# Define

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## Empathy map

**Research method:** Empathy map (Figure 1 is depicting the empathy map).

Why: To summarize and synthetize findings from observations and interviews.

**How:** By describing what users say, feel, do, think and in the end, listing pains and gains.

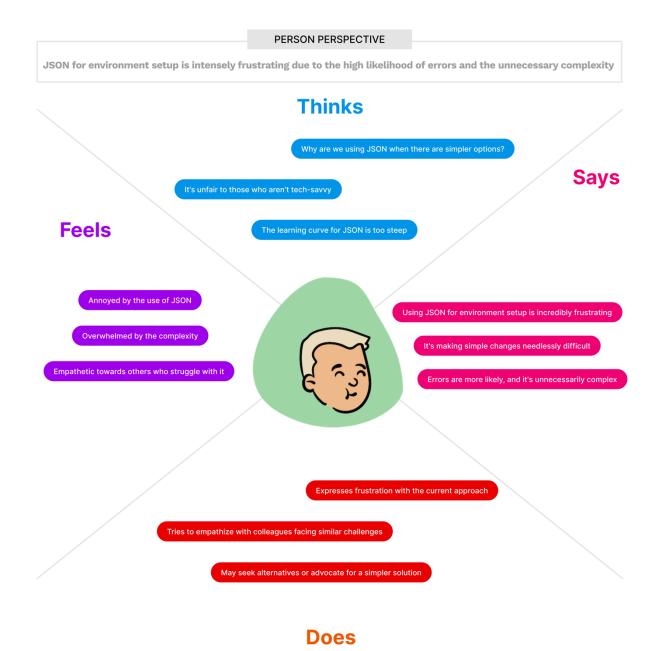


Figure 1. Empathy map

#### Pains and gains

#### Pains:

- Constantly dealing with errors in the JSON setup process leads to frustration and can be time-consuming to troubleshoot.
- The complexity of using JSON for environment setup adds an extra layer of difficulty, making simple tasks more challenging than they need to be.
- The individual experiences frustration due to the perceived inefficiency and difficulty of using JSON for setting up the environment.
- The complexity of JSON poses a challenge, making it difficult for the person to quickly grasp and implement, leading to a sense of overwhelm.
- The person empathizes with colleagues who may struggle with JSON format.

#### Gains:

- Expressing frustration with the current approach indicates a desire for a more straightforward solution.
- Seeking alternatives or advocating for a simpler solution shows a proactive approach to problem-solving and a willingness to explore better options.
- The person's empathetic attitude and frustration with the current approach may encourage open communication within the team, leading to collaborative efforts to find a more userfriendly solution.
- If a simpler alternative is adopted, there is the potential for increased efficiency in the environment setup process, reducing frustration and errors.

#### Conclusion

The individual navigating the use of JSON for environment setup encounters a challenging experience marked by frustration and an awareness of the unnecessary complexity associated with this approach. The high likelihood of errors and steep learning curve further compound these challenges. However, amid these pains, there are potential gains. The individual actively seeks simplicity and empathizes with colleagues facing similar struggles. This empathy fosters a collaborative team spirit, encouraging exploration of alternative, more user-friendly solutions. The advocacy for efficiency improvements indicates a proactive approach to problem-solving. Ultimately, this individual's journey with JSON involves not just frustration but also presents an opportunity for positive change, teamwork, and a pursuit of more accessible and efficient solutions in the realm of environment setup.

#### Point of view

**Research method:** POV (Figure 2 is depicting the POV table).

**Why:** To define the problem as a problem statement in a human-centered manner.

**How:** By synthesizing the information gathered during the empathize stage.

USER	NEED	INSIGHT
Product owner at Cape	The necessity to make weekly adjustments to the customer's primary setup environment, coupled with the requirement for daily small-scale modifications, all managed through the use of the JSON format.	The user seeks a no-code solution for environment management due to the heightened risk of errors associated with the current method. The complexity of JSON deters others in the company from undertaking similar responsibilities, emphasizing the need for a more accessible and user-friendly approach to these tasks.

Figure 2. Point of view

User: Product owner at Cape

**Need:** The necessity to make weekly adjustments to the customer's primary setup environment, coupled with the requirement for daily small-scale modifications, all managed using the JSON format.

**Insight:** The user seeks a no-code solution for environment management due to the high risk of errors associated with the current method. The complexity of JSON deters others in the company from undertaking similar responsibilities, emphasizing the need for a more accessible and user-friendly approach to these tasks.

### How might we?

#### Questions:

- How might we turn the setup interface into a no-code solution, so the knowledge of JSON would become irrelevant?
  - Solution: Develop a visual drag-and-drop interface that allows users to configure settings and parameters without needing to directly interact with JSON code. Utilize intuitive icons and controls for users to design their environment effortlessly.
- How might we make the setup interface less developer dependent, so non-developers could edit it as well?
  - Solution: Introduce a user-friendly interface with clear instructions, tooltips, and inline documentation, enabling non-developers to easily understand and modify configurations. Provide guided wizards and prompts to simplify the editing process.
- How might we create a self-service tool that translates complex JSON data into a format that is easily understandable and editable for users, ensuring a seamless experience?
  - Solution: Implement an AI-driven translation tool that automatically converts complex JSON structures into a more user-friendly format. This tool could also provide contextual explanations for each configuration, making it easier for users to comprehend and edit.
- How might we implement a reusable principle in the design, leveraging ReactJS to allow for flexibility in adapting the tool to future datasets and evolving requirements, thus ensuring long-term sustainability?
  - Solution: Utilize ReactJS components to create a modular and reusable design. Break down the tool into distinct, independent components that encapsulate specific functionalities. This approach allows for easy integration of new features, adapting the tool to future datasets and evolving requirements by adding or modifying React components without affecting the entire application. Leverage React's component-based architecture to ensure a flexible and maintainable codebase, promoting long-term sustainability and scalability.

#### Conclusion

In exploring the challenges of utilizing JSON for environment setup, the empathy map provided a deep understanding of frustrations, needs, and insights of the target audience. The user's perspective revealed a desire for a more accessible, no-code solution due to the perceived risks and complexity associated with the current JSON format. POV refined this understanding, emphasizing the need for streamlined environment management, especially considering the weekly and daily adjustments required. The subsequent "How might we" questions served as a bridge between empathy and solution, providing a framework for ideation. The brainstorm proposed solutions such as a visual clickable user-friendly interface, Al-driven translation tools, and a modular design leveraging ReactJS. These solutions aim to address the Product Owner's needs, enhance accessibility for non-developers, and ensure long-term sustainability through flexibility and adaptability. In essence, the empathy map, Point of View, and "How might we" questions collaboratively guided the exploration of challenges, shaped a user-centric perspective, and laid the groundwork for innovative solutions, aligning with the target audience aspirations for a more efficient, user-friendly environment management system.