**Save and reuse flows**

**Introduction**

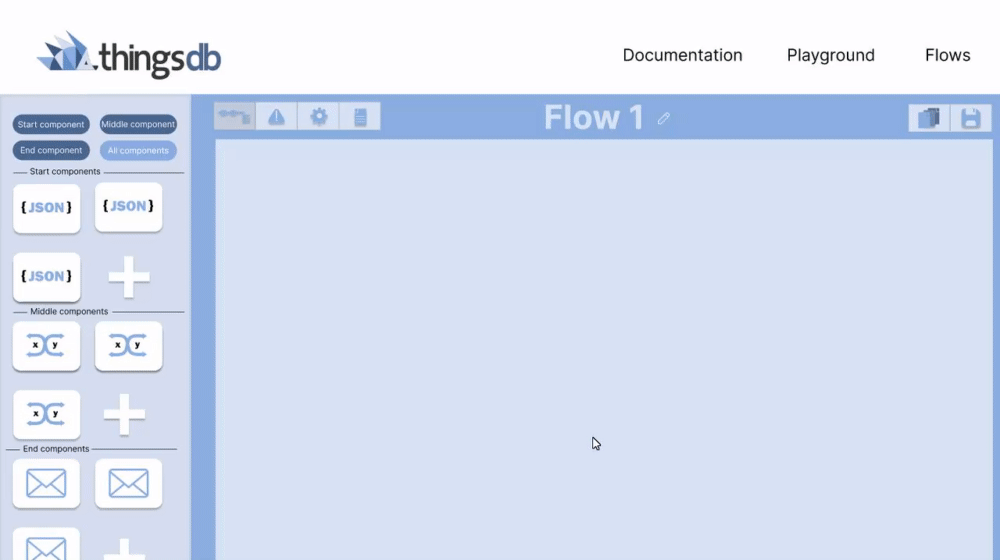
Something that other flow tools were lacking was the fact that you could save the functionality of a flow and use it as a separate component for other flows. As stated earlier in the Dovetail research the fact that this was lacking in the application was something that was very inconvenient and could save a lot of time if it were to be implemented. When sitting together with my stakeholders to summarize and suggest what we wanted to have in the application we had concluded that this was a very good functionality for ThingsFlow and the stakeholders believed that there was definitely an opportunity to implement this in the application, they just didn’t have a broad idea on how this should and could work. For that reason I wanted to research myself on how this could work and implement this in ThingsFlow, but before I could do this I had to do some research on how I will be able to do this and how this should look for the users so that they understand how to save and reuse the flows that they have created.

**Research methods**

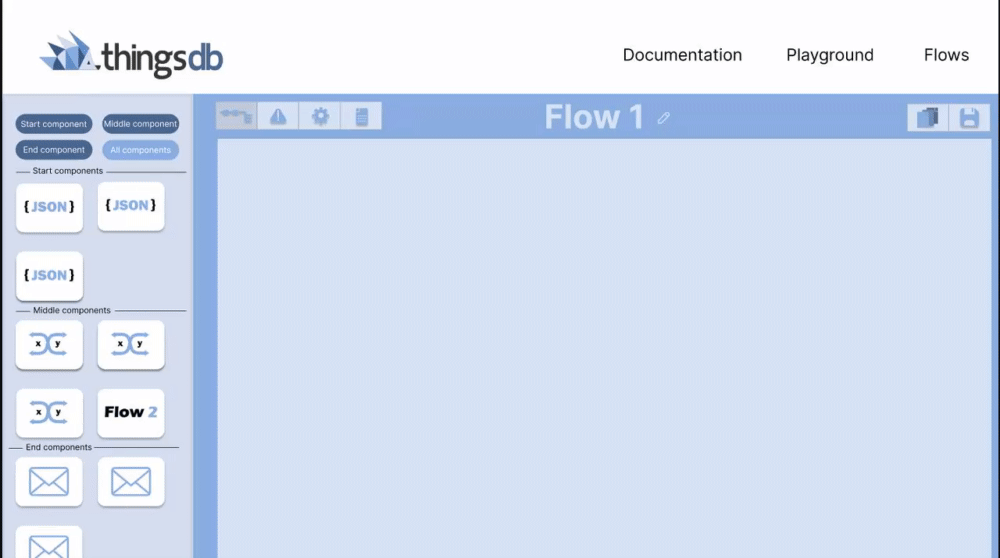
This research started with research on other existing ways and designs, as most of the similar applications didn’t have this functionality I had to find out if other programs did have this and how they implemented it for it to look good and be friendly for users to use. So first of all I did some research online, also known as ‘library study’, to sort this out. I also did an expert interview, interviewing my stakeholders and others working at the company trying to find out where their preferences laid. To make this work I made use of the A/B-testing, showing different designs to them and trying to find out what they liked the most before I started prototyping it. These were all the research methods that made this document and helped me go through this process of making a reusable and savable flow.

**Designs**

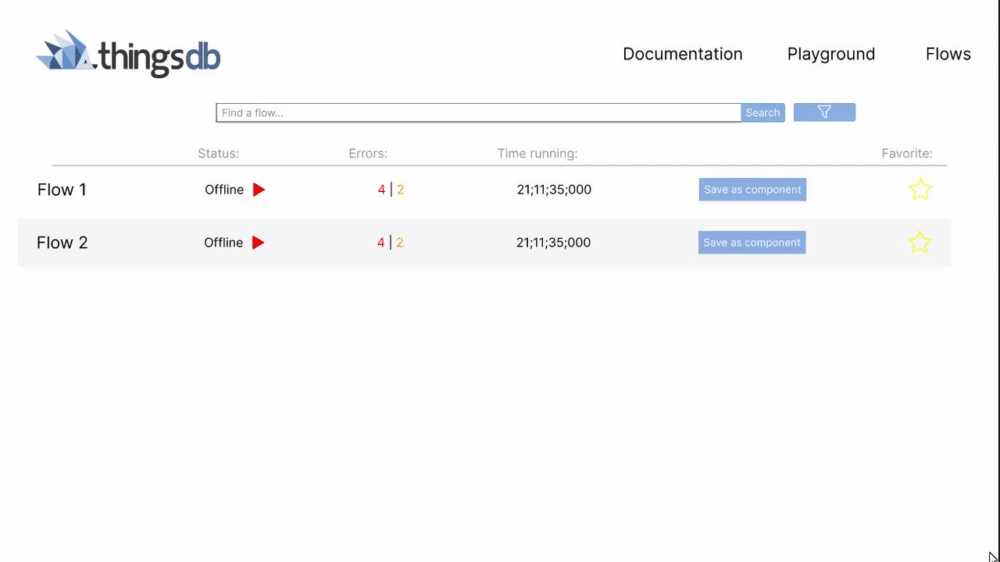
First of all I started this research with designing in Figma, I wanted to make a few designs showcasing how a flow could be added to the component list without thinking about the functionality already. With some inspiration of websites and applications I have researched before I made a few designs that could work.  
The [initial idea](https://www.figma.com/proto/RIRckga4ygXjIpYMYyj278/ThingsFlow?node-id=301%3A1422&scaling=scale-down&page-id=0%3A1&starting-point-node-id=1%3A46&show-proto-sidebar=1) was to make an add button on the sidebar, when pressing on the button it opens a modal where you can add the additional information to add the flow.



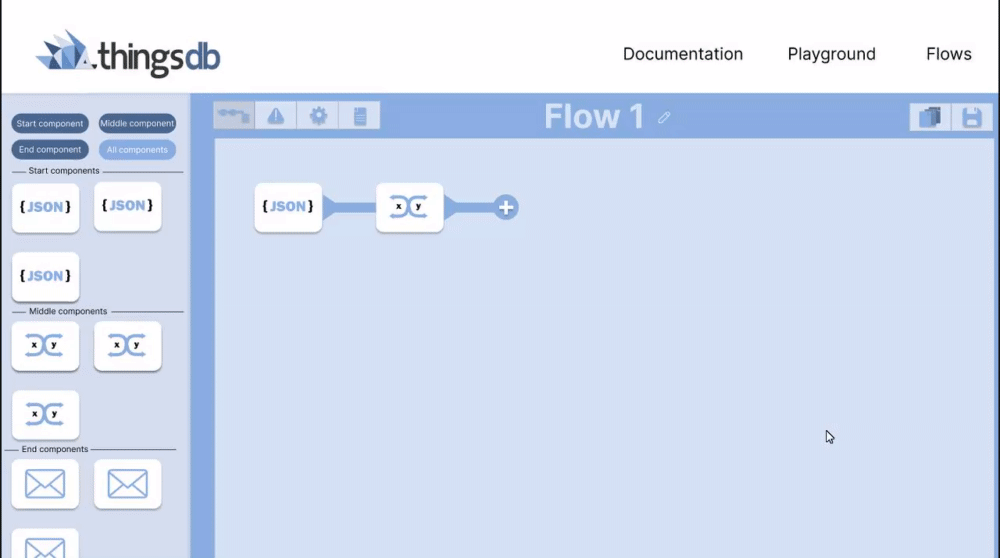
After that I came up with [the idea](https://www.figma.com/proto/RIRckga4ygXjIpYMYyj278/ThingsFlow?node-id=307%3A3007&scaling=scale-down&page-id=0%3A1&starting-point-node-id=1%3A46&show-proto-sidebar=1) that when you save the flow you can save it separately as either a component or a flow;



The [third idea](https://www.figma.com/proto/RIRckga4ygXjIpYMYyj278/ThingsFlow?node-id=301%3A1229&scaling=scale-down&page-id=0%3A1&starting-point-node-id=1%3A46&show-proto-sidebar=1) was to create the component in the list of saved flows, this would be on a separate page only showcasing the flows with information such as if it’s still running and for how long it is running. This means that it is possible to save the component outside of the flow and you don’t have to click on it first;



And the [last idea](https://www.figma.com/proto/RIRckga4ygXjIpYMYyj278/ThingsFlow?node-id=316%3A6377&scaling=scale-down&page-id=0%3A1&starting-point-node-id=1%3A46&show-proto-sidebar=1) that I came up with was to do it inside of the flow, by adding a ‘plus’ to the component before in which you can either add an already existing component or you can add a flow that you have made;



These were the 4 designs that I had come up with and that I could user test easily as this design was completely interactively made in Figma. This gave me the opportunity to show this to people that didn’t have any experience and know how they would handle in these 4 situations. I also asked which one they liked the most purely based on design and functionality, this gave me a good insight on what people would like to see as a design.

**User tests**

**User Test 1; Rik**

The first person I showed my designs to was my stakeholder Rik, I let him play with the designs and asked him which he favored. Pretty early on he let me know that he liked the last one really much, because he thought this could be very useful and clear for users. He also liked the fact that you now could have the function to close the sidebar on the left and just use the + button to save some space for the work board.   
He let me know that he didn’t like the save button on the flow list as the user wouldn’t really get the link and feedback that the flow has been converted to a component.   
He also mentioned that I should think about the functionality a little bit because when you change the flow this could cause for some errors in the flows you have put the flow in as component. He gave some ideas like making a sub-component when saving the component for that specific flow.

**User Test 2;**-“I don’t think the second one is very convenient, as this is far away from the place where it should happen, this causes me to miss a lot of things that should happen. So I wouldn’t choose this one. “  
-“The third one I don’t know what happens, I don’t get enough user feedback to know what happened, I think you should keep everything on the same page as much as possible so you can see everything happen as well. “  
-“I do really like the first and last one, I’d say I would prefer the first one as you can reuse the functionality. But I also really like the design of the last one so maybe you can merge these two together.”

**User Test 3;**

-“I like option 2 the best, as this gives the best representation what goes in to the component that you are currently building.”  
-“the problem with the other options Is that the user has to choose between a list with options which I think can be annoying.”  
-“The first option could be good if you set the current flow you are in as the default option in the dropdown.”

**User Test 4; ---**

-“The third one would be very annoying, because you have to go to a different screen to add a component to your sidebar. That doesn’t make sense to me.”  
-“Personally I think for saving the flows the second one is the best, and the third one for using the flow. These feel the most natural out of this list.”  
-“For the third flow I would like to see it in the sidebar as well, so you can drag it in still as well.”

**Conclusion user tests**If we conclude the user tests we found out that the third one isn’t a good way to create components, as most of the feedback that I got was that it is annoying for users to go to a different page to save a component that could also be saved on the same page. It is much easier to use one of the other three designs for this process. Most of the people that have been tested didn’t like the fact that you needed to choose a flow in a dropdown menu and liked the fact that you could choose if you wanted to save the flow as a component or a flow. This means that most users would like to see a mix of the three designs. The most liked one out of these three was a mix of the second and last one, perhaps these could both be used in the prototype.

**Functionalities**

When looking at the functionality of this there are a few important things we need to keep in mind before we start making it.   
First of all the flow that will be saved as a component should be compatible inside the flow that it will be used in, so there should be some sort of check that checks if the flow receives the correct information and data.   
There should also be a functionality that you can see the flow when pressing on it in a flow your using it in. This is very useful when you need to change the flow or just want to see what is happening inside of the component. This functionality could be executed by first showing a modal that gives more information about the component and inside of the modal having a button of some sort that can redirect you to the flow, or it could be executed by just clicking on it and showing you the flow immediately.  
Inside of the component there should also be some list of flows that this component is currently active in, this is important to know because when you change something inside of this component you know that all these flows will also change.   
Adding on to this functionality there should also be a functionality that makes a ‘sub-component’, as sometimes the component that you are changing only needs to change for that specific flow and not for the others in which the component is already in use.   
You should be able to add specifications to the component, such as a name, description and an image so that it is clear for yourself and maybe even for other users what the component does.  
In the backend there should be a saved list that saved this flow, inside this list should be all the components that are in this flow with the information administered to itself. When going through the flow with the saved flow inside it should go through all the procedures that are saved in this list in the back-end with the data that’s given.