



Deliverable C - Requirements Analysis

ToolieShed

MAY 5

Western Team

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1.Goal of site

TooliEShed is a peer-to-peer platform for renting a broad range of home and auto tools and small appliances. Examples of items for rent could include ladders, compressors, chain saws, hedgers, auto jacks, torque wrenches, blowers, lawn mowers, pasta makers, upholstery cleaners, shop vacuums and more.

In addition to the core ability to search for tool and small appliance rentals, it will offer online advice and tutorials for Do-It-Yourself (DIY) projects. These will include lists of tools needed for a specific project and will allow the user to easily search for tools to rent.

The goals of the website are to:

- a. Build brand awareness of the new service and to drive user and owner engagement.
- b. Create a tool and appliance sharing economy marketplace for individual renters and owners and derive revenue based on a fee-for-transaction model. Initially targeted for the US market then expanded globally.
- c. Allow users to list tools and appliances for rent. Listings will support at a minimum the rental availability dates, price per day, a description of the tool (brand and model) and location (zip code).
- d. Allow users to search for tools and appliances for rent. Filtering possible by category, availability dates, price per day and distance.
- e. Facilitate renters to book, checkout and pay online for the rental.
- f. Facilitate payment disbursement to tool and appliance owners.
- g. Facilitate a minimum level of dispute resolution between owners and renters. e.g. tool breakage, tools not returned, rental not honored
- h. Provide a section for articles or videos that offer online advice and tutorials. These will include tools needed for a project and allows users to search for one or more of those tools.

2.Audience / User Profile / Environment

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TooliEShed will initially target the US market.

Our audience is people who want to rent home and auto tools and small appliances. Examples of items for rent could include ladders, compressors, chain saws, hedgers, auto jacks, torque wrenches, blowers, lawn mowers, pasta makers, upholstery cleaners, shop vacuums and more.

Personas

Name: Liz



Tagline: "I like reading reviews about products and businesses before dealing with them.. Also, I feel more comfortable, making an online transaction if the site has a live chat."

Age: 25

Occupation: Student/Part-Time

Status: Single

Location: Chicago, IL

Income: 25k

Archetype: Enthusiast

Liz is an international graduate student who works part-time. She came from Spain and lives in an apartment that is shared with a roommate. Because she has immigrated to the USA, she doesn't have relatives nor close friends to ask them for tools to help her on some projects.

Part of her time is spent at the university where she usually brings her lap top and/or tablet and her smartphone. She uses those devices to rent tools or small appliances for her projects and chores.

Goals:

- Find a list of tools and small appliance that can be rented for a project.
- Find tutorials for Do-It-Yourself (DIY) projects.
- Read reviews about people's experiences renting tools.

Frustrations:

- Not being able to complete an online transaction on her smartphone or tablet.

Name: Bill



Tagline: "I love spending time fixing issues around the house and make transactions on my phone"

Age: 45

Occupation: Teacher

Income: 40K

Status: Married

Location: Dallas, TX

Archetype: Enthusiast

Bill is a high school teacher. He is married, with two children and last year he bought a house. He loves spending time fixing issues around the house.

Bill has many expenses from his house purchase and from supporting his family. Because in the past he purchased many tools, he would like to rent them to make

some extra money. During the weekdays, Bill spends a lot of time at the school so he uses his smartphone most of the time. He usually makes transactions at the school's cafeteria or in the parking lot in his car.

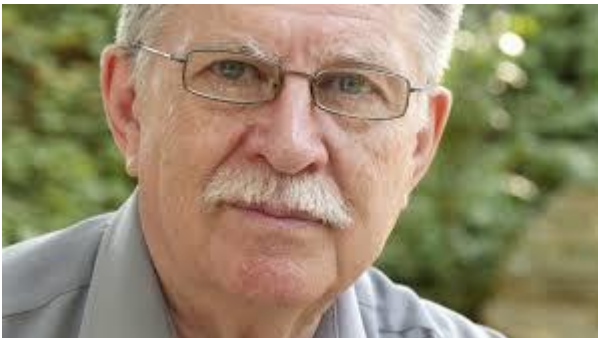
Goals:

- Transparency during transactions.

Frustrations:

- Mobile web interface that do not look good on his phone.

Name: Steve



Tagline: "I like to spend time on projects using different tools, but I'd like to get advice and instruction from knowledgeable resources."

Age: 67

Occupation: Retired

Status: Married

Income: 5K

Location: Madison, WI

Archetype: Novice Tech User

Steve owns a house with a yard. He and his wife are very active and love to spend time on projects around the house. Throughout the years, Steve has accumulated many indoor and outdoor tools and appliances. Steve would like to rent his tools and appliances to earn extra money and also to rent new tools when needed for ongoing projects. He has a computer at home but is a novice computer user. He would like the site to have easy and intuitive how-to tutorials for specific projects. Also, he would like to be able to download tool and/or appliance manuals. Steve has sight issues and prefers websites with high contrast colors and that are easy to read.

Goals:

- Be notified when a desired tool or appliance is available to be rented
- Easy online renting experience
- Trust the site to make transactions

Frustrations:

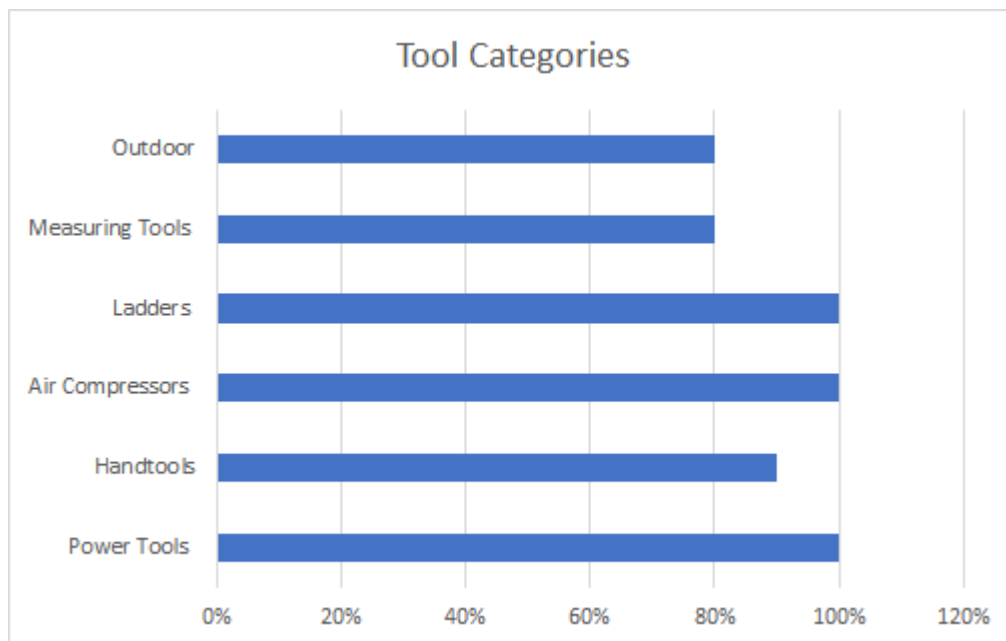
- Not able to download and print instructions (manuals or how-to- guides)
- Lack of renting transaction transparency
- Lack of customer support

3.Information Design

A. Card Sort Analysis

An open card sort was conducted with 10 participants using 30 cards to help determine how users would categorize certain tools. The open card sort allowed users to group items that were related, and then provide labels for their groupings. This resulted in clearly defined categories which will help end users locate the tools and information they need within the site.

Across all 10 participants there were six distinct tool categories that emerged. All 10 participants created categories named Power Tools, Ladders, and Air Compressors while 8 participants created categories named Outdoor and Measuring Tools, and 9 participants created the category Hand Tools. Overall, a majority of the participants used the same or very similar language to categorize and group the cards.



The patterns that emerged based on the common participant language used to group the cards was applied to our sitemap in order to help users quickly and efficiently find the information and tool(s) they need.

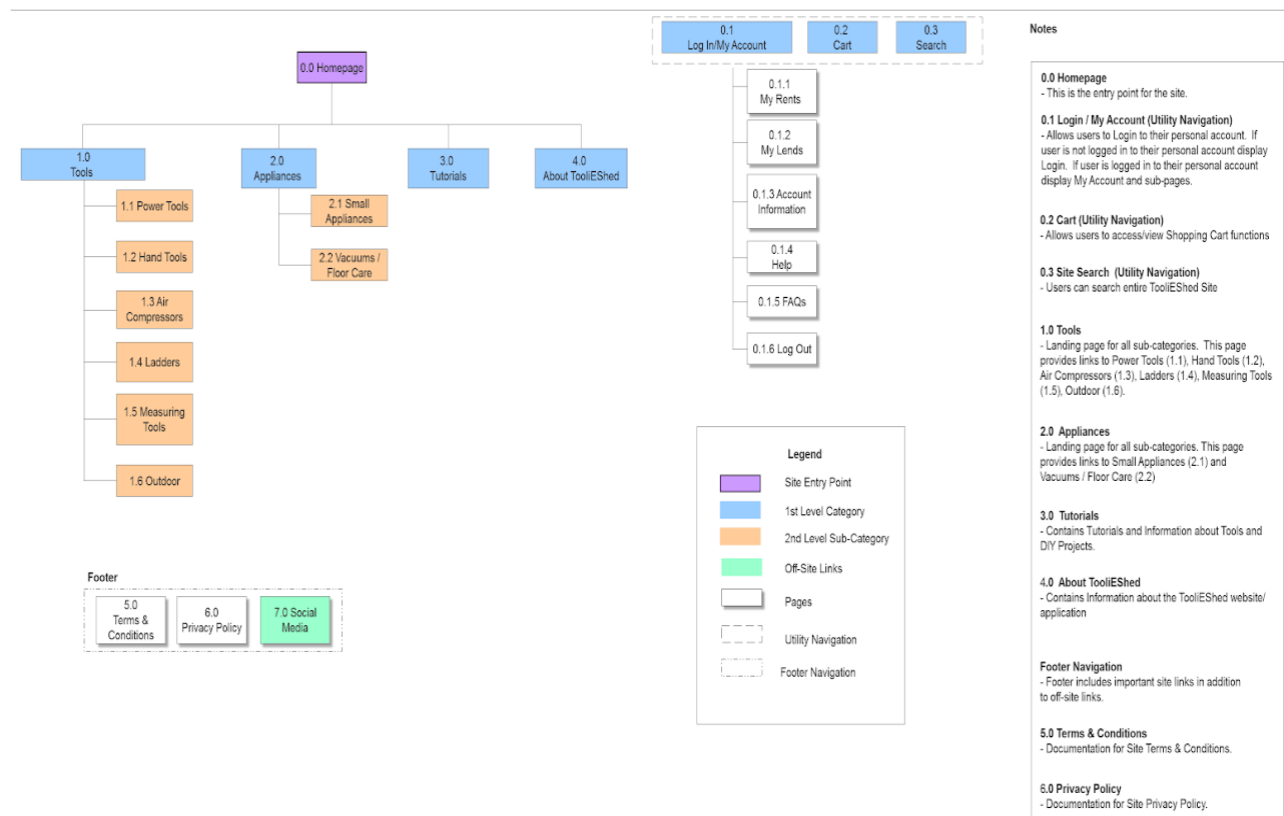
B. High-level site map describing information architecture

After completing the card sort we created a high-level sitemap for the website. The sitemap contains utility navigation pages that directs users to either log-in and view information related to their account, view their cart, or search the entire site.

Once a user is logged-in to their account they have the ability to view current and previous rental items via the My Rents page, setup and/or verify account information such as payment information and profile information via the Account Information page, as well as review common FAQ's or reach out for Help if necessary. In addition, tool owners wishing to use the site to lease their tools can view information about current and previous rentals as well as create new rental listings via the My Lends page.

Aside from the utility navigation, the website contains four main first level navigation categories allowing users to browse for tools or appliances, view tutorials, or learn more about the website. The footer contains social media links as well as the terms and conditions and privacy policy.

ToolIEShed
Sitemap

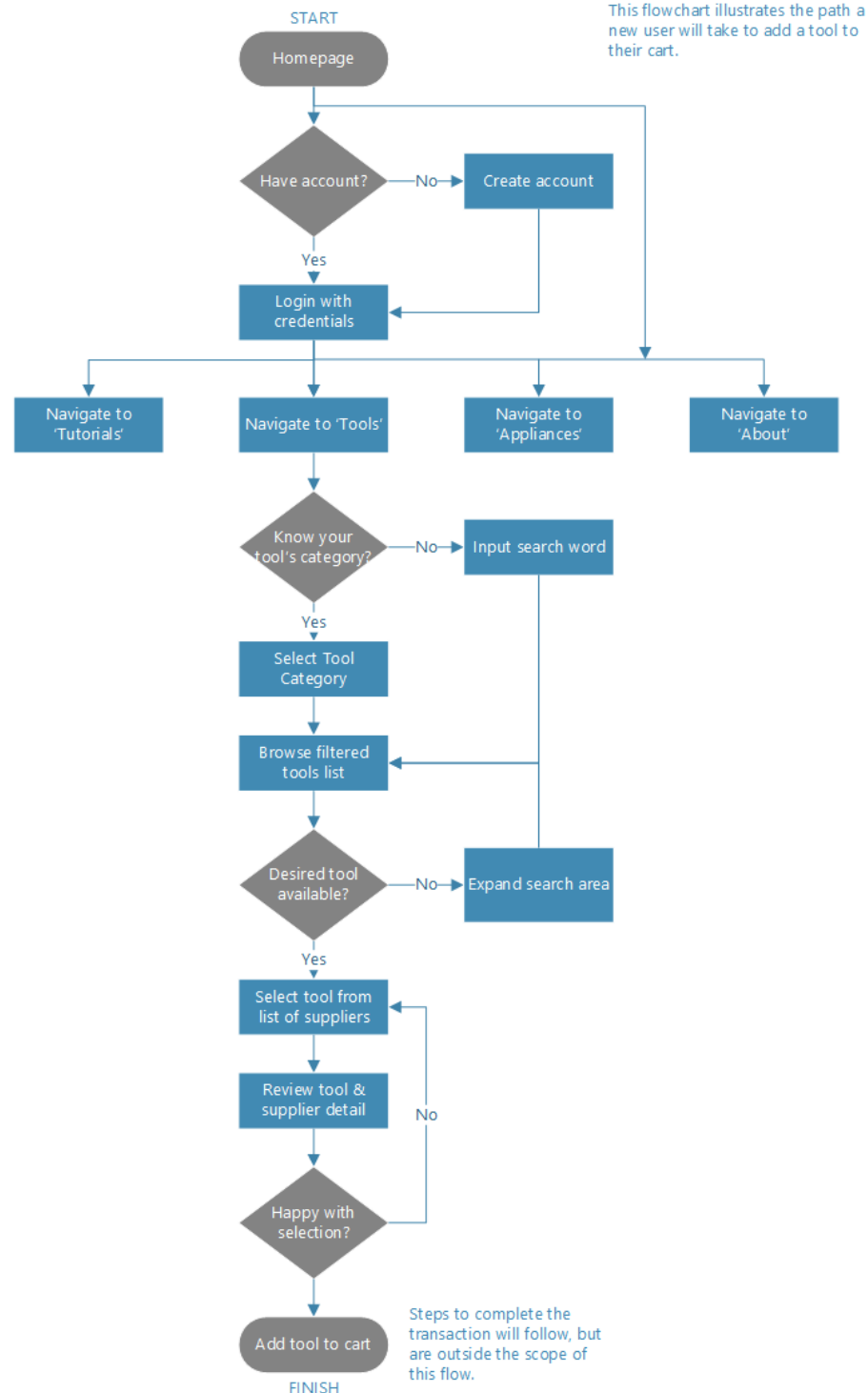


4.Interface Design

A. Navigation – The flowchart below illustrates how a new user will navigate TooliEShed and add a tool to his or her cart.

TooliEShed

New User Flowchart



B. What's the overall look-and-feel? Describe the first impression.

Whether it's a home-improvement project or automobile maintenance, having the proper tool is essential to getting the job done right. It's equally important for our users to have the confidence to do the job, otherwise they might shy away from renting tools and opt to hire out the work.

We're striving to inculcate a feeling of confidence, support, and organization in our users. We want to nudge those looking to rent towards completing the rental transaction comfortably and without undue stress. Additionally, we're providing an organized platform for those offering tools and guides to show off their hard earned skills and equipment collections.

As an example, an anonymous user land at the homepage with an inspiring hero image and call-to-action to search for tools in their area:



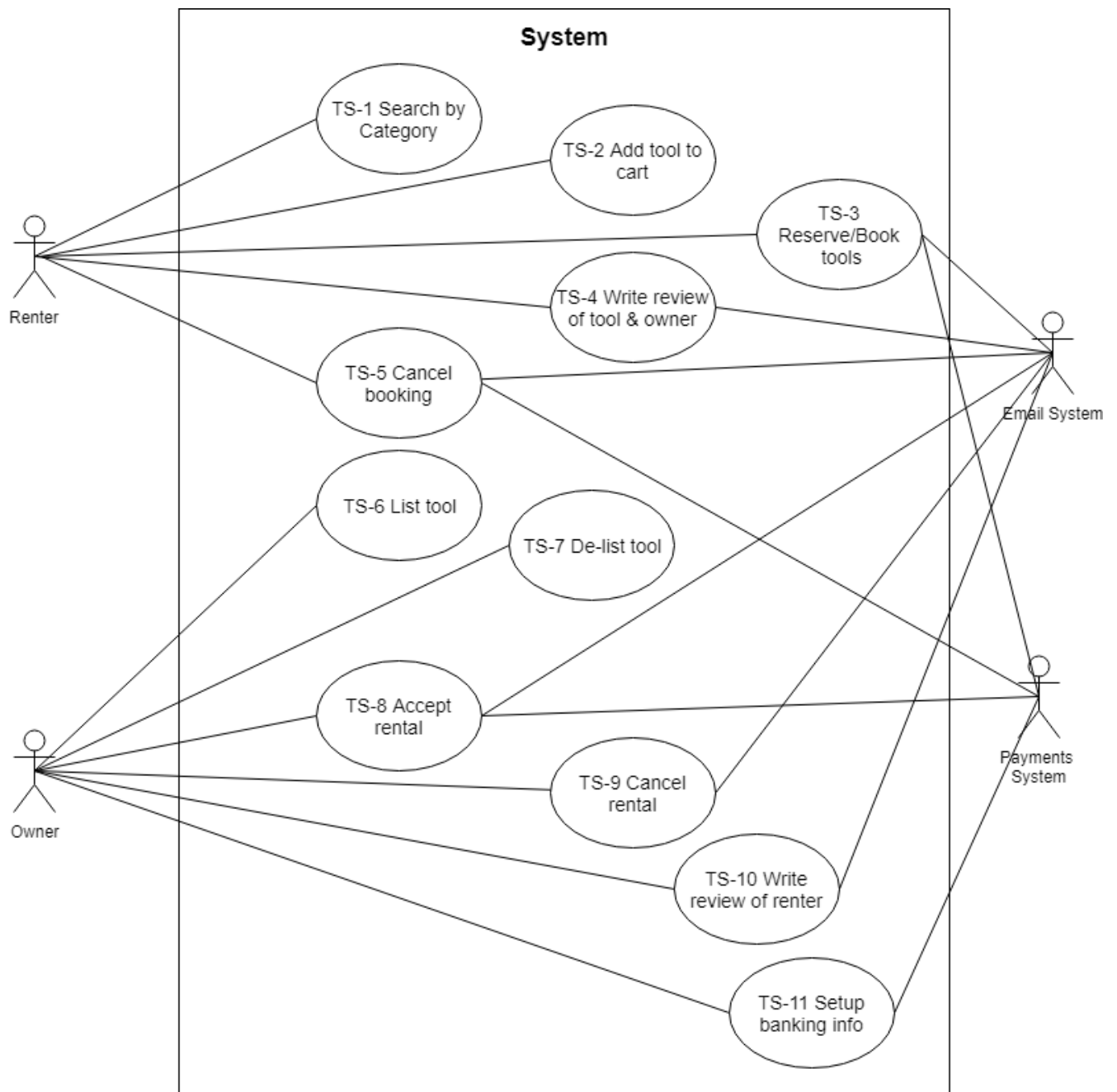
If the user submits their inputs, they will navigate to tools landing page, which will be filtered based on their inputs. Alternatively, just below the hero section, the user will see a number of popular tutorial cards, complete with media (images or video) and a tool list.

Our goal is to provide an organized, calming experience and connect a community of renters to complete even the most daunting projects.

5. System Design

A. What functions/features will be available to the customer? Keep this at a high level.

Use Case Diagram - High level system requirements / features available to users



Brief Use Cases

| | |
|--|---------------------------|
| Stakeholder: Renter | Use Case Identifier: TS-1 |
| User Story: As the renter, I want to search for a tool or appliance by category, e.g. ladder, so that I get a list of results. | |
| Use Case Name: Search by Category | |
| Actors: Renter | |

| | |
|--|---------------------------|
| Stakeholder: Renter | Use Case Identifier: TS-2 |
| User Story: As the renter, I want to add a tool booking to the cart so that I can consolidate rentals from multiple owners into a single payment and single transaction. | |
| Use Case Name: Add tool to cart | |
| Actors: Renter | |

| | |
|---|---------------------------|
| Stakeholder: Renter, Owner | Use Case Identifier: TS-3 |
| User Story: As the renter, I want to complete the reservation and pay for the rental so that I reserve the tools for my chosen dates. | |
| Use Case Name: Reserve/book tools | |
| Actors: Renter, Email System, Payments System, Owner | |

| | |
|---|---------------------------|
| Stakeholder: Renter, Owner | Use Case Identifier: TS-4 |
| User Story: As the renter who has completed a tool or appliance rental, I want to be able to write a review of the tool and/or owner so that I can provide feedback and inform the larger rental community. | |
| Use Case Name: Write review of tool and owner | |
| Actors: Renter, Email System, Owner | |

| | |
|---|---------------------------|
| Stakeholder: Renter, Owner | Use Case Identifier: TS-5 |
| User Story: As the renter, I need to be able to cancel one or more tool reservations so that I can avoid renting a tool I no longer need and so that it becomes available for others to rent. | |
| Use Case Name: Cancel booking | |
| Actors: Renter, Email System, Payments System (authorization and possibly capture/settlement) | |

| | |
|--|---------------------------|
| Stakeholder: Owner | Use Case Identifier: TS-6 |
| User Story: As the owner, I need to be able to list a tool or appliance for rent so that I can let renters know what, when and for how much per day or week the tool is available for. | |
| Use Case Name: List tool | |
| Actors: Owner | |

| | |
|---|---------------------------|
| Stakeholder: Owner | Use Case Identifier: TS-7 |
| User Story: As the owner, I need to be able to de-list a tool or appliance so that the inventory on the marketplace is kept up-to-date. | |
| Use Case Name: De-list tool | |
| Actors: Owner | |

| | |
|---|---------------------------|
| Stakeholder: Renter, Owner | Use Case Identifier: TS-8 |
| User Story: As the owner, I need to be able to manually (or automatically) accept one or more tool reservations so that the renter's reservation is accepted and confirmed. | |
| Use Case Name: Accept rental | |
| Actors: Renter, Owner, Email System, Payments System (capture/settlement) | |

| | |
|---|---------------------------|
| Stakeholder: Renter, Owner | Use Case Identifier: TS-9 |
| User Story: As the owner, I need to be able to manually cancel one or more tool reservations so that the renter's reservation is canceled, money is refunded and renter informed of the cancellation. | |
| Use Case Name: Cancel rental | |
| Actors: Renter, Owner, Email System, Payments System | |

| | |
|--|----------------------------|
| Stakeholder: Renter, Owner | Use Case Identifier: TS-10 |
| User Story: As the owner, I need to at the end of a completed reservation be able to write a review of the renter so that the renter receives feedback and so that the TooliEShed community is informed. | |
| Use Case Name: Write review of renter | |
| Actors: Owner, Email System | |

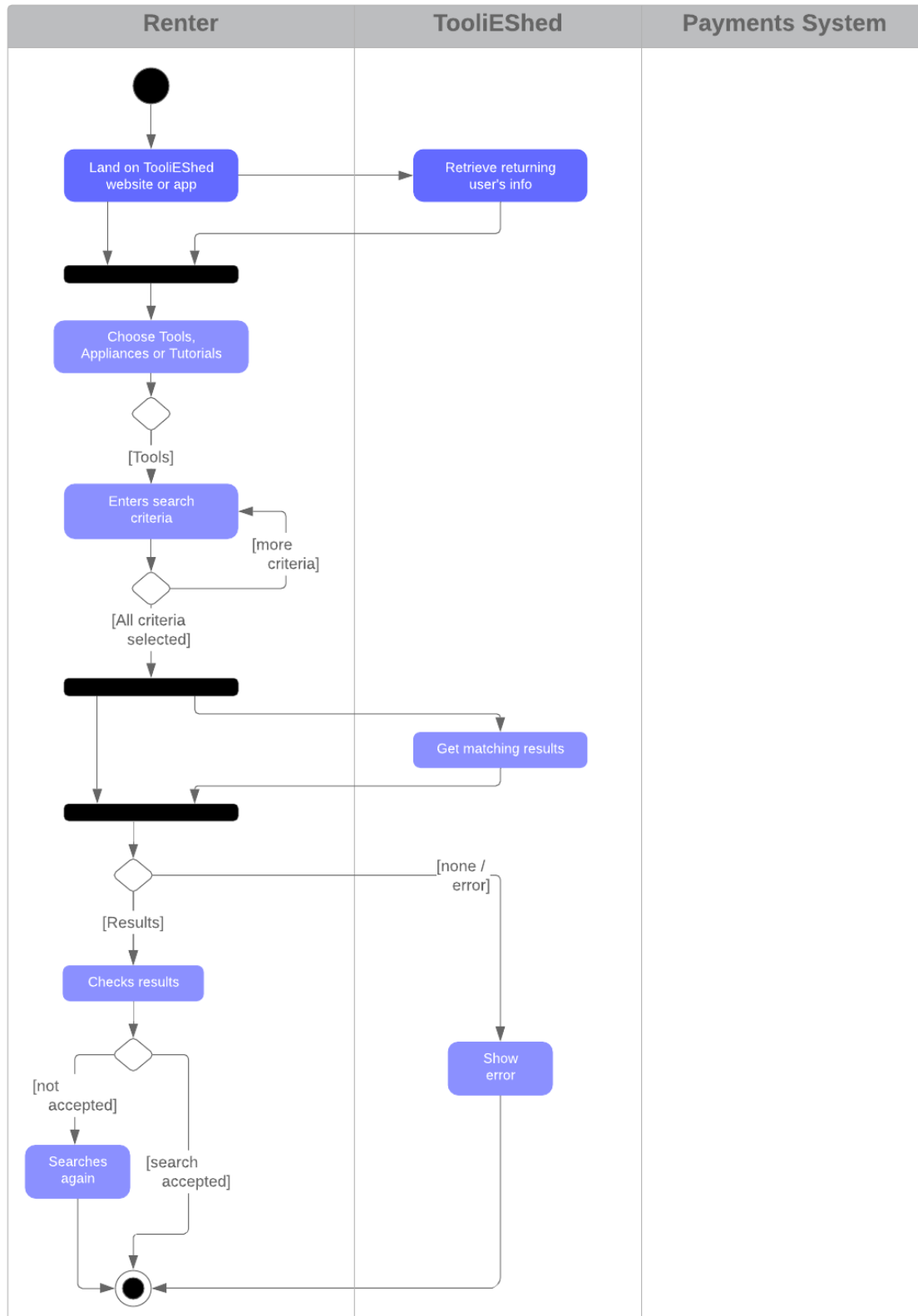
| | |
|--|----------------------------|
| Stakeholder: Owner | Use Case Identifier: TS-11 |
| User Story: As the owner, I need to be able to setup my banking information so that I receive payment into my banking account after a rental has been completed. | |
| Use Case Name: Setup banking info | |
| Actors: Owner, Payments System (banking) | |

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- B. Show a more detailed flow for
- i. Finding/browsing for an item
 - ii. Adding an item to a shopping cart
 - iii. Check out

See Activity Diagrams on next pages.

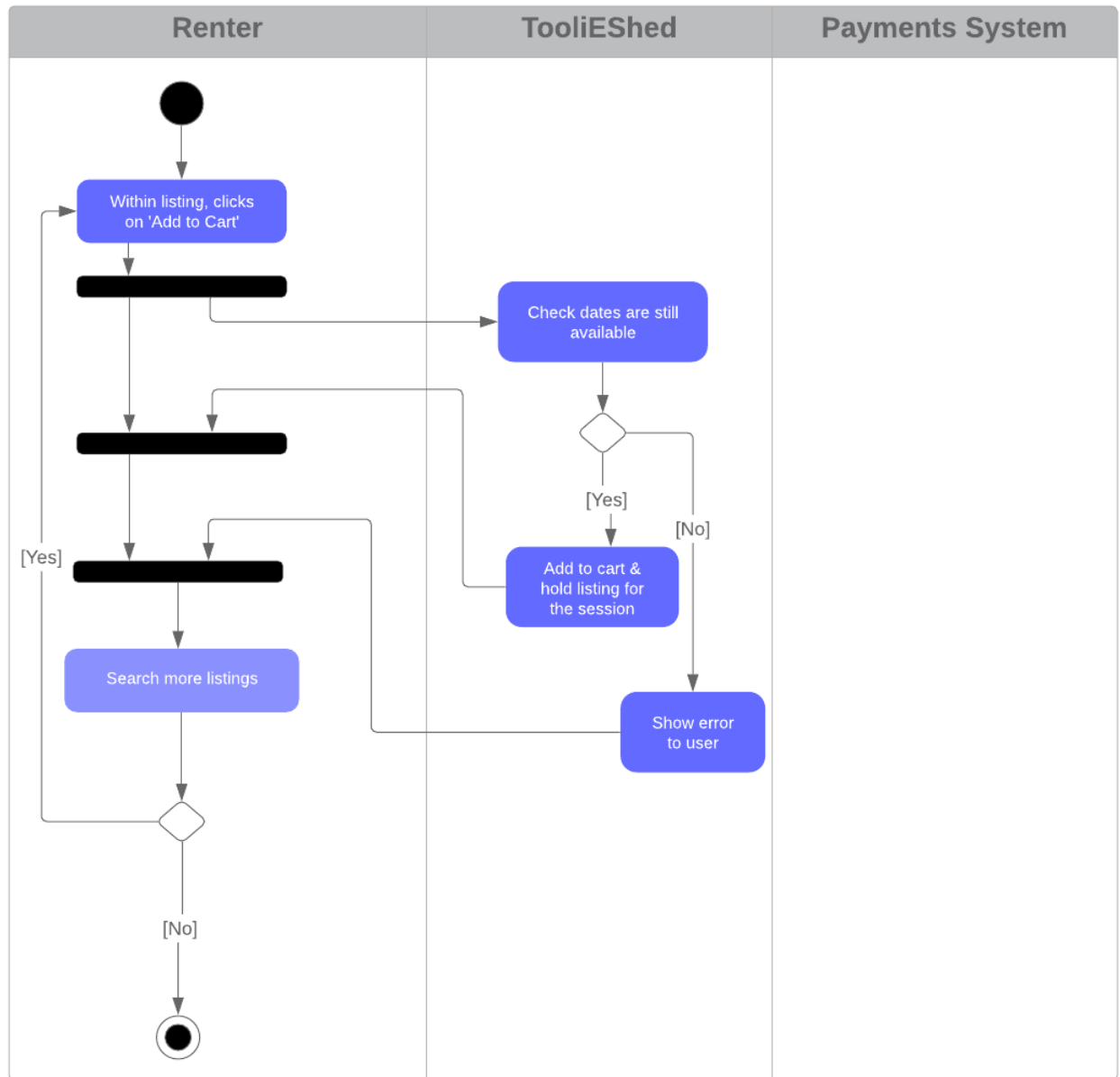
Activity Diagram - Searching for a tool

Search for Tool



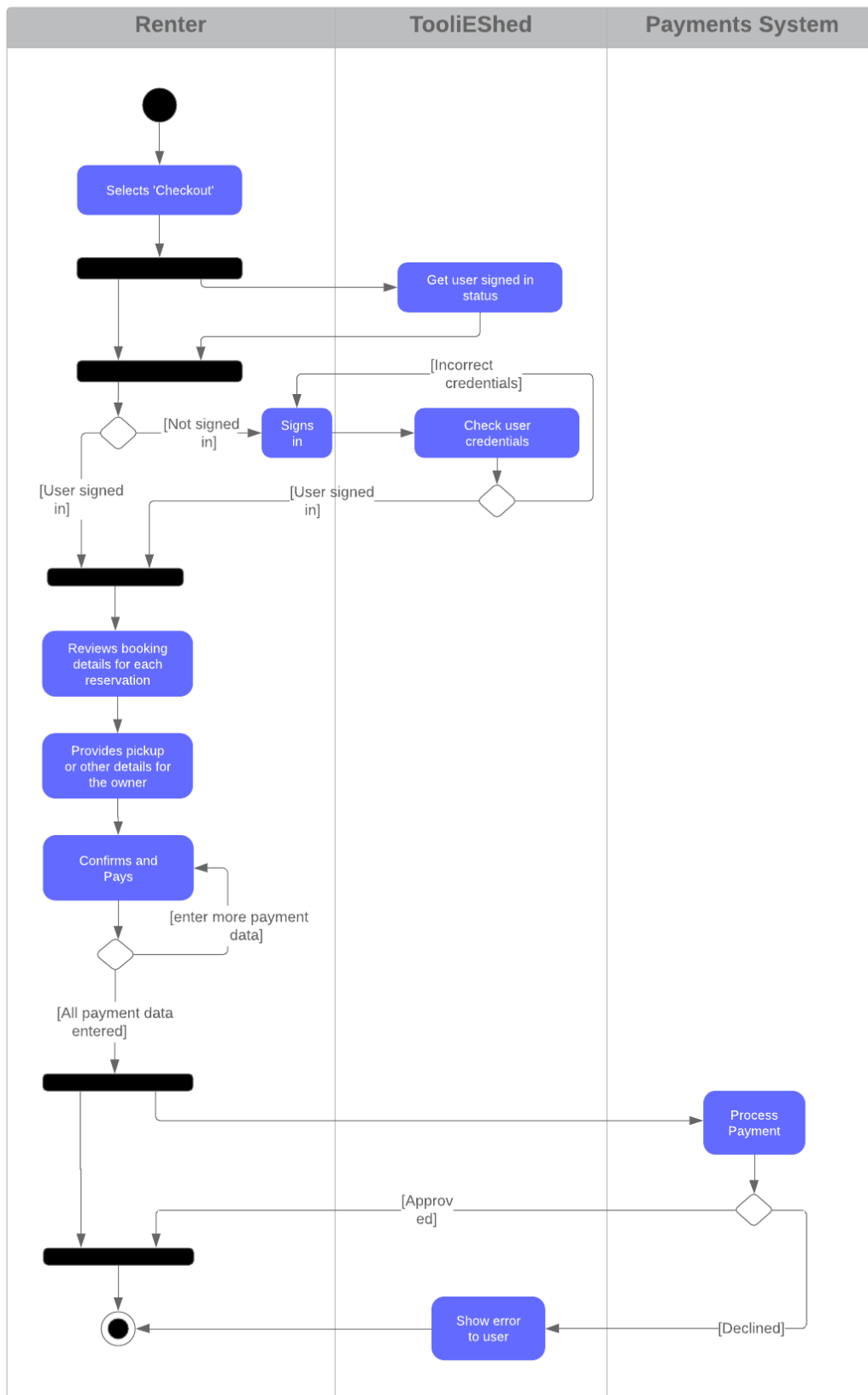
Activity Diagram - Add to cart

Add to Cart



Activity Diagram - Checkout

Checkout



C. Is this a new channel for an existing business? If so, briefly describe the concerns regarding integration with current resources.

⊗ Not applicable as the business does not yet exist.

D.