

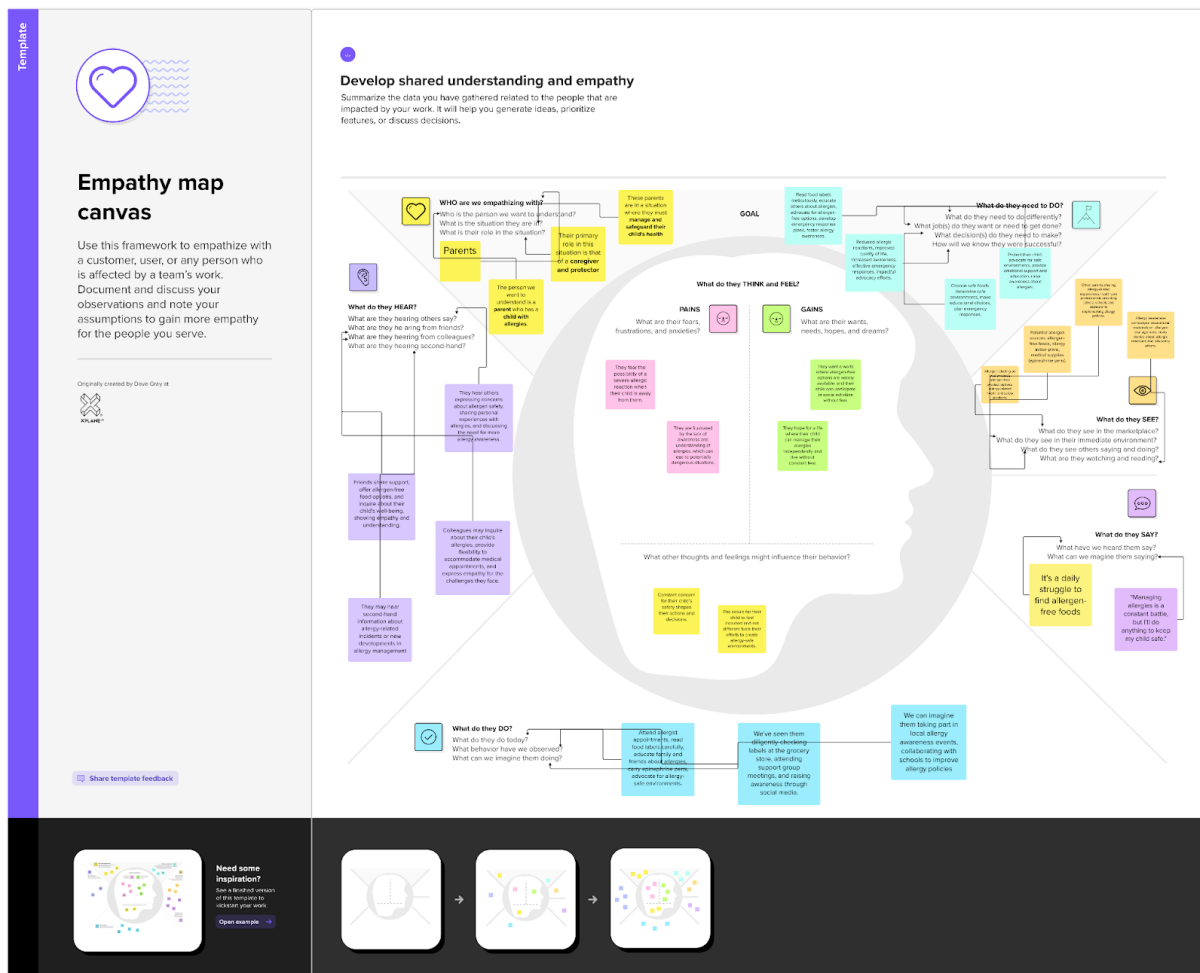
Empathy Map Canvas:

An empathy map is a simple, easy-to-digest visual that captures knowledge about a user's behaviours and attitudes.

It is a useful tool to help teams better understand their users.

Creating an effective solution requires understanding the true problem and the person who is experiencing it. The exercise of creating the map helps participants consider things from the user's perspective along with his or her goals and challenges.

Empathy map :



Ideation Phase

Brainstorm & Idea Prioritization Template:

Brainstorming provides a free and open environment that encourages everyone within a team to participate in the creative thinking process that leads to problem solving. Prioritizing volume over value, out-of-the-box ideas are welcome and built upon, and all participants are encouraged to collaborate, helping each other develop a rich amount of creative solutions. Use this template in your own brainstorming sessions so your team can unleash their imagination and start shaping concepts even if you're not sitting in the same room.

Problem statement :

"Despite the increasing prevalence of pediatric allergies and their significant impact on children's well-being, there exists a critical gap in comprehensive understanding, awareness, and effective data-driven interventions. Parents of children with allergies, healthcare professionals, and policymakers are faced with ongoing challenges in managing and mitigating the risks associated with pediatric allergies. The lack of clear allergen labeling, inconsistent allergen-free options, and inadequate awareness contribute to heightened anxiety, preventable allergic reactions, and hindered social and educational experiences for children. To address these issues, there is a pressing need for a data-driven solution that provides insightful geospatial and demographic visualizations to enhance awareness, education, and policy development. This project aims to unveil the hidden nuances of pediatric allergies and empower stakeholders with the knowledge required for informed decision-making, ultimately improving the well-being and safety of children affected by allergies."

Proposed Solution Template

Proposed Solution Template:

Project team shall fill the following information in proposed solution template.

S.No	Parameter	Description
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1	Problem Statement (Problem to be solved)	The problem is the lack of comprehensive data and insights on the prevalence and demographics of pediatric allergies, hindering effective intervention and awareness strategies.
2	Idea / Solution description	<p>Our solution involves a multi-step approach to address this issue:</p> <ul style="list-style-type: none"> a. Data Collection: Gather relevant data from healthcare institutions, surveys, government agencies, and research studies on pediatric allergies. Ensure the data covers a wide range of demographic variables. b. Data Cleaning and Preparation: Clean and preprocess the data to remove inconsistencies and outliers. Standardize the data to ensure consistency. c. Data Visualization: Utilize Tableau to create geospatial visualizations to depict the regional distribution of pediatric allergies, and time-series visualizations to track changes in prevalence over time. Compare prevalence rates among different age groups, regions, and genders. d. Interactive Dashboards: Build interactive dashboards to present the data and insights in an engaging and user-friendly manner. e. Storytelling: Create a compelling narrative that explains the significance of the data and its implications for healthcare and public awareness.
3	Novelty / Uniqueness	What sets our project apart is the combination of advanced data visualization techniques and a comprehensive dataset. This holistic approach provides a unique and insightful view of pediatric allergies.

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4	Social Impact / Customer Satisfaction	<p>The project will have a significant social impact by:</p> <ul style="list-style-type: none"> a. Empowering medical professionals with data-driven insights for better patient care. b. Informing policymakers' decisions for targeted interventions and healthcare policies. c. Providing parents with a clearer understanding of pediatric allergies, leading to improved care and awareness.
5	Business Model (Revenue Model)	<p>Our primary focus is on social impact and public health. As of now, there isn't a direct revenue model. However, potential revenue streams could arise in the future through partnerships or data sharing.</p>
6	Scalability of the Solution	<p>The solution is highly scalable and can be expanded to cover more regions or address additional healthcare-related issues. As we gather more data and insights, we can contribute to a broader understanding of various health challenges.</p>

Solution Architecture:

Solution architecture is a complex process – with many sub-processes – that bridges the gap between business problems and technology solutions. Its goals are to:

- Find the best tech solution to solve existing business problems.
- Describe the structure, characteristics, behavior, and other aspects of the software to project stakeholders.
- Define features, development phases, and solution requirements.
- Provide specifications according to which the solution is defined, managed, and delivered.

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|           Pediatric Allergies Solution           |
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Data Sources:

- Healthcare Institutions
- Surveys
- Government Agencies
- Research Studies

Data Collection & Storage:

- Data Collection: Extract, Transform, Load (ETL) process
- Data Storage: Secure and Scalable Database

Data Preprocessing:

- Data Cleaning
- Standardization

Data Analysis & Visualization:

- Tableau for Data Visualization
 - Geospatial Visualizations
 - Time-Series Visualizations
 - Demographic Comparisons

Interactive Dashboards:

- Tableau Dashboards
 - Filters
 - Tooltips
 - Drill-Down

Data Security & Compliance:

- Data Encryption