

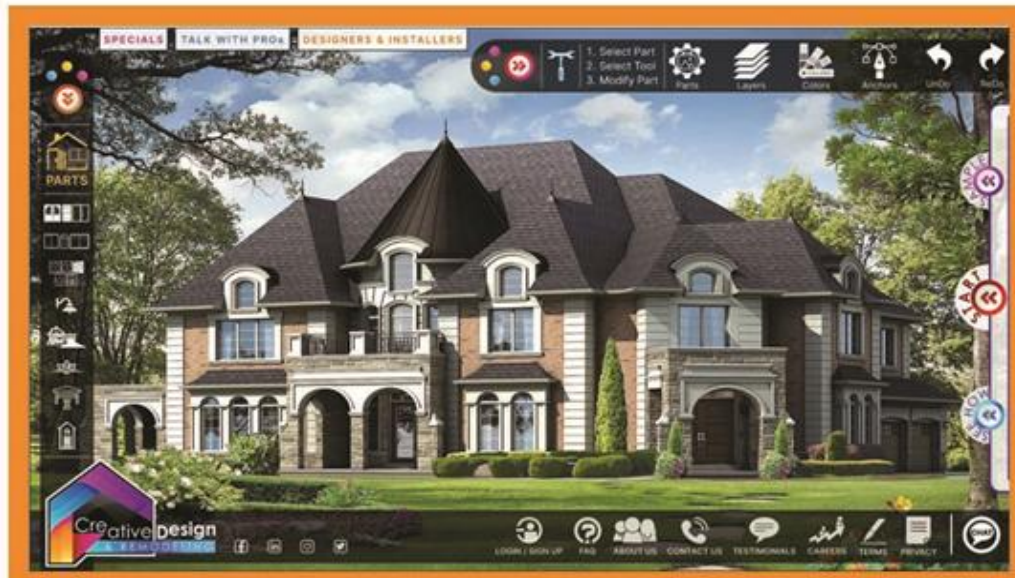
CASE STUDY

Desktop Version

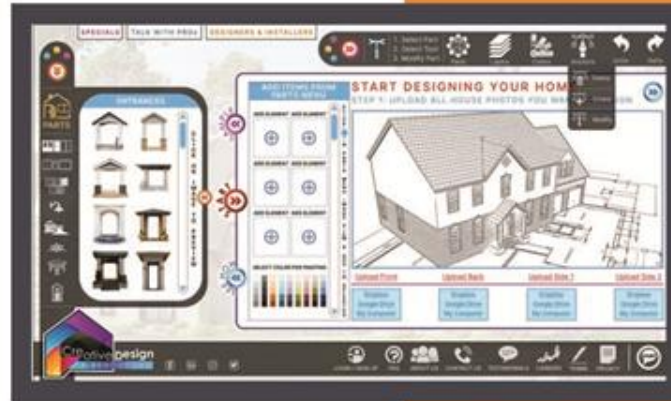
Home Exterior Remodeling Tool



Dmitriy Lebedinskiy



Project Overview



The product:

Desktop website version

Home Exterior Remodeling



Project duration:

August 22, 2022 – Septemebr 18, 2022

Project Overview



The problem:

Homeowners need to have an ability to visualize changes to exterior design before actual remodeling will take place, make an adjustments, or redesign home exterior without spending money with professional designers.

Also, small construction companies need to be able to present visual presentation to the homeowners, this solution will simplify the entire sales closing process.



The goal:

Design Website for Desktop versions that allows users conveniently make an adjustments or create completely new design for the home exterior in their own convenient atmosphere, when they will be able to make as many changes as needed without spending money with professional designers and without extra spendings for design iterations.

Project Overview



My role:

UX / UI designer - designing web solution for for home owners and for small construction companies.



Responsibilities:

Conduct researches, interviews, paper and digital wireframing, low and high-fidelity prototyping, usability studies (including accessibility regulations), making iterations on design, delivering project to engineering and programming teams.

Understanding The User

- User research
- Personas
- Problem Statements
- User Journey Maps



User Research: Summary



I conducted interviews and created empathy maps to understand the users pain points
As a primary targeted user audience identified during conducting research were home owners and small construction companies.

The research confirmed our initial assumption about the process of creating new home exterior design or make the adjustments to already created design, and at the same time we discovered that the existing elements of exterior design parts might not be completely satisfiable for users, so the option for use of custom exterior design elements should be implemented as well.

User Research: Pain Points

1

Visualization Limitation

Home owners are lack of ability to visualize the new home exterior option/s before the actual remodeling process starts

2

Convenience of self design or redesign

Users need to be able to create new design or make adjustments to an existing design without spending money for professional designers

3

Accessibility

Existing platforms are lack of assistive technology for users with limited accessibilities

4

Be a professional designer

Users need to be able to create new or adjust existing design without prior knowledge or experience.

Persona 1

Nicole is busy professional with family, and without any specific understanding of what type of exterior design needs to be created.

Problem statement:

Nicole is a Busy Professional with husband and two kids, **who needs** to make some changes of her home exterior to make it look more modern and welcoming at the same time, **because** she wants to have her home looks exactly like what she envisioned.

NICOLE TRAVIS
48, Los Angeles
Accounting Department Manager

PERSONALITY

- Leading
- Detail oriented
- Creative
- Conservative

BIO

Nicole is a busy professional, she is married and has two children. She is keen watching DIY home improvement videos and get excited about make some changes of her home to make it look more modern and welcoming at the same time.

Outside of the office she's caring mom and very committed to her family. She enjoys reading designers blogs and will sometimes go to design-related shows.

Motivations

SHOW PROJECT TO KIDS: [Progress bar]

COMFORT LIVING: [Progress bar]

SELF ACCOMPLISHMENT: [Progress bar]

Goals

- To have her home to look exactly like what she envisioned.
- Experiment with different designs before she will make a final decision about renovation.

Frustrations

- Thinks that she can't afford a designer's help.
- Hard to visualize her project ideas and meet outcome.
- Struggling to express and convey the design concept to the contractor.

Behavior

"I want to see how it will be looks like before I will decide to move forward"

Optimizing company budget: [Progress bar]

Watching how design trends: [Progress bar]

Family: [Progress bar]

Sport active: [Progress bar]

Enjoying reading books, when has time: [Progress bar]

Influences

DESIGN: [Progress bar] ADDITIONAL HOME

CLUBS: [Progress bar] HOLIDAY

NEWS: [Progress bar] NEWS PAPER

Persona 2

James is a just married person who moved to the house with his wife and who wants to make more appealing exterior design of their house

Problem statement:

James is just married person who moved to the house with his wife, who needs to have a new look of their house because it will allow him to live in the comfort of his house according with his high standards of life, and be proud of his house when inviting his friends and family

JAMES WILSON
42, Boston
Product Owner / Project Manager

- STATUS: Married w/2 kids
- SALARY: \$125K
- EDUCATION: BA
- ARCHETYPE: Mix of Explorer, Creator, Ruler

PERSONALITY

- Leading
- Interviewing
- Design Thinking
- Empathy driven
- Researching

BIO

James and his wife just married and moved to the house he bought before the marriage. Both of them wants to have a new look of their house. James has a high standards and nice taste in life, but has no ideas when it comes to the home redesign and renovation.

Motivations

MAKE A "bigger" IMPACT | RECOGNITION OF SUCCESS
MAKE FAMILY PROJECT | RELIEVED AT THE END

Goals

- To have his home look more modernistic
- Wants to see how it will be looked like, before making a decision
- Contact an expert to have an advice on his home project
- Ensure, the new home design will be appreciate by family, friends and neighbours

Frustrations

- Too many options are available for design, doesn't know where to start
- Hard to visualize the project and meet outcome
- Thinks that the cost of professional designer is way to high for him

Behavior

Overseeing projects
Juggling with a performance, remote
Phone interviewing
Meetings
Client empathizing

Influences

INDUSTRY | ACADEMICS
TECHNOLOGY | BUSINESS | PROCESS
FAMILY

"I love to design, but also want some opinions from my friends and family, and from expert/s as well."

User

User Journey Map. Personas: Nicole and James

Goal: Experiment with different styles and designs before making a final decision about renovation.

Negatives: ● Improvements: ●●

	Action	Task List / CRM	Feelings	Improvement Opportunities
Trigger Points	Multiple advertising sources (email, soc. media, online ads, word of mouse, etc.)	Review different ad materials and sources	Optimistic, Overwhelmed, Excited	Create targeted campaigns, based on user online activities and interests
Inspiration & Discovery	Online research, customer reviews & testimonials, videos	Created list of online solutions and local designers, researched ("+"s and "-"s)	Tired, but still excited	Would be nice to have comparison chart/s for software, designers, online solutions
Ideation	Looked through multiple projects & got the overall idea of what do we want	Find general source, select what to redesign, find photo and video ideas, wrote down what we like and dislike	Overwhelmed, Excited, Tired	Preliminary questionnaire should be implemented (limit number of options w/ option to increase #s)
Research Design Options (online and / or hire designer)	Checked different online solutions, software and local designers ("+"s and "-"s)	See samples of work, read testimonials, check overall rating	Too many offers, not sure who to trust, overwhelmed, stressed	Create comparison chart/s for software, designers, online solutions
Engage in Self Design Option 1	Downloaded and installed software (tried multiple)	Read instructions, upload photos, play with features, look for the answers for our questions	You have to know how to work w/ software features, very complicated, if no skills	Limit number of features for basic users, video and photo hints, photo-samples, make it more intuitive
Engage with Designer Option 2	Contacted couple different local designer	Called, left voicemail, spoke w/ designer, sent email, meet designer, collected info needed for designer, sent info to designer, back and forth communication	Too much Overwhelmed Tired Exhausted	Online prep and contact forms Online questionnaire Online appointment schedule setup
Budgeting	Decided with what budget we want to work on design	Look 4 different prices online, ask friends & family, decided we want to pay	Excited & Optimistic	Create different packages for different budgets
Planning and Selection	Selected only necessary features we want to be designed	Limit the number of features Trying to stay in budget	Too many technical questions from designer, software even more complicated, w/o proper knowledge	Give try out option for online Advice on suppliers and contractors, if needed Give a bit extra at no cost
Decision making process	Reviewed multiple options, and had chose couple options	Consulted w/ friends and family	Excited & Optimistic	Provide free consultation with expert, if signed in.
Approval	Signed off on just one option	Software -- N/A Designer (signed docs in the office)	Software (not sure) Too much headache	Soft (get expert opinion) Online sign form
Product Receiving	Received the final design	Soft (saved the option we like) Designer (hard materials, online photos)	Finally ..., almost happy and almost satisfied	Follow ups, changes if not completely happy, referral progr.

Journey Map

Mapping home owner users' journey demonstrate how convenient it would be for users to have an access to a Desktop versions of the website for creating new or modifying existing home exterior design without been a professional designer.

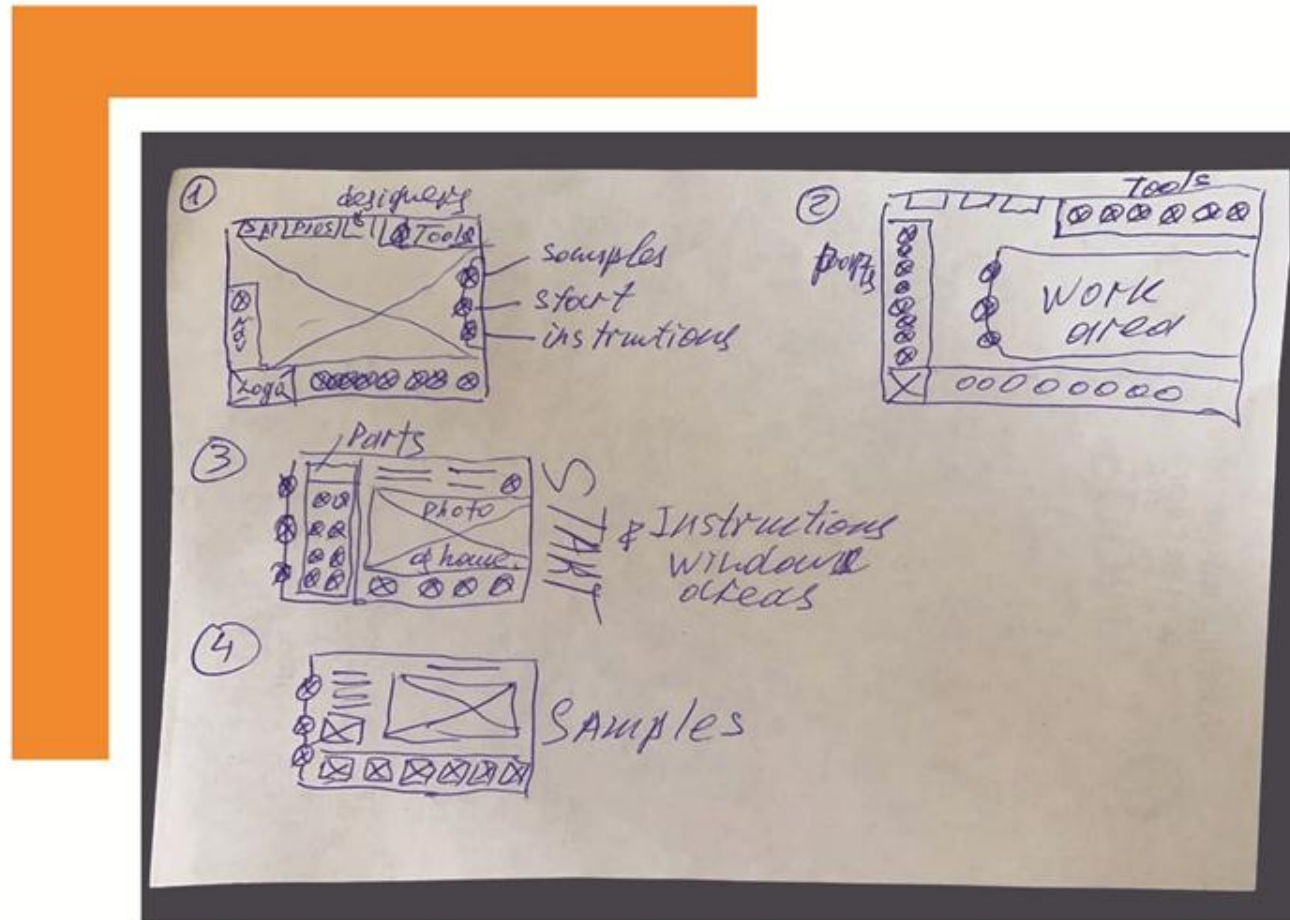
Starting the Design

- Paper wireframes
- Digital wireframes
- Low-fidelity prototype
- Usability studies



Paper Wireframes

Making some preliminary drafts of each major screen of the website on paper ensured that the elements and blocks that made it to digital wireframes will solve the users' pain points. For the home screen, I made a special accent on **main options of tools and parts** to help users save time during the design process.



Navigation

Easy navigation is one of the key points for users convenience during design process.

Easy access to navigation.



Usability study: findings

I conducted **unmoderated usability study**. This study allowed me to have updated insights, as well as some updates to the user-flow diagram, and made some adjustments to the design process.

Findings

- 1 Upload photo link (area) should be more highlighted
- 2 The “Next” button should be more highlighted
- 3 The process of adding and finalizing the anchor points should be more descriptive along with visual explanations
- 4 Additional link option for adding parts with more accents – to be added for more user friendly experience

Refining the Design

- High-fidelity prototype screens
- Mockups
- Accessibility

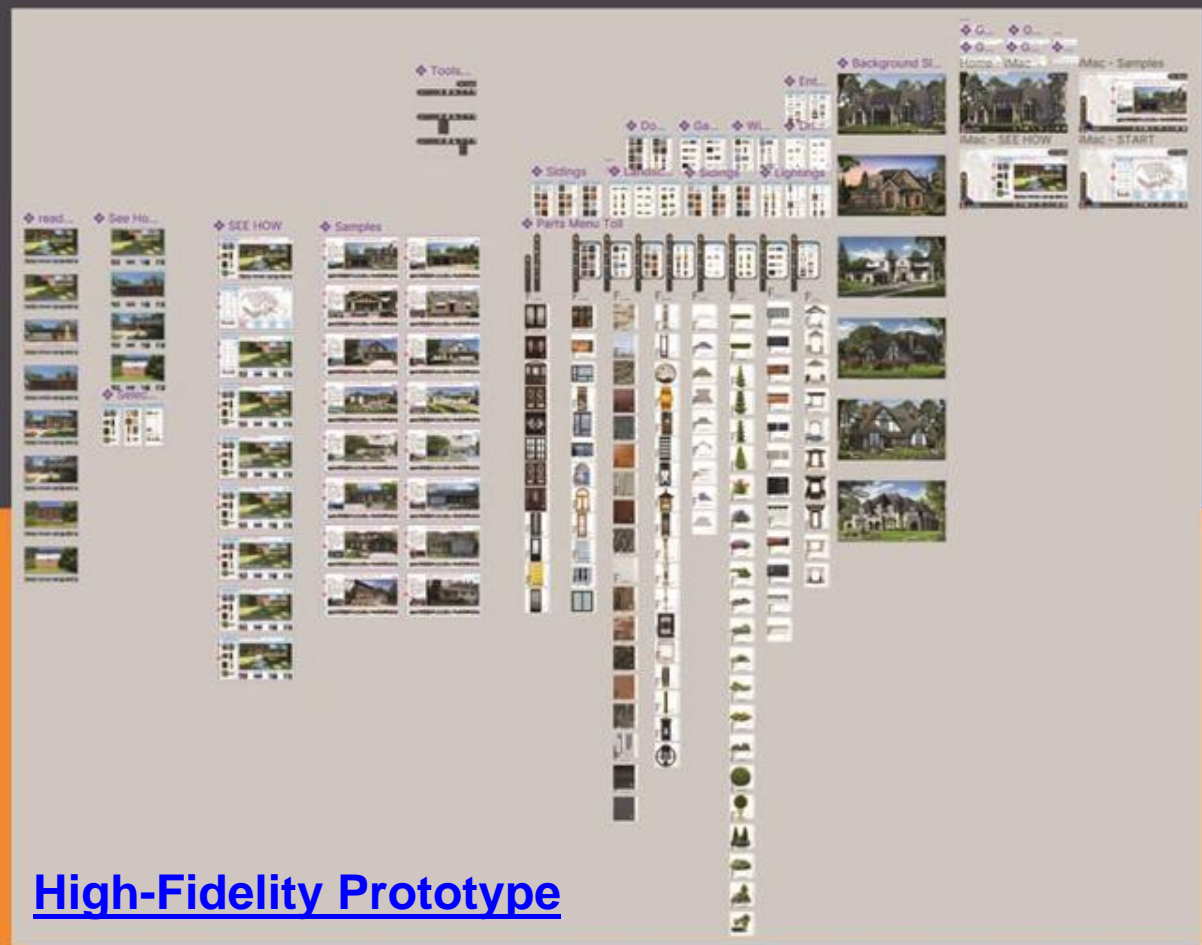


High Fidelity Prototype

The high-fidelity prototype present clear user flows for online ordering process, for desktop and mobile versions, based on conducted researches.

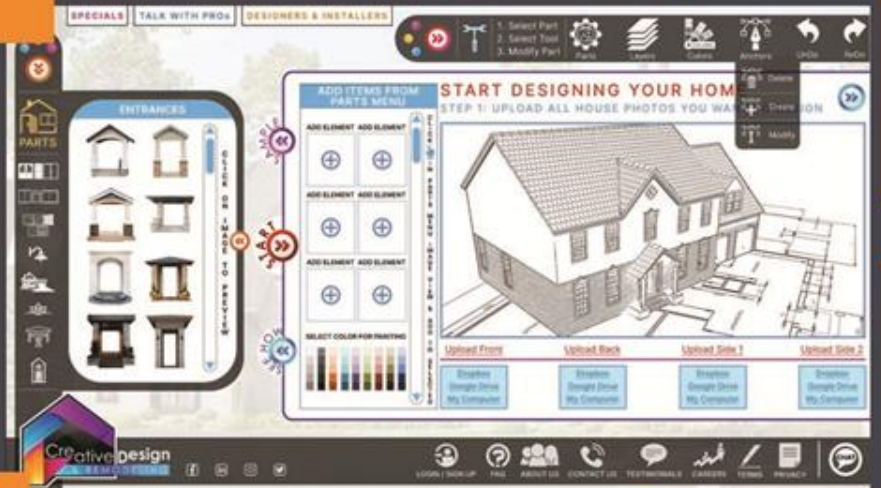
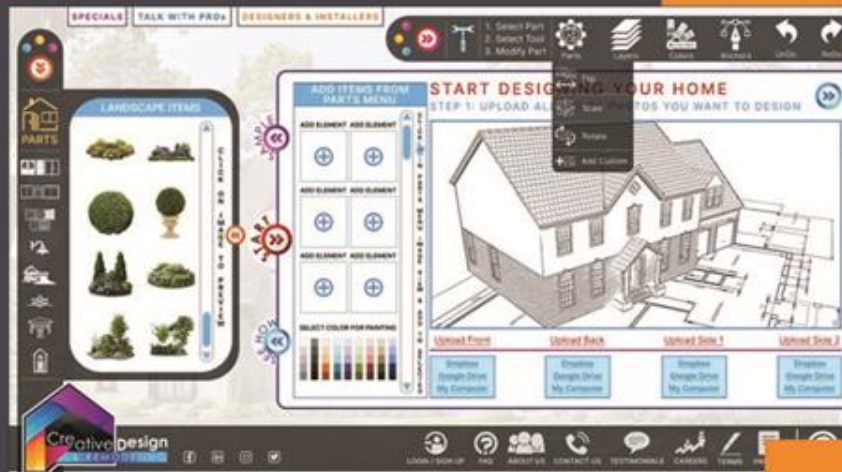
View Home Exterior Design
Tool online solutions

Desktop Version



[High-Fidelity Prototype](#)

Key Mockups (general)

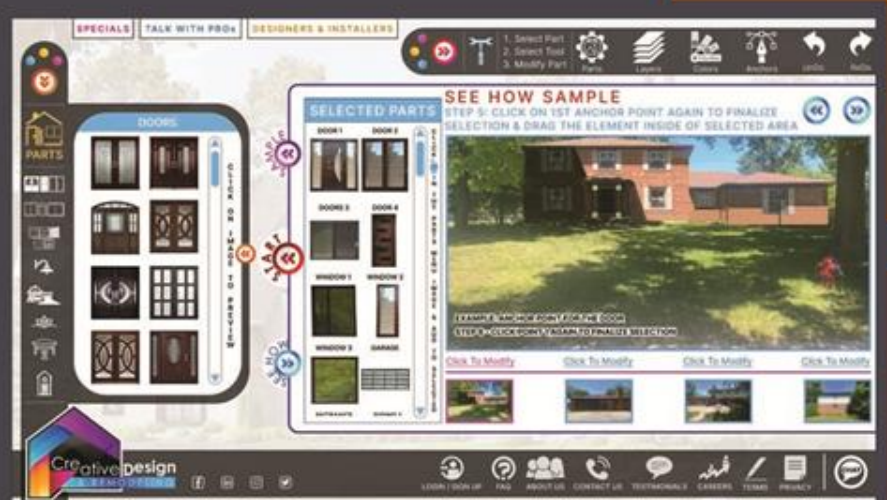


Key Mockups (work with anchor points)

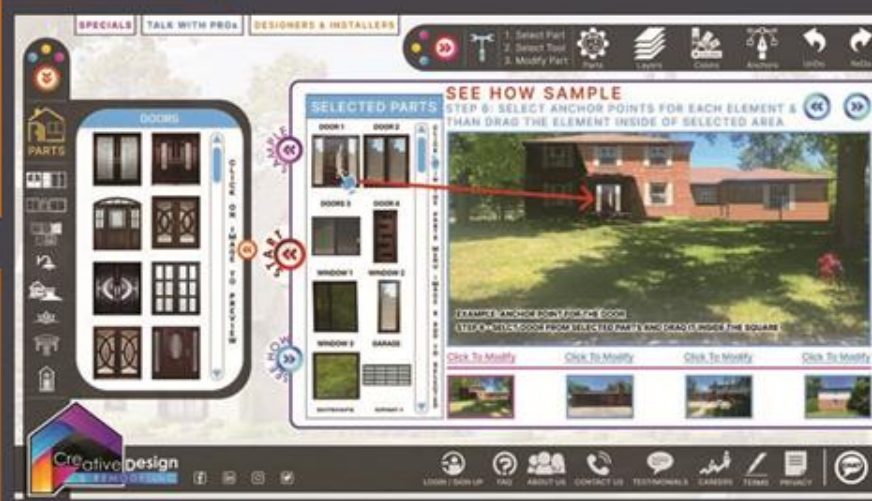
1



2



3



4



Accessibility Considerations

1

Designed and implemented features:

For users who have low vision, by implementing icons along with the text description

2

Used contrast ratio, based on WCAG recommendations, for users with vision loss equating 20/80 vision.

Going Forward

- Takeaways
- Next steps



Takeaways



Impact:

Home exterior design web solution that makes targeted users (home owners and small construction companies) and users with limited abilities feel like developers who implemented online design solutions really think about how to meet their users needs.

One quote from participant user feedback: “I love this tool a lot, very intuitive and easy to use. All you need is 5-10 minutes learning the entire design process. Only now I realized how simple and easy to create your own design of your house without special knowledge. I would strongly recommend other users including my friends to try it out!!”



What I learned:

While designing the this web based online home exterior design solution, I learned that the initial ideas are only the beginning of the process. Ongoing Usability Studies during different stages of the project with multiple iterations of the designs improves users’ experience and brings final product on much higher competitive level.

Next Steps

1

Conduct A/B testing that tested on with different targeted users to determine which features leaves the maximum impact and drives business metrics.

2

Conduct additional usability studies, after project development stage and another round of study after project kick-off, in order to validate whether the pain points of users experienced have been resolved.

Let's Connect!



Thank you for reviewing my work of web based Home Exterior Remodeling Tool Solution!

Should you have any questions, concerns or new ideas to implement, please don't hesitate to contact me directly and I'll be happy to discuss it.

Best Regards,

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Thank You!

