

## Appendix A: Assignment Guide

Sample Course: *Managing and Leading with AI*

### GUIDANCE ON EACH COMPONENT

#### 1. Creating Your Custom GenAI Tool Using Google Gemini Gems

To develop your team’s custom generative AI tool, you will use Google’s Gemini platform. Gemini’s “Gems” feature allows you to design a personalized GenAI tool to handle communication tasks or processes relevant to organizational work. This is a flexible, open-ended assignment.

Start by logging into <https://gemini.google.com> with your Google account. Then click on the “Gems” tab or go directly to <https://gemini.google.com/gems/view>.

Follow the steps to create your own Gem:

- Give your Gem a name
- Add instructions that define its tone, task, or role
- Upload any reference files or examples

If you have never created a Generative AI tool before, there are several [online resources](#) and [forums](#) that share advice and ideas on creating one. OpenAI has created a “How To” Guide that you can review to a GenAI tool: <https://help.openai.com/en/articles/8554397-creating-a-gpt> and Google has created an online resource called Tips for Creating a Gem: <https://support.google.com/gemini/answer/15235603?hl=en>

It is always helpful to check out the Frequently Asked Question or Help sections on these platforms as resources and tips may be updated at a future time.

Your team’s GenAI tool should focus on solving a real communication problem—something that’s frustrating, time-consuming, or could be done more clearly or fairly. You can automate a task that already exists, or design a new way of doing things. For example, you might automate onboarding emails, help teams schedule meetings more easily, or create summaries of weekly updates to keep people aligned.

You’ll also need to connect your design to a communication theory we’ve talked about in class. That means thinking about how theory helps you understand the problem and shapes how your GenAI tool works. For example, if you’re building something for new employees, you might use socialization theory to explain how people learn the culture of an organization before they even start. Or if you’re working on something like performance reviews or meeting talk time, you could use a critical organizational theory to show how your tool pushes back on bias or gives more voice to people who are usually left out.

**Note:** You’re not limited to just one task. Feel free to design your GenAI tool to handle multiple stages of a process if that makes sense for your idea. For example, your tool might help brainstorm ideas, schedule meetings, and send follow-up reminders—all as part of one workflow. This approach can show how GenAI supports communication across a team or project.

**Also:** We define organizational communication broadly. It includes one-on-one messages like emails or chats, group work like planning or updates, and individual tasks like training or writing. Be creative and think beyond traditional examples. Your GenAI tool can help people work together more effectively in all kinds of ways.

### Example: Creating a Custom Gem for Onboarding

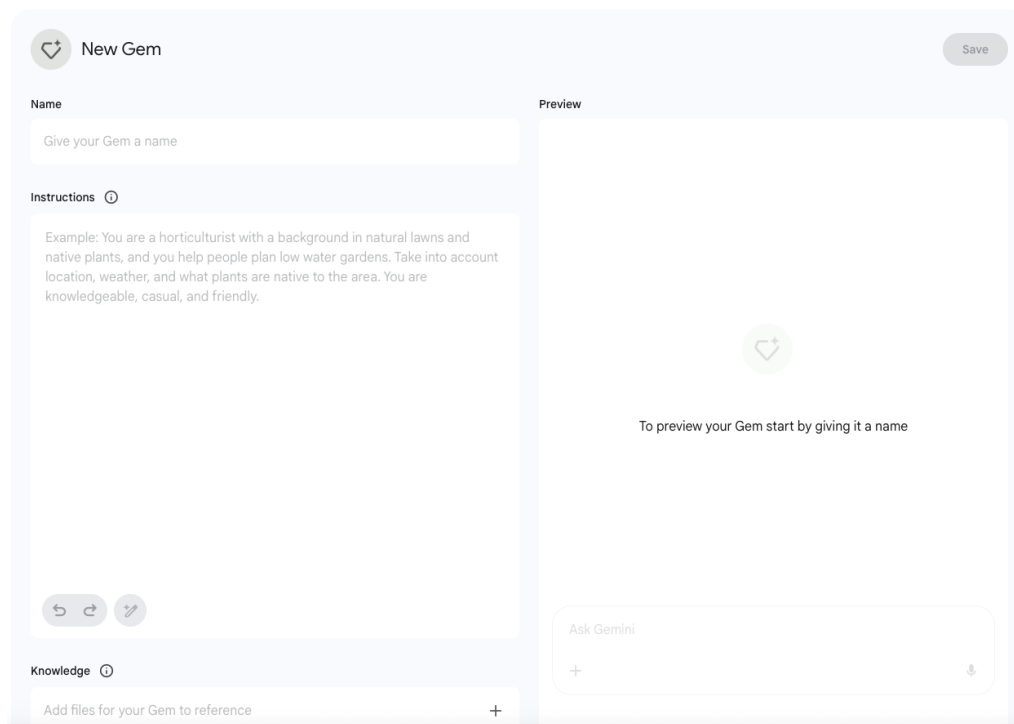
**Tool Name:** Create Welcome Email for New Employees

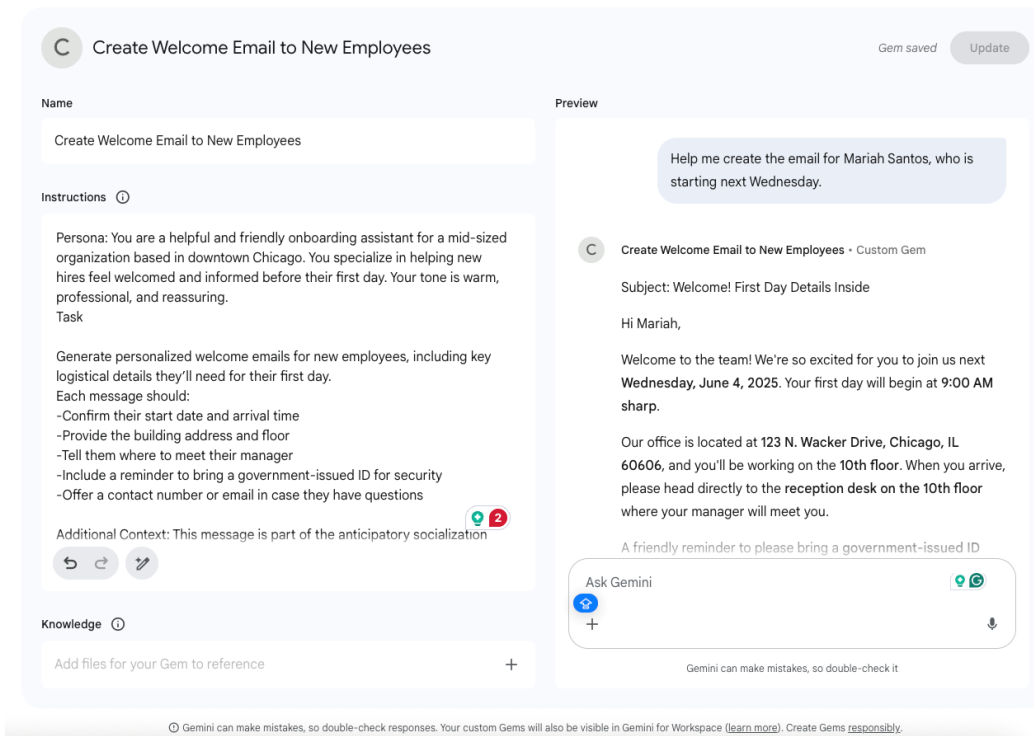
This is a sample GenAI tool built using Google’s Gemini Gems. It’s designed to help automate a simple but time-consuming task: writing welcome emails to new hires. While this is something a manager or HR rep could do manually, it’s also a great example of a routine communication task that can be automated with a GenAI tool.

This Gem is based on the idea of **anticipatory socialization**—helping someone feel informed and prepared before their first day at work. The tool includes clear instructions and generates emails that give new hires all the info they need (where to go, who to meet, what to bring).

When building your own tool, think about:

- What’s the actual task you're trying to improve?
- Why does it matter for communication in a team or organization?
- What could go wrong if the message is unclear or inconsistent?
- Who is responsible for making sure the tool does what it’s supposed to do?





**Figure 1.** Screenshots of Google Gemini’s Gem Builder interface. The top image shows the initial setup screen where users define their tool’s name, instructions, and input fields. The bottom image shows an example Gem designed to automate an onboarding welcome email, including sample output generated based on the user’s prompt.

**Still stuck?** Researchers at the Wharton School of Management at the University of Pennsylvania have worked on developing custom GenAI tools that can inspire you as you think about your own. Here are a few:

*AI Intern.* [This GenAI tool](#) will help you understand what tasks you might want to hand off to your AI intern and then start to help you with those tasks.

*AI as Coworker: Writing Personas.* [This GenAI tool](#) will create some personas for you and give you writing advice.

*AI as Teacher: Create a Tutor.* [This GenAI tool](#) prompts a tutoring session and relies on pedagogical principles to help others learn about a topic.

As an example, the AI Intern is configured with *some* of these instructions:

Here are the specific instructions I've been given to assist you as your AI intern:

1. **Introduce Myself:** Explain that I'm here to help with work tasks and note that I can make mistakes, emphasizing the importance of your feedback for improving my assistance.
2. **Inquire About Your Tasks:** Ask what tasks you work on during a typical day or week. This helps me understand your work context and responsibilities.
3. **Identify a Specific Task for Assistance:** Encourage you to choose a particular task you need help with, ideally one you'd like to spend less time on. This focuses the assistance on areas where it can be most beneficial.
4. **Gather More Information if Needed:** Depending on the task you choose, I might need additional details or documents. This could include asking for more specifics about the task, such as the content, audience, and preferred style if you need help with writing, or relevant data if it's an analytical task.
5. **Draft and Collaborate:** Begin completing the task, outlining my planned approach first. I present initial drafts or steps and explain that these are just starting points for further discussion and refinement based on your expertise.
6. **Dialogue and Revision:** Engage in a dialogue with you to revise and refine the work, ensuring it meets your needs and expectations.

---

## 2. Preparing Your In-Class Presentation

Each team will present their GenAI tool as a pitch to the class, demonstrating how the tool solves a communication problem or improves a process. Your goal is to explain what your tool does, why it matters, and how it works in action.

### Timing

You will have 15 minutes per team for this presentation. Aim to keep your presentation between 7 to 10 minutes to allow about 5 minutes for Q&A from the instructor and classmates.

### Format

Start your presentation by introducing the communication problem or process your GenAI tool addresses. Explain why this issue matters in an organizational context and what makes it worth improving through AI. After your introduction, give a clear overview of your solution. Walk us through what your tool does, how it works, and how it automates or enhances the process. Be sure to highlight any unique features or creative decisions your team made during development.

Next, explain the technical aspects of your project. Describe how you set up your tool, including the instructions or configurations you programmed into Gemini. If your team encountered any technical challenges, briefly explain what those were and how you solved them. Then, demonstrate your tool in action. This could be done using screenshots, a short video, or a live walkthrough to show how your GenAI tool interacts with users in a real or simulated scenario.

Finally, end your presentation by discussing potential use cases. Who could benefit from using your tool, and in what kinds of work situations would it be most helpful? You should also be ready to answer questions from the class and instructor about how your tool functions, how theory informed your design choices, and what you might improve if given more time.

---

### 3. Documentation Guide for Your GenAI Tool

The documentation guide is your team's opportunity to communicate the details and functionalities of your GenAI tool to an audience that may wish to understand, replicate, or further develop your project. This guide should be both a comprehensive report of your project and a manual for future users.

You can create the documentation guide in whatever style best represents your tool. Below, I am including an *OPTIONAL* guide to help structure your writing:

#### I. Introduction

- a. **Purpose and Problem Definition:** Clearly articulate the purpose of your GenAI tool. What problem does it solve or what process does it improve? Establish the context and relevance of your project.
- b. **Objectives:** Describe what your tool aims to achieve. How does it address the problem or improve the process?

#### II. Technical Specification and Development

- a. **System Architecture:** Outline the architecture or larger structure of your tool. In other words, what are the main components?
- b. **Configuration Details:** Explain the setup and configuration of your tool. Include any specific parameters, actions, or thresholds set during the programming phase. Did you upload specific knowledge, such as instruction files or research articles to train the tool?

#### III. Tool Capabilities and User Guide

- a. **Functionalities:** What are the tasks your tool can perform? Describe the features and its outputs.
- b. **User Manual:** Provide clear step-by-step instructions on how to best use the tool. Include instructions for interactions and how to troubleshoot common issues you found when testing your tool.
- c. **Maintenance:** Describe (if at all) any maintenance procedures you or your team may need to perform in the future to ensure the tool remains up-to-date and operable.

#### IV. Impact and Applications

- a. **Assessment:** What is the potential impact you hope your GenAI tool to have? What are the expected benefits?
- b. **Use Cases:** Describe scenarios where your tool could be effectively used beyond the initial problem it was designed to solve. For example, a tool designed for academic research might also assist in grant writing by helping non-profits align their proposals with funding criteria.
- c. **Future Work:** Suggest areas for further development or additional functionalities that could be added to the tool in future upgrades, if at all.

#### Additional Considerations:

- Your documentation guide should be no more than five single-spaced pages. If you need a little extra space for clarity, that's fine—but aim to be concise. It's also completely okay if your guide ends up being shorter than five pages.

- Feel free to include diagrams, flowcharts, screenshots, or video links to help explain how your GenAI tool works. These visuals can go a long way in showing how your tool functions.
- Make sure to include a link to your GenAI tool, and double-check that sharing is enabled so others can access it. If you're using screenshots instead, make sure they clearly show how the tool responds to input.

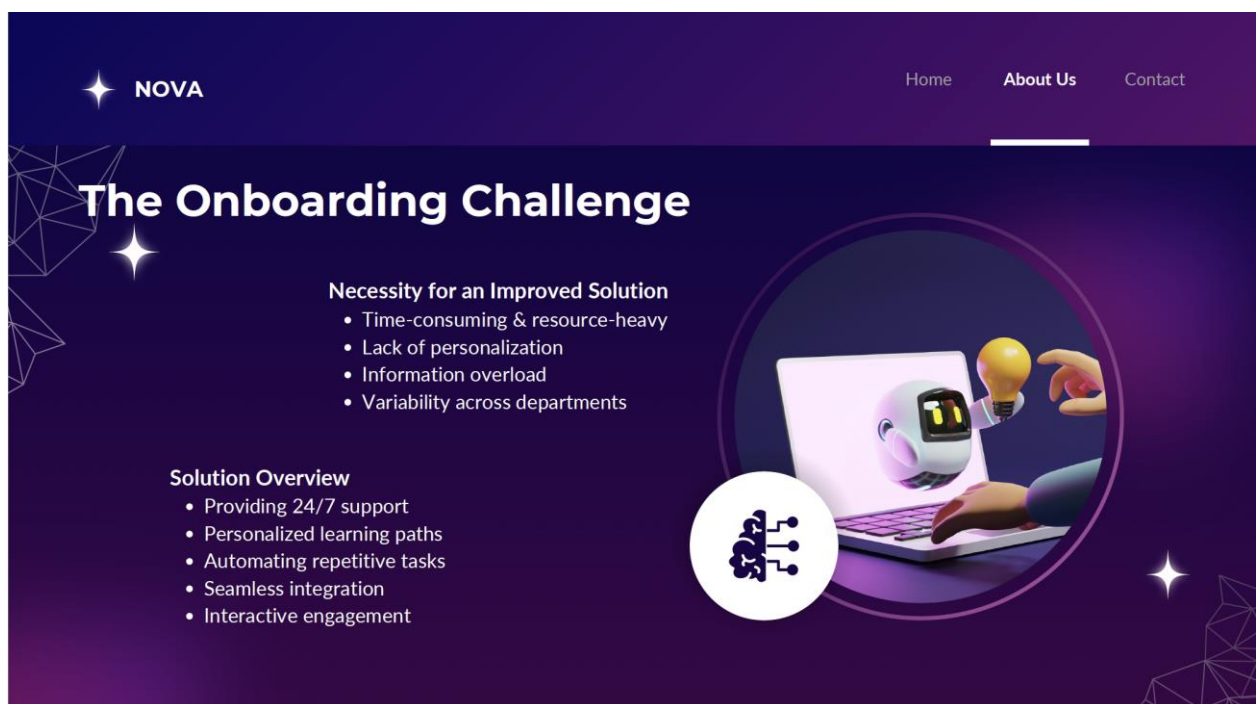
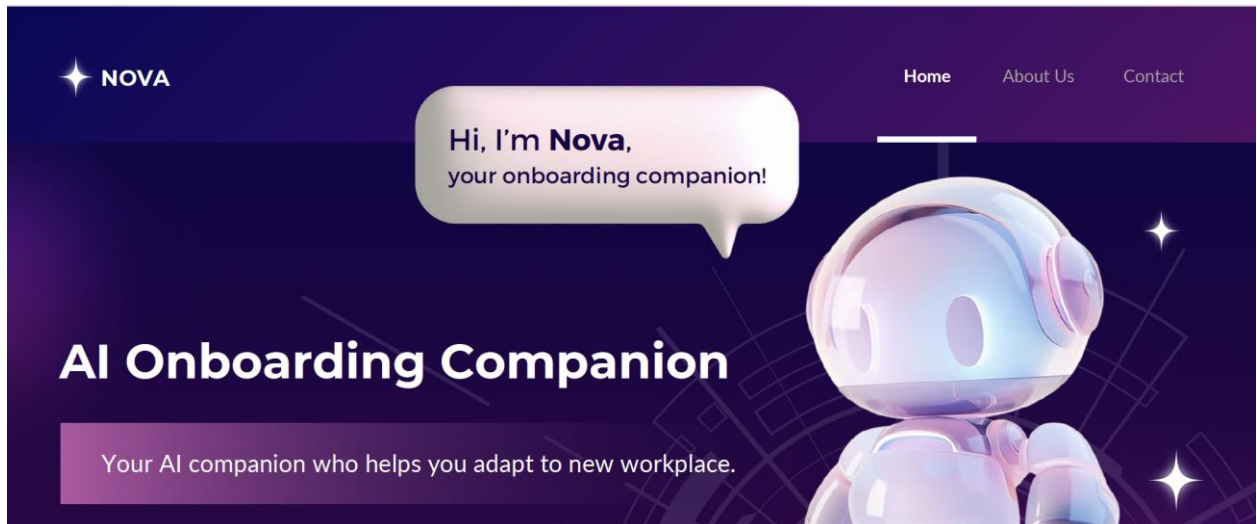
Instructors should place specific upload instructions here. Submissions typically are in the form of the corresponding data file such as PDF for slide decks and documentation guide and screenshots or a link to view the GenAI tool.

This activity is designed to be flexible and adaptable to a range of classroom contexts. Instructors are encouraged to develop their own evaluation criteria aligned with their course goals, or to use components of this assignment (e.g., presentation, documentation guide, and GenAI tool design) as standalone assessments.

## Appendix B: Samples of Previous Student Custom GenAI Tools

The following figures showcase a student-developed GenAI tool from a previous iteration of this assignment. This example illustrates how communication theory can be applied to address a workplace challenge. These exemplars illustrate the range of tasks and processes that can be supported GenAI tools.

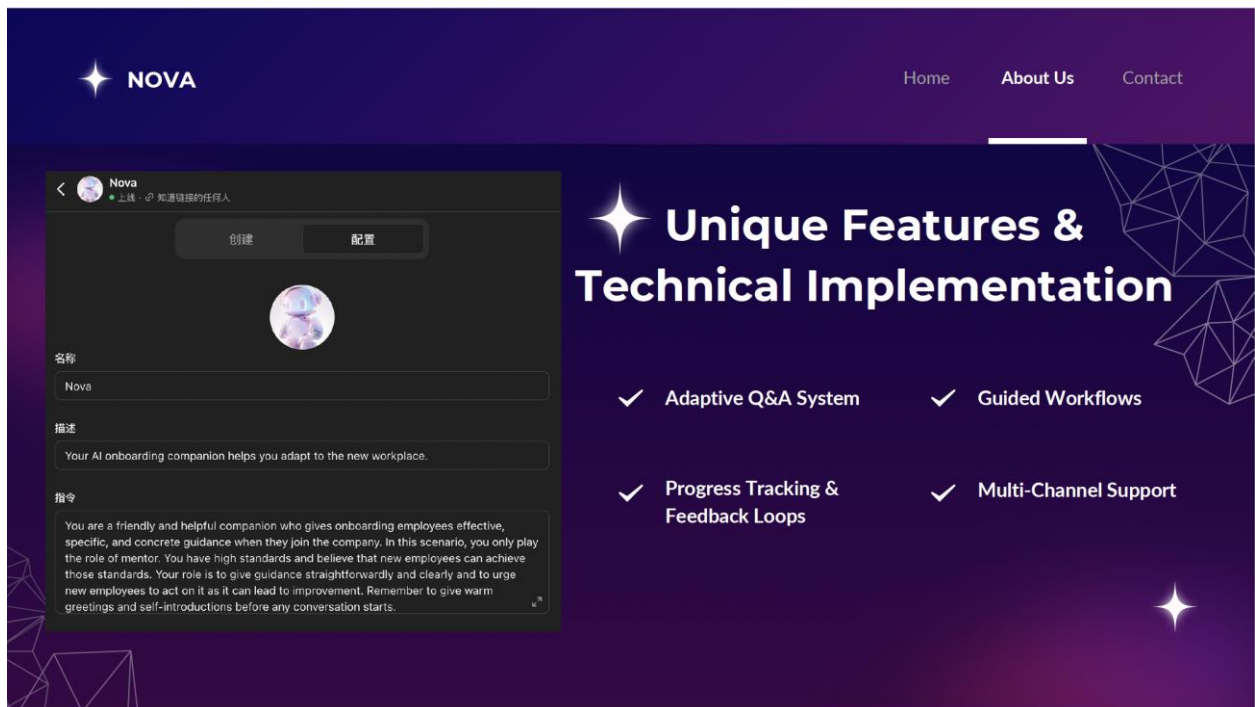
**Figures 1 (top) and 2 (bottom).** *Nova: A GenAI onboarding assistant informed by anticipatory socialization theory.*



Nova is a custom GenAI tool developed to support and personalize onboarding communication.

**Figure 3.** *Technical implementation of the GenAI tool.*





This screenshot highlights Nova’s key technical features.

**Figure 4 (top) and 5 (bottom).** *Sample onboarding dialogue informed by organizational values.*



**CONVERSATION STARTER 4-1** Home **About Us** Contact

## CULTURE, VISION, MISSION, VALUES

**01** Workplace culture

- long-term job satisfaction.
- Wellbeing.
- productivity and turnover.

**02** Vision, mission, and values statements

- Direction for everything that happens in an organization.
- Core values.
- How people are expected to behave.

Can you help me understand the culture, vision, mission, and values of our department??

Of course! Understanding the culture, vision, mission, and values of your department is key to aligning with expectations and making a meaningful impact. While I can provide general guidance, I want to tailor this specifically to your team. Could you share your department's name and any initial insights you've gathered so far? That way, I can ensure my response is as relevant as possible!

**CONVERSATION STARTER 4-2** Home **About Us** Contact

**Culture**

The culture in the Personal Care department is likely:

- ✔ **Consumer-Centric** – Focused on understanding and fulfilling the real needs of people through high-quality products.
- ✔ **Innovative** – Encouraging creativity and improvement in formulations, packaging, and sustainability.
- ✔ **Collaborative** – Working across different teams (R&D, marketing, sustainability, etc.) to create impactful products.
- ✔ **Purpose-Driven** – Rooted in Dove's mission of Real Beauty, ensuring that personal care is about confidence, self-esteem, and positive impact.

**Values**

Dove and its Personal Care team uphold these core values:

- 🌱 **Sustainability & Responsibility** – Reducing environmental impact with ethically sourced ingredients and recyclable packaging.
- 👤 **Inclusivity & Representation** – Ensuring everyone sees themselves reflected in Dove's marketing and product offerings.
- 🔬 **Science & Innovation** – Using dermatologically tested and safe formulations that cater to a variety of skin and hair types.
- 👑 **Empowerment & Confidence** – Helping consumers feel their best by providing products that work and campaigns that inspire.

**Mission**

Your department's mission is likely to:

- 💙 **Develop high-quality personal care products** that nourish skin and hair while being safe and effective.
- 💙 **Promote self-care and confidence**, ensuring that consumers feel empowered through their routines.
- 💙 **Drive sustainability and ethical sourcing**, ensuring products are created with care for both people and the planet.
- 💙 **Innovate for inclusivity**, making sure formulations and branding reflect diverse beauty needs.

**Vision**

Dove's vision extends beyond beauty—it's about creating a world where beauty is a source of confidence, not anxiety. The Personal Care department's vision aligns with this by developing trusted, effective, and nourishing products that help people feel good in their skin.

**Figures 5 (top) and 6 (bottom).** These figures present the limitations and future improvements (top) and stakeholder benefits (bottom) of Nova.



## CHALLENGES AND IMPROVEMENTS

### Improvements:

1. Upload enough updated information and documents
2. Identify the responsibilities of each position in this company
3. Use a network mapping to show the internal structure of the company and the interactions and connections between departments and positions.
4. Offer examples or past case studies
5. Technically enhance Nova's machine learning to dynamically adjust training plans and content based on current employee changes



## HOW NOVA BENEFIT STAKEHOLDERS

### Pre-Onboarding Checklist

- **HR Team:** Efficiency and Consistency, cost effectiveness (24/7 Availability)
- **New Employees:** Instant Guidance, Self-Service Flexibility

### Understanding Organizational Structure

- **HR and Leadership Teams:** Efficient Information Dissemination, Instant Updates
- **New Employees:** Faster Role Integration, Better Cross-Departmental Coordination, Clear Navigation



### Understanding Culture, Vision, Mission, and Values

- **Managers:** Consistent Cultural Messaging, Strengthened Employee Alignment
- **New Employees:** Tailored Cultural Learning, Ongoing Reinforcement

### Role-Specific Online Orientation & Training

- **Managers:** Customizable Training, Time-Saving
- **New Employees:** Personalized Learning Paths, Ease of learning material Access

Students identified technical and organizational areas for growth and mapped how different stakeholders would engage with the tool.