Vision Document
ETR [Electronic Tool Rental]

Revision History

Date	Version	Description
20-May-2022	1.0	Deliverable 1 – first phase of the project

1. Introduction

Vision document, in general, is a kind of document which presents compelling ideas, projects, or future states for a specific organization, product, or service. Defining a vision is a high-level overview of what a project or company will look like in terms of key stakeholder needs and desirable attributes. This report is linked to the approval process for the project and serves as information for the business analysis.

This document aims to assemble requirements, evaluate, and specify the high-level characteristics of an Electronic Tool Rental (ETR) website that customers may use to rent electronic tools and equipment within their financial constraints. Moreover, it discusses the goals and responsibilities of the stakeholders as well as the target users, and the reasons for their existence. It is explained in great detail in the use cases and further information about how the learning platform fulfills these requirements.

1.1 Scope

This Vision Document applies to the Electronic Tool Rental website, which will be developed by the author. The scope of Electronic Tool Rental (ETR) is focused on allowing customers to find, rent, and reserve required tools and equipment as per their availability and price rates in nearby stores or on the website.

1.2   References
[1] https://en.wikipedia.org/wiki/Vision_document

[2] Sample reports shared by Professor

[3] Professor notes and slides

[4] https://www.betterteam.com/customer-service-representative-job-description#:~:text=Customer%20service%20representatives%20help%20customers,having%20a%20role%20in%20sales.

[5] https://sg.indeed.com/career-advice/finding-a-job/marketing-roles-and-responsibilities

[6] https://asq.org/quality-resources/stakeholders

[7] https://corporatefinanceinstitute.com/resources/knowledge/finance/stakeholder/

[8] https://uhurunetwork.com/marketing-team/

[9] https://www.bmc.com/blogs/sysadmin-role-responsibilities-salary/

[10] https://www.cloudflare.com/learning/access-management/what-is-mutual-authentication/

2. Positioning

2.1   Problem Statement

The problem of	Customer convenience of being able to rent tools and equipment online with proper security as well as in store
Affects	Customers, Branch employees
The impact of which is	Customers who are keen on renting tools and equipment as well as dropping by the store
A successful solution would be	Allowing customers to view pricing and availability for tools and equipment in nearest stores prior to visiting the store and make reservations if necessary. Additionally, maintaining and updating inventory tools is beneficial to branch employees as well.

2.2   Product Position Statement

For	Customers
Who	In need of renting machinery and equipment for home repairs and improvements
The Electric Tool rental [ETR]	is a website
That	Providing customers with information on which tools and equipment are available in their local stores and online, along with price

	quotes, and if required helping them to make reservations in advance
Unlike	Phone calls or in-store visits to gain more information about a tool or a piece of equipment
Our product	It connects users to a platform that enables them to look up electrical tools or equipment, as well as their availability and pricing at a nearby store. The customer is thus led to decide instantly whether to purchase it depending on their budget. On top of that, users will be able to reserve their stuff online to avoid going to the store or making a telephonic call, which will save them a lot of time and ensure a seamless online rental shopping experience.

3. Stakeholder Descriptions

3.1   Stakeholder Summary

A stakeholder is a group or individual who is affected by the future system, has the ability to shape it, and bears some responsibility for its acceptability.

Name	Description	Responsibilities
ETR owners	Individuals or organizations who own the website	Runs the business and employs a large workforce to keep it running
ETR Management	A group of professional experts who manage the ETR	Recruited by ETR owners to make major decisions concerning the improvement of the website
Project Sponsor	Individuals or organizations willing to provide funding for the project	Finance the project according to their economic and budgetary constraints
ETR Marketing Team	Team in charge of product advertising and promoting on the website	The goal of their job is to come up with innovative and effective approaches to attract more people to their website as well as upsell items, resulting in increased profits for their business.
ETR Customer Service	Team in charge of resolving customer issues and problems	Their responsibility is to help consumers by providing

		accurate information about their products and services and to respond as quickly as possible to any complaints or inquiries they may have with suitable solutions
Tools/Equipment Insurance Company	Providers of rental items insurance	Providing insurance coverage for electronic tools and equipment stuff for rental purposes
Project Manager	The person in charge of the project to lead and manage it thoroughly	Outline the project plan, hire and coordinate resources, monitor performance, analyze how well it is done, whether it's on time, etc.
ETR Development Team	Programmers who develop the project by obtaining specifications	They design and develop the system by writing programming codes after assessing and eliciting requirements
ETR Operations Team	Team in charge of bug-free software operation	Responsible for thorough software testing and ensuring that the project's quality standards are met
ETR Branch Manager	Individual in charge of responsible for keeping track of the items in the store	Monitors the availability of electronic tools and equipment on a daily basis and replenishes them according to requirements

3.2 User Summary

Name	Description	Responsibilities	Stakeholder
Customers	Who seeks for rentals of tools and equipment	Able to browse rental tools and equipment, look up their pricing information, and even place a reservation in the local store if required. Moreover, they can use the ETR website to purchase items by registering themselves.	Self-represented
System Administrator	Who monitors by keeping the website up to date	Tracks an ongoing analysis of the website's performance as well as perform numerous tasks such as	Self-represented

		adding additional branches to the system, set up accounts for branch personnel, troubleshoot issues, upgrade software-hardware etc.	
Branch employees	Staff of a specific business location	In charge of maintaining a list of electronic tools and equipment and responsible for adding or removing them from the system ordered by customers from their designated locations. They also hand out the tools or equipment to customers, and take it back from them as well and keep the system updated by keeping track of the tool's status such as whether it is available, rented, out of order, not available etc.	Self-represented

3.3   User Environment

➢ There must be a secure and stable internet connection for all the stakeholders.

➢ The website will be compatible with different browsers such as Google Chrome, Mozilla Firefox, etc.

➢ System Administrators must have access to a browser-enabled device, such as a desktop, laptop, or smartphone, in order to view and modify the branch store and its employees' information. They're also in charge of making sure the system is always up to date and running.

➢ Branch personnel are expected to have a browser-enabled device, such as a desktop, laptop, or smartphone, to keep track of inventory statuses like available, rented, out of stock, and unavailable. They are also responsible for inspecting the available rental tools and equipment in store, placing or removing orders, and providing or collecting items from customers as needed.

➢ Customers are expected to have a browser-enabled device such as a desktop, laptop, smart phone etc. to be able to find necessary tools and equipment, see their price quotes, and make purchases by registering or logging onto the website.

➢ Customers must enable pop-ups and notification settings to receive updates about their ordered stuff as well as new stock arriving.

3.4   Key Stakeholder or User Needs

Need	Priority	Concerns	Current Solution	Proposed Solutions
Easily accessible	High	Potential of providing intuitive guiding navigation for rental shopping	None	Design a user-friendly navigation menu that will lead the user through the application with ease
Convenient to maintain	High	ETR website should be quick and relatively easy manageable without sacrificing user convenience	None	Implement a PHP MVC architecture with a MySQL database structure to accomplish this
Secure Access Governance	High	The information of the users must be kept protected and private	None	Set up two-way authentication and use strong passwords
A robust system	High	Even with faulty inputs, the ETR website must continue to function well.	None	Ensure that exception handling is considered when designing the system
Responsiveness	Moderate	Enable the system to be user-friendly enough that it can be conveniently accessed from a wide range of devices	None	Provide a device responsiveness solution by enabling the system to be accessed by a range of devices so that users can use it at their convenience
Track order status	High	Inability to track progress	None	Provide a solution for tracking the status of every order placed by customers and notifying them about it
Enhancing user experience	High	The moment the customer leaves the website without	None	Develop a solution that allows users to leave the website at

		completing their task, they must restart the process		any time and return without having to start over since the website will carry forward their previous task, save the item in the shopping cart, etc. in order to save them time as well

4. Product Overview

The website is built on the PHP MVC framework as the core framework for connecting to the MySQL database and the back-end server, as well as creating the front-end user interface.

4.1 Product Perspective

- ➢ As there is no such existing system, everything must be done from the ground up.
- ➢ The ETR is a user-friendly website that allows clients to rent electronic tools and equipment from anywhere using any device.
- ➢ The System Administrator will enter branch personnel information as well as new branch information into the system, which will be saved in the Database system.
- ➢ Branch employees add, change, or delete customer-ordered products, as well as engage with customers in terms of giving and receiving tools and equipment, and maintain track of the items in their store, which are fetched from the database and displayed on the website.

A visual representation of the system is depicted below. Our main focus is on demonstrating three main users – Customers, System Administrator and Branch Employees and their interaction with the system. In addition, the data that will be exchanged between the system and the users is also shown here.
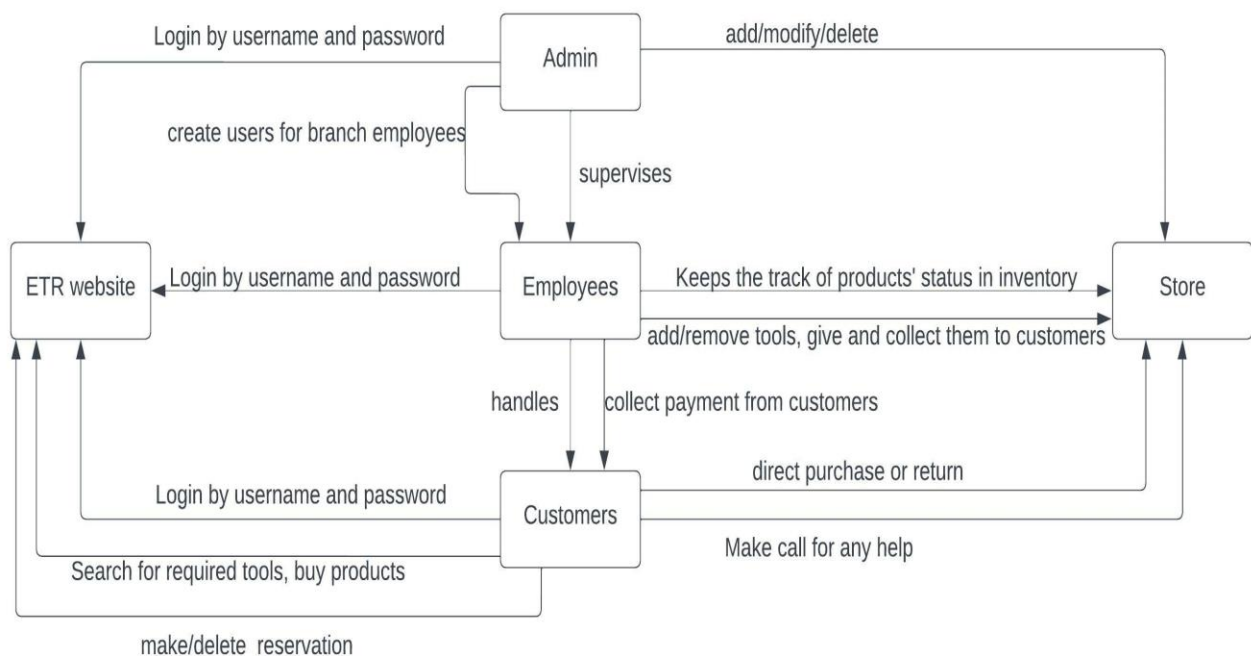
Figure 1: workflow of ETR website

4.2 Assumptions and Dependencies

Here are some assumptions and dependencies associated with the capabilities of the ETR website as outlined in the vision document:

Assumptions	Dependencies
This website will have continuous internet access to function	Stable internet connection accessibility
This website requires a browser-enabled device	All browsers should be supported by the operating system
In order to rent things from the website, users will have to provide their login credentials	Prior to buying anything from the website, users must first register
The ETR Website should respect Internet Ethnicities	Any internet ethnicity should not be breached by the ETR Website. Thus, it should be fairly straightforward and simple
The ETR website must be functional 24x7	The server should run locally or remotely for 24 hours

5. Product Features

The ETR website shall provide users with the following high-quality functionality that directly meets their requirements and preferences

5.1 User Registration:

System Administrators can create a legitimate username and password for themselves and branch employees to access the ETR website. Once the user has completed their registration, the system allows them to change their password.

5.2 Client Registration:

Customers must be 18 years or older to register with an appropriate username and password in order to rent tools and equipment, and they are strongly advised to use a secure password. They also have the flexibility to alter their password at any time

5.3 Login:

Customers, System Administrators, and Branch personnel each have their own sign-in option in the system, and following successful login, the dashboard will appear.

5.4 User Verification:

The captcha verification tool is used to ensure that it is not a bot but a genuine user. This feature improves the system's security.

5.5 System Administrator Dashboard:

System Administrators can view and amend their personal information on the user interface.

5.6 System Administrator – Manageable actions summary:

The system administrators are able to easily navigate through the website in order to add new branches, assign or revoke other administrators and employees, software upgradation, troubleshooting etc.

5.7 Branch Employee Dashboard:

Employees of the branch should be able to access the portal and modify their personal information. They can also amend clients' orders, deliver and collect tools or equipment from consumers in the store, and keep the system up to date by tracking the status of products, such as whether they are available, rented, out of order, or not available.

5.8 Branch Employee Dashboard - Manageable actions summary:

- Employees at the branch may quickly access the website to view and change any information. They are in charge of adding and removing rental orders for tools and equipment placed by consumers.
- They communicate directly with consumers in order to provide or collect rented items.

- They keep the system up to date by tracking product availability, such as if it is available, rented, out of stock, or unavailable.

5.9   Customer Dashboard:

All the information about customers should be viewable and editable on the customer account, including usernames, passwords, email addresses, shipping addresses, credit card information, etc.

5.10   Alteration or recovery or forgot Password:

The technology permits users to retrieve, modify, or recover their passwords, allowing them to access the website again if they forget or need to reset it.

5.11   Search for product:

Customers can use the search box to look for any necessary tool or equipment using any key word or the name of the product they desire, which helps them find the item fast and saves them time as well. Furthermore, all the product characteristics, such as product descriptions, availability in the nearby store depending on the customer's address, prices etc., will be visible to customers on the website.

5.12   Age verification:

The website restricts its users to 18 and older. Therefore, renters under the age of 18 are not allowed to rent any items. The system verifies this fact through a valid government-issued photo identification document provided by the shoppers.

5.13   In-store availability:

Due to the fact that not all items are available in every store, customers can check product availability by picking a specific item at an accessible store near them to save themselves a significant amount of time.

5.14   Rental Reservations:

Customers have the opportunity to place a reservation for renting items for which they need up to 30 days from the present date in advance following the next day

5.15   Rental Period:

The system authorizes customers to have the rented items for at least 4 hours, with the option of extending it daily, weekly, or monthly.

5.16   Payment:

For the purchase or pick-up of necessary items, the system allows the customers to pay online with a valid credit card.

5.17 Confirmation Email:

A confirmation email with all the details (such as order number, ordered tools, payment history, and so on) will be sent to the user's preferred email address, as well as preserved on the user's portal for future use.

5.18 Refund/Cancellation:

If a consumer changes their mind or is unhappy with the product quality, the system allows them to cancel their order/reservation and receive a refund.

5.19 Reminder alerts:

Users must receive messages from the system to get informed of their upcoming reservations and the status of their orders.

5.20 Customer Service Assistance:

The system must include assistance for users to swiftly answer and resolve their technical issues via an online chat system or a customer care telephone call.

6. Other Product Requirements
6.1 Security Requirement:

- The system must ensure that user data is secure and private.
- Unauthorized access to the system should not be permitted.
- Ensure that strong passwords and two-way authentication are used.

6.2 Performance Requirement:

- The system should be designed in such a way that it can handle high user traffic.
- Multiple screens should be supported without causing the system to slow down.
- Without buffering, the system should respond to the user.
- The time it takes for a consumer to request a webpage should not exceed 5 seconds.

6.3 Platform Requirement:

- The system should be compatible with both Windows and Mac.
- PHP should be implemented to develop the backend of the system.

- MySQL should be the database in order to save and handle records.

6.4 Robustness:

Despite incorrect inputs from the user, the system must continue to perform.

6.5 Documentation Requirement:

- User guides aren't necessary for this system.
- All the features are simple, clear and uncomplicated.
- Users will have access to general and context-specific support (such as "Contact Us", "Customer Service", " Frequently Asked Questions", "Terms and Conditions" for first-time registration) for all system functions.

6.6 Usability Requirement:

System functions should be straightforward and easy to use so that efficiency and effectiveness can be maximized with minimum effort.

7. Appendix

7.1 Activity Logs

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Toltal 13 hours	