

QUICKFLOW*

A mobile pricing tool enabling the sales team at our client’s business organization to generate accurate price quotations, run credit checks and prepare proposals on-the-go

OVERVIEW

I worked on QuickFlow for a major client* at Infosys, a multinational technology consulting company. The intent of this project was to help businesses increase their revenue potential and enhance their IT value by **streamlining complex sales processes through an automated proposal generation mobile application**. Analyzing real world prompts in Human Computer Interaction (HIC) at Infosys’s Digital Innovation Studio, my focus was to conceptualize and deliver this complex platform in a simple, intuitive and easy to use format with key drivers (functional and business requirements) kept in mind

ROLE DESCRIPTION

User Interface & Digital Strategy Intern
8 weeks at Infosys, Providence (United States)
Mentored by Chloe Lombard, Infosys

Focus: Design Systems

- Research
 - Project Objectives, Competitive Analysis, Key Drivers: Design Considerations and Business and Functional Requirements
- Synthesis & Ideation
 - Project Scope, Affinity Diagramming, Persona Development, Need-to-feature, User Journey Map and App Flow, Brand thematic analysis, Moodboard, Sketching
- Design & Prototyping
 - Wireframes, Visual Design, Interaction + Motion design and animation
- Branding
 - Style Guide

PROCESS

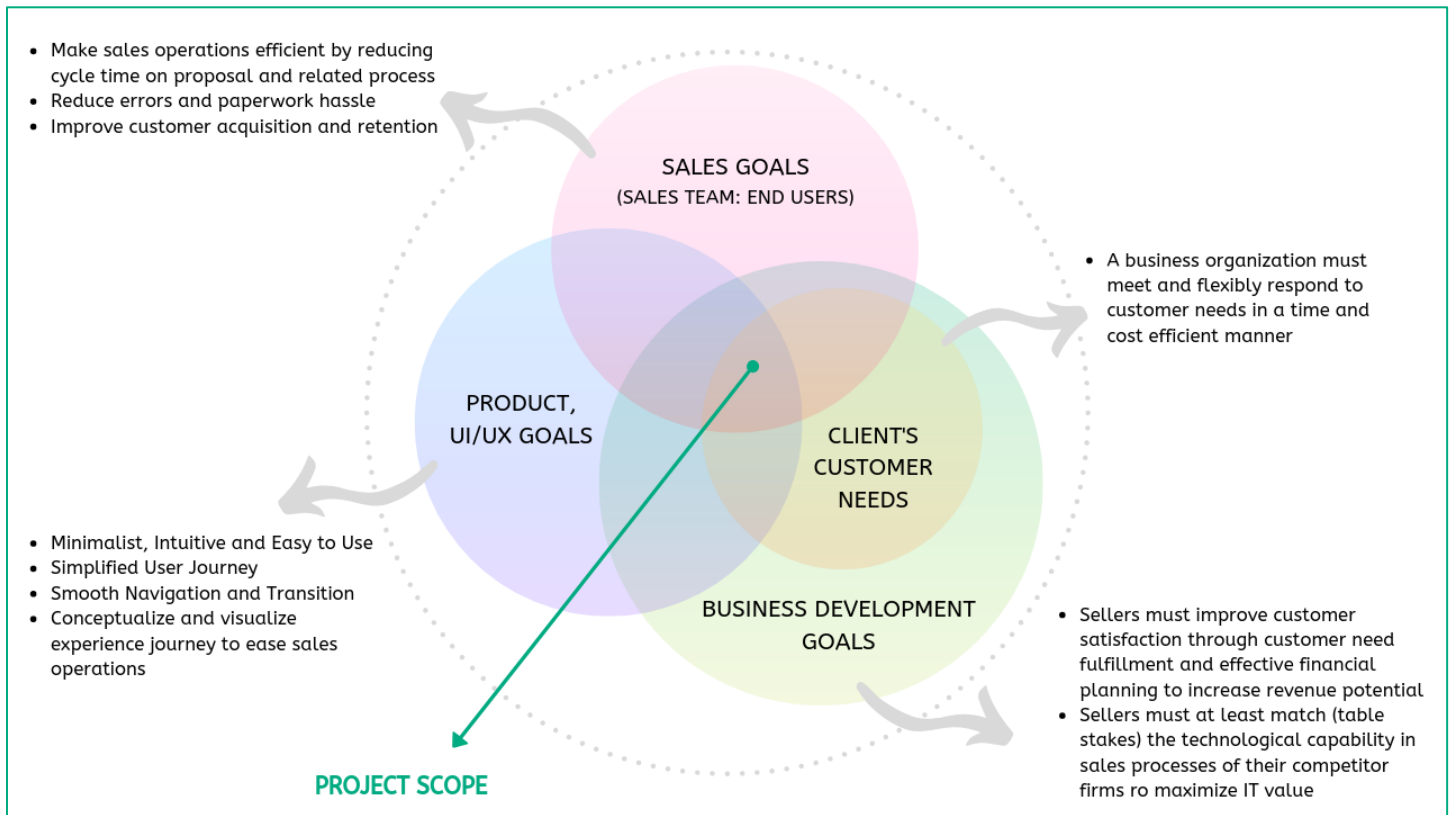
Week 1	Week 2	Week 3 - 4	Week 5 - 6	Week 6
Define and Research	Synthesize	Ideate	Design and Prototype	Brand
Problem	Scope and Stakeholders	Need-to-Feature Map	Low fidelity Wireframes	Style guide
Users and their Needs	Affinity Diagramming	User Journey Mapping and App Flows	High Fidelity Visual Designs	
Brand and Business	Key Drivers	Moodboards	Interaction/Motion Design and Animation	
Competitive Analysis	Persona Development	Sketching	Critique	

*Client’s company and brand name have been hidden due to business privacy reasons.

PROJECT SCOPE

Understanding why it is important to make sales operations efficient

To begin with, the goals and the needs of different actors associated with the client and client's project were evaluated in the light of each other through a diagrammatic analysis below:



Using Venn Diagram Analysis to understand Project Scope by evaluating Goals of Different Stakeholders in this Project

The intersection (in the above diagram) between four actors' goals was symbolic of the common need for different stakeholders in this project. This common need formed the basis for our project scope and highlighted pain points necessary to understand in order to overcome our client's current condition and its shortcomings.

PROBLEM

Digging deeper into problems faced by our client's sales team during a proposal process

By cross-evaluating needs of different client stakeholders and highlighting various pain points, the project scope became pivotal in underlining the problem faced by our client. Like every other business organization, our client's sales team is also responsible for sustaining sales growth by managing and maintaining customer relationships. However, when the sales team manually prepared quote proposals, it devoted all the time implementing proposal process for sales operations and running credit checks to close a deal. Due to this, our client's sales team got subjected to many organizational problems like:

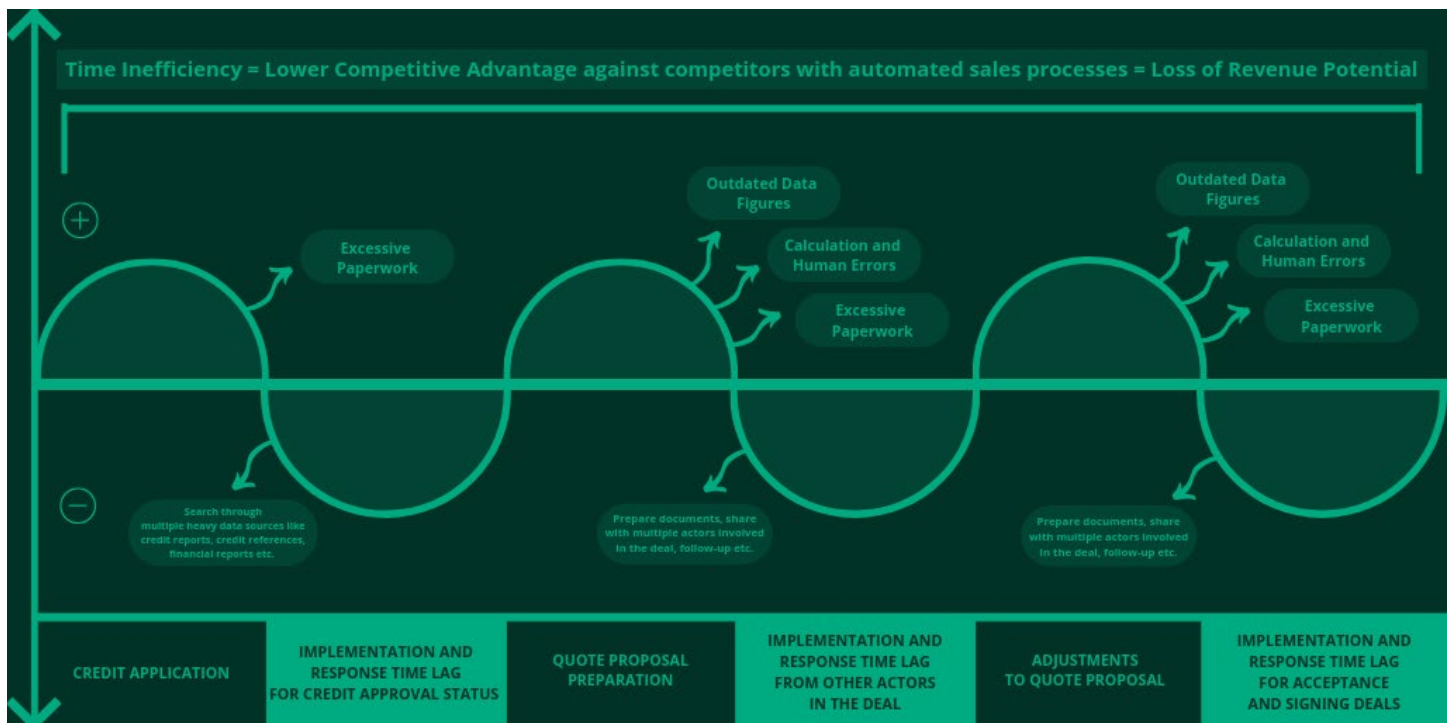
- 1) **Time Inefficiency**
- 2) **Human errors**
- 3) **Inaccuracy** in quote price calculations & outdated data figures

- 4) **Lack of uniformity** in proposal preparation
- 5) **Excessive paperwork** and **data accumulation in clunky spreadsheets** which too maybe subject to error and loss of valuable documentation.

This manual process also led to problems in the business development aspect:

- 1) **Ineffective customer relationship management:** Instead of spending time analyzing and responding to customer needs, sales team spent majority of time on the proposal process
- 2) **Competitive disadvantage:** As opposed to its competitors, our client's lack of an efficient, automated system for proposals makes it a weak player in the **competitive landscape**.
- 3) **Decline in revenue potential:** Inability to effectively understand customer needs, high organizational inefficiency and a competitive disadvantage led to a decline in revenue potential

To bring these different pain points into perspective, I illustrated an **experience cycle** for the sales team during a manual sales proposal process to highlight the aforementioned **pain points** in different phases.



Tracing the Journey of a Manual Sales Proposal Cycle to highlight Pain Points with respective to Specific Phases involved in the Cycle

This experience cycle projected a clear picture of how our primary user group faced shortcomings throughout a sales proposal journey when it was executed manually. In order to approach these pain points, I dissected these problems by studying it in the context of the targeted user group.

Defining Users

Designing for breadth not depth

Target users for this project were the client's **sales team** professionals. However, instead of focusing on a single function of the sales team in depth, I decided to emphasize on a breadth of functions to maximize efficiency of the entire proposal process. I did so by focusing on three specific user groups, who were involved in various phases of the proposal process, under the sales team: Partner, Distributor and Financial

Area Manager (FAM). With this, I developed three persona profiles (one for each group) to understand the needs of these user groups and better evaluate the functional features of this mobile application.

Partner

CRISTIAN GILLEN

35 years | Partner

ABOUT

A partner at an IT solutions firm, Cris manages a complex supply chain of local and overseas vendors. He is busy commuting, locally and abroad, for regular meetings.

PAIN POINTS

- o Flawed quotations due to complex network and outdated information.
- o Clunky quotation spreadsheets makes pricing time-consuming
- o More time spent on computing accurate quotation and full credit rating analysis rather than focusing on customer needs
- o Inaccurate quotes and poor/no credit assessment either result in losses or customer dissatisfaction



Christian Gillen | Partner

Distributor

DEREK ROCHET

26 years | Distributor

ABOUT

As a distributor, Derek manages logistics, financial risks and provider relationships for high-value products. He negotiate quotes, contracts, credit applications and deliveries.

PAIN POINTS

- o Flawed pricing due to complex network and outdated information.
- o Clunky quotation spreadsheets makes pricing time-consuming
- o More time spent on computing accurate quotation and full credit rating analysis rather than focusing on customer needs
- o Inaccurate quotes and poor/no credit assessment either result in losses or customer dissatisfaction



Derek Rochet | Distributor

Financial Area Manager

JESSICA EDWARDS

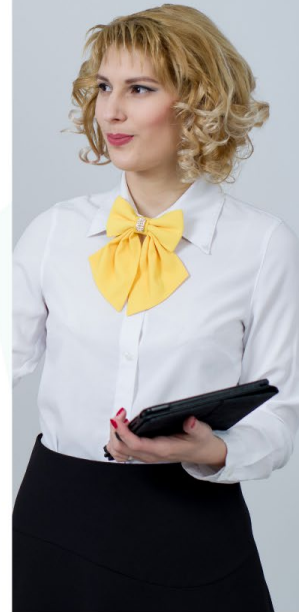
30 years | FAM

ABOUT

As a financial area manager, Jessica manages a team of analyst. Her day is packed with meetings with members and clients to work on **taxation, quotation and customer credit risk assessment**.

PAIN POINTS

- o Excessive manual work and review
- o Poor quote and credit **documentation tracking**
- o **Flawed pricing** due to complex network and outdated information.
- o Clunky quotation spreadsheets makes pricing **time-consuming**
- o More time spent on computing accurate quotation and full credit rating analysis **rather than focusing on customer needs**
- o Inaccurate quotes and poor/no credit assessment either result in **losses or customer dissatisfaction**



Jessica Edwards | FAM

Developing these personas helped me understand the broader problem in a very personalized context. A common thread to all the persona stories was their constant travelling which further emphasized a need for an on-the-go mobile application to enhance the efficiency of the sales proposal process. Furthermore, these persona stories highlighted touchpoints by showcasing user groups' behaviors, expectations and motivations. This proved to be crucial in solution feature ideation later in the project.

Overall, this personal profiling revealed that all the user groups had different job descriptors but more-or-less faced similar kind of problems. Refining the problem, I framed our design thinking through a How-Might-We question:

How might we reimagine the complex proposal process in sales operations to improve efficiency and enhance user journey for sales professionals?

To better understand how to approach this statement, I tapped into how other companies in the competitive landscape are reducing these rigidities and organizational inefficiencies for the sales process.

MARKET SCAN & COMPETITIVE ANALYSIS

Recognizing Table Stake features for the platform

In order to approach this problem, I started with a competitive analysis considering the second business development goal in the project scope diagram: 'Sellers must at least match (table stakes) the technological

capability in sales processes of their competitor firms to maximize IT value.’ After sampling a few companies in the competitive landscape, I used an affinity diagram to assess three top competitors (Rocket Mortgage, DLL Financial Solutions Partner and Leaza) in the market and group their features in 5 different categories:

<p>Depth</p> <p>To what extent are the platform’s features robust, specific and need-fulfilling</p>	<p>Intelligent</p> <p>To what extent is the platform smart, data-driven and personalized</p>	<p>Elegance</p> <p>To what extent is the platform creatively and intuitively designed</p>
<p>Empowering</p> <p>To what extent is the platform transforming manual tasks into easy, digital tasks doable on finger tips to boost user’s confidence and engender a sense of control in the user</p>	<p>Completeness</p> <p>To what extent is the user journey wholesome; features like customer service, country specialized features like data figures, language, compatibility with business level usage etc.</p>	

With these categories, an affinity diagram (below) was used to display the most pivotal features of competitor platforms.



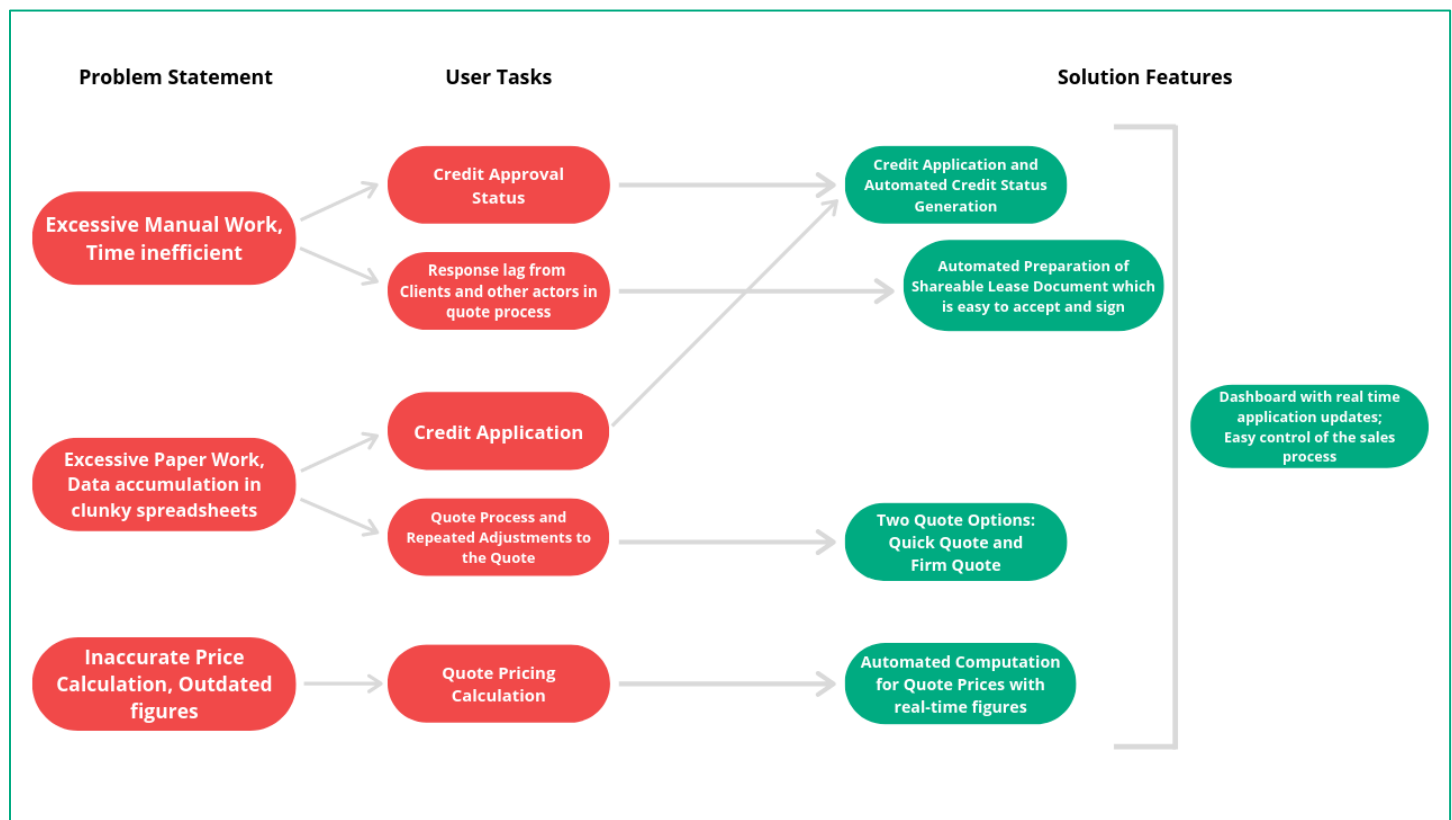
Using Affinity Diagram Analysis to categorize Table Stake Features of Competitor Platforms as well as highlight Characteristics of these Platforms that make them Successful

This affinity diagram helped me organize my evaluation and cost-benefit analysis for the chosen competitor in the landscape. It also underlined table stake features that helped my conceptualize solutions for our user groups’ pain points.

TRANSLATING NEEDS INTO FEATURES

Evaluating Client Discovery to translate ideas and pain points into actionable features

Looking at the table stake features in a competitive landscape and reviewing our client’s business requirements, I used an affinity diagram to illustrate a need-to-feature map.



Using Affinity Diagram Analysis to translate pain points into potential solutions

This need-to-feature helped me align actionable features directly with pain points discussed previously. It further intrigued me to brainstorm and discuss specific elements of each solution feature while visualizing it in the context of app’s big picture: larger information architecture for screen flows and app visual design

KEY DRIVERS

Elaborating Key Features that drive the Functionality of the Platform

With the client’s business requirements, and the client discovery so far, I recognized the most pivotal features to serve the pain points and act as the functional requirements of the platform. I based my designs to deliver upon the following key features:

Quick Quote

- Generate quick quote on finger tips with a few simple steps
- Fill a wide variety of choices in payment type, terms, rates, frequency, uplift percentage etc. to automatically compute an accurate quote
- Avoid repetitive generation of firm quotes and adjustment to those

Credit Application

- Run a quick credit check on customers our client company has done business with or add a new customer
- Quickly receive status update of credit check to further the quoting process
- Simplified Credit responses: Approved, declined, More

Firm Quote

- Generate a firm quote on finger tips with a few simple steps
- Fill a wide variety of choices in payment type, terms, rates, frequency, products, uplift percentage etc. to automatically compute an accurate quote

firm quotes by different actors in the process

Information, Under Manual Review, Insufficient Information

- Save Firm Quotes to proceed at a later date

Lease/Proposal Document

- Generate shareable lease documents for easy circulation and view among different actors involved in the proposal process

Acceptance & Sign

- Close deals on the go by accepting and signing document on mobile (varies depending on the persona)

Dashboard

- Easily track and manage approval statuses for all the features of this platform via an interactive dashboard

Geographic Location

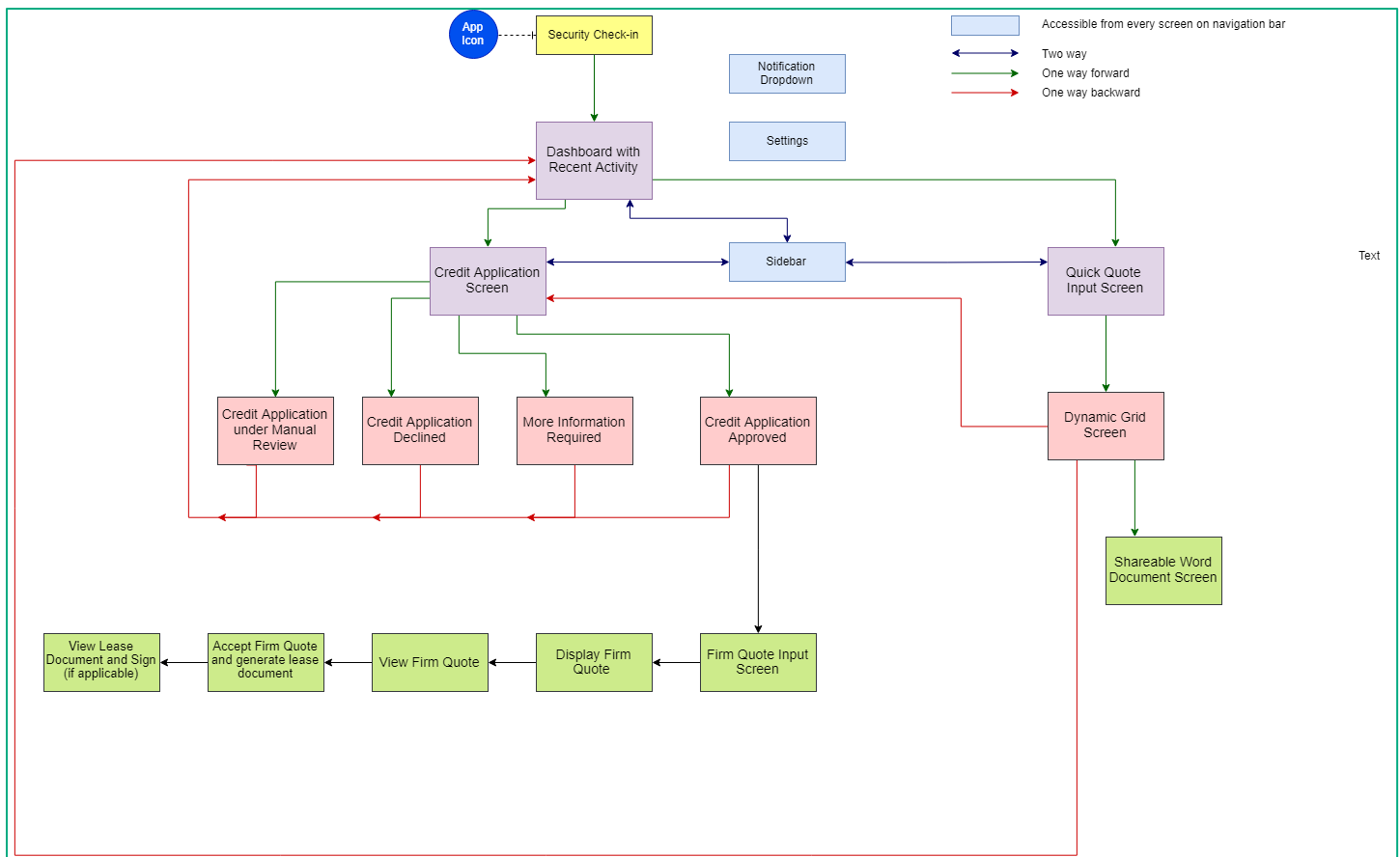
- Available in 7 countries

Persona-specific Functions

- Partner can change default settings like country, uplift % etc.
- Ability to sign is only for a partner
- FAM can only indicate one's 'readiness to accept' and not direct 'acceptance'

User Journey Synthesis

With the client's business requirements, and the client discovery, I organized my findings and categorized them in a logical flow of screens.



Sitemap to visualize the information architecture of the mobile application

This small design challenge helped me align and process the mobile application's workflow. In the process of developing this map, I probed redundant functions and culled out repetitive ideas in order to group them under one section. Overall, a simplified information structure, it helped me question my findings on platform's functional requirements and closed many knowledge gaps. This process also acted as a catalyst for idea sharing between my mentor and I and sparked my curiosity to understand the customer group and client better. Hence, I synthesized a persona journey concept bellow. It helped me identify user group touch-points and visualize design with user emotions and expectations in mind.



Synthesizing user journey to trace user touchpoints at various phases of the cycle and visualize app screen flow

Ideas to Actions

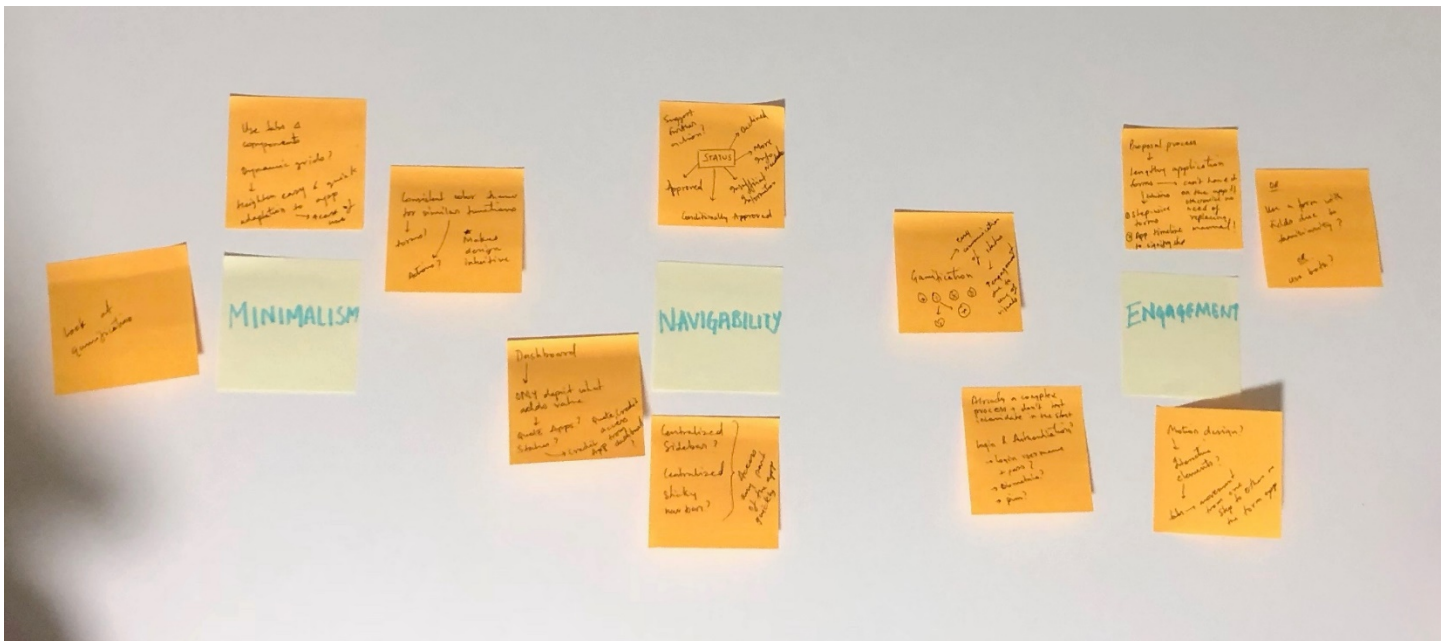
Designing for Efficiency

Part I: Design Ideation

With the accumulation of thorough research, analysis and evaluation of ideas, it was time for designing a sleek, efficient solution with the following considerations kept in mind:

- 1) **Minimalism:** App must be simple, intuitive and easy to use
- 2) **Navigability:** Due to the complexity of sales process, app must have a dashboard with easy navigation and recommendations for further actions based on real-time credit application statuses
- 3) **Engagement:** Due to various customizable options, the app must reduce selection of repetitive information to avoid distractions or human error caused by boredom and monotony

With the discovery so far, I brainstormed potential design solutions for these considerations which further proved to be the basis for the rest of my project.

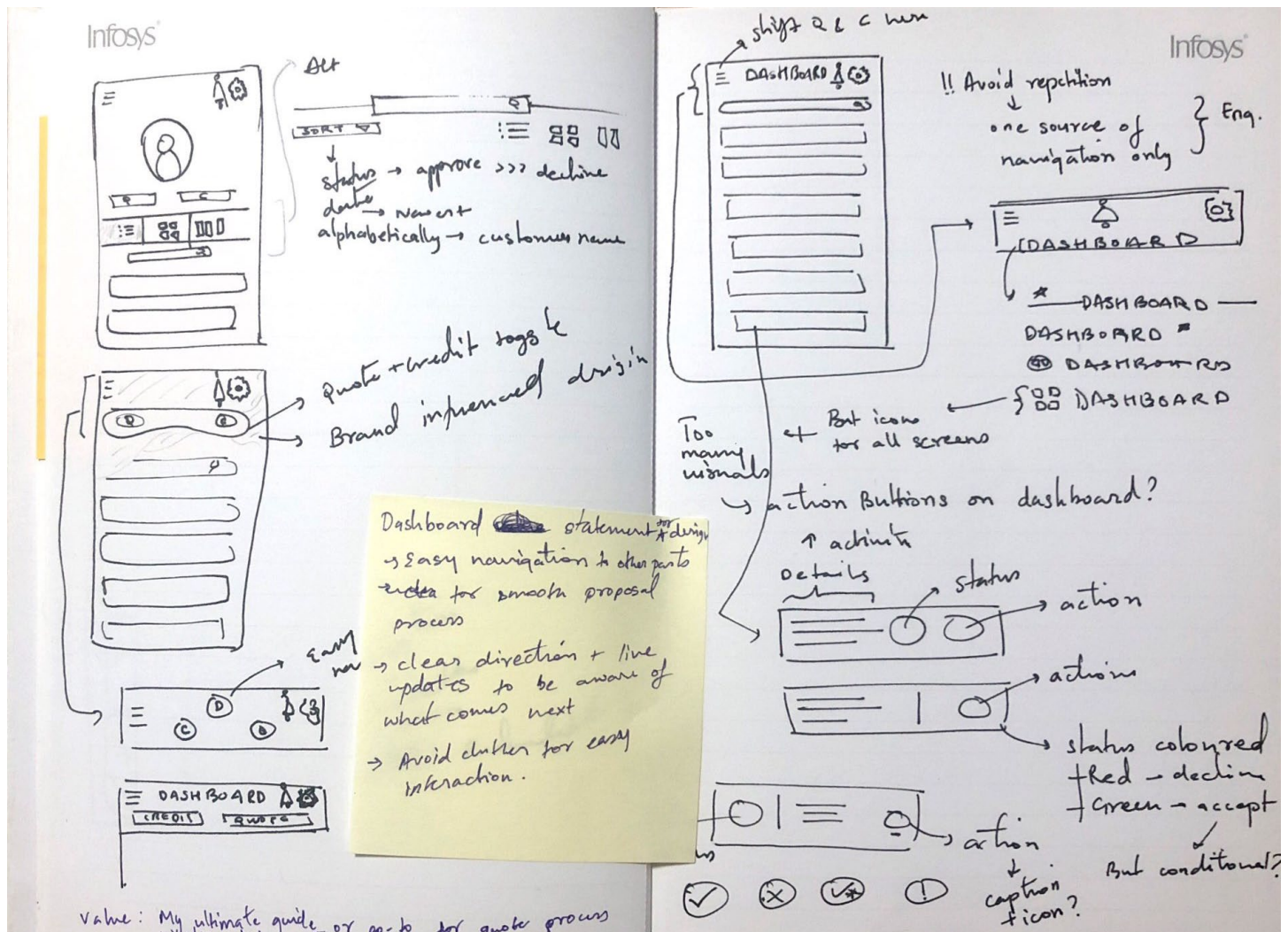


In the process of brainstorming potential solutions for design considerations

One important insight that I gained during this brainstorm session was the need to have reactivity in my user interface in order to make this mobile platform a go-to guide for the sales team. With strong emphasis on engagement and navigability, I wanted to make sure that the user is not exposed to cognitive overload. This is because it was something that he or she was already experiencing in a manual sales proposal process – due to dealing with clunky spreadsheets, time lags and repetitive adjustments. My goal was to introduce this reactivity through a continuous process of recommendations for further action on any stage of the proposal cycle – through buttons, gamification of icons, colors symbolizing action, short and crisp visual descriptors etc., all uniformly practiced throughout the platform. With this in place, minimalism was intuitively being practiced in the user journey.

Part II: Empowering my Thoughts through Sketching

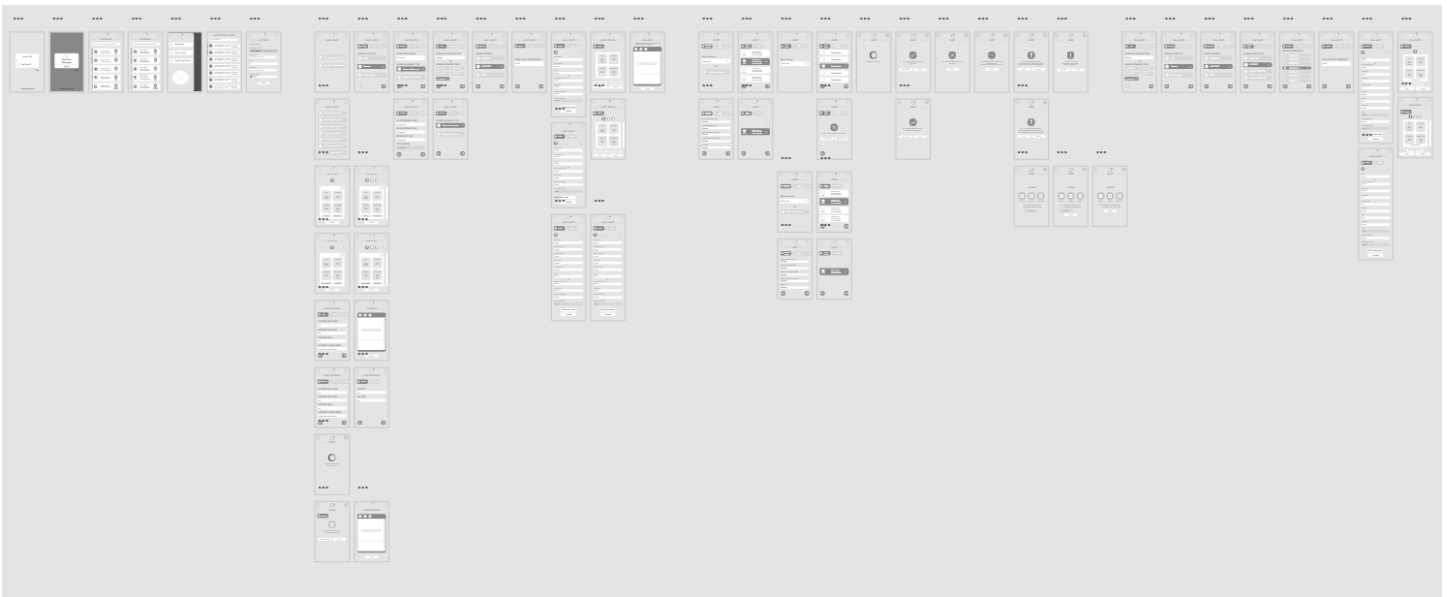
For starters, I sketched various screens and brainstormed numerous possibilities of ideas running in my mind. This empowered me to visualize and refine what was merely a concept. A visual depiction also enabled me to gain value from design and idea critique with my mentor.



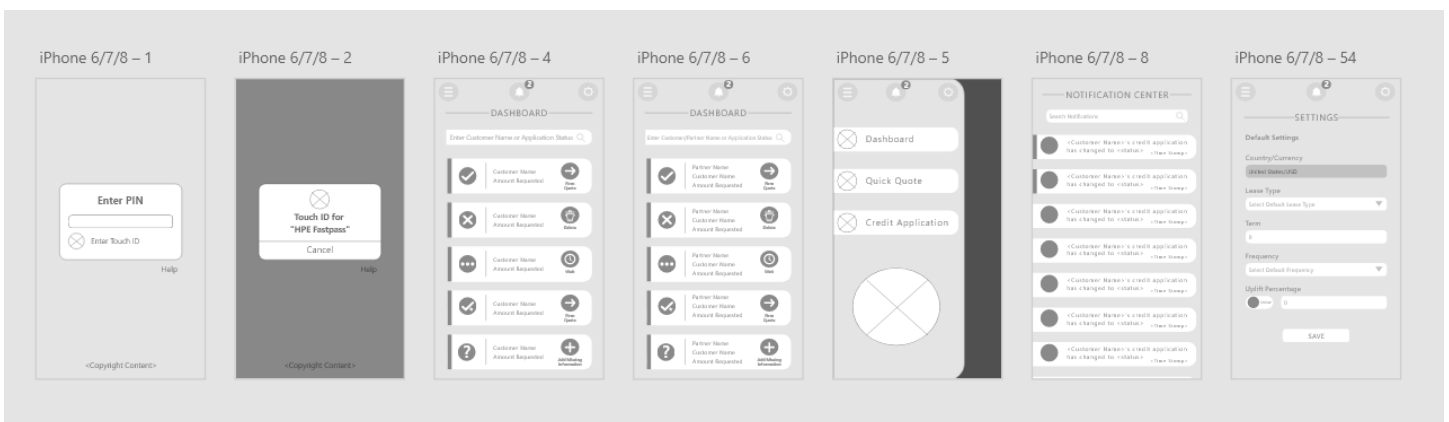
A page from my sketch pad: Ugly Doodles yet Beautiful Insights

Part III: Strengthening my sketches with Low-Fidelity Wireframes

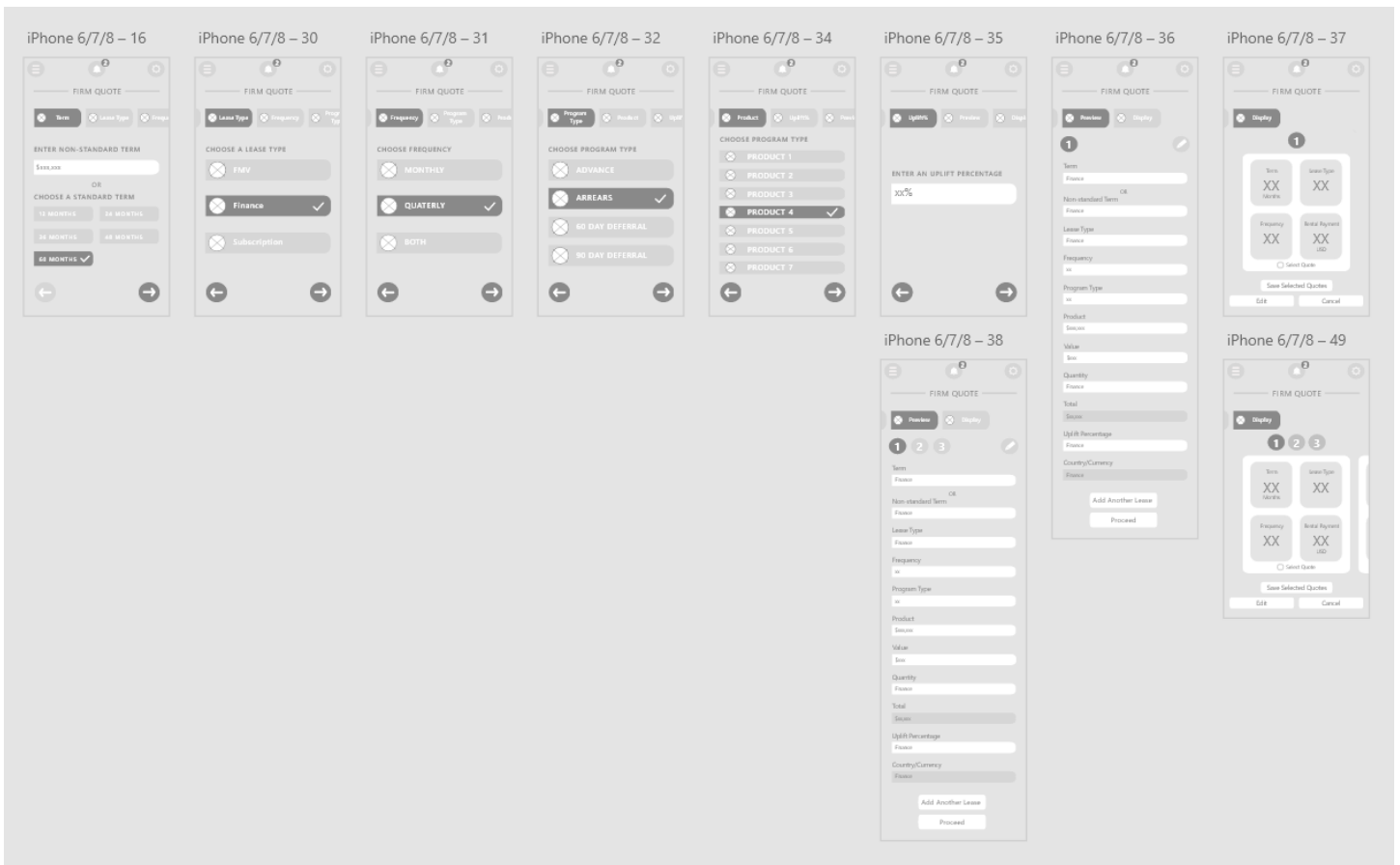
After effective brainstorming and sketching sessions, I developed some low-fidelity wireframes to guide my development of high-fidelity mockups. The process of developing these wireframes helped me underscore key constraints in functionality of screens early-on and avoided any inefficient fixes/adjustments later during the design process. Wireframing and sketching, together made me rethink the way I was visualizing hierarchy of elements in my mind (like tabs, action icons, buttons, navigational components) and encouraged me to prioritize content for a minimalistic user interface and a smooth, clutter-free, hence non-overwhelming, user experience. Below are some wireframes that I developed in AdobeXD



Overall view of wireframes



A look into Login & User Configuration, Dashboard, Sidebar Navigation, Notifications & Settings



A look into Firm Quote, accessible only when credit application has been approved or conditionally approved – can be accessed from approved status or dashboard

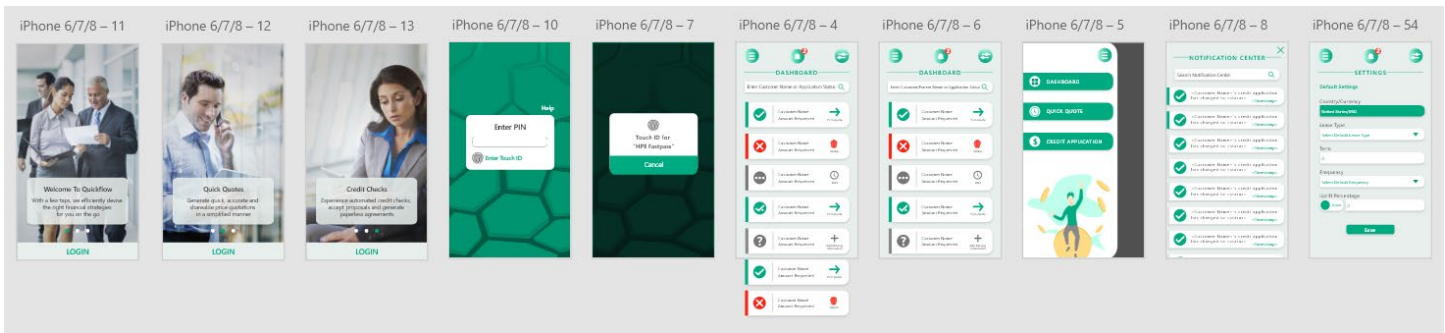
Part IV: Translating Wireframes into High-fidelity Visual Designs

After effectively engaging in client discovery, design methodology definition, sketching and wireframing, it was time to coalesce different elements of this design challenge to produce a visual design that met the needs of the sales team. The concept of Quickflow, a mobile sales proposal tool, was probed to combat inefficiencies and business failures of a manual sales proposal cycle. Hence, as seen previously, these visual designs have been developed to encourage reactivity and smooth feedback to signal the next, easy navigability, clutter-free engagement and minimal repetition. This was done to allow different phases of the proposal cycle to work well alongside each other through a uniform design language.

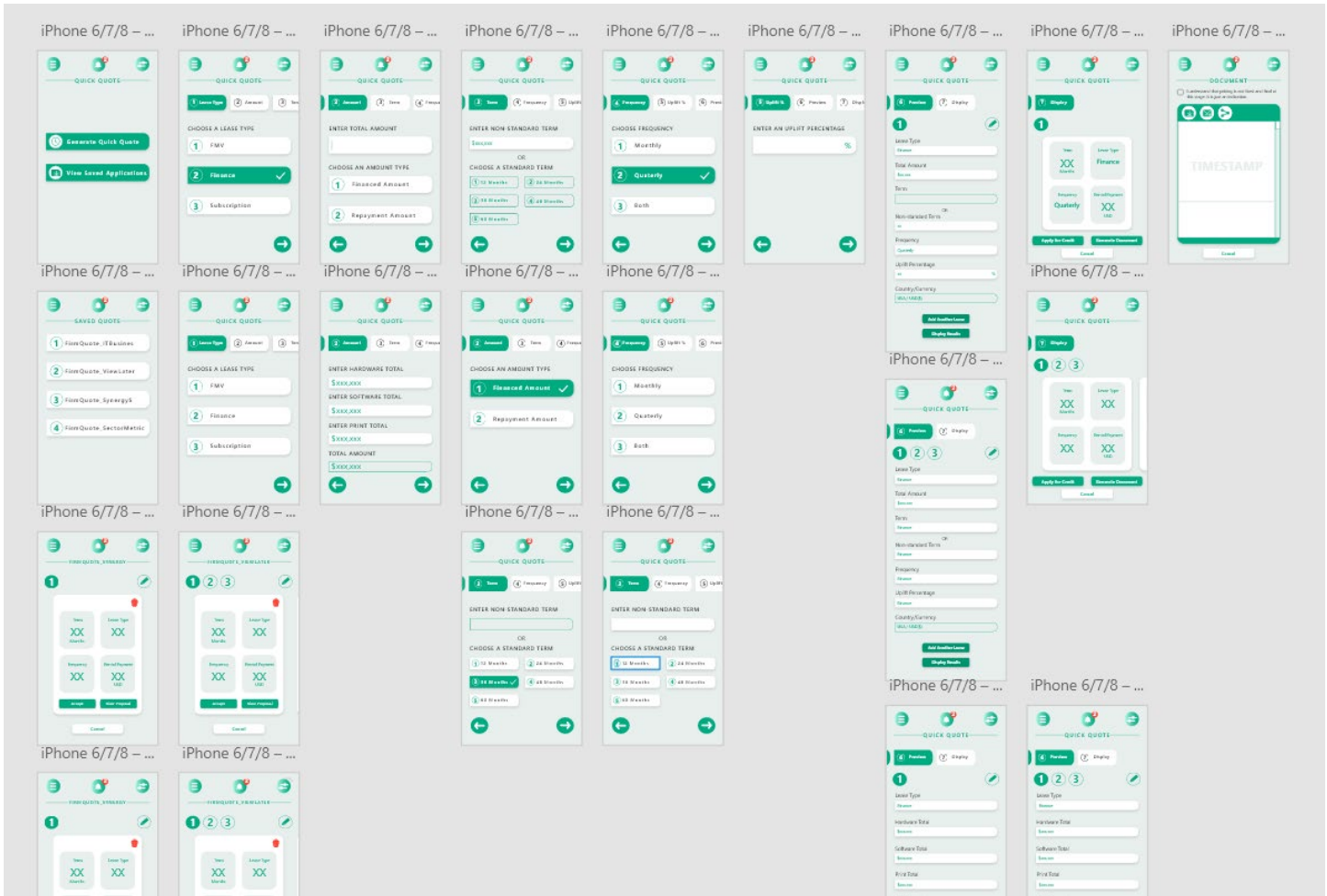
The process of developing visual designs provoked me to review design considerations, solidify these goals for the mobile application, as well as re-affirm my client discovery evaluation and wireframe development. Furthermore, developing a visual design system helped me make an insightful addition to the user experience. Owing to the complexity of sales proposal cycle, I added an informative carousel describing the mobile application in order to emphasize that proposal cycles can be quick and hassle-free. Below are the visual designs that I developed in AdobeXD



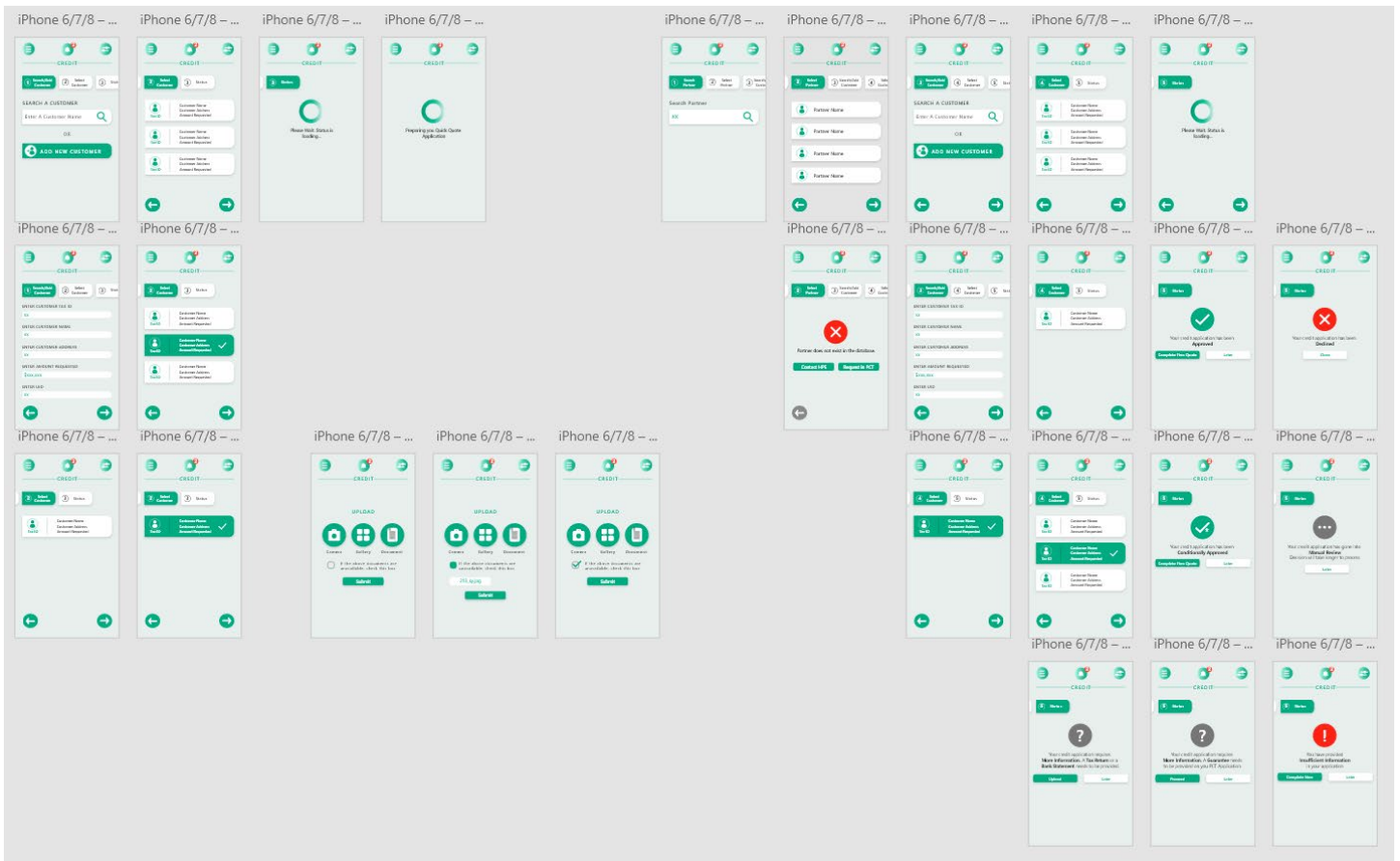
Overall view of the visual design



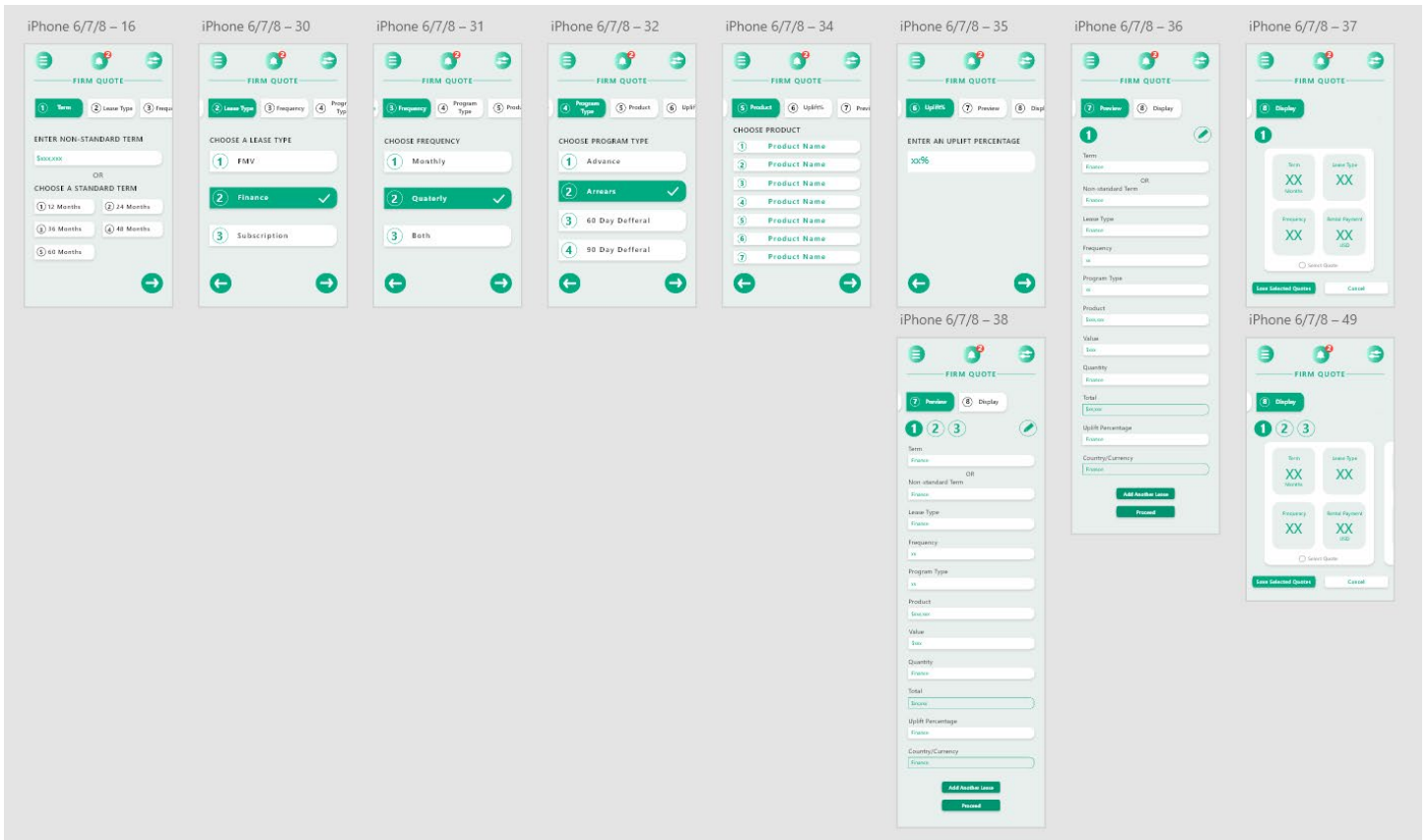
A look into Informative Carousel, Login & User Configuration, Dashboard, Sidebar Navigation, Notifications & Settings



A look into Quick Quote Component accessible from the Sidebar Menu



A look into Credit Application and Statuses, accessible from the sidebar menu and viewed from dashboard respectively



A look into Firm Quote, accessible only when credit application has been approved or conditionally approved – can be accessed from approved status or dashboard

Interaction/Motion Design & Animation

Interactivity for User Attention

After developing a visual design for the mobile application, I worked on interaction design and animation for elements on a single screen as well as for flows across screens. In line with brand guidelines, my goal was to add interactivity in order to draw user attention and eliminate boredom or any scope for human error in whatsoever form. The first sample interaction design and animation work is the informative carousel seen above in the visual design. It can be found [here](#). The second sample is a walkthrough from login to dashboard that can be found [here](#). The third sample is a quick quote application walkthrough and it can be found [here](#).

Style Guide

An attempt to foster continuous brand experience for future iterations of the platform

My objective was to provide sales team (users) with a continuous experience not only today but also for future updates/revisions were made to the app. However, if the current design system was not uniformized, the development cycle might have become complicated for the product team, leading to difficult adaptability and inconsistent brand experience for users. Due to this, I developed a style guide to encourage a seamless development process of new design systems for Quickflow in the future. Keeping the essential functions of Quickflow in mind, I decided to focus this style guide on three libraries: color, font and style icons. Below is the style guide for the mobile application.

QUICKFLOW
Platform Style Guide

MISSION

This style guide has been curated to ensure consistency and continuity in future iterations of our client's product, Quickflow. We hope that the use of this guide will ease development of future functional designs for a seamless and high quality brand experience

05	COLOR
09	FONT
11	STYLE

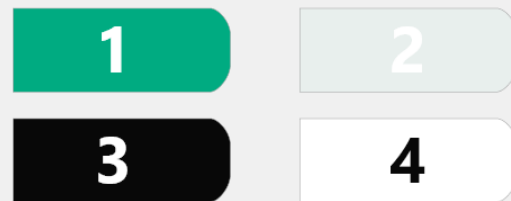


COLOR

Color Specification

The color palette includes four primary colors and three secondary colors. The seventh color, a secondary color, is a linear gradient where the base color is the first color, a primary color. The rest of the gradient is also the first color but at varied opacities, such that the opacity reduces in the rightward direction. Please refer to the following page for guidance on color usage

Primary Colors



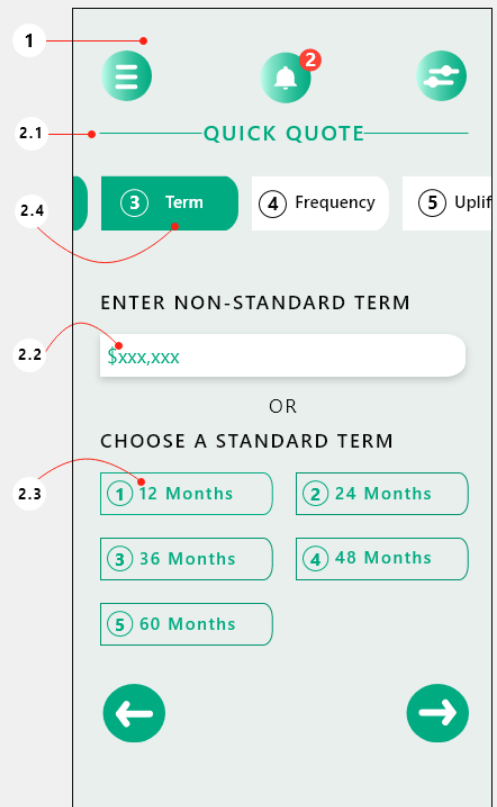
Secondary Colors



Color Usage

Due to a wide range of colors to, the choose from, the following principles should be used to effectively guide the use of colors:

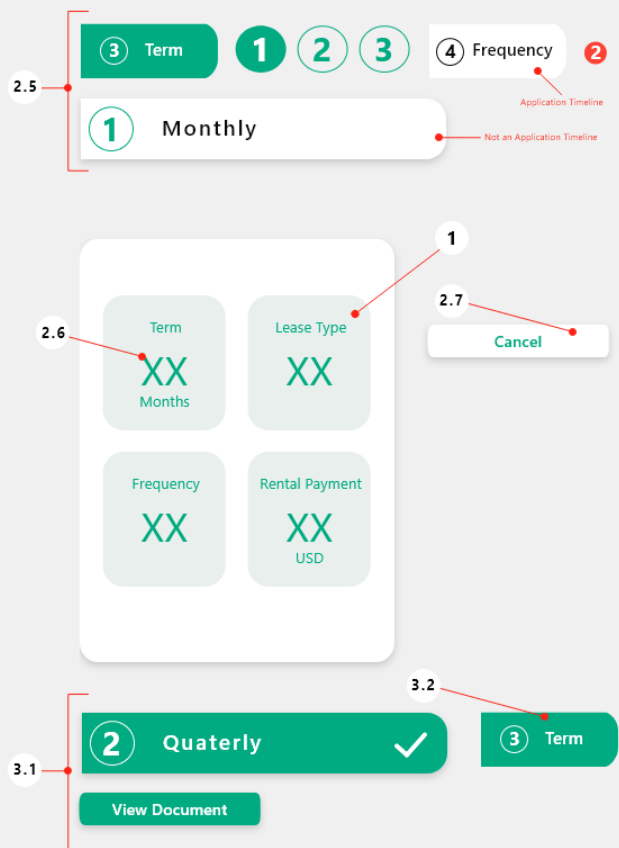
1. Always use the second color, a primary color, as the background color of all the screens, except the landing page, and as cells in the grid for quote display
2. The primary text color is black i.e. third color, a primary color. However, the text color becomes the first color, a primary color, when:
 1. The text is the screen header
 2. The text is the field text
 3. The text is inside a disabled tab
 4. The text is on an active or complete form step



06 | COLOR

Color Usage Contd.

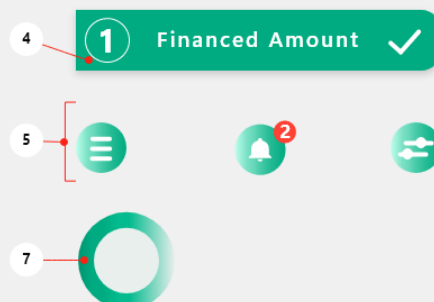
5. The text is an encircled, unselected number, except when it is used in an inactive cell in application timeline where it becomes black or as a notification alert where it becomes white
6. The text is used in the quote display grid
7. The text is placed on a white button. For rest of the white backgrounds, the text is black which was also seen in (2.5) for an inactive application cell.
3. The text becomes white when it is placed against the first color, a primary color. This is true when:
 1. The text is placed on a button/tab with first color as the background.
 2. The text is placed on an active cell in application timeline



07 | COLOR

Color Usage Contd.

4. Active tabs must have first color, a primary color as the background
5. Navigation bar icons should have a seventh color i.e. the gradient color asset in secondary colors as the background
6. Action or Status icons are only composed of first, fourth, fifth and sixth colors. These icons have been discussed under the style section
7. Loader is composed of seventh color i.e. the gradient color asset in secondary colors



FONT

Font Usage

Segoe UI is used for the entire platform. On the right, a proper usage of sizes and weights within this font family has been described

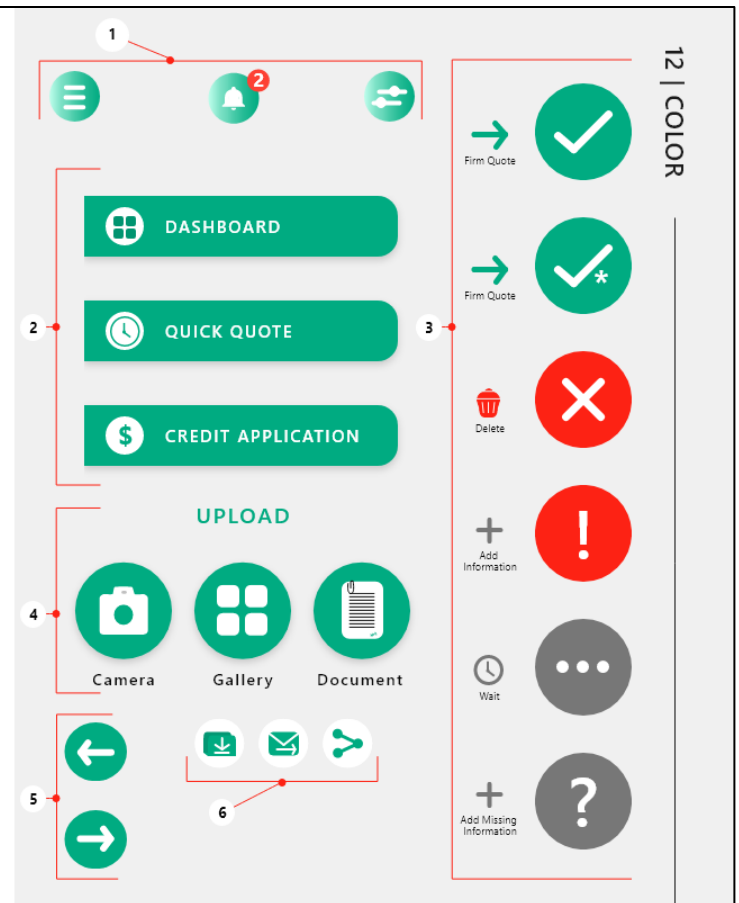
<H1>	CREDIT	20pts
<H2>	Choose	18pts
<Input>	xx	17pts
<p>	Lease	16pts
<p class= "app-tab">	Term	15pts
<button>	Later	14pts
<p class= "notification-detail">	Status	13pts
<p class= "notification-time">	12/1	11pts



STYLE

Action & Status Icons

1. Navigation Icons to access Sidebar, Notifications and Settings
2. Sidebar icons to access Dashboard, Quote and Credit Application
3. Six icons to signify credit application statuses like Approved, Conditionally Approved, Declined, Insufficient Information, More Information Needed, and Manual Review + Six corresponding icons for further action
4. Icons for document upload
5. Icons to move to next or previous step on the form
6. Save and sharing icons



Conclusion

Thankful for this learning opportunity, I believe that working on Quickflow made me more passionate about Design Thinking and Human Computer Interaction. Before the internship, I was just a front-end developer, but now I am capable of visualizing and developing a digital solution with design and product strategy kept in mind. While developing this technological concept, I used a waterfall approach. This linear approach to design innovation helped me effectively complete this project in a limited amount of time without compromising on the quality. However, I feel that if I would have used an agile approach, the process would have been more iterative and sustainable in nature, creating more room for feedback and improvisation. At the same time, I also believe that exposure to different approaches makes me competent to fulfill needs of clients with different process and styles requirements. If I am able to deliver a solution that fits clients' methodology, I would be able to maximize their convenience and efficiency in a highly adaptable manner. Overall, this exposure has been highly enriching, and I am confident that I will be able to transfer my savoir-faire from this project to many new upcoming adventures in life.

Intern at Infosys | Who says Sales Proposal Process is a Hassle?

Special thanks to studio lead Ms. Lara Salamano, my extremely patient and insightful mentor Chloe Lombard, my supervisor Vinny Masters & the larger Infosys Team for shaping my intellectual experiences and helping me flourish and grow in the field of Human Computer Interaction and as a diligent co-worker. These moments from summer 2019 would forever be treasured!