# Usability Testing Plan

## Team Yellow

### Purpose

- Provide brief description of your web and mobile site.

We are working on creating a site called Tool Exchange, this site will provide Customer to Customer tool renting services, in which two users, a renter and a rentee, will be able to exchange tools by using our site. Tool Exchange will serve as a place where users will be able to find power tools around their area, and consequently find other users that have tools for rent. Additionally Tool Exchange will give users the option to sell tools, that way if a customer needs the tool for a longer period of time they have that option available to them.

In order to create a trustworthy renting service, we are requesting all the users to sign up to the site, also we are implementing a rating system, and options for renters to decline offers from rentees; that way they able to not follow through with the process if both parties don’t feel comfortable at any point with the service. By incorporating a market place for tools in the site, we are giving users with unexpected long term projects an option to keep the tool for the project. After careful evaluation we have decided not to develop a mobile option for Tool Exchange, as we feel in order to create a successful user experience for both parties.

- State the usability test objectives and goals.

For our usability tests we have decided to test a couple of different objectives for our site and they are:

*Register as a seller/lender (rentee) of tools* - This is an important aspect of the site because since it’s not mandatory to register in order to browse, it is in order to take part in the process. Goal is for the user to finish under one minute.

*Rent a tool as a registered user* - One of our core functions of our site, it is critical for us to have a very straight forward and easy to use system for our users. Goal is for the user to finish in under one and half minute.

*Load a new product to the rentee inventory* - Another important aspect of our site, since each user will be responsible for keeping track of the tools that are being rented/sold. Goal is for the user to finish under one minute.
Personae Profile

- Primary Persona “Simon”

Name: Simon Quick
Age: 28
Occupation: Electrician
Demographics: 28 year old, $70-85K house-hold income, no college

Story: Simon is a 28-year-old transplant from England who moved to United States with his family at a young age. He attended high-school in a Chicago suburbs and has found a passion for working with his hands as a teenager. While in high-school, Simon has started apprenticeship as an electrical and after graduation became a full-time crew member, working for ComEd. Because Simon’s occupation never required a formal 4-year college education, Simon’s high-paying job allowed him to have a large disposable income which he spent on buying cars, motorcycles and boats. When one of his “toys” broke, being a handyman, he always chose to fix them by himself. When repairs required additional equipment such as engine crane or hand-buffer, Simon chose to buy them instead of renting, because he felt that he might use them again in the future.

In his mid-20’s Simon also bought a fixer-upper home in a rural area. He felt that that marketing conditions were good, and that using his experience, he was getting a great deal by buying the house that needed work and fixing it himself. To do the repairs, Simon sold his boat and his motorcycle, and bought additional power tools such as tile saws and nail guns.

After living in the house for several years, Simon lost his job as an electrician for CoEd. After being unemployed for several months, he found another job that was much farther away from his house, and closer to where his girlfriend lived, who also owned her own house. Simon decided to sell his house and move it with his girlfriend, Annie, combining all their possessions together.

Tools/Equipment: Simon kept all of his tools that he acquired over the years that include tool to work on his cars, motorcycle, boat trailer and engine cranes, as well as a variety of tools for his house including wet saw, expensive wood saw, pressure guns, senders, buffers
and other miscellaneous items. Annie doesn’t want to have all those items sitting in her garage, but Simon doesn’t want to sell them, because he thinks that they will do more remodeling on the house in the next few years and will eventually sell this house and buy a different one when they decide to have a family. Simon is also thinking about proposing for Annie, so he needs some extra money for engagement ring. He has some debt left from when he was unemployed, and although he has a job now, he is looking for a way to make some extra money.

● Primary Persona “Tom”

Name: Tom Kucera
Age: 25
Occupation: High school Spanish teacher
Demographics: 28 year old, $32-45K HHI, College

Story: Tom is an Illinois-native who’s been born and raised in the suburbs. Continuing his family tradition, he attended University of Illinois, first as a business major, then engineering until he finally decided to become a Spanish teacher. Tom was lucky to find a job as a teacher right away in one of Chicago’s private schools, which meant he had to move from suburbs to the outskirts of the city. Ever since his sophomore year of college, Tom has always been single and had several roommates to help him pay rent. He was able to save most of his paychecks and spend his extra income on bars and entertainment.

After the 3rd year of living with roommates, Tom decided that he wanted to own his own place. He searched in the neighborhood and was able to find an older townhouse that was being sold as a short-sale. He borrowed some money and was able to purchase it. He has since moved into his house and realizes that it needed a lot of work. Besides painting and changing carpets, the houses needed major repairs in the kitchen, changing drywall in the garage, and building a new deck. He also wants to remodel the bathroom by removing several walls, moving the shower and adding new vanities. Tom doesn’t want to buy all the equipment he needs to do the projects, not does he have the money to hire a contractor to do it for him. As a teacher, and not having any roommates means Tom doesn’t have much money for professional renovation, but he wants to try and do it himself with the help of friends. Being a teacher, Tom is very busy during the year, but has the summer off, which
he plans to use to work on the house. Tom is not very handy, so he has to use the Internet to find out how to do things and the tools that he needs. It takes him a long time to do a project because he often has to look up how to do something and it takes him time to learn how to use certain tools and get used to it. He would like to borrow the tools that he needs for his multiple projects, but doesn’t want to rent from retail stores because they charge by the day, and he knows it will take him a long time to work on all his projects.

**Tools/Equipment:** Tom doesn’t really have any tools other than some hand tools. He will need a lot of power tool such as a wet saw for the tile, the angle saw to cut lumber when he’s replacing the drywall, sender for to fix his stairs and nail guns, angles and power washer to work on his deck.

- **Secondary Persona “Jenny”**

![Jenny Adams](image)

**Name:** Jenny Adams  
**Age:** 29  
**Occupation:** Medical Technologist  
**Demographics:** 29 year old, $45-55K HHI, 4-year college

**Story:** Jenny works as a medical technologist at a local suburban hospital. Married very young, her first marriage ended in divorce and she moved back in with her parents where she stayed for five years. In that time, Jenny saved substantial amount of money and when her and her current boyfriend got serious, she was able to purchase a newer home with no problems. When they first moved in, they did some work to the house, furnished it to her liking and have been living there for the past two years. At this point, Jenny wants to do some more work on the house and to re-decorate the downstairs bathroom.

Jenny’s shift at the hospital start in the afternoon and ends late evening, while her boyfriend work 9-5 office job in the city. Since Jenny wakes up the same time as her boyfriend, she found that she has a lot of free time in the morning, so she wanted to take on the bathroom-remodel by herself, more as a hobby then a necessity. She wants to do it all herself, but doesn’t really know what she needs to do. She also wants to buy a new back-splash in the kitchen and restore one of the old chairs, staining it, changing fabric and making a new reading chair out of it. She has clipped some ideas from home-decor magazines and projects she has found online, but because she has never really done any work by herself (in the past she hired contractors), she doesn’t know the proper technique or the tools that she
needs. She would like to rent these tools and try her hand at working on the bathroom and other small projects. She’s not sure if she can do it by herself, but she would like to give it a try. Jenny is fairly internet-savvy and likes to do research online. She has a very specific idea of how she wants the bathroom and back-splash to look, but doesn’t know what tools and materials the project will require. She doesn’t think buying a tool she will use only once is a smart investment, and wants to rent one instead. She also doesn’t think that renting these tools from a home improvement store is smart, because she will need several, and doesn’t know how long this project will take. Jenny is actively looking on Craigslist.com and eBay.com to see if she can find a good deal on tools, but she would much rather rent what she needs.

- Negative Persona "Matt"

Name: Matt Quartucio
Age: 31
Occupation: Self-employed carpenter
Demographics: No college education, $20-30K HHI

Story: Matt is self-employed carpenter. He work as a bar-back at a local bar in one of Chicago’s suburbs. He use to work as an assistant carpenter for a home-builder, but was laid-off several years ago. Because he doesn’t have a college education, he didn’t have any luck finding a good job, so he’s working part-time as a bar-back, factory worker, and grocery-bagger over the past few years. Friends and family who know Matt’s past experience and training often ask him to help out with small house-improvement projects whether it’s helping to tip out the carpet, fix a leaking shower, repair drywall, or give a hand building a deck. Matt doesn’t have any official certification or insurance, which means he cannot register his own business or work for another builder. When somebody hires Matt for a small project, he likes to be paid in cash and often has the contractor provide all the material, but uses his own tools.

Matt doesn’t have much income to buy the tools he need for every project. He thinks that if he had the right tools, he could potentially take on more projects and eventually be able to register his own carpentry business. When somebody asks matt to do a project that required him to use the tools he doesn’t have, he has to turn it down. Matt has several tools that were gifted to him or that were passed down from his dad, however none of them are in a very good condition and the selection is limited.
Matt is not very tech-savvy and doesn’t own a computer, but sometimes he uses his girlfriend’s or friends computers to do basic functions like find information, check sports scores or make an check menu for a restaurant. If there was a website that would allow him to rent a tool for the right job that was easy to navigate, and also a website where he could rent his tools in the present condition that he can use when he doesn’t have a project, he would consider using that service. He knows the tools, the projects he’s working on and the brands of various equipment very well, but he’s not very comfortable making purchases online or using the Internet extensively.

- **Served Persona “Emma”**

**Name:** Emma Quick  
**Age:** 31  
**Occupation:** Paralegal at a Medical Malpractice Law Firm  
**Demographic:** $50-60K HHI, 2-year associate degree, homeowner

**Story:** Emma is Simon’s older sister who is married with children. Along with her husband, she has purchased a new home 10 years ago and have re-decorated and furnished it to their liking. She’s not looking to rent or purchase any tools for herself, but she’s always struggling picking out a gift for her brother for his birthday or Christmas. She knows he loves his tools, and he’s been talking about re-doing his garage at the last family reunion. Simon told Emma that he’s excited to build on an extension to his garage, but he’s missing a few tools to start that project. Emma is shopping online to find a used tool or a gift-certificate to a home-improvement store to gift to her brother. She doesn’t know anything about power-tools – what brands are better than others, what to look for in a product, or even what tools her brother might be interested in. She’s going online to do a little research and find some options that she can use. She’s doesn’t want to spend too much money, but wants to buy her brother a present that he’ll be excited about. First, she wants to figure out what tools might be useful for his garage remodel, then see how much they cost to purchase.

**Detail Task Identification**

Register as a Seller/Lender (Rentee) of Tools
System beginning state: The home page is displayed. The user has not logged in.

Task Completion: The task is completed successfully if the participant completes the following steps:
   a) Click on LOGIN and then RENT OUT MY TOOL from the LOGIN drop down menu
   - OR – Click on RENT YOUR TOOL from the bottom of the home page
   b) Click on REGISTER from the user login page – 2 seconds
   c) Fill out the webform and click SUBMIT – 30 seconds
   d) You will be taken to a REGISTRATION SUCCESSFUL page – 1 second
   e) Click on LOGIN and then RENT OUT MY TOOL from the LOGIN drop down menu – 2 seconds
   f) Login using your user credentials – 10 seconds

System end state: The Rentee landing page is displayed

Rent a tool as a registered user
System beginning state: The home page is displayed. The user has not logged in but has a RENTER login available to them.
Task Completion: The task is completed successfully if the participant completes the following steps:

a) Click on LOGIN and then RENT A TOOL from the LOGIN drop down menu
   - OR – Click on RENT A TOOL from the bottom of the home page
b) Login using your user credentials – 10 seconds
c) Select POWER TOOLS from the Tool Type drop down menu – 2 seconds
d) Select 12 MAX MULTI TOOL W/2 LITHEON BATTERIES from the presented list page – 2 seconds
e) Select a potential lender of the tool – 2 seconds
f) Fill out required rental information - 1 minute
g) Submit rental request - 1 second

System end state: A confirmation page will display showing that your request has been processed

Load a new product to the Rentee Inventory
System beginning state: The home page is displayed. The user has not logged in.

Task Completion: The task is completed successfully if the participant completes the following steps:

a) Click on LOGIN and then RENT OUT MY TOOL from the LOGIN drop down menu
   - OR – Click on RENT YOUR TOOL from the bottom of the home page – 2 seconds
b) Login using your user credentials – 10 seconds
c) Click on ADD TO MY PERSONAL INVENTORY from the Rentee landing page – 2 seconds
d) Select AIR COOLING EQUIPMENT from the category drop down – 2 seconds
e) Select 42" BELT DRIVE PORTABLEMANCOOLER from the presented list and click ADD TO YOUR INVENTORY – 2 seconds
f) Input $200 into the PRICE area and keep all other selections as their default; click update – 5 seconds

System end state: A confirmation page will display showing that your inventory was updated
Create a Questionnaire

1. What is your age group?
   Under 18
   18 – 29
   30 – 3
   40 – 55
   55 – 65
   65+

2. What is your household income?
   30-50k
   51-80K
   80k+

3. What is your level of education
   Primary or below
   High School
   Non-Degree (Certificate/Diploma)
   Degree or Higher
   Unknown

4. How long have you been using computers?
   Less than one year
   1-3 years
   4-5 years
   6 or more years

5. Where do you have access to a computer? (check all that apply)
6. At what level would you rate your experience using the Internet?
Beginner
Intermediate
Advanced
Expert

7. What level do you feel comfortable making purchases online?
Not Comfortable
Somewhat Comfortable
Very Comfortable

8. Do you own any power tools or equipment?
Yes
No

8a. If yes, how many do you own?
1-2
2-5
over 5

9. How often do you use power tools or equipment?
Very Often
Regularly
Sometimes
Once or Twice
Never

10. What statements best describes your level of expertise of power tools and equipment?
I am very knowledgable and feel very comfortable using power tools and equipment
I use power tools and equipment from occasionally but do not have much knowledge on
power tools and equipment
I do not use or know much about power tools and equipment

Test Data Recording Form

Create testing form based on your specific requirement. The testing form should include the following:
### Task 1: Find where you would register on the site as a lender of tools

**Time:**

<table>
<thead>
<tr>
<th>Participant Action</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rent out my tool login clicked</td>
<td></td>
</tr>
<tr>
<td>Register for account is clicked</td>
<td></td>
</tr>
<tr>
<td>Registration web form is filled out and submit is clicked</td>
<td></td>
</tr>
<tr>
<td>Rent out my tool login clicked</td>
<td></td>
</tr>
<tr>
<td>Login credentials are entered and login is clicked</td>
<td></td>
</tr>
</tbody>
</table>

### Task 2: Rent an available tool as an existing user

**Time:**

<table>
<thead>
<tr>
<th>Participant Action</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rent a tool login clicked</td>
<td></td>
</tr>
<tr>
<td>Login credentials are entered and login is clicked</td>
<td></td>
</tr>
<tr>
<td>Power tools was selected from drop down menu</td>
<td></td>
</tr>
<tr>
<td>Tool was selected from the list</td>
<td></td>
</tr>
<tr>
<td>Lender was selected</td>
<td></td>
</tr>
<tr>
<td>Rental details and payment information was entered</td>
<td></td>
</tr>
<tr>
<td>Submit request was clicked</td>
<td></td>
</tr>
</tbody>
</table>
Contributions of members

Name: Hermain Rios
Contribution: Coding the website.

Name: Pavel Solyak
Contribution: Personae Profile section.

Name: Chris Reed
Contribution: Detail Task Identification, Questionnaire, and the Test Data Recording Form sections

Name: Alex DeLaRosa
Contribution: Site description and usability objectives and goals.

Name: Rania Mohammedameen a. Almajalid
Contribution: Coding the website.