

Mobile App Development Proposal

Find the Perfect Handyman

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Click and Fix

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Executive Summary

Problem Statement

The cost of house repairs has increased over the last few years including an increase of 25% in the first three months of 2022 alone, 41% of people said they were going to wait to fix their home repair needs, and 27% of homeowners looking for repairs said they are taking equity from their home for repairs (Olson). The rising cost of material and labor with the added cut big companies take from products can cause many people to be unable to afford home repairs. Customers might turn to “Facebook marketplace” or “Kijiji listings” for private labor to do their home repairs but this can cause many transaction problems for both parties such as hidden fees, contractors not getting paid, bad jobs done, and more.

Proposed Solution

Click and Fix offers a new way for customers to get connected with certified laborers in their area on a secure and safe system. Click and Fix looks to become 20-50 percent cheaper than hiring a business to do the work. We offer a secure system that makes sure both parties are safe and secure in the private transaction. The transaction is motored both by AI and customer service reps to make sure the transaction goes smoothly. Our app caters to homeowners who cannot afford home renovations due to the increase in pricing that has been taking place. The future for this app has a lot of value as more and more options are becoming private such as taxis and hotels. With our app, we want to eliminate the huge fees business charge for connecting you with one of their employees, and the fear of hiring a private contractor in case something goes wrong.

Company Description

What is Click and Fix

Click and Fix is a mobile handyman app. We look to connect lower to middle-class customers with verified handymen to fix various projects around the house. We focus on four main groups of work drywall, plumbing, painting, and landscaping (Handyman & Contractors). We have chosen these four to start our app and will develop more options once the app is up and established to not overload the process and the user during the initial launch phase.

Mission Statement

To connect people with an affordable and experienced handyman in a safe and secure environment.

Goals and Objectives

-Increase unit sales by ten percent each month for the first year.

Key Result: Reduce customer confusion with the app by making navigation easy for beginner smartphone users

Key Result: Increase customer knowledge of the app by having strategic target marketing on social media for customers and contractors.

Key Result: Follow up with customers' feedback and implement changes as needed

-Have competitive prices compared to conventional "Handyman" Businesses

Key Result: Maintain our bidding system to stay competitive.

Key Result: Only hire experienced contractors

Key Result: Maintain market research and compare prices to other businesses in the industry.

-Have a safe and secure transaction environment

Key Result: Maintain a 95% success rate at certifying contractors' certificates.

Key Result: Inform customer service agents on how to probably address dispute situations and lower disputes to under 5% of transactions.

Key Result: Have positive feedback from customers at 85% rating after the transaction.

Business Philosophy:

At Click and fix our philosophy is to provide customers with a safe and secure environment to connect with handymen in their area to provide cheaper services compared to going through a business. We strive for customer and contractor safety and provided measures to ensure all transactions are handled safely. We believe all transactions should be handled safely and that neither customer nor the contractor should be worried about a deal going bad.

Target Market:

We look to target homeowners and business owners of a property. The focus will be targeting lower to middle-class owners.

Description of the industry:

The industry for home fixes is becoming more critical. The need for a more affordable option for home repair is needed in the market. The cost of housing and living has greatly increased over the last three years and a need for a cheaper safer solution compared to a conventional business for house repair. In the short term, there seems to be a need for house repair in the market with the target market of Winnipeg many people have bought new houses in the last few years that need to be renovated. In the long term, we see that interest rates for housing are becoming more expensive and this causes a need for cheaper solutions to be needed for house repairs.

Company Strengths and Core Competencies

The strength of the company compared to “Facebook Marketplace” or “Kijiji” is the secure environment we provide to our customers and contractors to make sure neither has an issue with the transaction. This will make our company more successful and trustworthy. Our major competitive strength is the convenience and stress-free nature of our app for finding a trustworthy contractor. We bring key skills in marketing, sales, web-based design, and customer relations to make our product stand out.

Products and Services

Click and Fix provides an environment where we connect people who need services in drywall, plumbing, home painting, and landscaping. We connect our customers with reliable

certified contractors who provide the service. A customer will post a service description on our app where contractors will bid for the job. An example of this is someone needing to fix a drywall hole they can offer to pay two hundred dollars to fix the drywall. The contractor will bid on the job and describe to the customer what they bring to the table such as work experience and quality of service. The customer picks the contractor based on experience, contractor rating, and the price the contractor offered. If supplies are needed it is up to the contractor to determine the price of supplies need to complete the job. The payment is taken from the customer before the job is started and paid out to the contract after the job is completed and quality service is confirmed. Quality service is confirmed if both parties agree on the app that the service has been fulfilled to satisfaction. If the customer says the job has not been fulfilled to their satisfaction, they can dispute the charge. Customers will normally provide pictures and descriptions of what is wrong with the job. Afterward, if the contractor says the job was completed as described it will be sent to our resolution center for customer support. The customer support looks at the pictures and other descriptions the customer provided and will decide to refund the customer and not give the contractor their payment if the job is within reason not done correctly. If it has been fulfilled the customer will not be refunded. If there is any doubt in the customer service mind on the job quality both the customer and contractor will receive the value of the job and the claim is opened with the insurance company for the price of the job. If the contractor comes to the job site and finds the job is extremely different or requires a lot more labor and material than listed, they can open a "change in order" option to provide new details and information with a description and/or pictures of the job site. If the customer cancels or does not agree to the new price needed, they will be charged a 10% service fee for the contractor to come out. This can also be disputed in the claims department. The contractor is determined to be certified by uploading a certificate to the app when signing up for a job position. The app AI will confirm the certificate's authenticity.

Factors that give us a competitive advantage compared to other companies is the safety system we have provided to both contractors and customers regarding home repair. We include a security system to make sure all transactions are secure for both parties. We provide a system in which both parties know what to expect from the transactions about pricing as a price is determined beforehand there will not be any hidden fees for either party. The disadvantage to the system is the same level of risk for the customer and contractor as "Facebook marketplace" or "Kijiji" with the risk of going into someone's house that you are not familiar with there is always a level of risk for both parties.

The pricing structure of the product is determined by the customer and contractor and the app does not get involved with pricing. The fee we charge is 20% of the total cost which comes from 10% added on from the customer and 10% taken away from the contractor. We do have insurance on all our transactions which requires 10% of all transactions to be covered.

Insurance Plan

Insurance on each transaction is a vital part of our company. For this, we will be setting up an account with Hub International insurance. They offer packages for small businesses which will cost forty thousand for an account per year and ten percent of the insurance price (HUB). This will benefit our company to not take losses on high-risk transactions and the price is justified in this manner. When a transaction is disputed, and the customer service agent finds the transaction to need insurance due to not enough evidence to not pay the contractor in addition there was not enough evidence to prove the customer was at fault. The insurance company will pay out the amount and pay the contractor well we will refund the customer. This works for us as in these situations we will still break even.

Marketing Plan

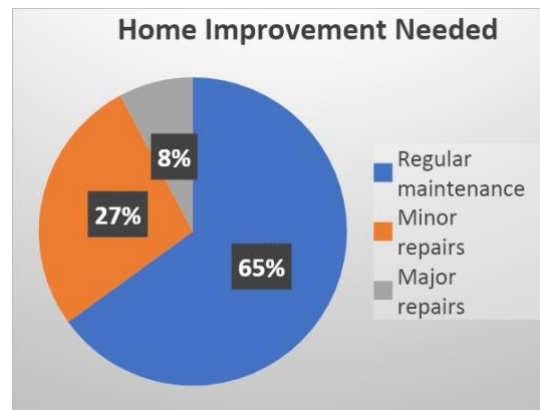
Market Segmentation

There are two distinct market segments that we came across while researching, homeowners and property managers. These are the most suitable and attractive customer segments as they are the customers who have small repairs that are too small for a contractor but too complicated for the owner to perform themselves.

Target Market and its total size: The target market is the people who either have their property such as houses or are living in apartments. Our app will help them find a handyman for small repairs and fix them within a reasonable price. There is a total of 281,045 households in Winnipeg, 64.9% of which are owner-occupied and 35.1% of which have renters living in them. 65.0% of the houses require regular maintenance, major repairs constitute about 7.8% while 27.2% are minor repairs.

Figure 1.

Circle Chart of the home improvement needs of the households in Winnipeg.

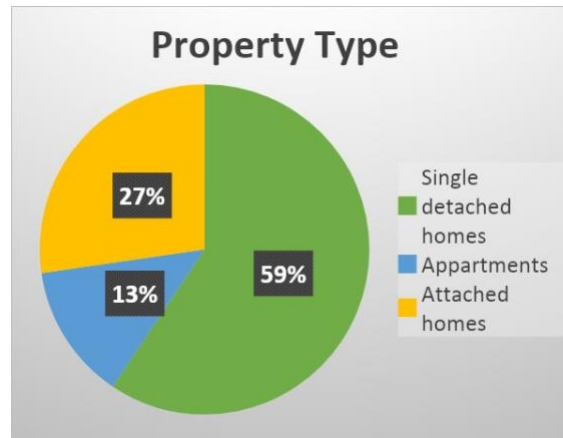


Note. Displaying screenshot of Home Improvement needed source (Statistics Canada)

The proportion of property type in Winnipeg is as follows: much of the proportion is of single-detached homes which are around 166,960. Followed by the attached homes which are approximately 76,730 in number and lastly the apartments which are nearly 36,375.

Figure 2.

Circle Chart of the property types in Winnipeg.



Note. Displaying screenshot of Property Types of Winnipeg source (Statistics Canada) Homeowners:

- The value of the homes ranges generally between \$150,000 – \$650,00.
- 47% of homeowners attempt to make small repairs themselves, often starting the repair and realizing that they do not have the skills to complete it. The remaining 53% do not attempt to repair it, they call a professional from the start.
- 62% have owned their home for more than two years.
- 73% wait until several small problems accumulate before they call a handyman. This behavior can be explained by not wanting to incur a large upfront charge just to have someone fix one thing.

Note: The data mentioned above have been summarized by using *Statistics of Canada* website while considering many factors into account.

Current demand in target market: With the high prices being charged for small repairs and services, there is a need for an alternative in which these fixes can be done at a minimal cost. Also, handyman companies require people to be skilled in most services in order to reduce their employee count and have a minimum of people who can do multiple tasks. This makes people skilled in one area to be left out. Therefore, there needs to be some business that connects people who need repair to people who have the skill set to do it.

Services Offered

The mobile app will allow users to list small basic jobs for tradesmen and craftsmen that a customer may need around the house. The business will offer employment for skilled people along with offering services such as repairs, maintenance, plumbing, tiling, fixing drywalls and other common household things. These will be works that some may not be able to complete because they have hectic schedule, or they need help from someone. This is when our app will come handy.

Feature: The most important feature of this business is that it is customer-to-customer, which means that there is no middleman involved. The customer lists the repairs which he wants to have fixed and then chooses his handyman by himself at their own reasonable price. On the other side, our business is offering employment to people who are skilled to handle these repairs and fix them to meet the customer's demand.

Benefits: The benefits perceived by the customers are quick and easy repairs for small tasks which they find hard to do by themselves. Also, the rate charged for the service is much low as compared to other handyman services in the area. People tend to wait until they have bunch of repairs which needs to be fixed or a major task along with small repairs, to call a handyman and look for services offered in their area. This is because of the high labor cost which is charged to them which often exceed the repair cost. Our app will reduce the thing of piling up minor repairs and will provide instant solution of fixing them by handyman at reasonable price.

The after-sale services that we have incorporated into the business include help support via phone and app messages which is handled by the customer representative. Also, a follow up email will be sent to customers to have their feedback and opinions about the services and the handyman who did their work. They will also be presented to rate the handyman and leave any comments for him to look for.

In addition to these, we have a refund policy that if the work that was intended to be completed in a certain way was not accomplished

Customers

Geographic: The current target market will be people residing in Winnipeg, Canada. We would scale the model further to cover the province and then the whole country. Due to the harsh winters in Winnipeg, it is difficult for some people to repair or call for maintenance of small things, this is where our application will come handy.

Demographic: The common demographic variables such as age, income, property type will be used in determining the marketing. The target customers will be versatile in age but generally adults ranging from 20- to 90 years old. The other factor property type will help differentiate among the people living in houses and apartments, and if they own or rent the property. Income will help understand the budget of individuals and set the minimum rate of the services accordingly.

Psychographic: People tend to neglect small damages because the service charges are higher than the maintenance charges. To avoid paying higher service charges people call for serviceman when they have multiple repairs to do or when a large repair which needs to be fixed. To break this psychology of their minds, our app will provide them the with the small repairs fixed in reasonable time and at reasonable cost.

Competition

Generally, the handyman industry competes with the contractor industry for home repair jobs. Handyman are used for small items, while contractors are typically called for more extensive projects.

However, as we are providing jobs to people having skills to fix things and can-do certain tasks, along with services to people, the main competitors following this approach are Kijiji and Facebook marketplace.

Unlike the traditional form of hiring a handyman to work on your home where the customer puts too much trust on the worker when looking through local listings like Facebook marketplace or Kijiji where the worker and customer could come into problems with payment and job ethnicity. Hiring a professional through a registered business can be expensive, time consuming and runs into the problem of upselling for more work needed. The Handyman is the perfect middleman for small home repair offering a secure, safe and cost-effective environment for customers and workers to connect for small jobs.

Indirect competitors will be the handyman companies that offer such services. However, the key difference is that these companies employ few people who are experienced in several repair services. While our model offers work to skilled people who want to earn extra income by using their skills and offering their service to people near them.

One such competitor in Winnipeg which provides such services is "Handyman Connection". This company recruits few skilled handymen who can fix and repair almost everything a customer demands. We will have an edge over this company and similar companies as we offer quick service at a relatively cheap price which people can afford. We are aiming at reducing the friction to think and look for handyman to get the things done. With our app, it would be possible as they will not pay huge amount of money for service charges for small repairs.

Figure 3.

Table for Competitive Analysis of our two most important competitors.

Factor	Click and Fix Handyman	Strength – Weakness – Opportunity – Threat?	Kijiji/Facebook Marketplace	Handyman Connection
Services offered	The services offered include small repairs and fixes that needs to be done that are too small for contractors to fix.	Strength	These platforms provide services based on a job listing which a certain person performs and the customers must choose among those only.	The services offered by this company are limited to certain tasks while small repairs are not addressed.
Price	The price for the service is decided based on the bids made by the handyman registered on the app. Price will most likely be less than the competitors.	Strength	The price on these sites is fixed which are set by the service provider. Sometimes a negotiation can result in lower price but with minor difference.	The prices are fixed with no negotiation.

Quality	The quality of service will be excellent with focus on dealing with customers in a friendly manner in order to get future work from customers.	Opportunity	The quality of service depends on the person offering the service usually, with no guarantee.	The quality of service is exceptional as these are professional handyman.
Selection	The users of the app can choose the person they would like to have their work done from. It entirely depends on customer to choose among the bidders for their work.	Strength	Although, customers can choose the handyman for their work by themselves, the choice is limited when it comes to the low/reasonable price.	The customers can not directly choose the handyman by themselves, instead the company sends their employee based on the type of work to be completed.
Reliability	As our services is new, many people are not aware therefore, trusting a new business many seem daunting to some while, others will see this as an opportunity to try new services. This will slowly build trust in the community thus making it as a strength.	Threat	These platforms have gained the trust of customers over the years. However, the listings of handyman services are not trusted by people to great extent.	Although the company is reliable and has gained trust from people, still due to high charges people do not feel confident about having their services.
Advertising	The most effective advertisement in such business is mouth to mouth referral which will be established once trust is gained by the business. The ads will be run on social media channels with proper use of SEO to reach its potential audience.	Opportunity	These platforms need minimum advertising as people have already been using them. However, to pace with its competitors, they engage through social media ads.	The business is well established in the area still, not all are aware of its services. They use SEO techniques to rank their business listing during searches.

The competitive advantage of the Handyman is we eliminate the trust issues with home repair.

Handyman handles all the payment and makes sure both parties are happy with the outcome before payment is made. We offer more value to the workers as they know how much they will be getting paid for their work before the job starts so there aren't any surprises. We add value to the customer as they know how much the job is going to cost before the work starts, as well as making sure the customer is happy with the work done. We add value to both customers and workers by providing an easy-to-use

interface for customers to post their home renovations required and workers can bid on the job, allowing the customer to get the best price for their desired work. The customer does not need to shop around for the best price or look at reviews of the workers previous work as this is all done on the app allowing the customer to get the most value for their time. The worker also gets to see reviews from the customer beforehand to make sure their comfort level is met.

Marketing Strategy

The niche that the company best fits into consists of repairs and fixes in house which may seem complicated to customers. Focus will be in providing services for plumbing, drywall fixes, electrical services, flooring, remodeling of items and fences for houses. These will help us in setting a minimum rate for the services and in the long run will help the company to build its reputation for the services it offers.

Marketing strategy will follow omnichannel marketing approach. The channels that will be focused while marketing are blogs, social media: Facebook, Instagram. Omnichannel strategy will allow to gain the attention of customers from different channels and convert them into our clients. This approach allows the company to reach to customers where they want to get the services. It involves touchpoints of every channel to provide a great customer experience and communicating with them in a way that is in tune with the channel they prefer to use. Omnichannel involves all the channels and revolves around the customer thereby increasing the sales.

The budget for marketing is \$50K which will be used for promotions and creating content to present to the people in order to make them aware of our services. The use of referral marketing will be made to provide high quality information to the potential customers and trying to get them act. People have high tendency to act when asked by their friends or family. Close examination of customer behavior in the app could result in certain points which the company might use to increase its sales. It will help in examine which services people need the most and offering them a deal to close the sale.

Email marketing will also be used to keep customers in touch with the deals and offers that are being offered by the company. It will also help keep track of whether the customers are acting when they are given a deal, their response and ultimately of they are opening the email or not.

Social media marketing is effective in today's time as everyone browse through the media several times a day. Promotion of the company using Facebook ads and several Instagram posts containing information in an appealing manner to gain the trust and customers will help build a community for our company.

Print media such as flyers and banners will be used to target the market segment which are not active on social media and rely on information through paper. Flyers will be distributed in certain hotspot areas such as malls, grocery stores in local market where many people can have their eyes and will know about the services.

The customers of this segment usually rely on calling whatever service provider they are familiar with, regardless of the appropriateness. Most of the customers consider word of mouth referrals. People ask their neighbors, friends, family members and other property managers for recommendations on

handyman service providers. Therefore, the service provided to one customer is most likely to generate a lead and get an opportunity for new customers. The focus will be to capitalize on word-of-mouth marketing by going the extra mile to keep customers satisfied. Exemplary service will result in new and repeat business.

In comparison to the competitors such as Facebook marketplace and Kijiji, both have their services listed at a certain price which the customer can negotiate to a certain extent and does not have many options to choose from. However, in our app it's the registered handymen who bid on work posted and the customers have flexibility to choose any of them they like. Price will depend on the negotiation between the customer and the bidder. There is no fixed price which is listed for the service unlike Kijiji where they have their rates fixed for services. Overall, the services will be charged less price when compared to the competitors.

Break-even analysis:

- Fixed cost: Some of these costs will include domain registration fee, business email setup, logo design, salary of employees, contracts with third parties, utility bills, insurance.
- Variable costs: these will include hosting of the website on the platform, analytics reporting, data backup, hosting charges which are subject to change. Also, most of the advertising techniques are variable as it will depend on the area of focus and the target audience.

Note: through detail has been mentioned in financial plan

Distribution of services: The app will work by customer listings and describing what kind of service they need and the work that needs to be done in their home. Local skilled tradesmen will bid on the job and the customer will pick any one of them based on price and experience/ rating who they would like to hire for the job. The price is a predetermined amount that is set by the handyman who bids. However, a general listing of maximum rates will be given to the handyman for the services offered, but the amount may vary depending on the complexity of the task and the time which is needed for its repair. All payments will be done through the app and will be held for some time to ensure the service has been provided efficiently to the customer.

Sales Forecast

Figure 4.

Sales Forecast for October, November, and December 2023.

Unit Sales	Oct 2023	Nov 2023	Dec 2023
Drying walling	200	225	300
Plumbing	140	150	300
Painting	250	400	500
Landscaping	250	200	200
Total Unit Sales	950	805	1300

Unit Prices	Oct 2023	Nov 2023	Dec 2023
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Drying walling	200	200	200
Plumbing	250	300	200
Painting	220	150	140
Landscaping	220	200	200
Average Unit Price	195	212.5	185

Sales	Oct 2023	Nov 2023	Dec 2023
Drying walling	40000	45000	60000
Plumbing	35000	45000	60000
Painting	55000	60000	70000
Landscaping	55000	40000	40000
Total Sales	185'000	190'000	230'00

Note: price varies by job the average price per job has been calculated. See Twelve-month profit and loss projection

Note: Landscaping typically decreases in the winter. This causes sales of this service to decrease and the average service price to decrease as well due to the lower number of services needed.

Operational Plan

Organizational planning refers to identifying the immediate and long-term objectives of the organization and formulation of the strategies for achieving it, once the strategies are made thereafter the resources are allocated and the responsibilities are assigned.

Relation of Operational Planning and Budget Planning: The relation between operational planning and budget planning is that for each decision of the operation certain cost is to be incurred; hence the budgets shall allocate the amount that is approved for the activities which shall be undertaken to achieve the operational goals.

Customer Service

We are going to outsource customer service. By outsourcing the customer service team, we can focus more on our major areas of the business.

For Click and Fix Handyman, customer service is responsible for taking care of customer's complains, troubleshoot, service issues, bad/good service, payment declines etc. We would have an associated pending account which will keep the money from customer into it. After the service is done completely and respectfully, that money will be taken out from the pending account and handyman will get paid.

From the customer's payment, we would also be going to put 10% of that amount into the insurance account. The insurance will cover all the returns which could be due to unsatisfactory service etc. The company named "SUPPORT YOUR APP" does have an excellent customer service team with affordable prices. Eventually, they will be the best fit for our business.

Production Techniques and Costs

Product and service are two important components on which the whole market depends. They are the basis of every dealing or relationship in the market between sellers and buyers. However, we are offering services instead of selling products. Our company works with the inherent services which will be the major operation of our app. For example, if Person has an issue while fixing an air conditioner, there would be attached services available on our app for its easy installation at home. services don't need any packaging; they can be offered plainly. Product and service may differ, but they are part of the same market and describe the same association with an individual, i.e., give and take.

Production technique will include:

- **Pre-design:** This is our research and analysis phase. We will understand the problem and identify key components.
- **Wireframes:** For our app login screen, we will also have to branch out to registration and forgotten password screens. The wireframe will show how those connect, and all the places' users can go next from those screens.
- **Design:** At this stage, we will make designs for all screens in the app, possibly separate for the iOS and Android versions; and an interactive prototype, which can be installed on any number of devices.
- **Development:** This stage will focus on building an app.
- **Testing:** we provide support and insight, particularly for B2B or internal apps is by conducting field visits, to see how the app performs in real life, out in the wild, with its intended users. user feedback and our own years of experience, we can produce a report of recommendations for potential updates and enhancements based on current usage patterns
- **Release/ implementation:** All done, launch the app.

Product Development

App development: We are going to hire on of our friend Har Noor Sidhu. He is currently working with the "Nature Multimedia" company who designs websites, app and many more. He was also a former student at the university of Winnipeg in 2021. Their charges are at around 12000 CAD. However, he is willing to give us a discount offer for 10%. While the cost of app development in Canada is around \$30K. But because it is for online services and we don't need any physical store, it will be 15K approximately.

Service Production

Our “click and fix Handyman” app has the major production process which is the service production. This process entails automating a certain service to customers. We would have several services and employees available on our app that allow customers to request and receive assistance. If customers experience issues with one of the company’s technical products and need additional guidance on how to use them, they can quickly access resources and materials to answer their questions if the support team is currently unavailable.

Web Plan

Figure 5.

DATA TABLE

ACTIVITY NO.	TASKS	START DATE	FINISH DATE	DURATION
1	Creating plan	2022-09-15	2022-09-19	4
2	Database design	2022-09-09	2022-10-14	5
3	Domain name registration	2022-10-10	2022-10-18	8
4	Find web hosting server	2022-10-23	2022-10-25	2
5	Site content preparation	2022-10-18	2022-11-20	2
6	Building a website	2022-11-30	2022-12-01	1

Domain Name Registration

We are going to name our domain as “*clickandfix.ca*”. Our team did some research and on godaddy.com found the best domain name which can be easily navigated by the users. The link is as ca.godaddy.com/domainsearch/find?checkAvail=1&domainToCheck=clickandfix. The cost was just few cents.

Website Design and Development

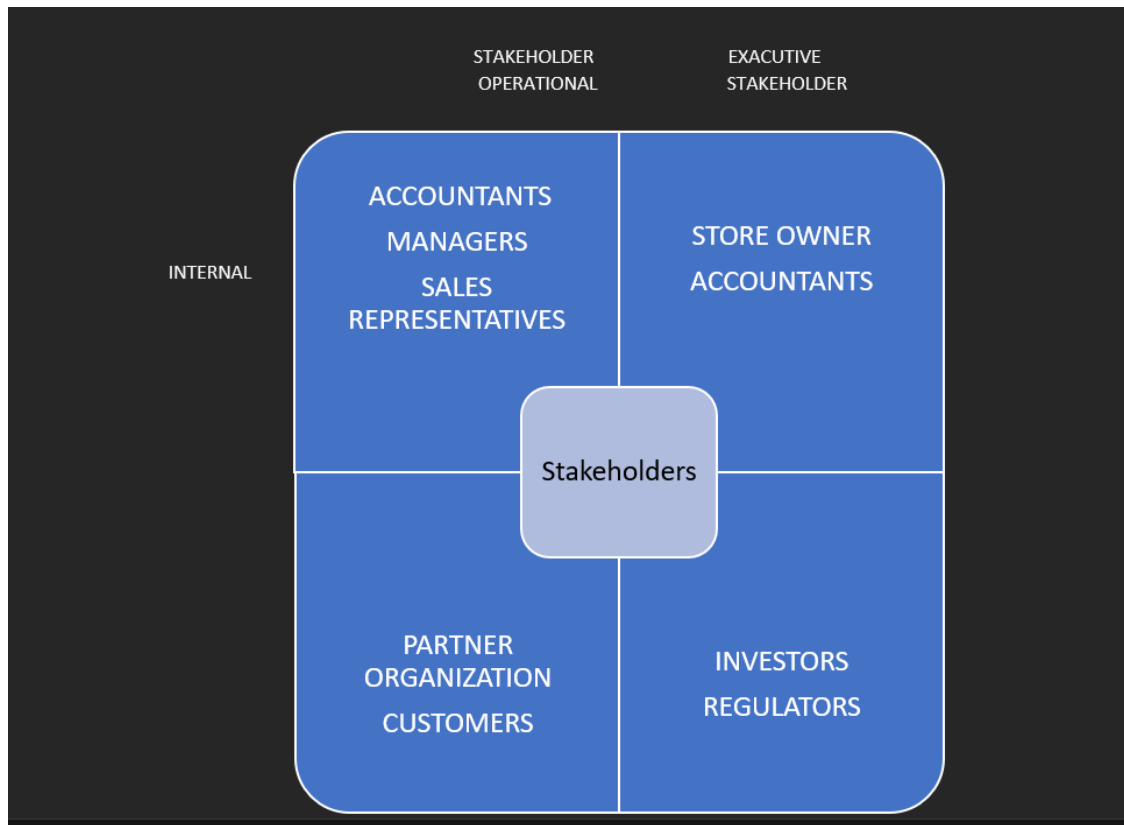
Figure 6.

table identifying all relevant user groups for your system

USERNAME	DEPARTMENT
Evan	ACCOUNTING
Shubhdeep	DEVELOPERS
Shubhdeep	SALES
Ramanpreet, Shubhdeep, Evan	PROJECT MANAGERS
Shubhdeep	MARKETING
Ramanpreet, Shubhdeep, Evan	MANAGEMENT
Ramanpreet	TECHNOLOGY
Evan	FINANCE
Ramanpreet	CUSTOMER SERVICE
Customers	GENERAL USERS

Figure 7.

Chart showing the internal and external stakeholders



Major/Internal/External Stakeholders:

- Customers
- Employees
- Sales, Marketing and Accounting Departments
- Vendors
- Store Operators

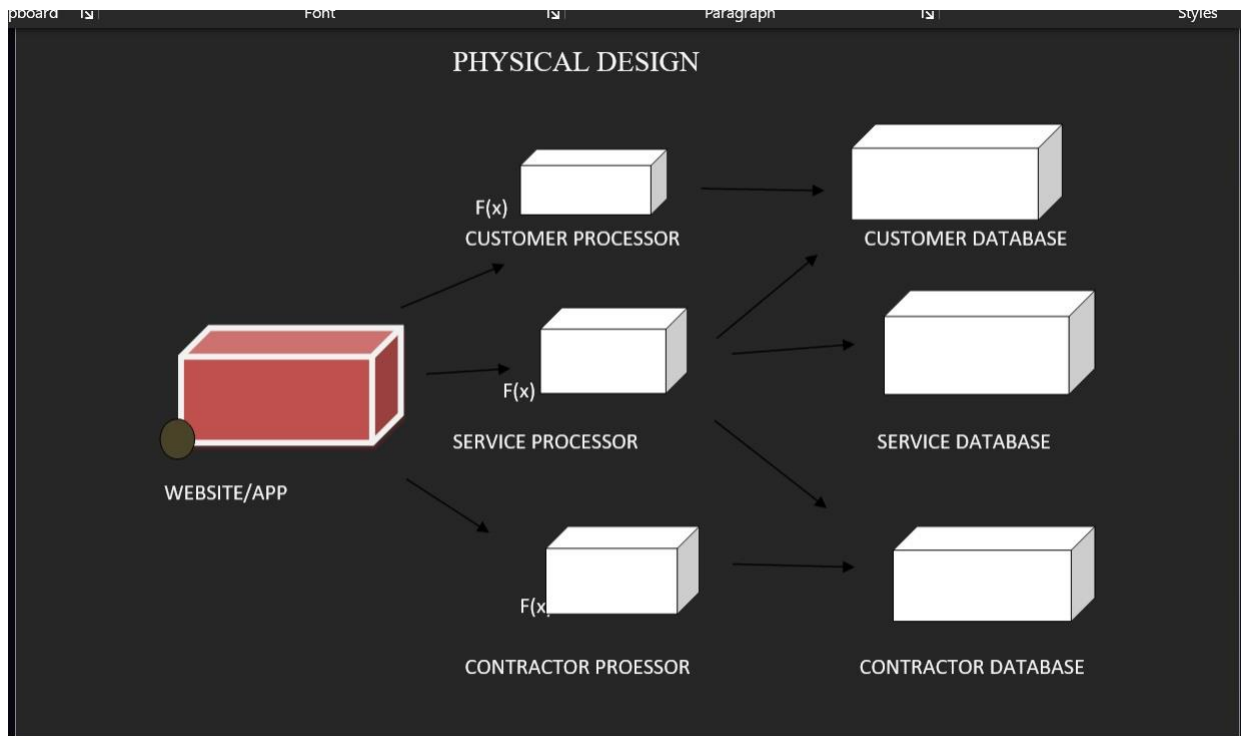
Managers Operational Stakeholders:

- Accountants
- Marketing Departments Executive Stakeholders
- Sponsors and advertisements
- Store operators
- Store Owner

Logical and Physical Design

The logical design is the blueprints or layout, and the physical design is about the hardware and how it plays out in the system. We have also learned that the logical design does not change even though the physical design does change when hardware changes. The hardware may change, evolving the physical design but the processes and functions stay the same. Physical design for customers, services and contractor is displayed below using diagram:

Figure 8. Physical Design Diagram showing website process and components

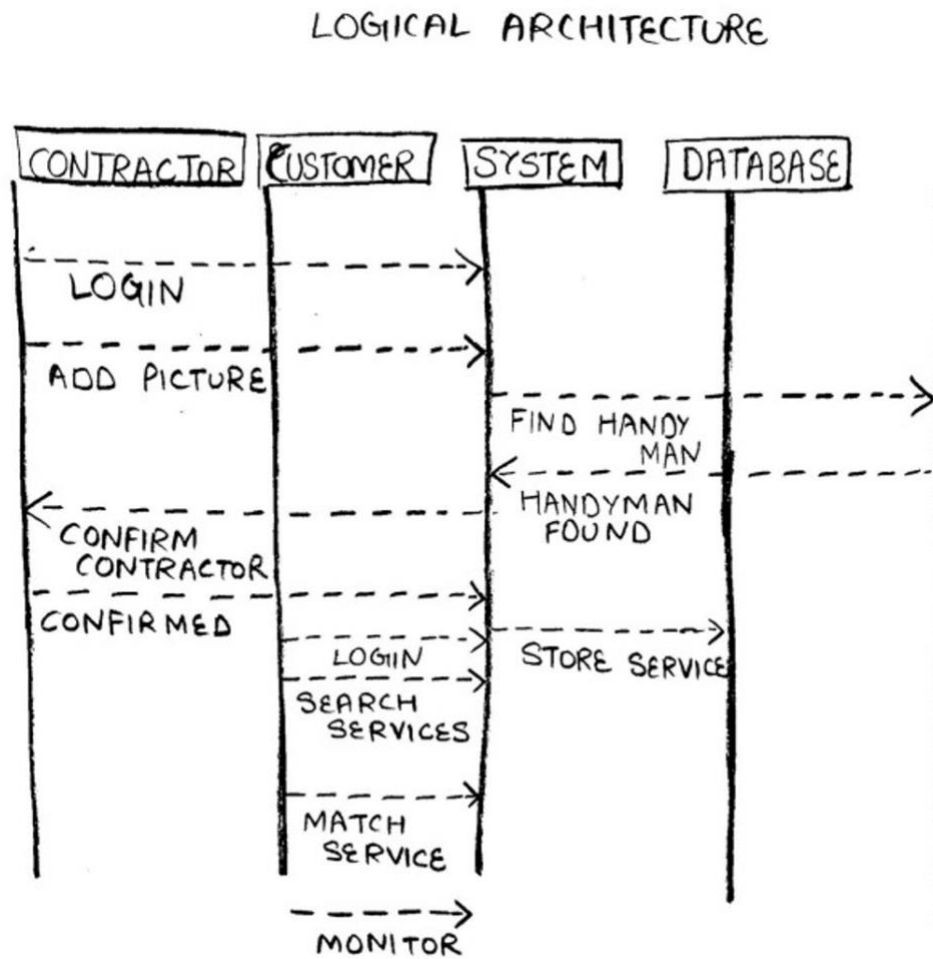


To represent the components of a logical architecture is to place them in access zones that show how the architecture provides secure access. The following figure illustrates access zones for deploying Java Enterprise System components. Each access zone shows how components provide secure remote access to and from the Internet and intranet.

Logical Architecture

Figure 9.

Logical Diagram showing the flow of our website

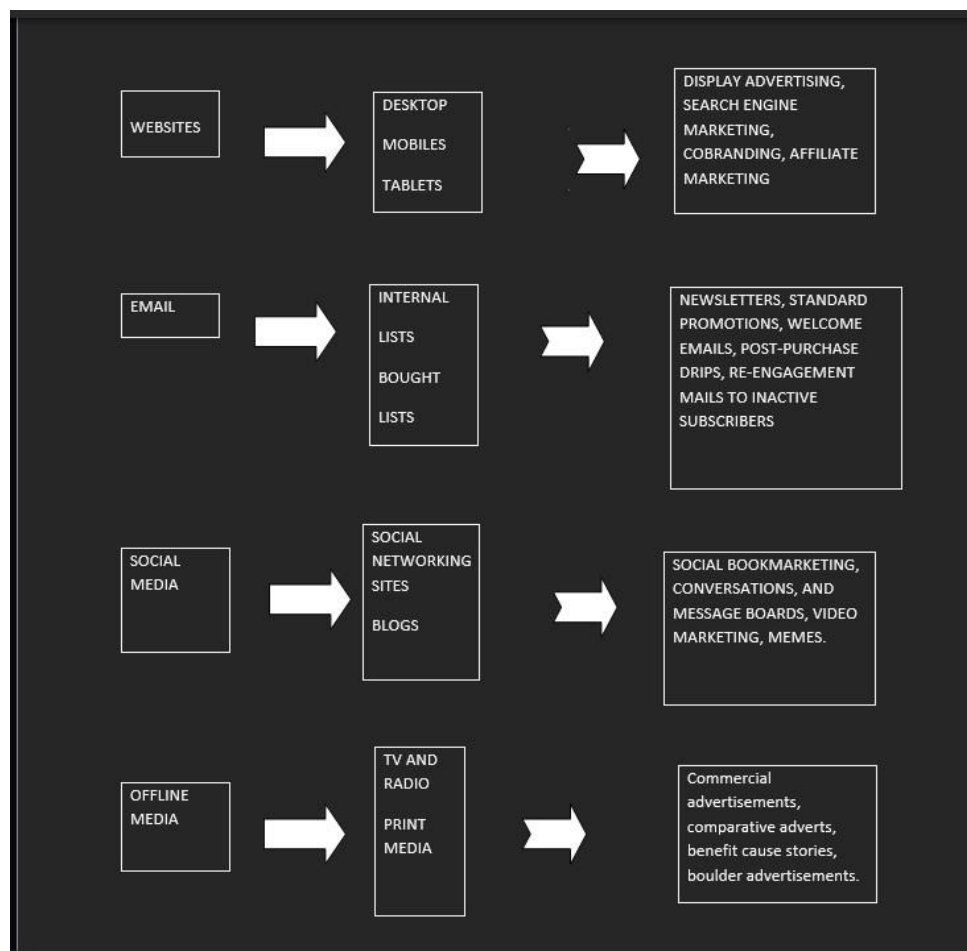


Access Zone	Description
Internal access zone (Intranet)	Access to the Internet through policies enforced by a firewall between the intranet and the Internet. The Internal access zone is typically used by end users for web browsing and for sending email. In some cases, direct access to the Internet for web-browsing is allowed. However, typically secure access to and from the Internet is provided through the external access zone.
External access zone (DMZ)	Provides secure access to and from the Internet, acting as a security buffer to critical back-end services.
Secure access zone (Back-end)	Provides restricted access to critical back-end services, which can only be accessed from the external access zone.

E-Commerce Presence Map Outline

An eCommerce presence map demonstrates the “touch points” (*or virtual places*) where online firms can meet with their customers. Various marketing platforms are shown along with a list of related marketing/promotional activities to enable firms to deeply consider the various options they have in developing their eCommerce presence.

Figure 10.
eCommerce Presence Map



Site Map

Click and Fix follows a Horizontal marketing system in which it has taken the capabilities of Google, which is a completely different industry, however, has benefit for the company in providing superior services to its customers. It has followed the horizontal marketing system in which both Google through its data management business and click and fix handyman through its maintenance, repair type of services has provided superior experience to the customer and identified their need for at residential or non- residential services for property owners and many more.

Figure 11.

Site Map for option 1 for Click and Fix

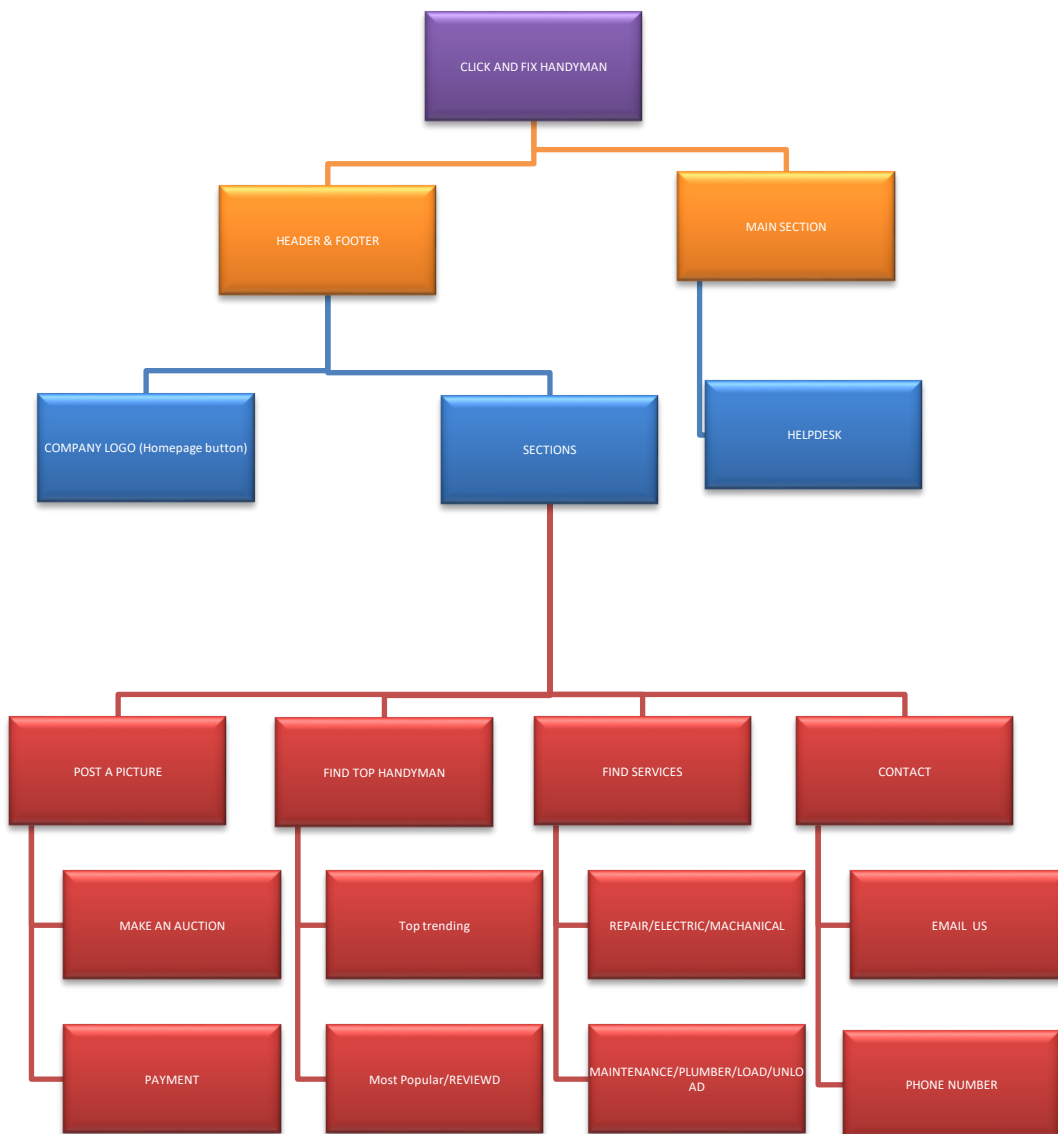


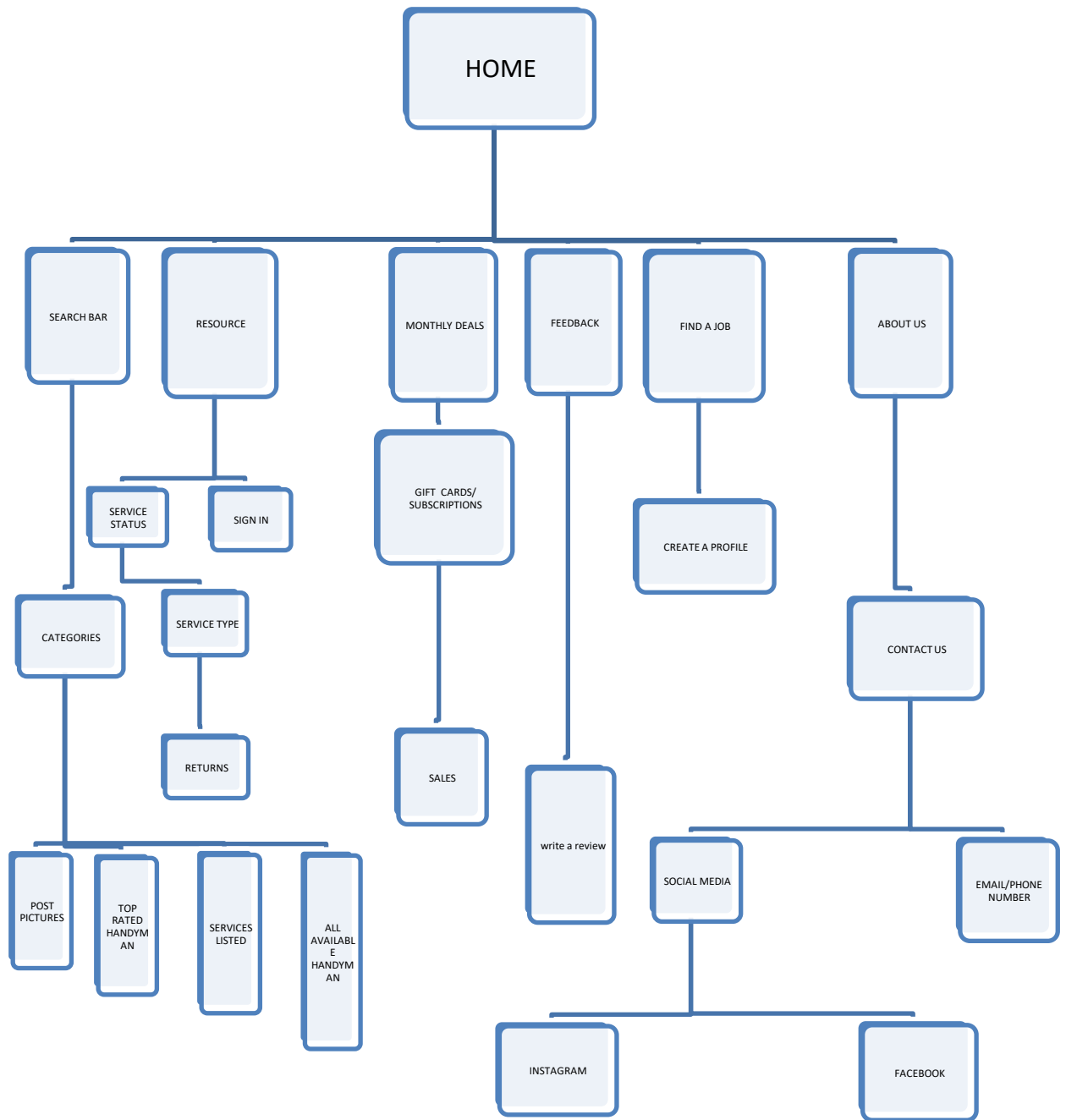
Figure 12.*Site Map option 2 for Click and Fix*

Figure 13.*Table to identify website navigation*

CATEGORY NAME	FOLDER NAME
Home	Search bar
Top Rated Handyman	Home/Search bar/Categories
Post a Picture	Home/Search bar/Categories
Services Listed	Home/Search bar/Categories
All Other Handyman	Home/Search bar/Categories
Resource Available	Resources
Login To Site	Resource/Sign in
Service Status	Home/Resource
Service Type	Home/Resource/Service type
Return	Home/Resource
Exciting Deals	Home/Monthly Deals
Contact Information	Home/About Us
Job Details	Create a Profile
Create a Profile	Jobs/Resume
Write Reviews	Feedback/write a review

Identified Nouns

Problem domain is area of user's business needs that is fulfilled by the system and the data entities which the user deals within the system are referred to as "Things".

There are two techniques to identify "Things" inside a problem domain:

- 1) Brainstorming technique: It is usually a less structured way to identify things in the domain. The analysts use a checklist of all the usual types of things found and brainstorm to find the domain class for each.
- 2) Noun techniques: It is a more structured way to find "Things" which involves writing down nouns which were gathered in the documents or came up in a discussion.

a) List of nouns identified and Notes regarding including a noun as a thing to store.

Figure 14.

Table describing system components

Identified Nouns	Notes on including noun as a thing to store
Customer	Basic information regarding the user like, user Number, account Name, etc.
Account	Creating account for the user
Address	Address information of the user
Reference Number	Need to track the service reference number
service	service that user wants to get done
Service History	Information stored if service used previously
Cancel service	Getting information for the cancelling the service
Description	Description of the service
Location	Location of the Handyman coming from
Payment	Processing payment depending upon the card or by Gift card
Track service	Getting information of the handyman's arrival
services	Number of services added by the customer
Service cost	Important information about the cost.
Web User	Customer's username and password to their account

USE CASES

Use cases refers to the activities that are performed by the system upon user's request in order to produce a result. Use cases define the functional requirement of the system. The name of the use case is a Verb followed by a Noun.

There are two techniques used to identify use cases:

- 1) User goal technique = This is a common technique used by an analyst where he groups all the potential categories of users and then interviews them about what are the activities that they need the system to perform. Then, removes the common use cases.
- 2) Event decomposition technique = This is a more comprehensive technique where the analyst identifies all the events for example, external, temporal, state events, to which the system must respond and creates a use case for the events.

Figure 15.

Table Describing the actions actors and description for use case

Action	Actors	Brief Use Case Description
Create Account	Employee, Customer	Create a customer account that may be used to make purchases of services in the business and to store information about the employees.
Post A Picture	Customer, Employee	Customer posts a picture in order to find the available Handyman; Handyman posts a picture after finishing their job.
Make an auction	Employee	Based upon the picture posted, eligible handyman lists their prices

Place a bid	Customer	Customers choose the best price for their service and proceed to payment
Modify service	Customer	Customers can use this to look up prior and current services, as well as the status of those services.
Choose Payment Method	customer	Customers can pay using their preferred method online like PayPal or Credit card
Produce productivity report	Manager	Used to produce a sales report of all the services at the end of specifies time period.
Track service status	customer	Users can see the status of their services, whether they have been completed or not.
Check Reviews	Customer, Manager	Customer can look for Handyman's reviews before placing a bid to get the best work done

Use case diagram

Figure 16.

Use Case Diagram showing the interactions of users

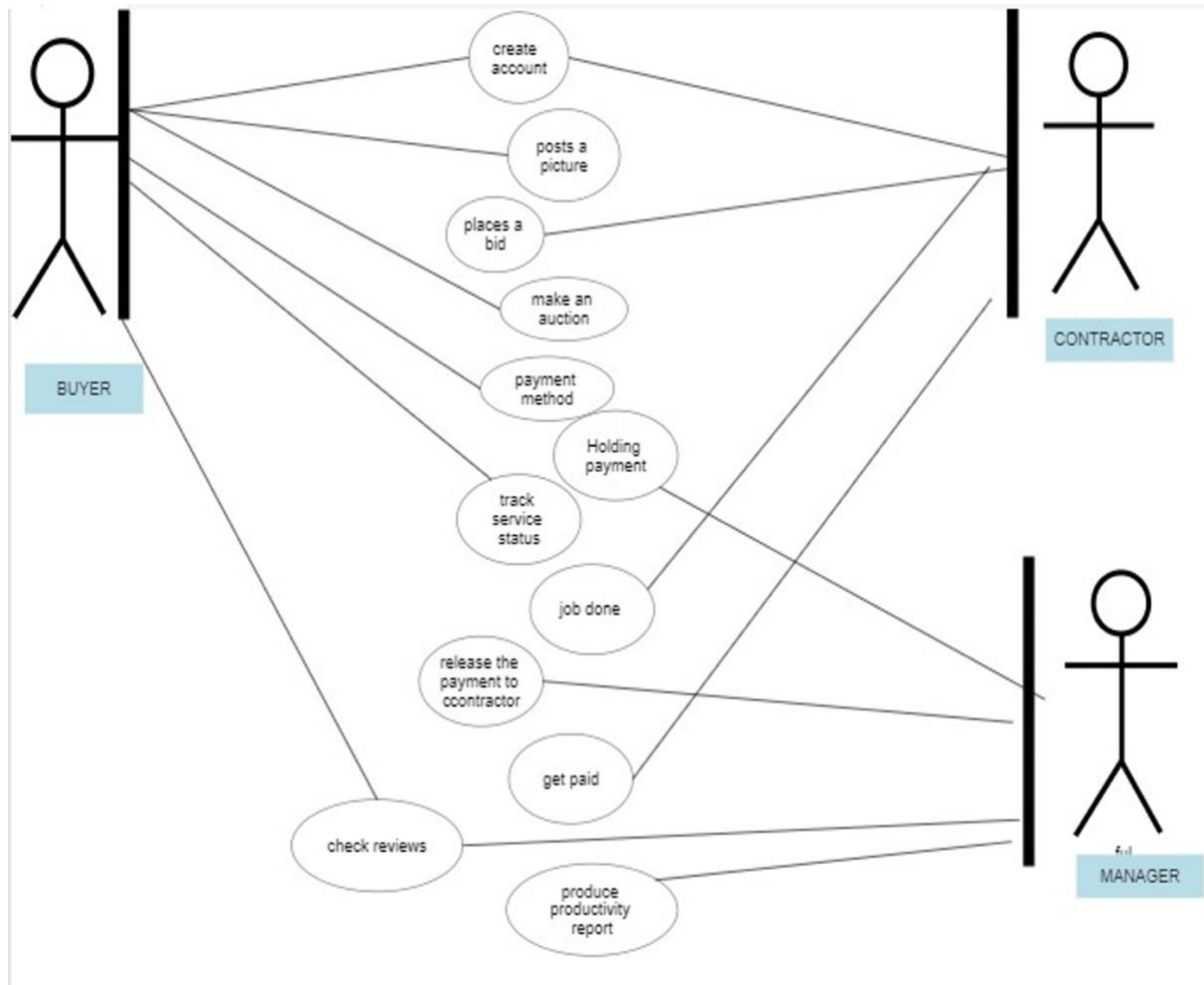


Figure 17.

Table showing order placement and payment methods

Use Case name:	Request service
Scenario:	Post a picture and uploads (along with description)
Triggering Event:	Customer will make the best auction depending upon price
Brief Description:	Customers can use this feature to check up different bids, see how experienced the handyman is; may look up at their profiles/ reviews etc.
Actors:	buyer
Related use cases	Modify service, Choose payment method.
Stakeholders:	Customer.
Pre-Conditions:	Customer must have an online account with valid information.
Post- Conditions:	Customers must have at least one service in the cart that needs to be done. Credit/Debit card or PayPal information must be validated. Customer address must be validated

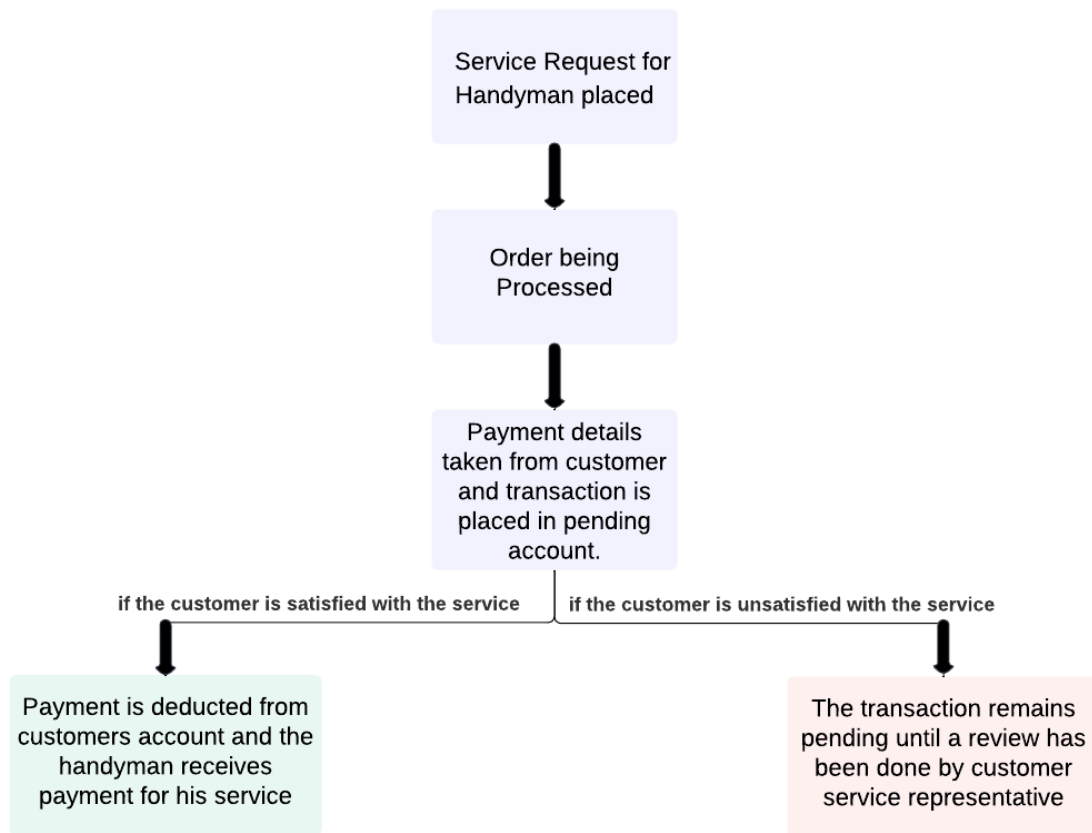
Flow of Activities:	Actor	System
	1. Customer indicates a something fixed and opens the app. 2. Customer wants to see Available handyman and the prices for them 3. Handyman place bids 4. Customer wants to make an Auction 5. customers proceed to the 6. Handyman finished the job	1. Asks for create account or login with desire to get valid id and password. 2. System notifies Handyman. 3. System shows the bid/bids to customer 4. The chosen handyman gets notified. 5. System holds the payment until job payment.done. 6. System validates and release the payment to handyman.
Exception Condition:	1. No handyman is available for the job posted. 2. Card information declined. 3. Customer's address cannot be verified	

Card payments are usually the most widely used **payment method in online stores** to collect the money from the sales they attain through their websites, web apps or mobile apps. However, the rise of this m-commerce shopping trend has boosted mobile payment methods as an alternative to card payments.

PAYPAL. An alternative to credit cards and a payment method that gains users daily. It allows you to link your PayPal account to any bank account – or to several bank accounts. You can also carry out payments from any mobile device with internet connection.

Figure 18.

Box connection showing the order placement process



Website Mockup

We used Figma to create a mockup of a prototype of what the app might look like. Please see the appendices for the Mockup.

Management Summary

Initially, the company will be operated by the founders who will manage different sections of the company. As the company grows, more people will be hired to divide the work and be more efficient in managing tasks and to tackle difficult situations.

The company's organizational structure: The overall working will be managed by the CEO of the company who will oversee the works of other departments such as marketing, finances, operation of the application. These major departments will be managed by the founders of the company. They will do the research and come up with strategies in order to deliver the best service to the customers. The most important thing in few employees of the company is that everything is communicated to everyone. Almost everyone knows what new updated are to be made to the application to make it run smoothly.

The development of the application be outsourced to third party organizations who will design the app based on the requirements presented to them. Also, databases to store data, customer support will be outsourced. We just need to check on them on their performance and act according to the reviews of the customers. As for the payment methods the company will be accepting payments via credit cards and Pay Pal which is again going to be outsourced as handling and processing payments are critical part in the business.

Key positions to operate the company: The finances will be handled by Evan as he has worked in companies for managing their finances and calculating the risks, which makes him perfect for handling all the finances till the company has heavy number of users. The operational of the company will be handled by Raman. She has knowledge of managing a business and manage good relationships with clients because of her great communication skills. The marketing department will be handled by Shubhdeep. She had experience in content writing and several marketing streams such as emails, social media especially Facebook ads, and had a brief knowledge about SEO to reach out to its target customers and generate leads. These main departments will be handled by the founders and if required people will be hired to help in managing the working of the application.

Financial Plan

Start-up Expense

Figure 19:

Table of startup expenses

Current Assets	Fund
Cash from Ventures	\$50'000
Bank Loans	\$50'000
Cash from Angels	\$50'000
Total	\$150'000

Startup Expense Description	Type	Price (Yearly)
Web Development	Essential	\$10'000
Domain Name	Essential	\$0.01
Hosting	Essential	\$308
E-mail account	Essential	\$89.4
Advertising	Essential	\$50'000
Insurance	Essential	\$40'000
Customer service	Essential	\$14'400
Business name registration	Essential	\$350.00
Business License	Essential	\$250
Total		115'397.41
20% of unexpected costs such as legal or other problems with development, marketing or hiring (contingencies)		23'079.48
Real Total		138'476.89

Assets Reasoning

We look to get our assets from a variety of sources. For the cash from ventures, we will send our project proposal to a venture through blogs, and social media mainly LinkedIn, and introduce ourselves and the benefit for their input. For \$50'000 we will give them 30% of the business. Similarly, the cash from Angels will be taken the same approach as the venture method. Similarly, we will give the Angels 30% of the company for their investment. The bank loan we will file for ourselves and put-up capital such as our cars as collateral. As such we expect to get a loan for five years at six percent making our monthly payments 967 dollars.

Startup Expense Summary

Web Development: For the web development we will be outsourcing the development to our friend Har Noor Sidhu who will be developing and maintaining the app for \$10'000.

Domain Name: We will purchase our domain name from "Go Daddy" for the name clickandfix.ca which is 1 cent per year to keep (Go Daddy).

Hosting: "Netlify" will be hosting our services on the app store and android phones. The cost for hosting is nineteen dollars a month USD. Today's conversation of this rate is 228 USD a year or 308 Canada a year for hosting (Netlify).

E-mail Accounts: The e-mail accounts needed for customer service and regular business communication will be provided by "Go Daddy". There will be five e-mail accounts for a manager, two for customer service, marketing, and the web developer. The cost of each e-mail account is \$1.49 a month or \$89.4 a year (GoDaddy).

Customer Service: The customer service will be provided through "SUPPORT YOUR APP" company which will provide customer service for our company with two dedicated customer service members watching our app. The cost for this service is \$1200 a month or \$14'400 a year (Support your App).

Business Name and License Registration: The cost to register our business and to license our business in Manitoba is \$350 for a business name and \$250 for a business license yearly (GOV MB).

Twelve-Month Profit and Loss Projection

The Twelve-Month Profit and Loss Projection was based on the average cost of a handyman job. We found that the average cost for a handyman job was between 100 to 400 dollars (HomeStar). We decided to take an average of around 200 dollars per job to calculate our Twelve-Month profit. We got the average unit sales from Statistics Canada on the average personal and household repair and maintenance Employees from Manitoba. We estimated that between two to five percent of the workforce would use our app once monthly. This gives us a good groundwork for our app's potential sales and given the uncertainty of how often an average contractor would use the app.

For the Twelve-Month Profit and Loss Projection please see attach file "Twelve-Month-Profit-and-Loss"

Four Year Profit Projection

The four-year profit projection was done based on the steady growth of the company. We looked at the average a small business should project to grow over the years. We wanted to see a double in sales over the next year and a 50% increase in the second year. We looked to double the final year to provide expansion of our business to other markets (Parker).

For the Four-Year Profit Projection please see attached file "Four-Year-Profit Projection".

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Appendices

Web Mockup

Figure 1.

The Sign-in page of the app showing options for login and signup



Click and Fix

Username

Password

☐ Save username

Log in

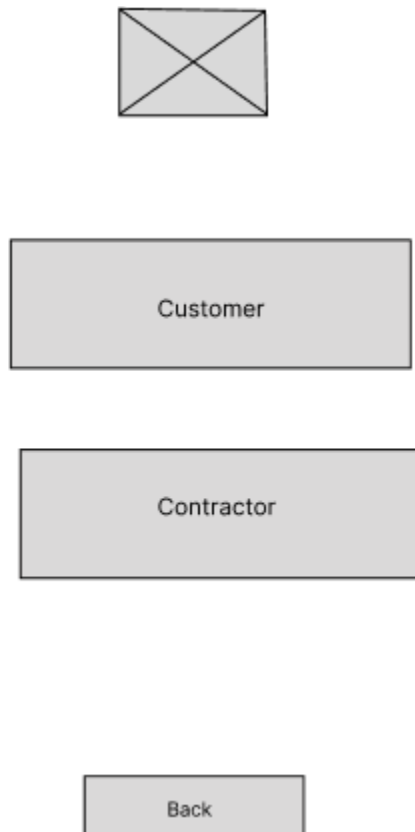
Signup

[Forgot Password?](#)

Note. If the user signs in, they will go to figure.5 If they signup they will go to figure.2

Figure 2.

The selection page of signing up



Note. The user will select which account they would like to sign up for and then move to figure 3.

Figure 3.

The information page for signing up for the app

Click and Fix

The form consists of five vertically stacked input fields, each with a light gray border and placeholder text. Below these fields is a solid blue button with white text. The fields are labeled: 'First Name', 'Last Name', 'E-mail Address', 'Address', and 'Phone Number'. The button is labeled 'Sign up'.

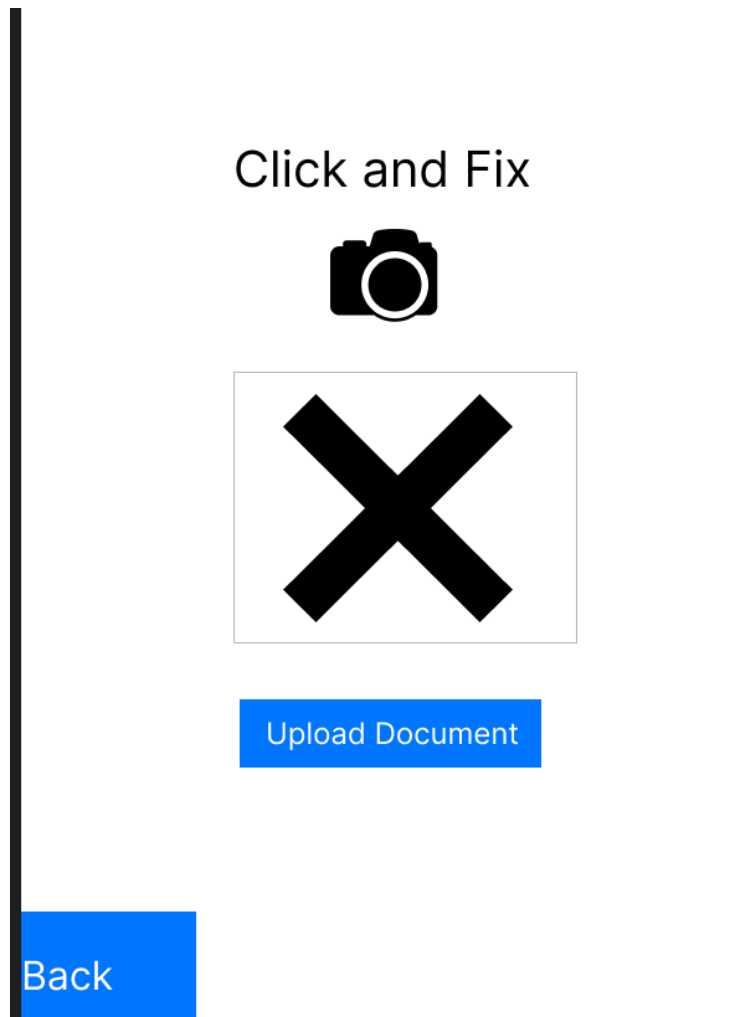
First Name
Last Name
E-mail Address
Address
Phone Number

Sign up

Note. After the user adds their information and clicks “Sign Up” depending on if they are a customer or a contractor. If they are a customer, they will go to figure 5 If contractor they will move to figure 4.

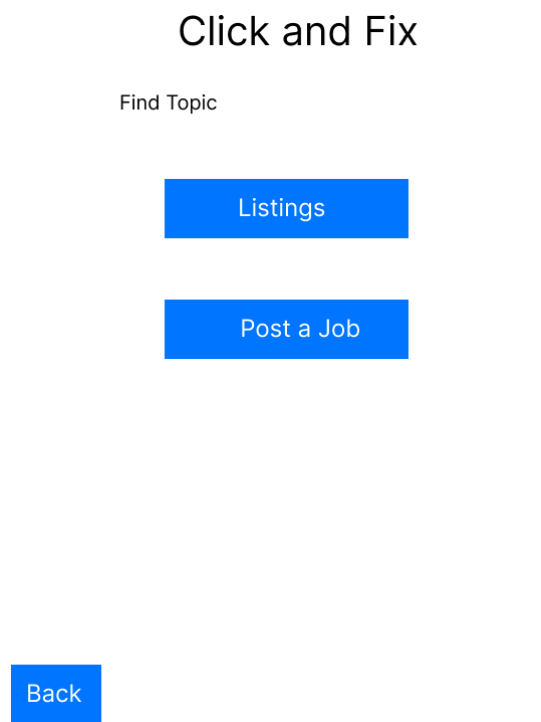
Figure 4.

The Document page is where contractors will upload their documents and the AI will confirm the document is authentic



Note. The contractor will take a picture of their certificate to prove they are a certified contractor. They will then move to figure 5.

Figure 5.
The Homepage of our app



Note. The home page shows an option for users to click on what they are looking for. If they click listing, they will move to figure 7. If they click post a job, they will move to figure 6.

Figure 6.

This is the publish page is where customers will create a listing for the needed service.

Click and Fix

Create A listing

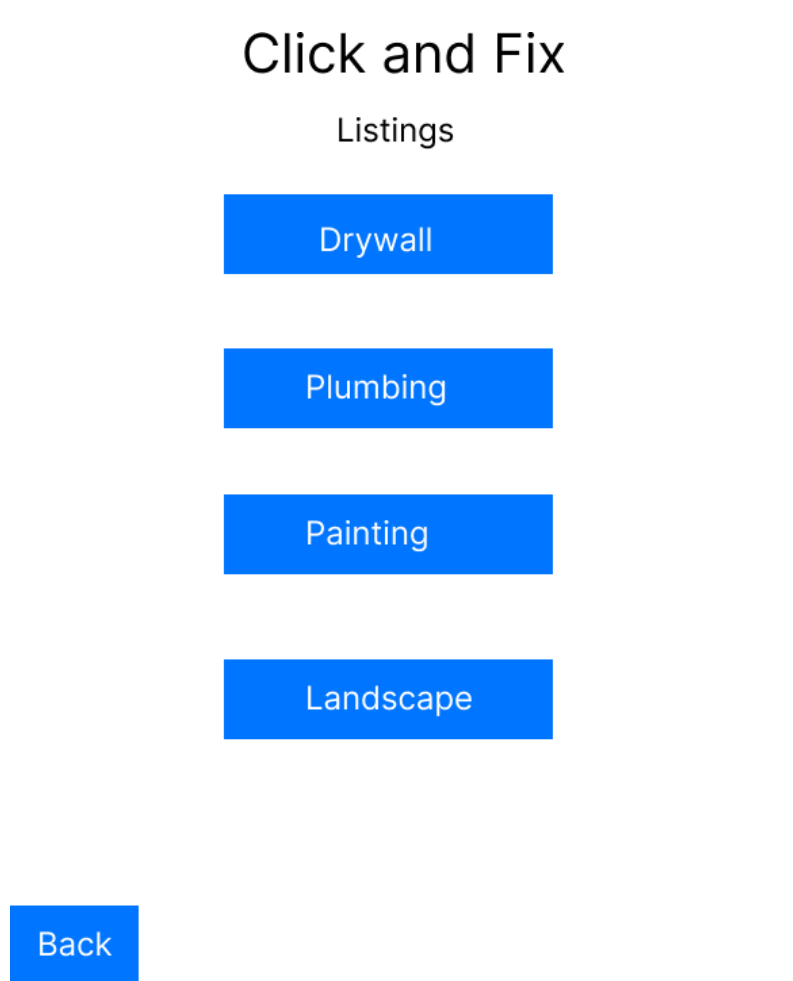


Upload

Note. The customer creates a listing by entering the title, a detailed description of the service needed, and a starting bid.

Figure 7.

This is where contractors can click which listing, they are qualified to look for.



Note. The app will only allow contractors to click on the service they are qualified for and will not react if they click on an unqualified service.