

Amazon

A-to-Z
Safety feature

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Role

- Led UX & UXR

Timeline

- 3 months

Stakeholder

- Amazon Employees (Associates), WHS
Sketch & Invision, Figma and Internal Design System

Team Structure

AWS ProServe Team

- Designer
- Backend Dev
- Frontend Dev
- Manager
- Business Analyst/Product Owner
- Security Engineer

Workplace Health & Safety

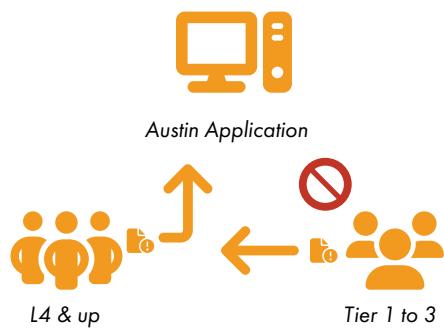
- Client

Platform

- Integrate with A-to-Z
- Send data over to Austin

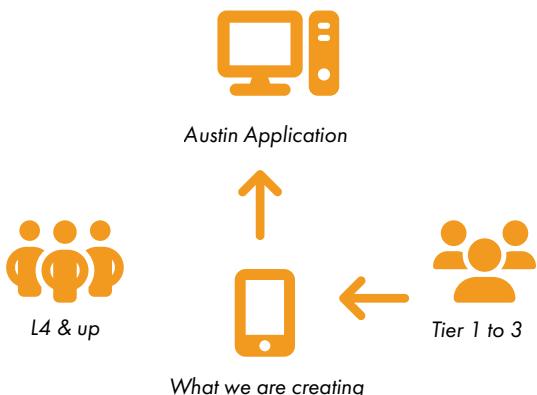
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Overview



- A proprietary application was internally developed for leaders and managers to self-report hazardous conditions in the work environment.
- Tier 1 to 3 employees were required to fill out paper forms and submit them to their managers
- Managers have to manually enter them into the online interface.

Problem Statement



- Create an application that is an easy and quick way for all employees to use
- Maintaining compatibility with the existing backend and data model
- Keep a successful submission rate when users submit concerns

Challenges

Maintaining data integrity with a significant increase in user population

- Experienced managers served as QA for the data entry in the legacy system
- Hazard classifications are not intuitive by nature; the UI must guide less experienced users toward making the correct decisions

The new application must conform to the existing backend and data model

- Existing data model uses very technical hazard terminology that requires extensive experience in hazard classification to understand

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Rapid Prototyping

- Understanding the goal of the project due to time restraints, the team wanted final designs out as soon as possible.
 - Create the final prototype based on best practices quickly and the detailed business requirement documentation produced by the Workplace Health & Safety team.
 - Once the first round of designs were complete I created a research/usability test plan.
 - Worked with a diverse group of users to test the current designs from all around the world with different positions and years at Amazon.

Research Study

- I found ten different images of safety concerns around a warehouse.
 - I would review each image with each user and collect the selected submission choice. While the users would choose the selection they think best fits, I would ask, "Why did you choose that option" etc.

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Findings

- After conducting this study with 15 users and ten images, the average number of correct submissions were ~51%
- The biggest issue was the terminology was very complex for users that hasn't worked in a fulfillment center or workplace safety.
- The test showed that users are either spending a lot of time on the dropdown lists or just selecting the first option they see that fits.

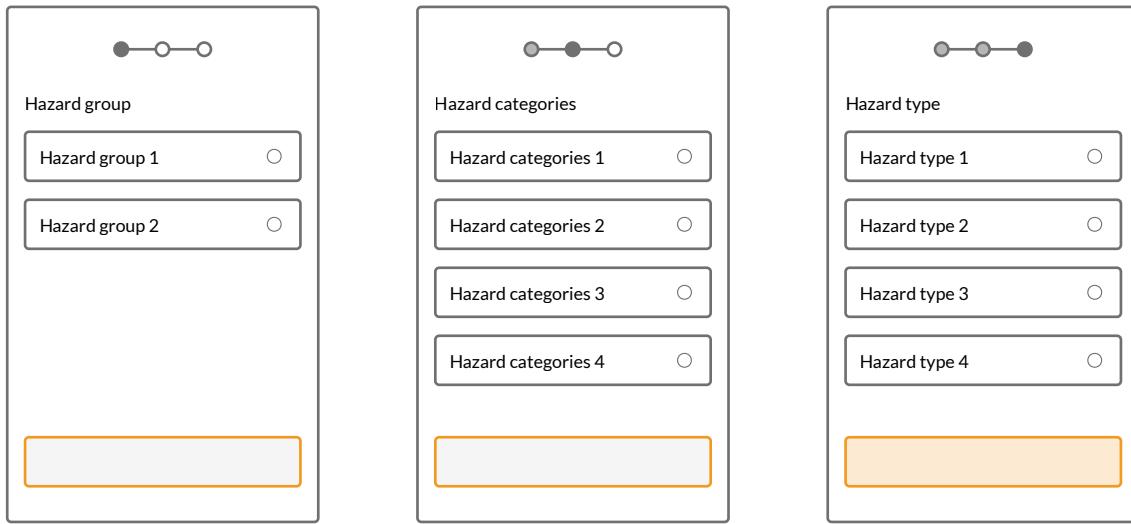
Hazard group
Hazard categories
Hazard type

	Correct	Incorrect								
	Image 1	Image 2	Image 3	Image 4	Image 5	Image 6	Image 7	Image 8	Image 9	Image 10
User	Green	Red	Green	Red	Green	Green	Green	Green	Green	Green
User	Red	Red	Green	Red	Green	Green	Red	Red	Green	Green
User	Red	Green	Green	Red	Red	Green	Red	Red	Red	Red
User	Green	Green	Green	Red	Green	Red	Red	Red	Red	Red
User	Red	Red	Green	Red	Green	Green	Green	Green	Green	Green
User	Red	Green	Red	Red	Green	Green	Red	Red	Green	Green
User	Green	Red	Red	Red	Red	Green	Red	Red	Red	Red
User	Red	Green	Red	Red	Red	Red	Green	Red	Red	Red
User	Green	Red	Red	Red	Red	Red	Red	Red	Red	Red
User	Red	Green	Red							
User	Green	Red	Red	Red	Red	Red	Red	Red	Red	Red
User	Red	Green	Red							
User	Green	Red	Red	Red	Red	Red	Red	Red	Red	Red
User	Red	Green	Red							
User	Green	Red	Red	Red	Red	Red	Red	Red	Red	Red
User	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red

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Iterate

- Displaying all the options for each hazard section will allow the users to select the best one that fits their concern or suggestion by seeing all the options on one screen.



- Not having the ability to change the terminology was a big issue. I was able to write up simple and clean descriptions for all the hazard groups and hazard categories and work with an Amazon UX writer that was able to even help simplify but relay a clear description.

Hazard group 1
Clear description on what hazard group 1 means and what options fall under it



Hazard group 2
Clear description on what hazard group 2 means and what options fall under it



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Data

- After completing those two changes, I was able to gather another 15 employees with diverse backgrounds within Amazon and conduct the same test.
- The accuracy was improved from 51% to 93%.

	Correct	Incorrect								
	Image 1	Image 2	Image 3	Image 4	Image 5	Image 6	Image 7	Image 8	Image 9	Image 10
User	Green	Red	Green							
User	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
User	Green	Red	Green	Green	Green	Red	Green	Green	Green	Green
User	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
User	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
User	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
User	Green	Red	Green	Green	Green	Red	Green	Red	Green	Green
User	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
User	Green	Green	Green	Green	Green	Red	Green	Green	Green	Green
User	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
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User	Green	Red	Green	Green	Green	Red	Green	Green	Green	Green
User	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
User	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green