

College of Computer Science & Engineering

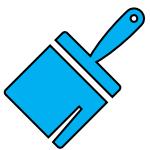
Human Computer Interaction - CCSW-225

Section (03) (17848)

Group 7



# Light Household Tools Rental



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## 1.1 General Project Idea

Our project aims to make anyone who wants to use light household tools to do it easily, it will be affordable, and more convenient, and there will be all types of tools. It's mostly for personal use or small projects. For example, (ladders, drills, screwdrivers, etc..).

How will our project make it easier? By having all the necessary types of tools available, clean, and working properly, it will be provided by either a small company or an individual.

How our project will make it affordable? By renting the tools! Some tools might be expensive for some to buy, so it will be affordable for them to rent it for the period they need it for, also some tools can be expensive for most people.

How will our project make it convenient? Also, by being able to rent the tools! sometimes you might buy a tool just to use it once, which might render it so it will be useless afterward, and also lead to inconveniences, such as taking up storage space, wasting your money, and it might be the wrong tool for you.



## 1.2 Targeted users

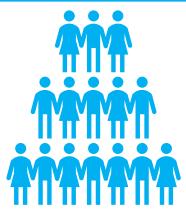
We aim our project to the following people:

- 1 People who need light household tools for a short-term.
- 2 People who can't afford some light household tools.
- 3 People who might need a light household tool for one use.
- 4 People who uses light household tools frequently.



## 1.3 Main Problems We Are Trying to Solve

- 1 Renting a light household tool in a good condition can be difficult.
- 2 Buying some light household tools can be expensive.
- 3 Buying a light household tool can be for a one-time use, which render it useless after one use, and might take up space.
- 4 Decreasing quality of life: It decreases due the amount of hardware store as it can be unappealing to the public.



## 1.4 Collecting Data & Finding the Users

We will be collecting data and finding the users by three methods:

- 1 Surveys.
- 2 Questionnaires.
- 3 Interviews.



## 1.5 Interview Questions and Google Form

- 1 How often do you use light household tools?
- 2 Can you find a hardware store that rents light household tools for a reasonable price and in good conditions?
- 3 Will you use our app if you ever needed to use a light household tool?
- 4 Do you usually use light household tools for one-time use or multiple uses?
- 5 How much do you spend on light household tools?

<> Google form link [here](#)



## 2.1 Raw Data Collected from Users

1 How often do you use light household tools?

Choice	Responses
Always	1
Often	2
Rarely	4
Never	1

2 Can you find a hardware store that rents light household tools for a reasonable price and in good conditions?

Choice	Responses
Yes	4
No	4

3 Will you use our app if you ever needed to use a light household tool?

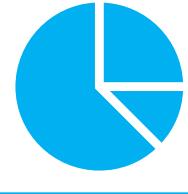
Choice	Responses
Yes	8
No	0

4 Do you usually use light household tools for one-time use or multiple uses?

Choice	Responses
One-time use	2
Multiple uses	6

5 How much do you spend on light household tools?

Choice	Responses
Sr 0 - Sr 500	6
+ Sr 1000	0
I don't use them	2



## 2.2 Visualization of the Data Collected

Question 1



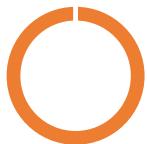
■ Always ■ Often ■ Rarely ■ Never

Question 2



■ Yes ■ No

Question 3



■ Yes ■ No

Question 4



■ One-time use ■ Multiple uses

### Question 5



■ sr 0 - sr 500 ■ Above sr 1000 ■ I don't use them



## 2.3 List of Needs

- 1 One of the primary challenges people faces is not having the right tool for the job.
- 2 For many users, dealing with dirty or malfunctioning tools is frustrating.
- 3 There are tools that are only needed for occasional use, buying them outright can feel like a waste of money and storage space.
- 4 Users want to easily find the tools they need in their area.
- 5 Small businesses can go bankrupt when competing with bigger businesses.



## 2.4 List of Insights

- 1 Offer a wide range of tools, ensuring that users can easily find and rent the tools they need for their specific tasks.
- 2 Providing clean and properly maintained tools, ensures that users can rely on the tools to work effectively when they need it.
- 3 Renting these tools for the duration they are needed provides a cost-effective solution and eliminates the hassle of storing unused tools.
- 4 By allowing the app to access your location, the app can show you available tools near you, saving you time and effort.
- 5 Our app will only allow small businesses to rent out tools.



## 2.5 List of Tasks

- 1 Adding a search filter (Weight, Usage, Price, etc..).
- 2 Adding recent photos of the tool, and a schedule for repairs.
- 3 Adding options to choose the duration of renting.
- 4 Adding an option to allow the app to access the user's location to find tools near them.
- 5 Adding a license page with specific requirements for businesses.



## 3.1 Low-Fidelity Prototypes

The image displays four wireframe prototypes for a product management system:

- Figure (1): Product Detail Page**  
Shows a product card for a "Drill". It includes a photo slider with five recent photos, a previewed photo of the item, and a list of item details: Brand, Uses, Condition, and Years of use. Buttons for "Rent" and "Repairs" are present.
- Figure (2): Repair History Page**  
A table titled "Drill Repairs" showing a repair schedule of the item. The columns are Type, Company, Date, and Notes.
- Figure (3): Renting Options Page**  
A form for renting a Drill. It asks to choose a renting option: "For a period" or "By Date". Fields for "Hour(s)" and "Day(s)" are shown, along with an "Amount" field and a note to enter a valid date. A "Next step" button is at the bottom.
- Figure (4): License Application Page**  
A page for small businesses to get a license to rent. It includes a link to rules, a checkbox for agreeing to them, and an "Agree" button. Below is an "Application form" section with fields for Type of business, Company's Budget, Number of employees, and Type of equipment.

Figure (1) This is what is shown to a user when choosing a product, here they can see information and recent photos of the product, and the repairs history. ([Task 2](#))

Figure (2) This is what is shown to a user when pressing the **Repairs** button, where they can see the full repair history of the product in a schedule. ([Task 2](#))

Figure (3) This is what is shown to a user when pressing the **Rent** button, where they can choose how they want to rent out the product. ([Task 3](#))

Figure (4) This page is where small businesses can get the license to rent, where they have to read the rules, and fill the application form. ([Task 5](#))



## 3.2 Meeting the Users' Requirements

This design will help the user to see recent photos of the product, and see its repair history, which will both help them to make sure it's in a good condition or not.

In the repair page, there will be a schedule with the repair's information, (Type of repair - the company who repaired the product - date - notes).

Also, it will give the user to choose the type of renting they want, either by a duration (hours - days), or by date (from - to).

Also, it will help small business to get a renting license, by having them reading the rules, then filling the form.



## 4.1 High-Fidelity Prototypes

### 1 Selected item page

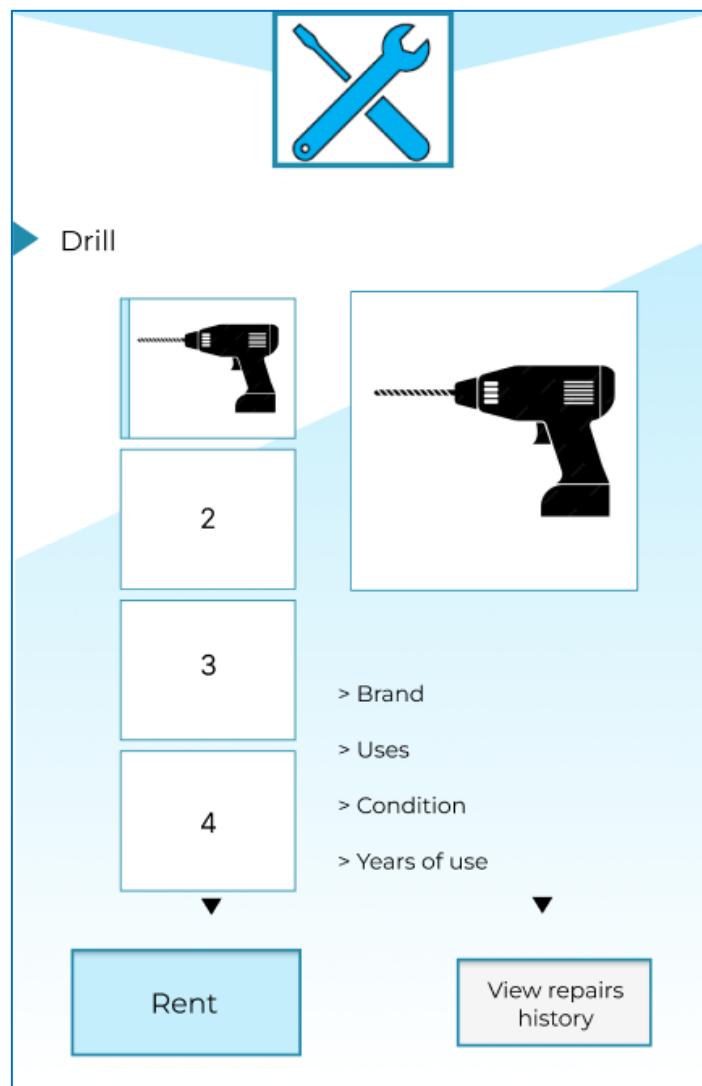


Figure (1): This page comes up when the user chooses an item, here it will show information, and recent photos of the item, and there will also be two buttons, **Repairs** button which will show repair history of the item (Figure 2), and **Rent** button which will show to the user the available renting options (Figure 3).

## 2 Repair history page

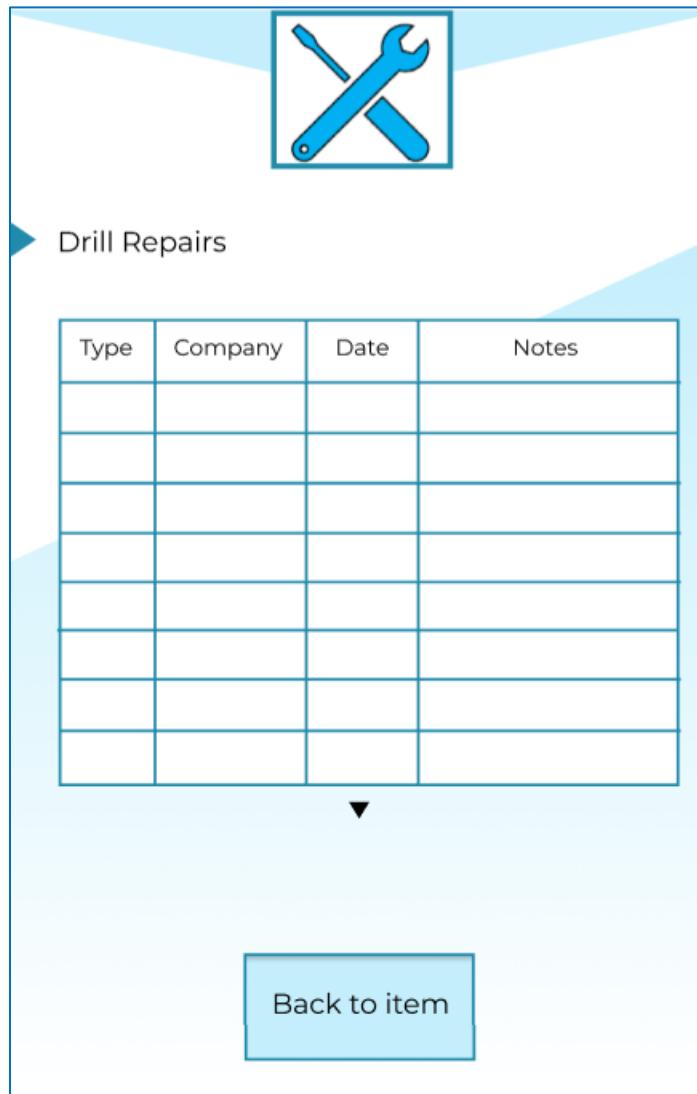


Figure (2): This page shows up after the user pressed the **Repairs** button in the Selected item page, here the user can see the full repairs history of the item which include (Type of repairs - Company which did the repairs - Date of the repair - notes about the repair), and there will be a back button which will returns the user to the Selected item page.

### 3 Rent options page



Item to rent | **Drill**

Please choose a renting option

For a period

Hour(s)	Day(s)	Amount
---------	--------	--------

By date

From / /

To / /

**Next step**

Figure (3): This page shows up after the user pressed the **Rent** button in the Selected item page, in the page, the user have to renting options to choose from, first option is by period (hours - days), and after choosing must choose an amount, second option is by date where the user have to enter 2 valid dates, and also there is a button to go the next step (Pickup location - Payment method).

#### 4 License to rent page



License to rent ( Small businesses only )

[Rules](#)  Accept

Application form

Type of business ▼

Company's budget ▼

Number of employees ▼

Type of equipment to rent out ▼

Next step

Figure (4): this picture is for small businesses whom want to rent out tools, Here they will have to read [Rules](#) and agree on it, to access the **Application form**, were they have to choose an answer for a few questions, this page also include a button to go the next step (legal paperwork - list of items....).



## 4.2 Explanation of the Designed Application

This design will help the user to see recent photos of the product, and see its repair history, which will both help them to make sure it's in a good condition or not.

In the repair page, there will be a schedule with the repair's information, (Type of repair - the company who repaired the product - date - notes).

Also, it will give the user to choose the type of renting they want, either by a duration (hours - days), or by date (from - to).

Also, it will help small business to get a renting license, by having them reading the rules, then filling the form.



## Table of Tasks

Assignment	Task	Participants
1 Team Formation and Project Idea	1.1 General Project Idea 1.2 Targeted Users 1.3 Main problems we are trying to solve 1.4 Collecting Data & Finding the Users 1.5 Interview Questions and Google Form	1  Hossam 2  Abdullah 3  Bashar 4  Omar 5  Osama
2 Needs Finding	2.1 Raw Data Collected from Users 2.2 Visualization of the Data Collected 2.3 List of Needs 2.4 List of Insights 2.5 List of Tasks	1  Hossam 2  Abdullah 3  Bashar 4  Omar 5  Osama
3 Low - Fidelity Prototyping	3.1 Low-Fidelity Prototypes 3.2 Meeting the Users' Requirements	1  Hossam 2  Abdullah 3  Bashar 4  Omar 5  Osama
4 High - Fidelity Prototyping	4.1 High-Fidelity Prototypes 4.2. Explanation of the Designed Application	1  Hossam 2  Abdullah 3  Bashar 4  Omar 5  Osama
5 Final Project Report and Presentation	5.1 Final Project Report 5.2 Presentation	1  Hossam 2  Abdullah 3  Bashar 4  Omar 5  Osama