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Tools to help you manage safety in your factory easily Work Safety Form and Website Interface

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Abstract

In this project, I have been involved in changing the entire CI system. We need to understand that this product is made to prevent hazards in the factory by filling in information on our website or app instead of filling in documents and we have been involved in changing the format of the form to make it easier and more convenient to fill in safety information.

Introduction

In this project, I was given the task of adjusting the form based on feedback that I received that this form is quite complex, so we had to design the form to be easy to understand and easier to use for users, as it is the main function of our system with quite a lot of details. Another task I received was during the period when the company was changing the CI components from blue to green and changing the menu bar of the system.

Methodology

The system of filling out factory safety forms is designed to make people turn to fill in the information on the website or app instead of filling in documents to reduce the time. It can be filled in anywhere through our products. Before we design, there are many steps that we have to start doing before we can start designing.

1.Empathize

- **User Research:** The problem for some users is that the form is too long or when selecting multiple tasks, it is difficult to view the data because most of the data is text, which requires careful concentration to read. After all, it affects the safety of the work.
- Analyze Persona: Create user personas based on real data, thinking methods, and user behaviors, and then understand and be able to think through observation and inquiry.

2.Define

- It is a collection of data and a summary of all the data. It isn't easy to reduce the data from the form. Therefore,
 I use a method of managing the proportions in each topic or sometimes I use icons to communicate the meaning of the type of work to make it clearer or arrange the space between items to make it clearer.
 3.Ideate
- In this step, we will take the conclusions we have drawn and turn them into ideas, present them, and discuss them with the team to find points that should be corrected or improved by asking for each person's opinion and choosing an idea that is suitable for the job to solve that problem.

4.Prototype

5.Test

- After getting an idea, start drafting the form using what was learned from the team meeting, turn that idea into a website or sample application to make it clearer, and analyze it so that our form can meet the user needs by designing according to UX/UI and CI design principles or system elements to be the same.
- The design principles are contrast, repetition, arrangement, and proximity. These principles are the main factors in making this project. Because there is a lot of data in this form, it must be organized in a neat proportion to make it easy to use for factories.
- After the prototype is complete, we will have to meet with the user to present because we may not understand the target user 100%. We will have to present or understand to see it in the same way. Then collect as much feedback from the user as possible and ask questions that we still have doubts about to use that information to adjust the work to meet the needs of the user as much as possible to make our product better.

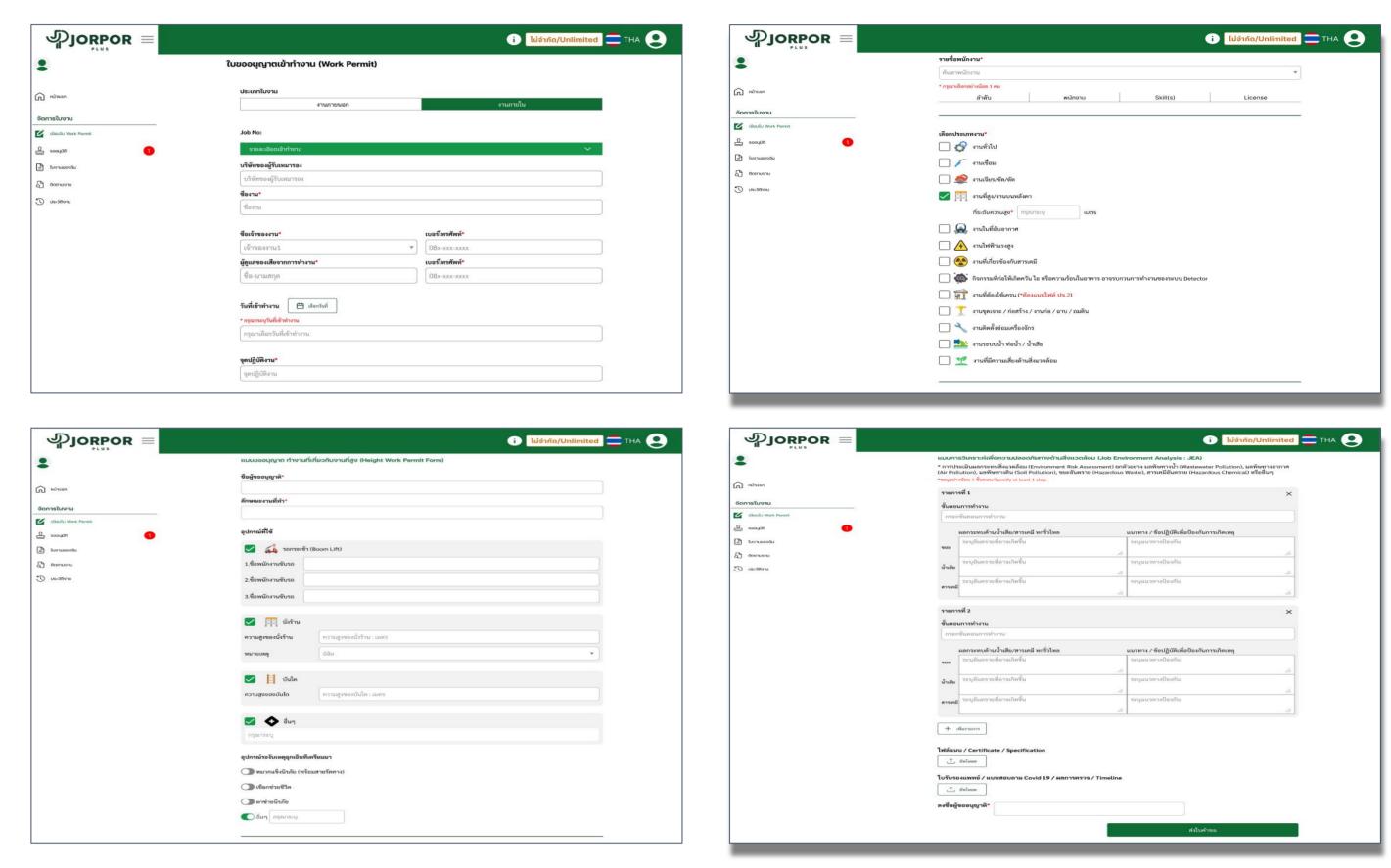


Figure 1: New Inform

Results

From the conclusion, it can be seen that the amount of data used to prepare safety documents in the factory is large. We therefore find a solution by organizing and improving the system to be more systematic by dividing the work types and using the base from the form used in the document format to display on the website or application to be appropriate and convenient to use. This is managed according to the type of work performed through the system, making the system easy to understand and user-friendly, helping to save time in preparing documents.

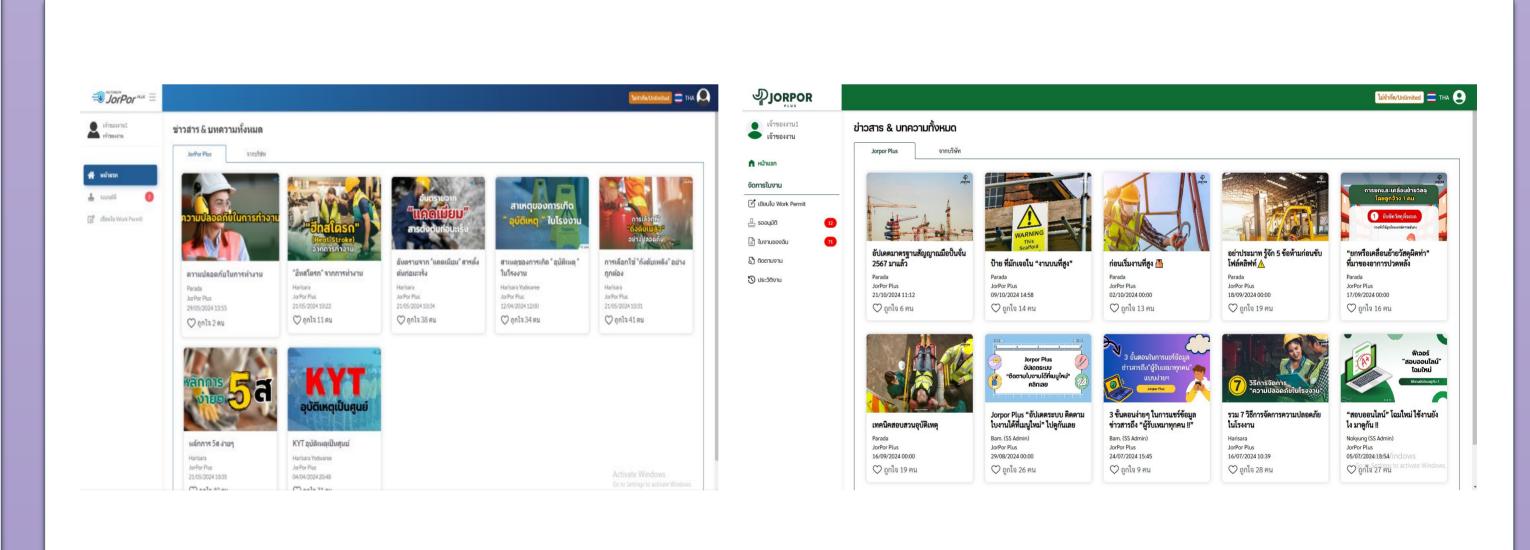


Figure 2 : Old CI

Figure 3 : New CI

Conclusion

In this project, we found that factory safety is a sensitive issue and a lot of data is filled in if we need to fill out documents. So, the purpose of our app or website is to help factories proceed factory safety documents without having to fill out just documents and also help store company information. It also reduces the time to fill out documents and is convenient because there is no need to send documents multiple times. It can be done through our app or website, helping to create comprehensive safety in the factory.

References

- What is UX / UI Design? Posted by Tristina Oppliger on June 10, 2021 https://flatironschool.com/blog/what-is-ux-ui-design/
- 2. UI Design in Practice: Gestalt Principles April 23, 2019By ThalionTips, Ultimate Guides https://uxmisfit.com/2019/04/23/ui-design-in-practice-gestalt-principles/
- 3. What is the difference between UI and UX? https://www.figma.com/resource-library/difference-between-ui-and-ux/
- 4. UI vs. UX Design: What's the Difference? Written by Coursera Staff Updated on Sep 20, 2024 https://www.coursera.org/articles/ui-vs-ux-design

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