f41b1dc0857>

**Videos**

<https://youtu.be/IkMND33x0qQ>

<https://youtu.be/c9Sg9jDitm8>

<https://youtu.be/3gEQJ7N2vyY>

<https://youtu.be/BYsQE3Nh9IE>

<https://youtu.be/uxawinQ2tTk>

<https://youtu.be/u3f-0IgGg8A>