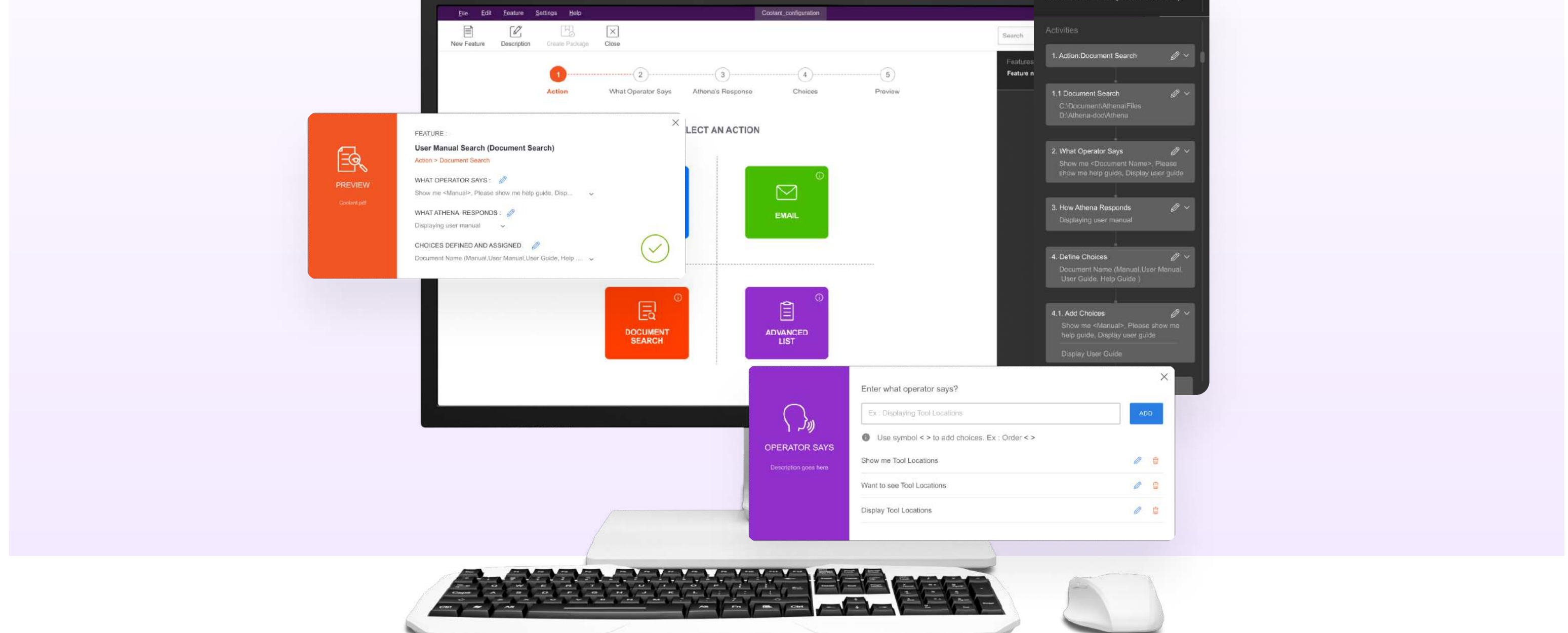


REVOLUTIONIZING INDUSTRIAL OPERATIONS WITH VOICE-ENABLED MACHINE CONTROL

(in adherence to NDA, client name & logo are replaced)



OVERVIEW

Our client, a leading manufacturing company, operates a vast array of machines in their production facilities. They recognized the potential of voice technology to streamline their operations and improve worker safety. They engaged our UX design team to develop a voice-enabled interface that would allow their machine operators to control and monitor equipment using natural language commands.

OBJECTIVE

Primary objective was to design a voice assistant that would enable machine operators to interact with complex industrial equipment effortlessly. The voice interface had to be intuitive, reliable, and adaptable to the noisy and challenging industrial environment.

KEY CHALLENGES

- The Legacy application is designed on Window(Win2000) based design pattern.
- Machine operators often needed to issue complex commands involving precise machine settings. The voice assistant had to understand and execute these commands accurately.
- It was pretty hard for the operators to create new commands as the flows were not defined well.
- Application is not user-centric and lacking intuitiveness, progression and simplicity.

CLIENT

Evolve Technologies, USA

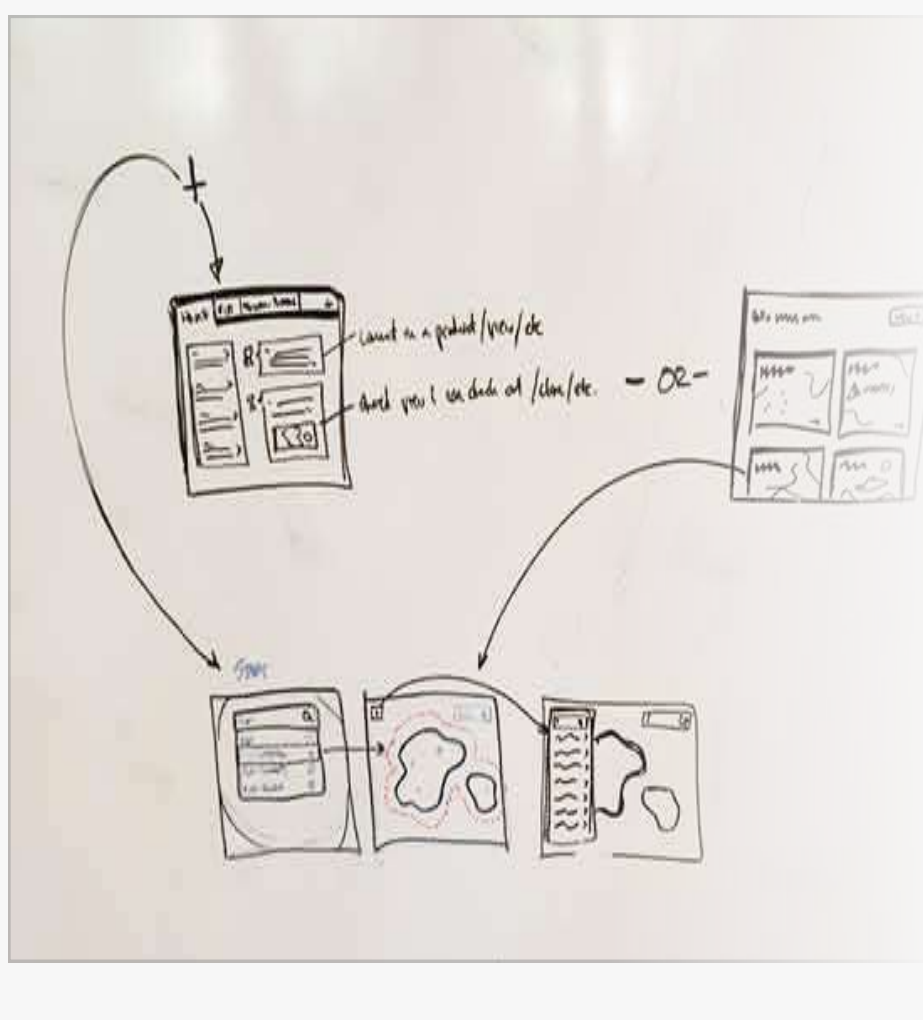
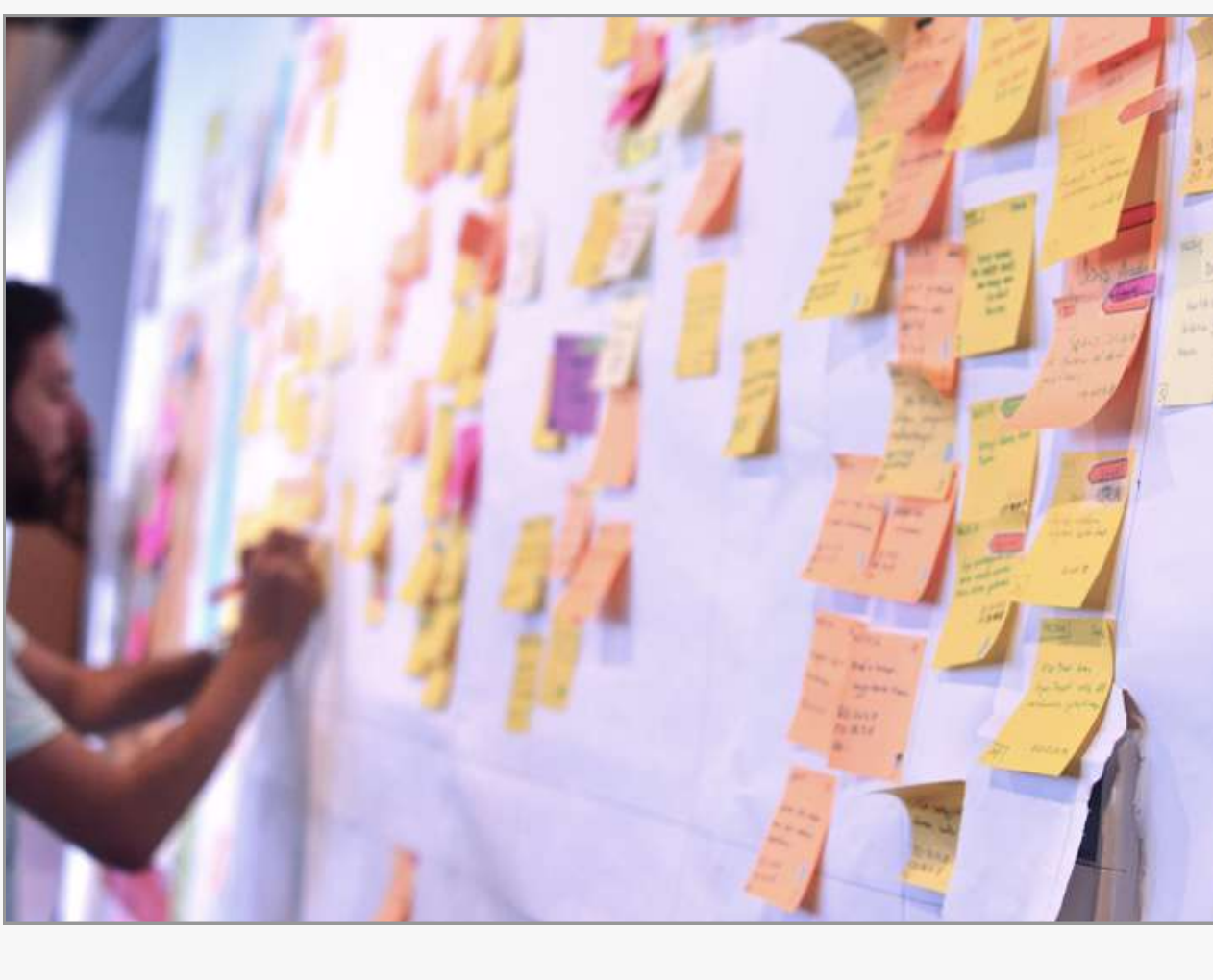
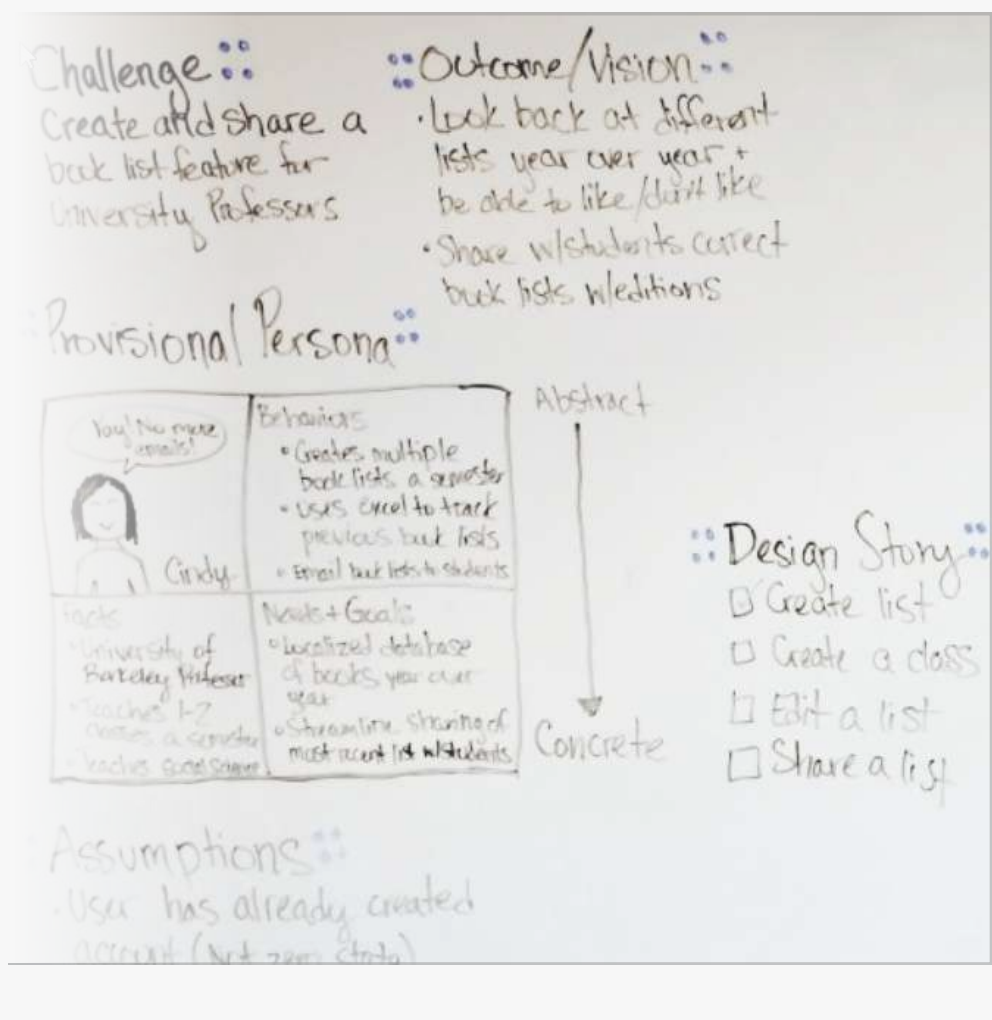
ROLE & DURATION

Lead UX Designer

User Research, Interaction, Visual design

Sep 2020

Empathise & Define



We followed systematic design process to ensure a seamless and intuitive user experience. Here's a concise overview of the key steps in this process:

User Research:

Understand the target audience, their needs, and the context in which they'll use the voice assistant. Gather insights through surveys, interviews, and usability testing.

Define Goals and Use Cases:

Clearly define the objectives of the voice assistant UI and identify the specific tasks it should help users accomplish. Prioritize use cases based on user needs.

Information Architecture:

Organize the content and commands logically to create a structured and intuitive conversation flow. Create a hierarchy of commands and responses.

Prototyping:

Create interactive prototypes or wireframes to visualize the conversation flow and user interface. This helps in refining the voice interactions.

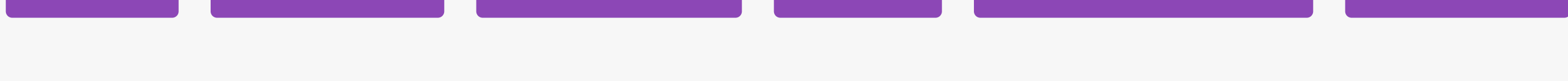
User Testing:

Conduct usability testing with real users to evaluate the voice assistant's effectiveness and gather feedback for improvements.

Visual Design:

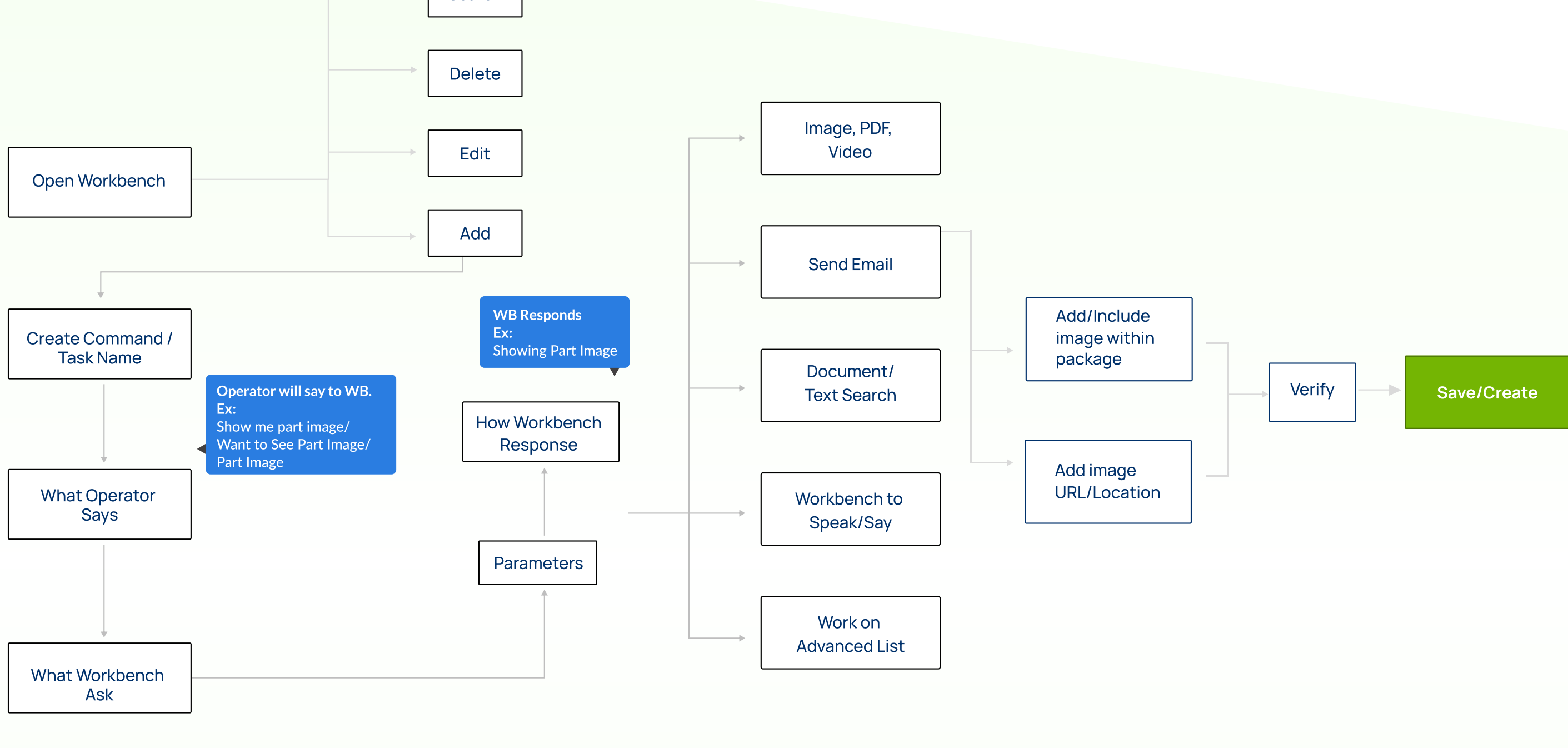
If applicable, design a complementary visual interface for the voice assistant, such as a screen for displaying additional information or feedback.

INSIGHTS

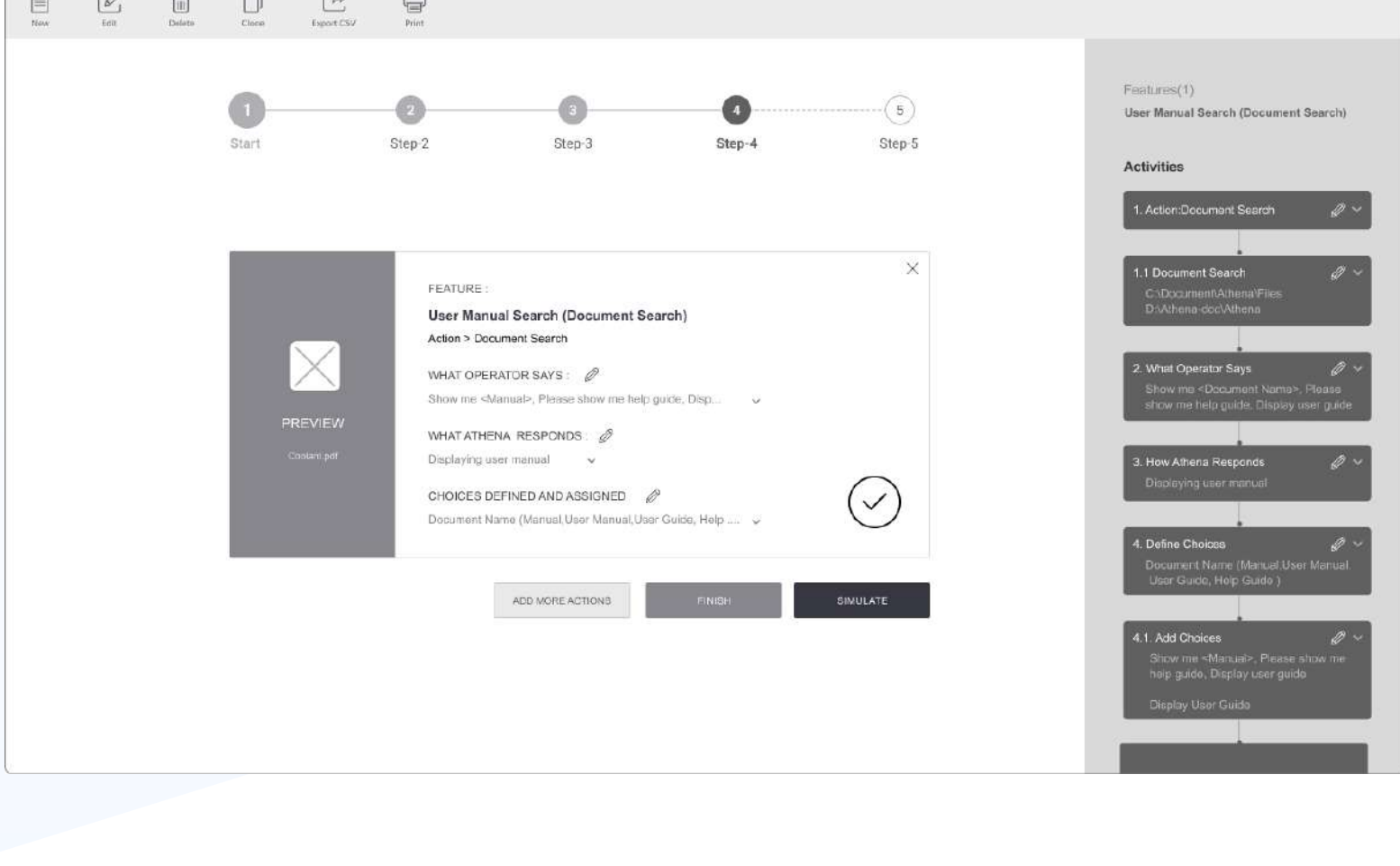
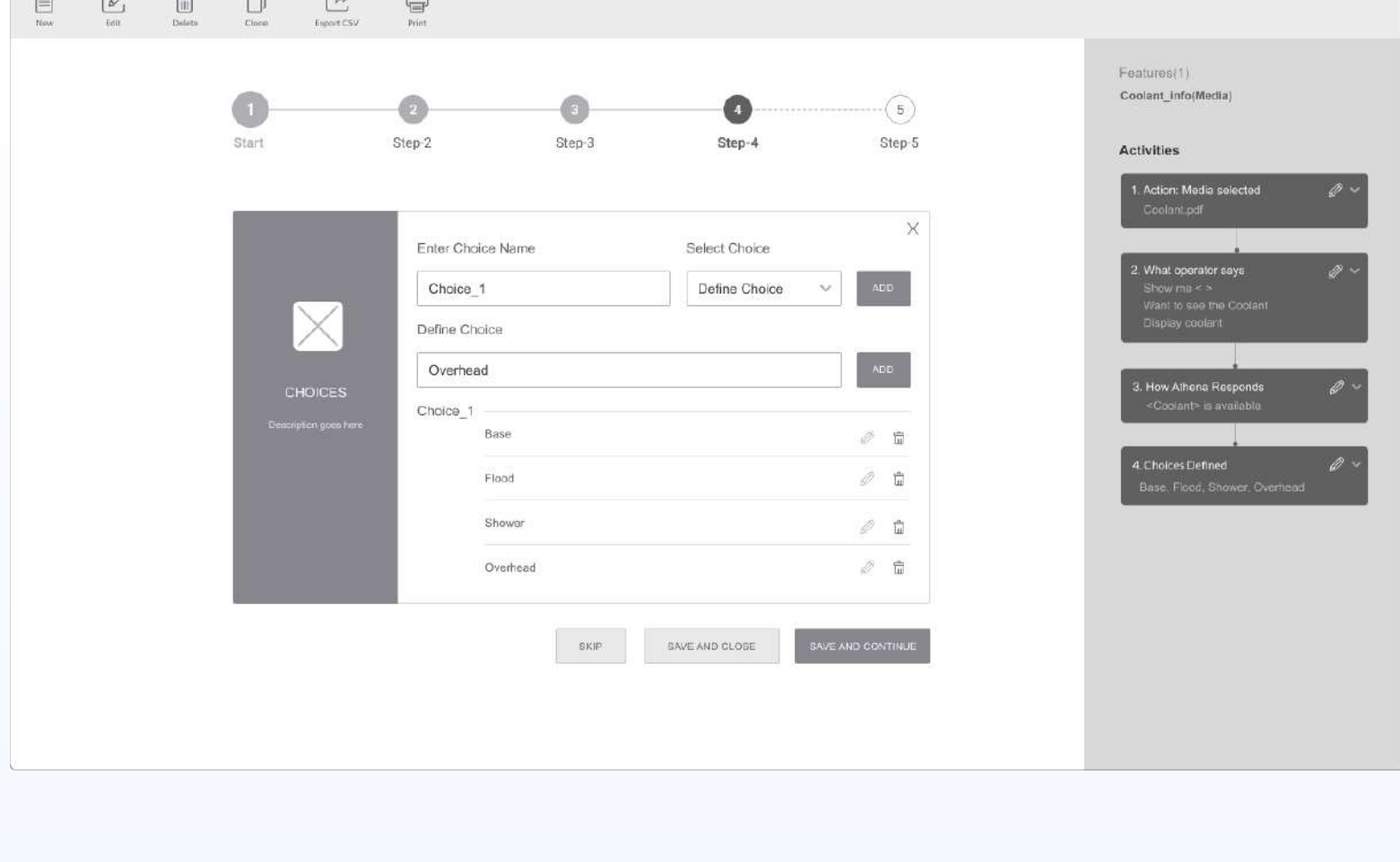
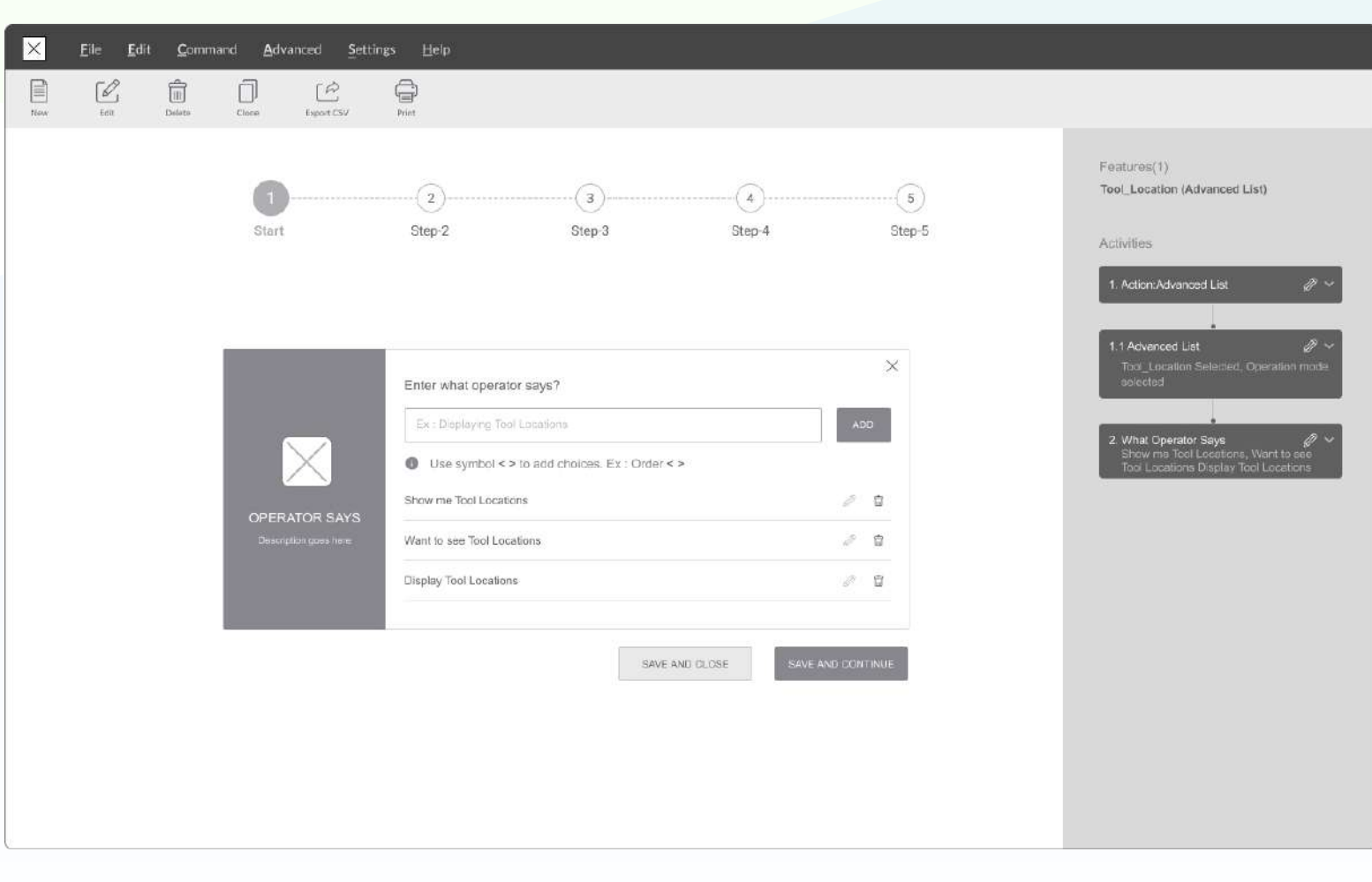
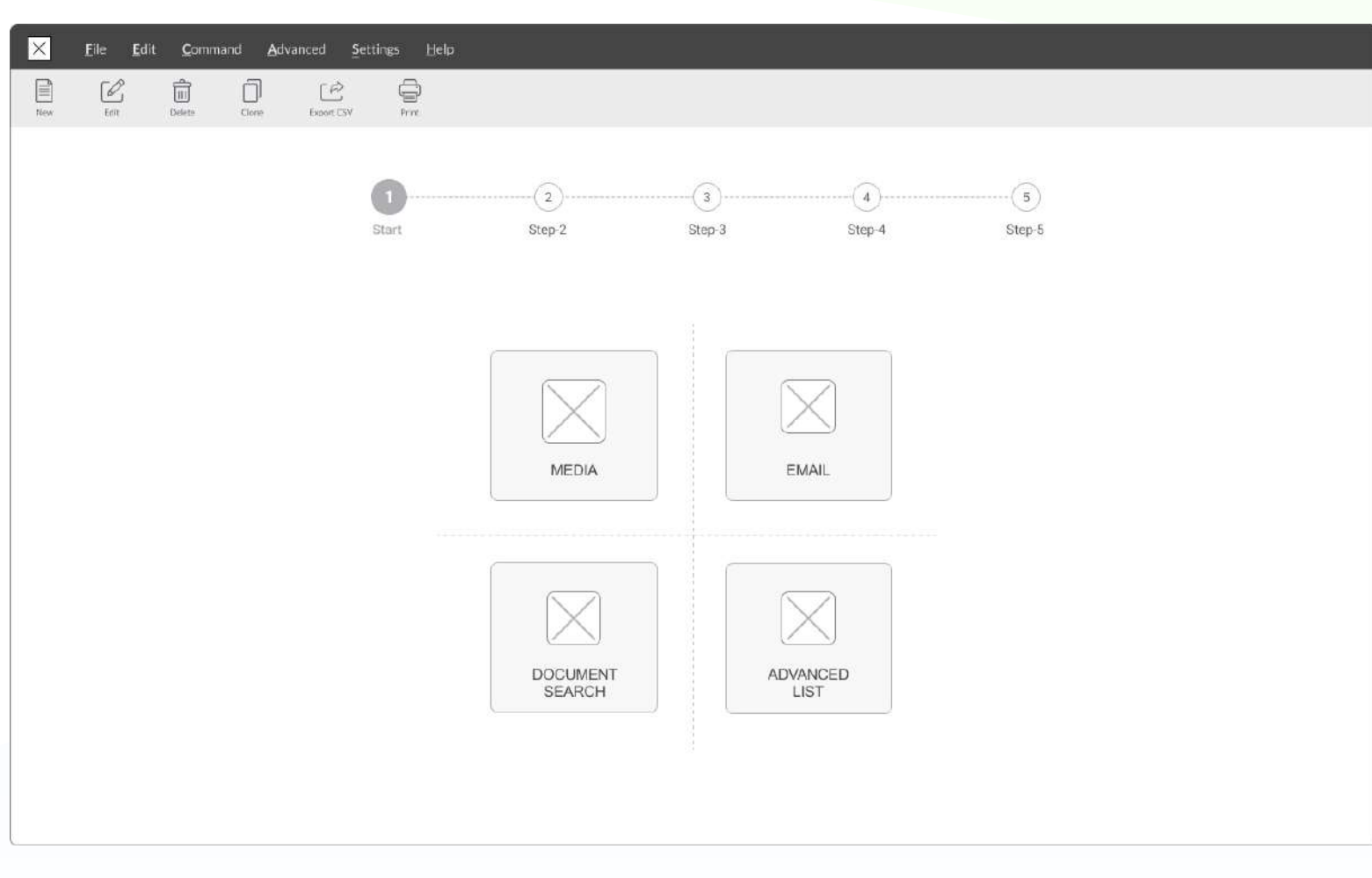


Ideate, Prototype & Iterate

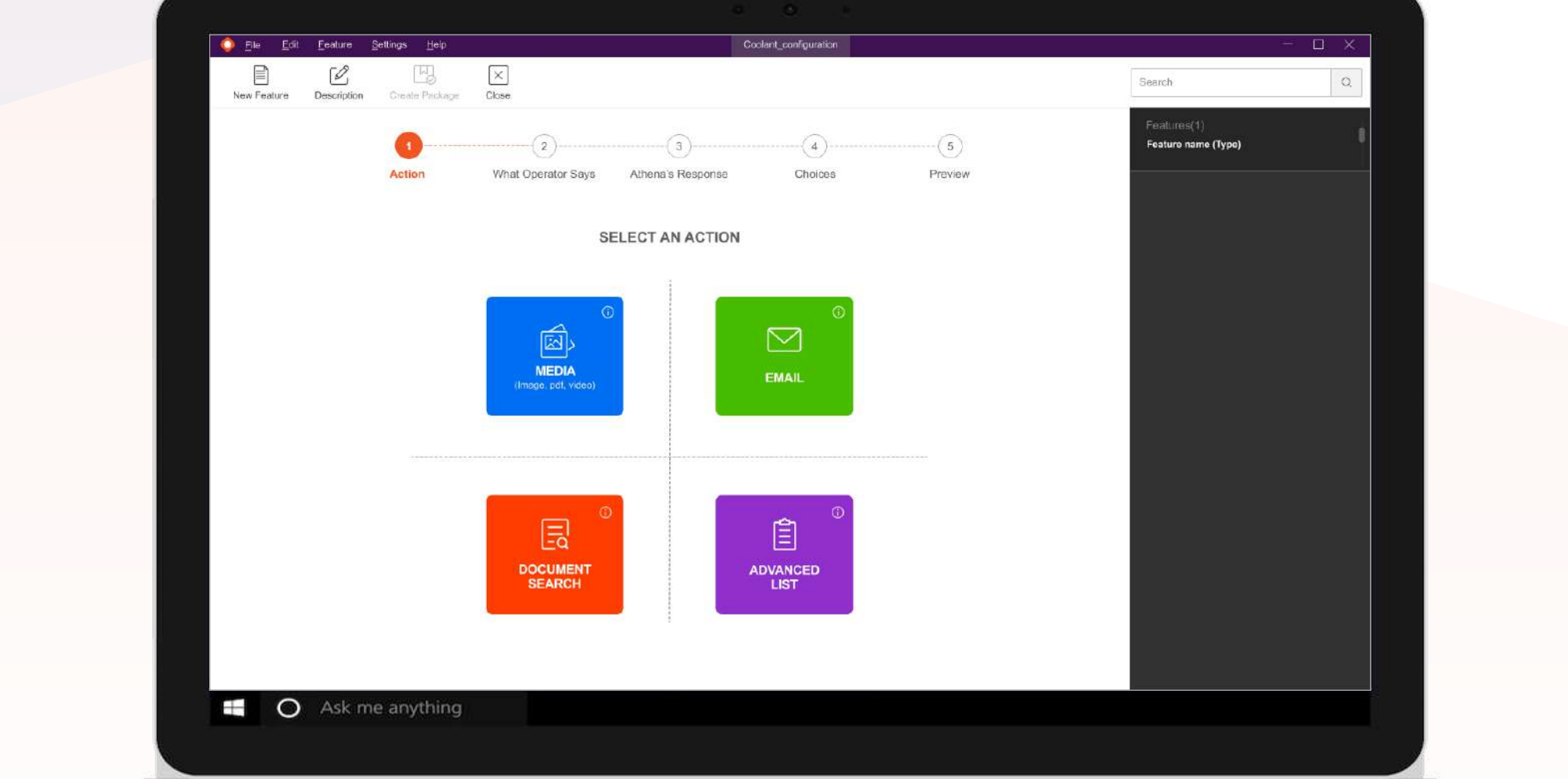
Based on the insights discovered during the brainstorming session, designed and presented different approaches of viewing and navigating the data grids, applying filters and find the exact data.



Wireframes



Visual Designs

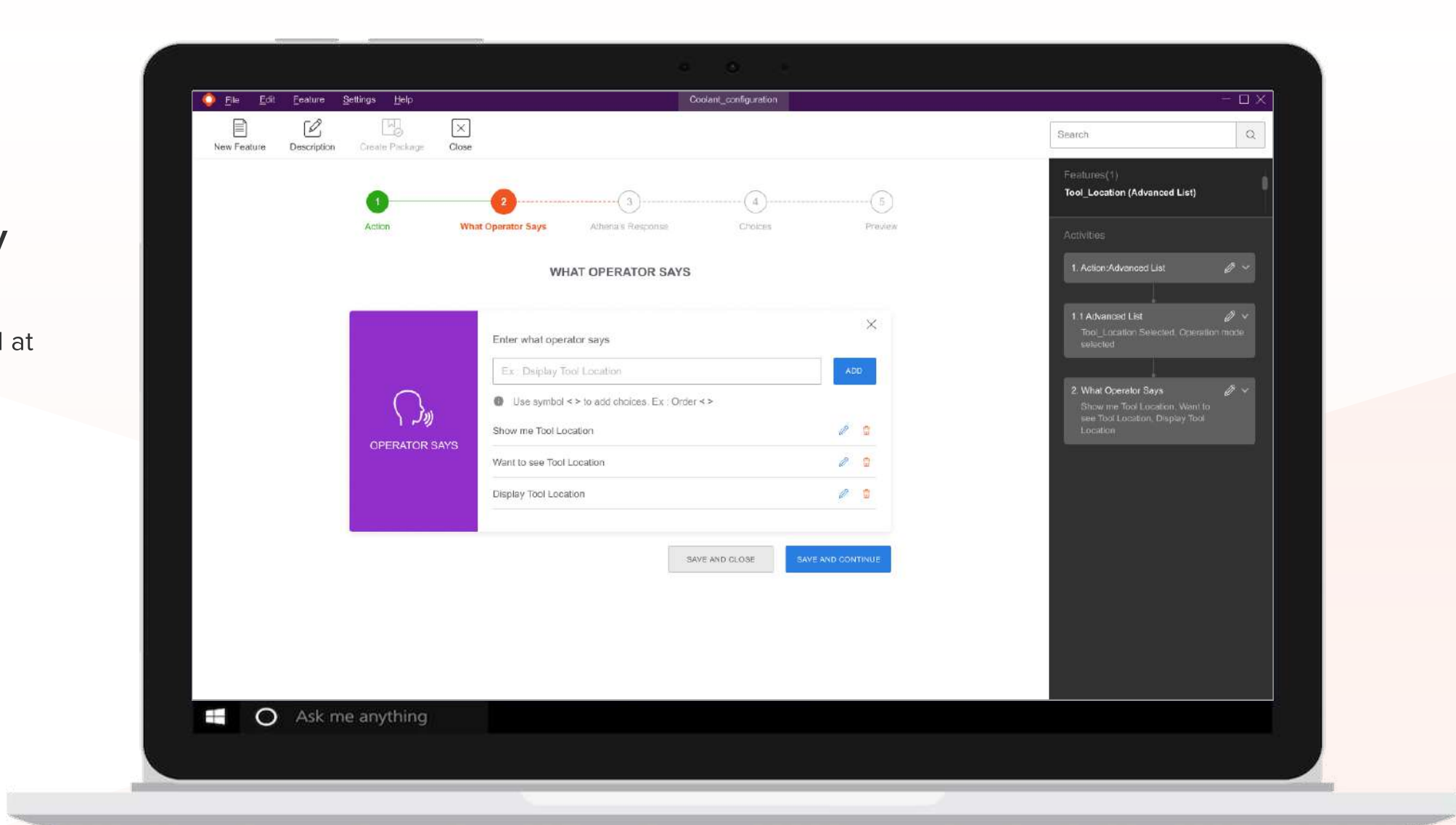


Start with action

Entire process is divided into 5 steps. User can initiate by selecting action at first step, means what user want to do.

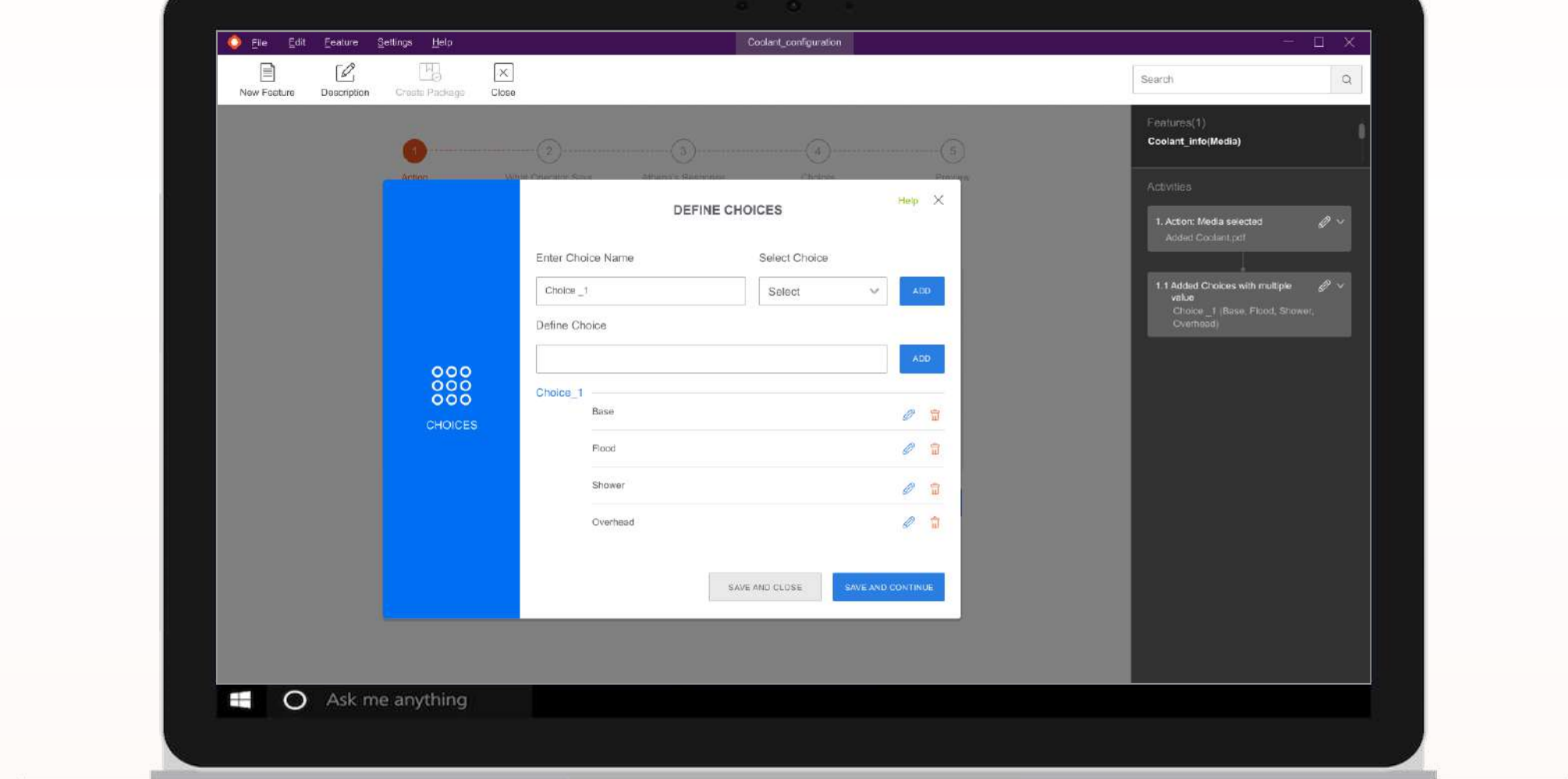
Configure operator's vocabulary

This steps is based on the option selected at step 1. User is trying to create and insert advance list to the system.



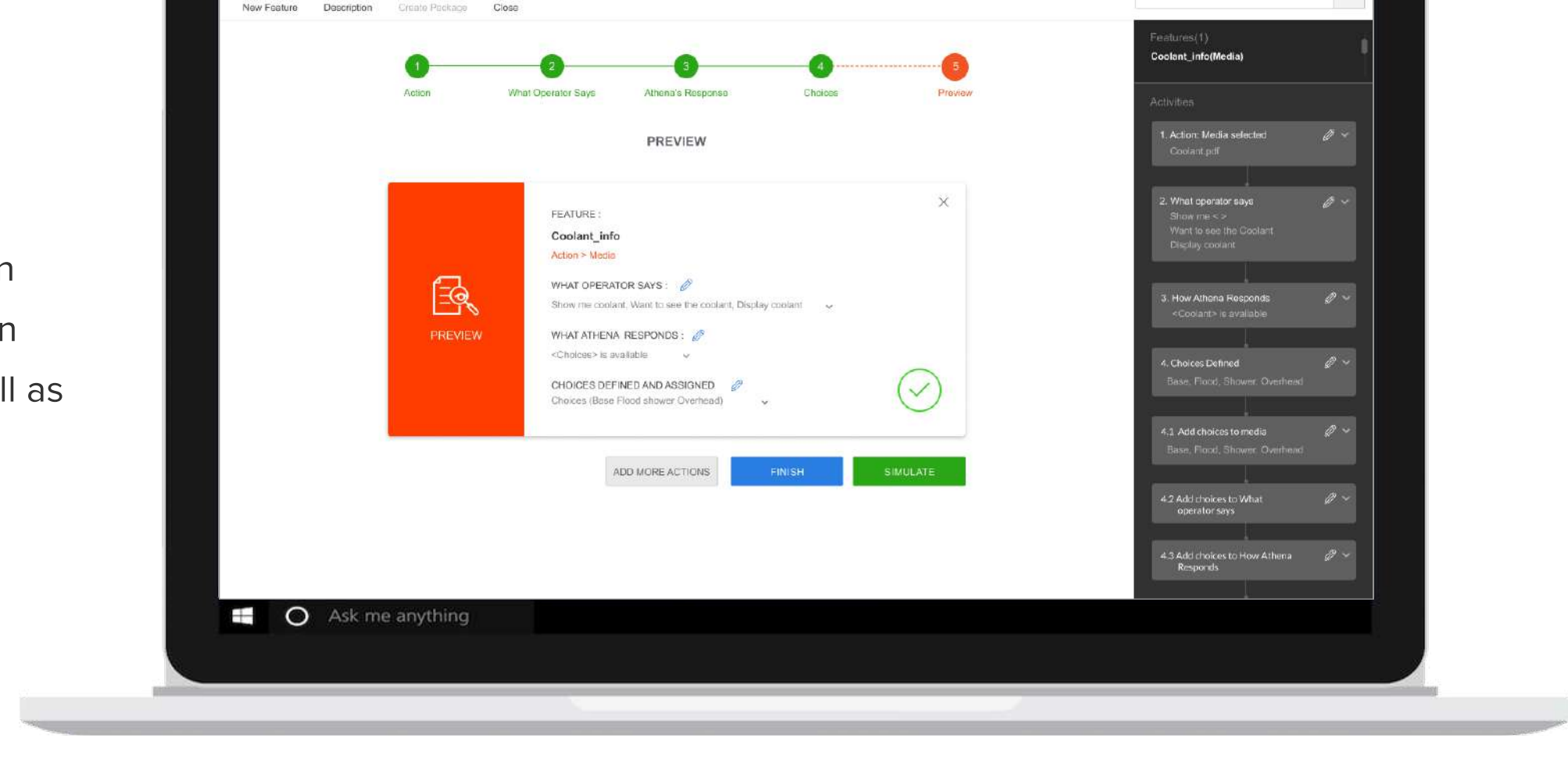
Define choices of actions

Various choices are available at step 1, pop-out when you start. This feature facilitates user to define choices related to action selected at step 1.



Finish/Simulate

The final step of the configuration provided you preview of the option selected at previous steps as well as you can finish and simulate the process.



Key Takeaway

By focusing on user needs, addressing unique challenges, and ensuring safety, we successfully delivered a solution that not only improved efficiency but also revolutionized the workplace experience for machine operators.

With the new solution user could easily start with desire action—from the task. A personalized approach meant a better, faster experience. We ensured the entire flow—from start to end—was efficient and delightful.

