

BINDI RAVAL

PRODUCT DESIGNER

SELECTED CASE STUDIES

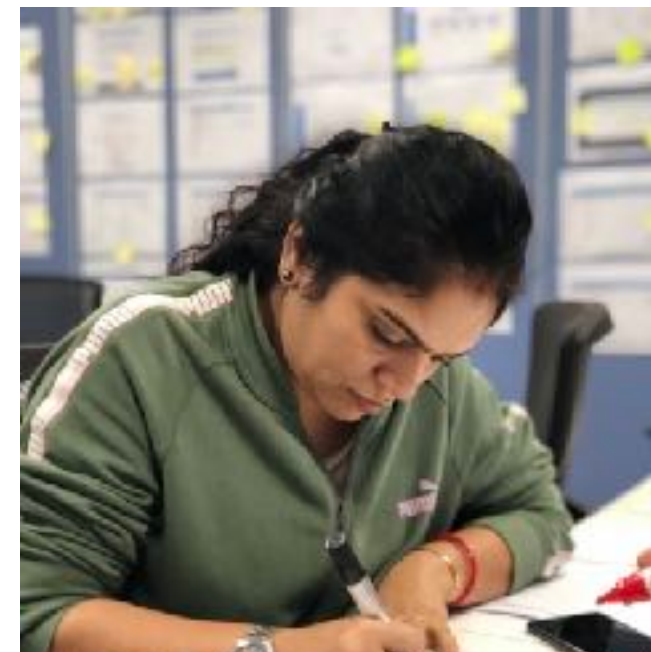
Hello, I'm Bindi

With over ten years of experience in product and UX design, I specialize in B2B enterprise SaaS products and platforms. My collaborative approach involves working closely with business leaders, product managers, customers, and engineering teams to align business requirements with the most effective technical solutions.

Coming from a designing background and working my way through UX, I have acquired a multidisciplinary skill set that integrates creative knowledge with technical & business acumen.

MOST RECENT ASSIGNMENT

I successfully concluded a fixed-term contract with Canada Post, serving as the Lead Product Designer through Adecco. During my tenure, I led design strategy for their B2B products including the redesigning of the Developer Program (Canada Post API Portal) and eLink (Offline Shipping Solution) defined user journey mapping. Showcasing my ability to drive product design strategy and deliver tangible results within dynamic environments.



SKILLS

PRODUCT SKILLS

UX RESEARCH
UX AUDITS
USER PERSONA
USER JOURNEY
INFORMATION ARCHITECTURE
USER FLOW
WIRE FRAMING
PROTOTYPING
VISUAL COMMUNICATION
BASIC CODING HTML 5 & CSS 3

SOFT SKILLS

CURIOSITY
EMPATHY
COMMUNICATION
COLLABORATION

TOOLS

FIGMA
SKETCH
ADOBE XD
AZURE
ADOBE PHOTOSHOP
ADOBE ILLUSTRATOR
MURAL
MIRO
JIRA
WEBFLOW (BASIC)

IN SOFTWARE AG

I worked as a Product design lead at Software AG for seven and half years ,where I was handling the WebMethods API Management solutions products. Also worked on multiple other projects within the organization.

What does Software AG do?

Software AG is an enterprise software company which provides suite of products across integration & API management, IoT & analytics and business transformation.

WebMethods API Management Solutions

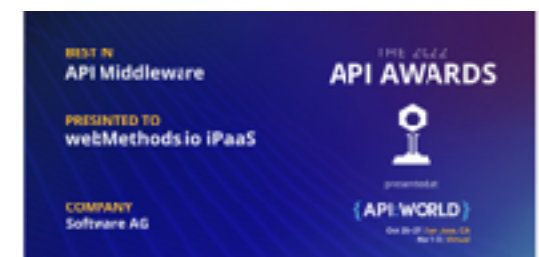
API Management solutions that help organisations manage their API investments and navigate the Microservices landscape in a hybrid worlds

- webMethods.io API Control Plane
- webMethods.io API Cloud
- **webMethods.io Developer Portal**
- **webMethods.io API Gateway**
- webMethods.io Microgateway
- webMethods.io AppMesh
- webMethods.io API Engage
- UX support to Legacy API service products (Business UI, Centrasite)

Other projects I worked on

- One Data - Master Data Management system
- Create visual assets for legacy products (From screens to icons)
- Integration Server
- Agile Apps
- Cloud migration (End to End Monitoring)
- Price Server (for professional service department)
- UX support many other products in different stream lines
- UX awareness activities among R&D teams
- Building UX team

THE FORRESTER WAVE™
API Management Solutions
Q3 2022



PROJECT CASE STUDIES

01.

WEBMETHODS API PORTAL (Software AG)

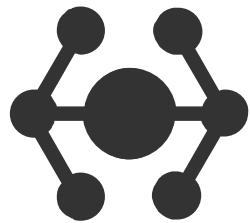
02. & 03.

WEBMETHODS API GATEWAY (Software AG)

CASE STUDY 01

WEBMETHODS DEVELOPER PORTAL

WHAT IS WEBMETHODS DEVELOPER PORTAL?



webMethods Developer Portal is platform for securely exposing APIs to the partners, app developers. And it is a marketplace for API business to drive growth.

MY ROLE & RESPONSIBILITIES

ROLE: PRODUCT DESIGN LEAD

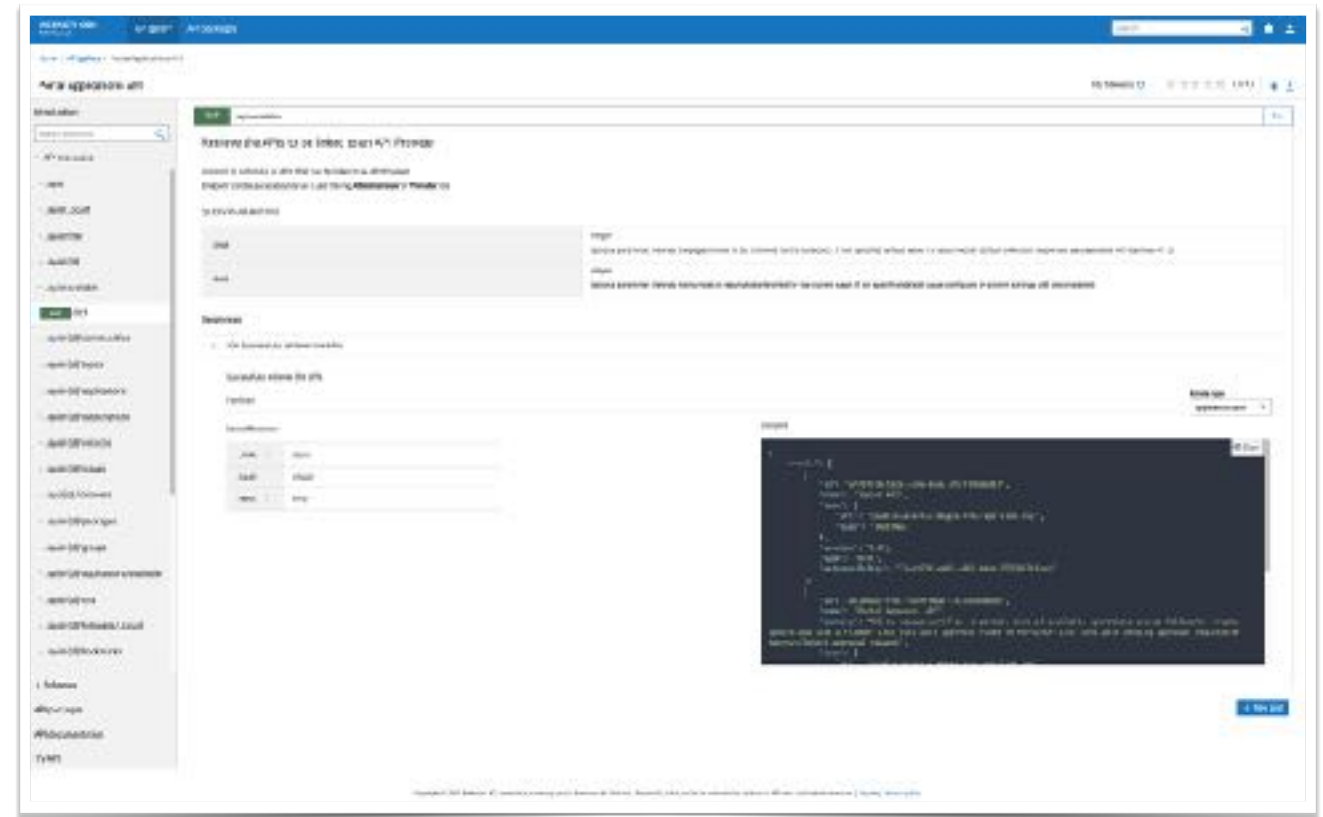
DATE: DEC 2015 - AUG 2022

Task

Old API Portal features support and New developer portal

Challenge

Initial challenge - Joined the product halfway through development so had limited time for research & product learning.



WHO WILL USE WEBMETHODS DEVELOPER PORTAL?



API Administrator



API Provider



APP Developer

Role

Task

Manage the webMethods Developer Portal Platform and configurations

Crafts the API programs and drives the API businesses

Builds apps on top of the APIs available in the marketplace

01 - NEW EASY & ENHANCED CUSTOMIZATION

Need for new customization

In the old API Portal, the complex & outdated GWT framework was used. Due to there were a lot of constraints when it came to UI enhancement, especially for customization part where users(developers) faced a lot of difficulties. Also, users were expected to know HTML/CSS and Javascript to do the customization.

Problem statements

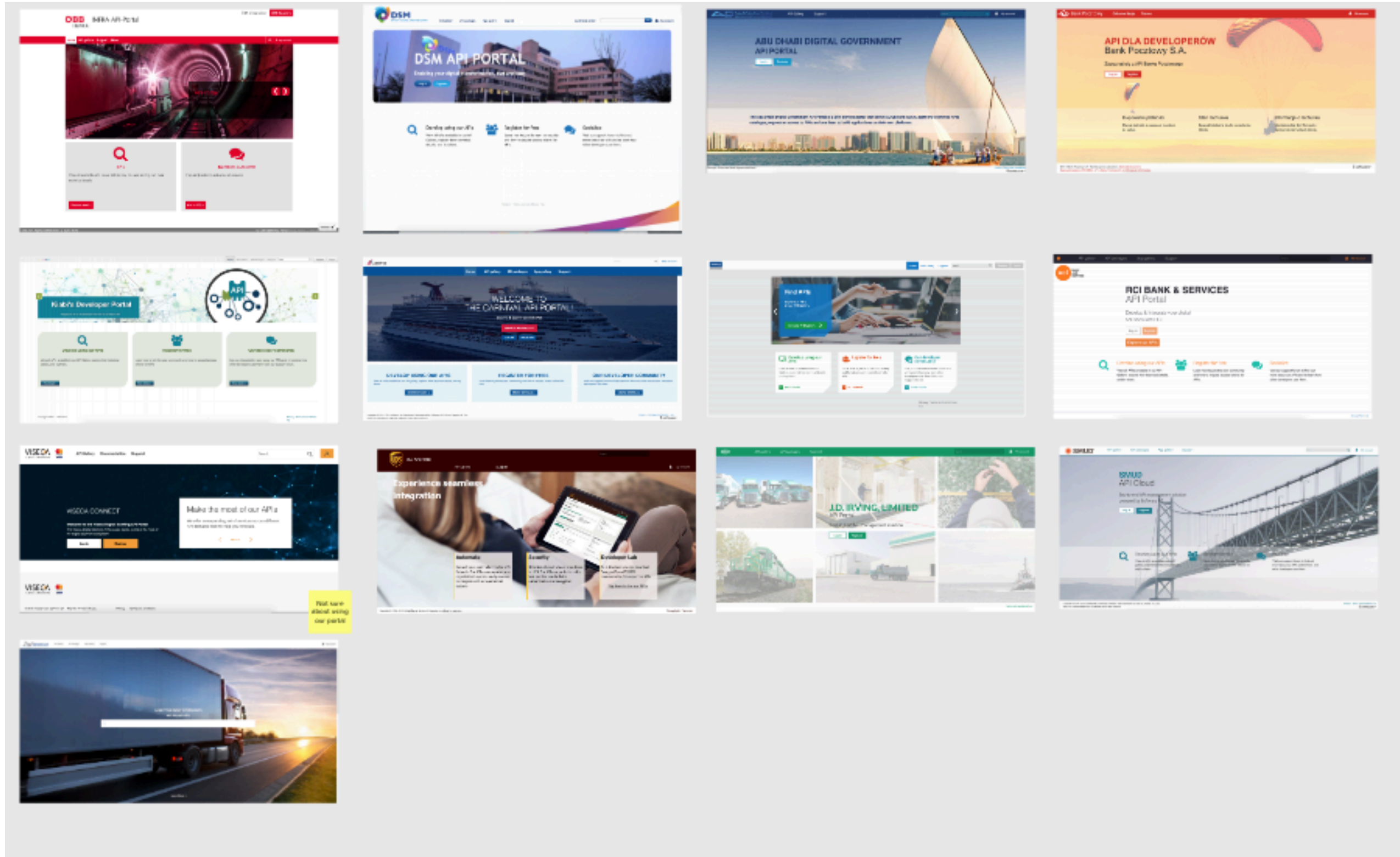
1. Limited customization - "We are not able to do as many changes as we want" , "its very difficult for us to even do small changes"
2. Dependency on other teams - "We don't have a UI developer in house who can do this job."
3. Slow Delivery - "PS people are taking too much time to do customization."

My Responsibilities

For the new developer portal, I have to make sure we are matching the market requirements. I wanted to provide easy customization for the developers who don't have expertise in front-end coding but are still able to do changes as per their requirements.

RESEARCH

Analysis of current customers portals - How much customization they are able to do it and where they find most difficulties?



RESEARCH

Interviews - (Remote interview with customers)

Ericsson - Interviews - API Portal

INTERVIEW

Interviewee	Date	Time	Topic	Company	Location
Simon Holm	Jan 10, 2024	02:30 to 02:45 PM	General	Ericsson	Microsoft Teams
Lars Fahl	Jan 10, 2024	03:00 to 03:15 PM	General	Ericsson	Microsoft Teams
Peter Martin	Jan 10, 2024	03:30 to 03:45 PM	General	Ericsson	Microsoft Teams

INTERVIEWER

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Peter Martin	Jan 10, 2024	03:30 to 03:45 PM	General	Ericsson	Microsoft Teams

Interviewee	Key Insights and Notes
Simon Holm	<ul style="list-style-type: none">Navigation: Find your way to the API PortalInformation: Clear and concise informationUser Flow: Easy to follow flowFind a product: Easy to find productsGeneral usage: Clear and concise informationWhat's something you find difficult in the API Portal or API Gateway?Trust factors: Clear and concise informationAny competitor products you find in use before others in the industry?
Lars Fahl	<ul style="list-style-type: none">Navigation: Find your way to the API PortalInformation: Clear and concise informationUser Flow: Easy to follow flowFind a product: Easy to find productsGeneral usage: Clear and concise informationWhat's something you find difficult in the API Portal or API Gateway?Trust factors: Clear and concise informationAny competitor products you find in use before others in the industry?
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Other Notes

- Navigation: Find your way to the API Portal
- Information: Clear and concise information
- User Flow: Easy to follow flow
- Find a product: Easy to find products
- General usage: Clear and concise information
- What's something you find difficult in the API Portal or API Gateway?
- Trust factors: Clear and concise information
- Any competitor products you find in use before others in the industry?

API Portal

- Navigation: Find your way to the API Portal
- Information: Clear and concise information
- User Flow: Easy to follow flow
- Find a product: Easy to find products
- General usage: Clear and concise information
- What's something you find difficult in the API Portal or API Gateway?
- Trust factors: Clear and concise information
- Any competitor products you find in use before others in the industry?

API Dev

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RESEARCH

Competitive Analysis

COMPETITOR ANALYSIS WM.io Dev Portal

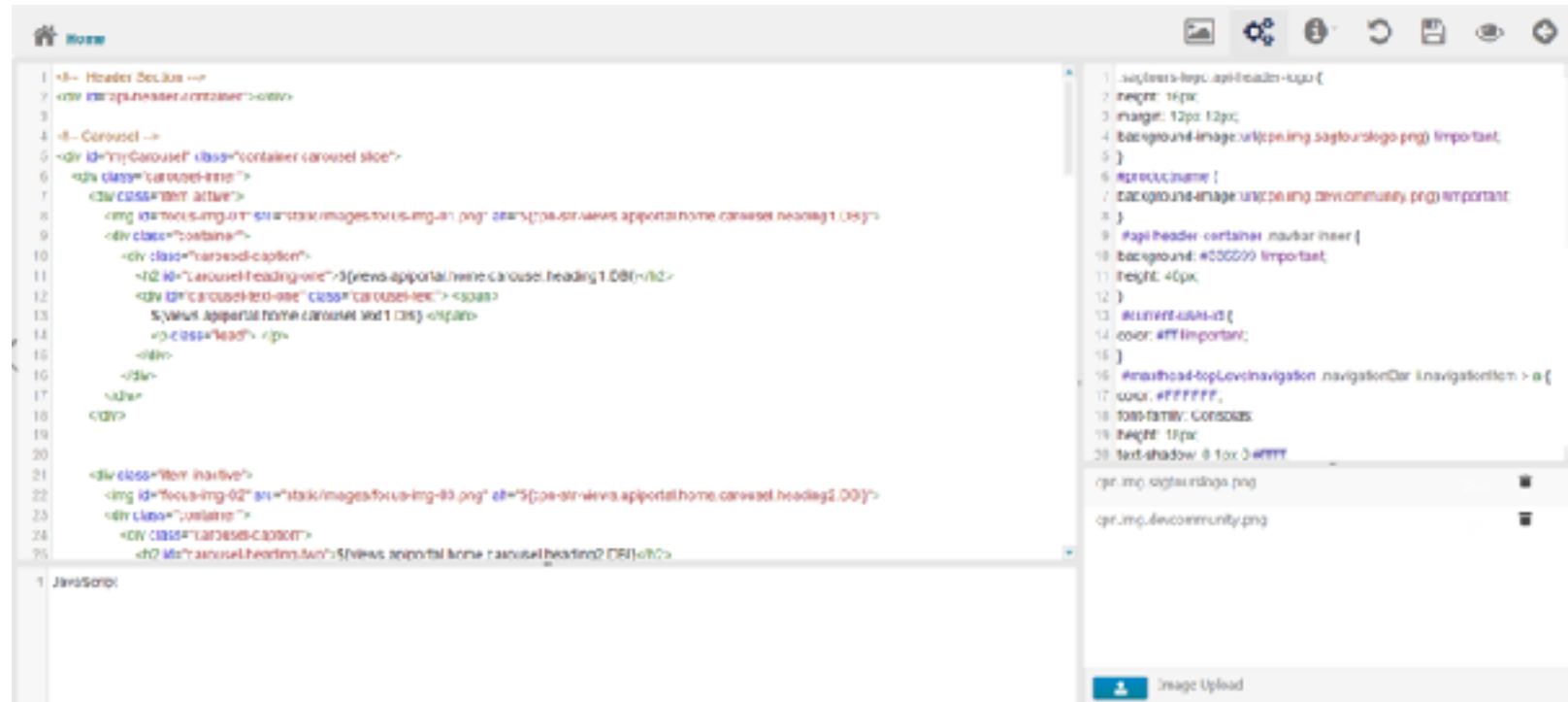
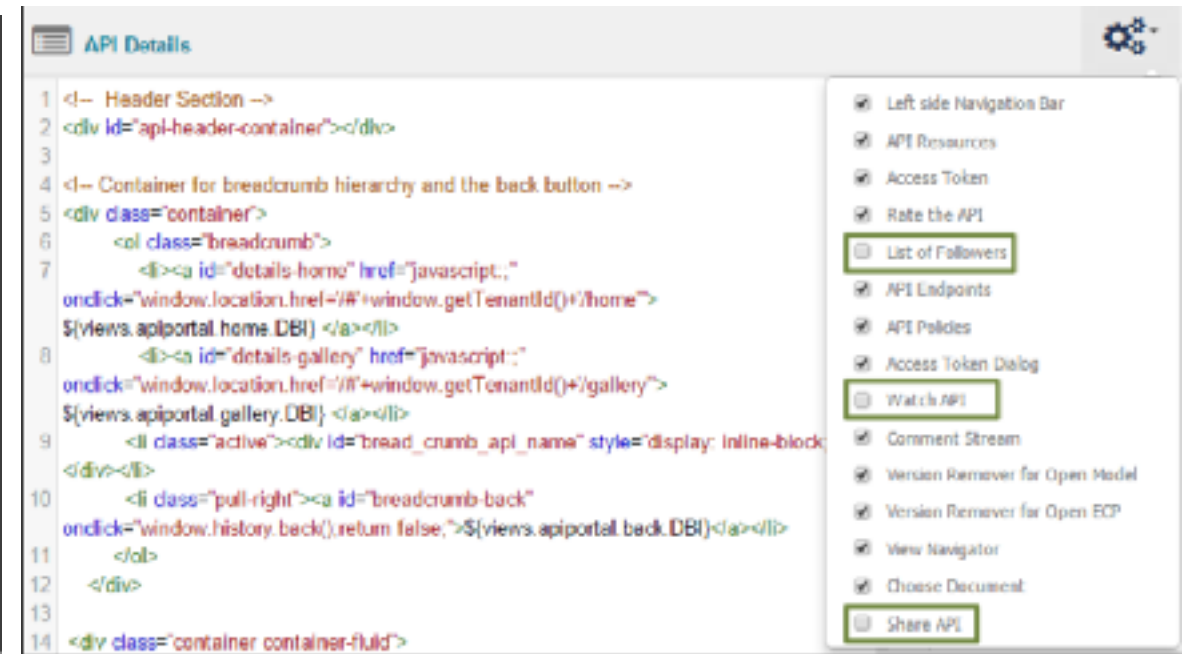
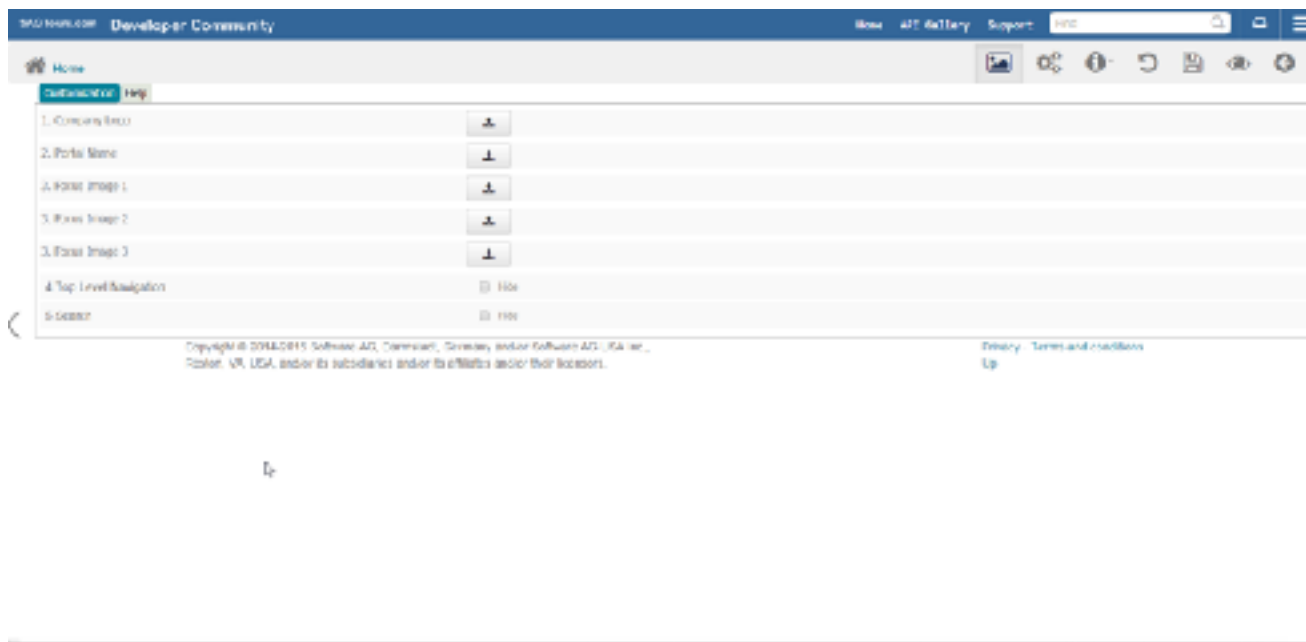
Analysis of the competition situation (products, use cases) according to user defined parameters in order to gather information about competitors and UEs.

1 COMPETITORS

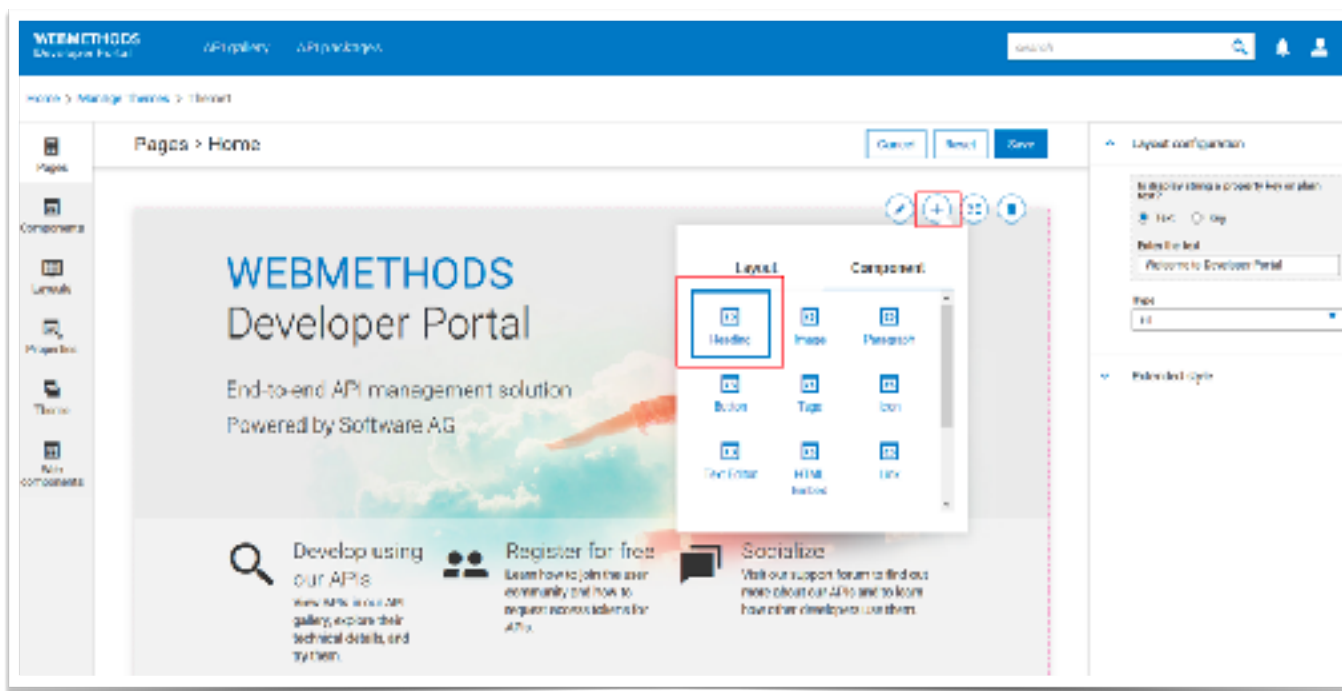
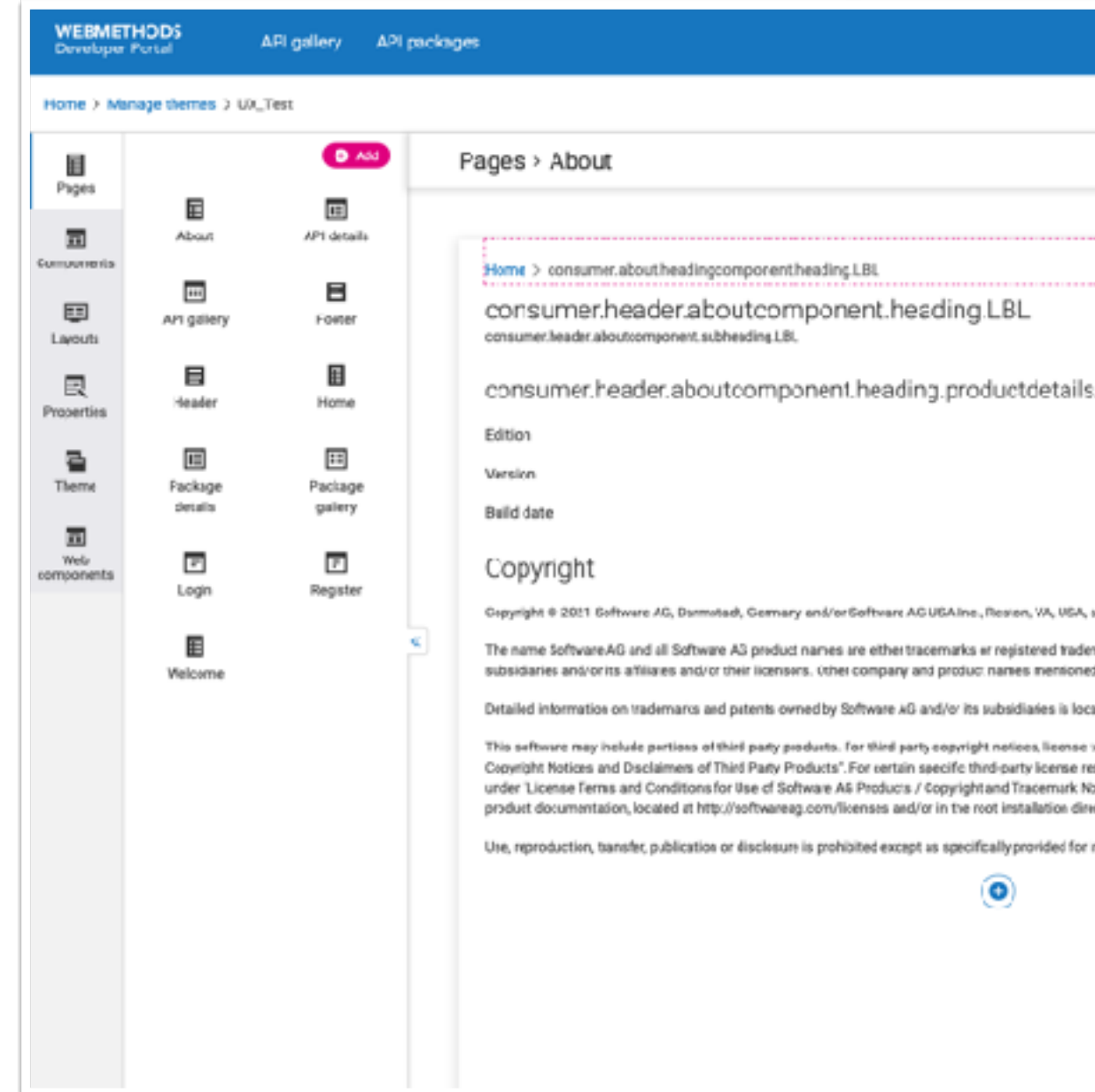
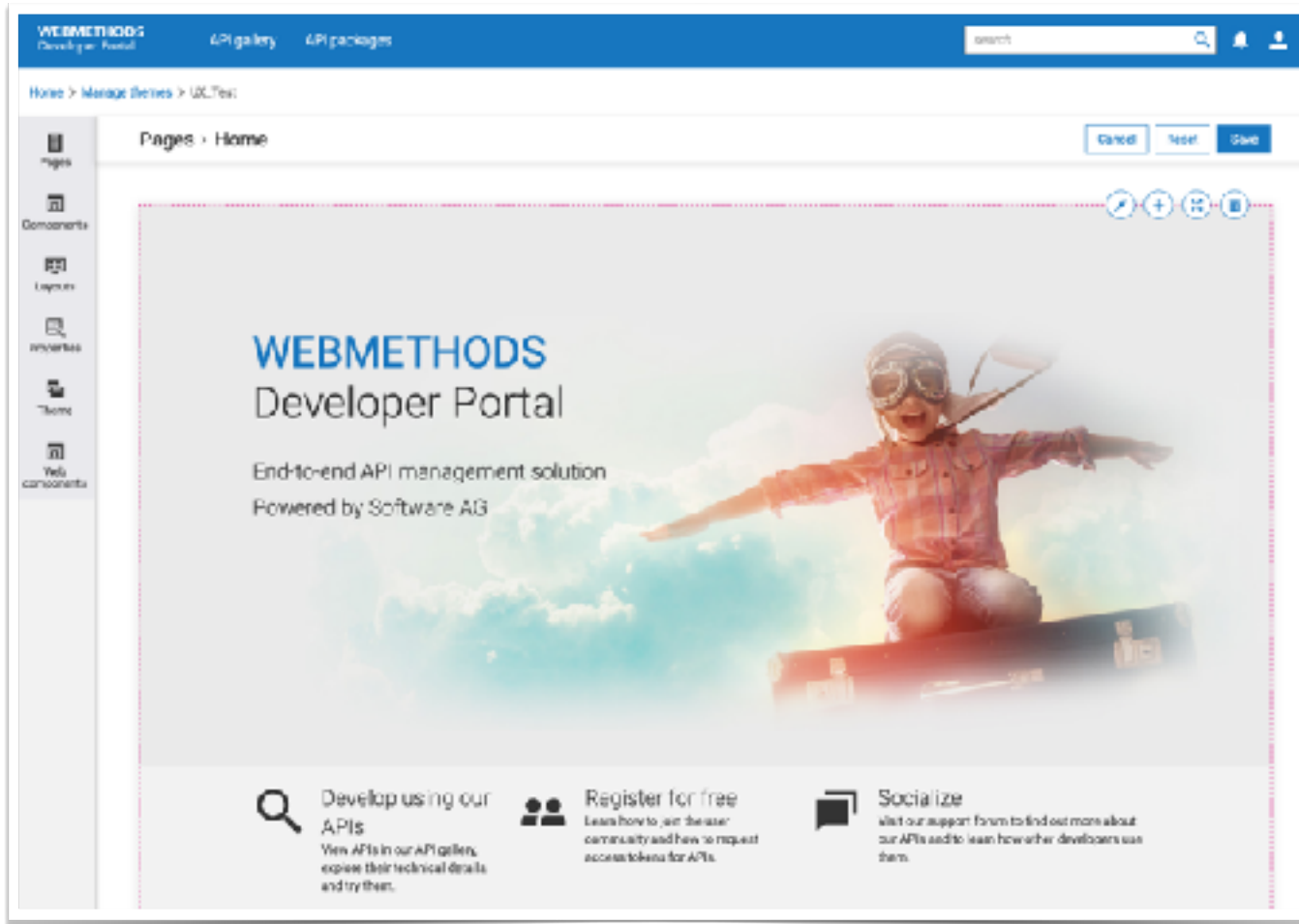
2 FEATURES

3 REFERENCES

OLD DESIGN

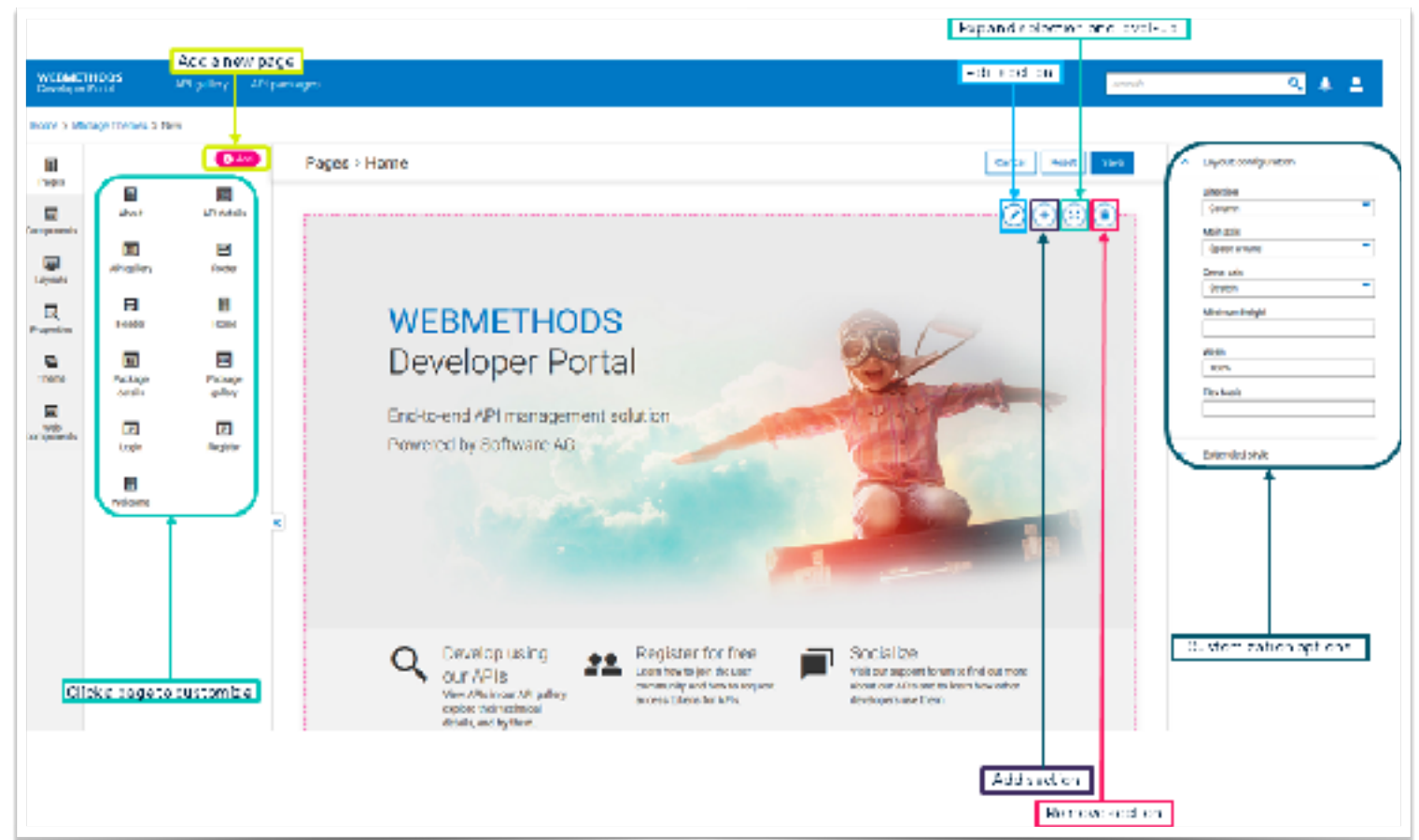
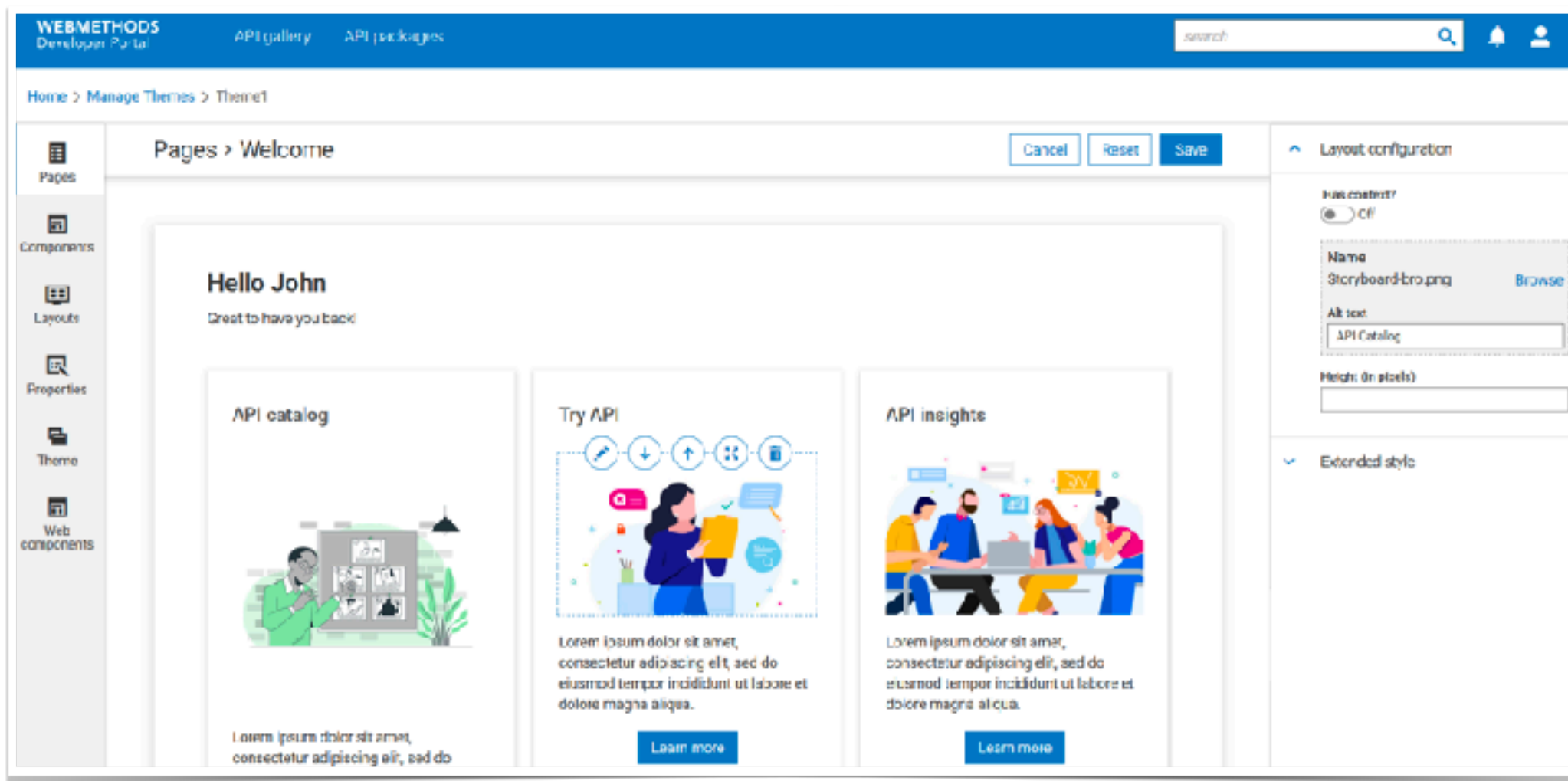


NEW DESIGN

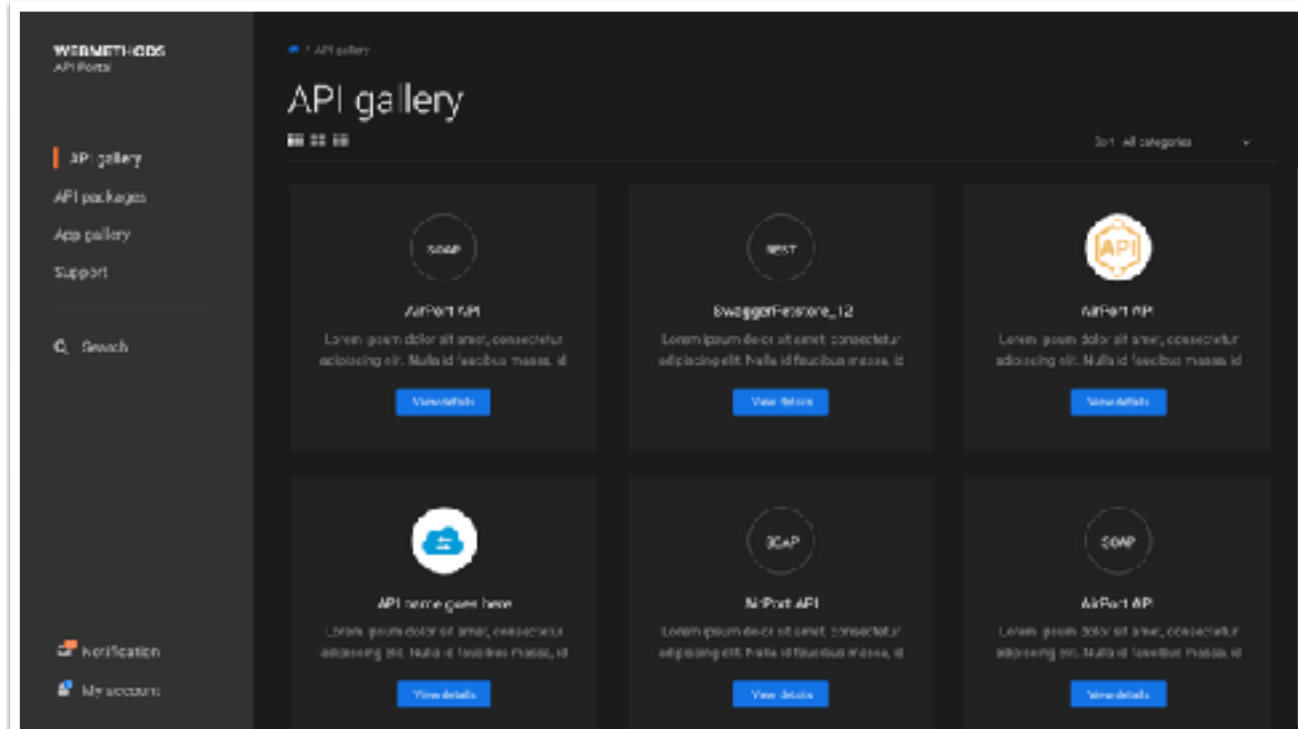
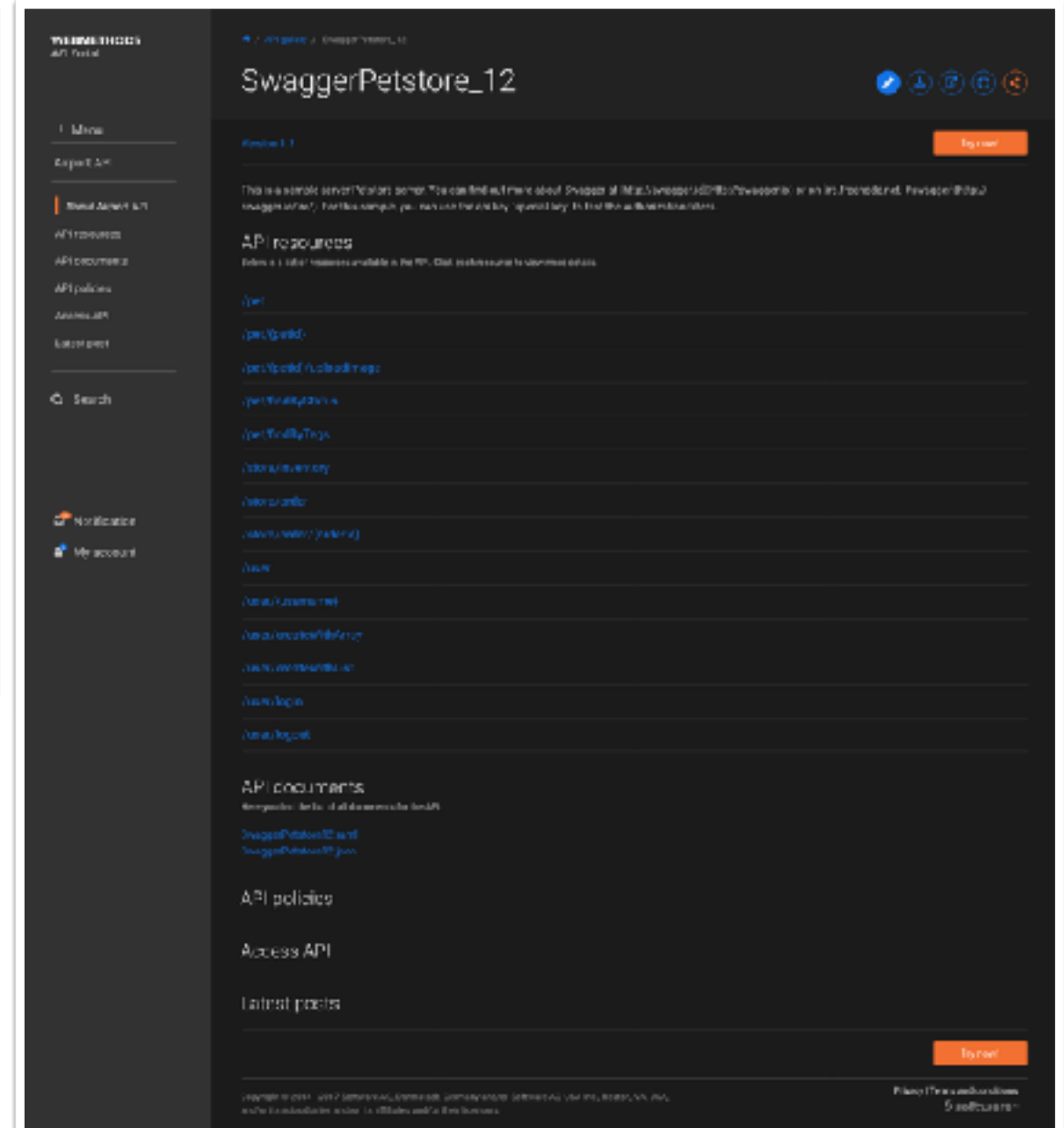
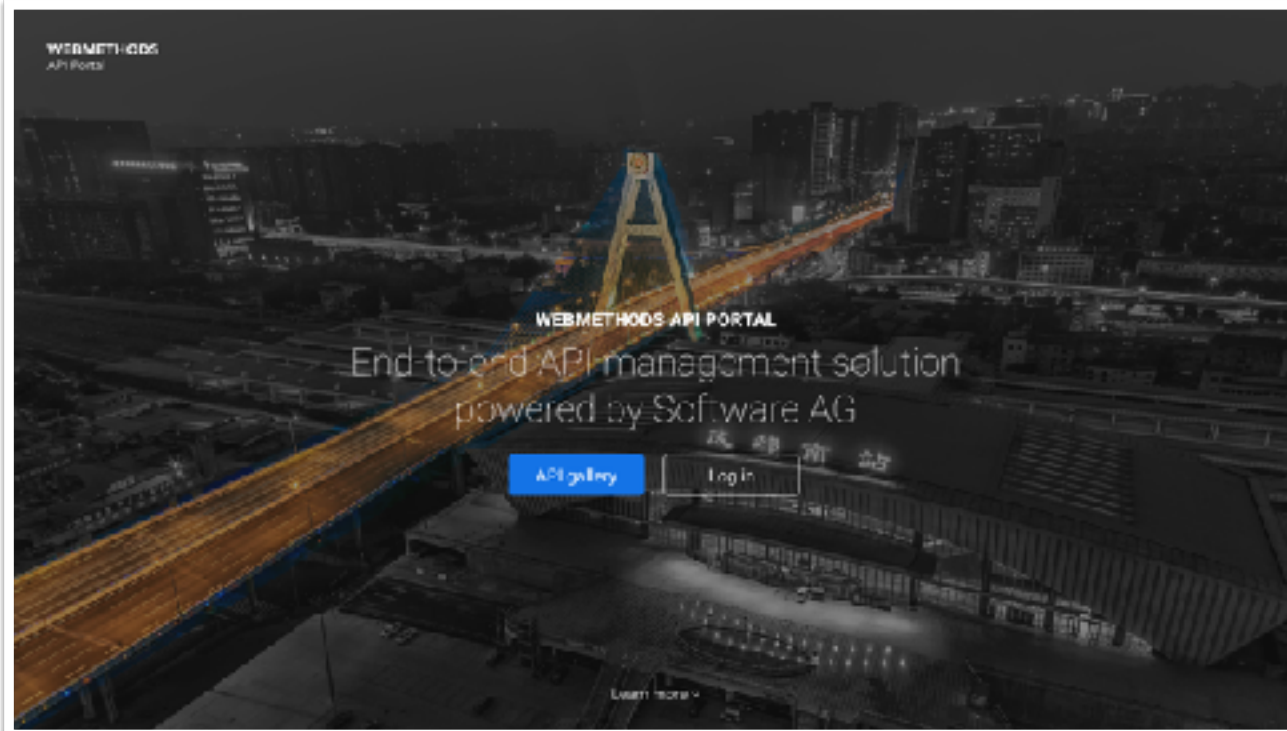


Now developer Portal comes with a WYSWYG UI that allows you to preview your customization and proceed accordingly.

Developer Portal offers different levels of options to perform customization: Basic (logo, colour, text), Intermediate (CSS content/ web component) & Advanced (headless architecture that allows you to build an UI using REST APIs)



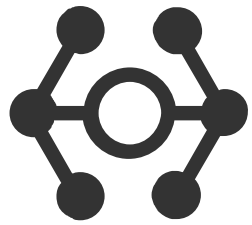
THEMES



CASE STUDY 02 & 03

WEBMETHODS API GATEWAY

WHAT IS WEBMETHODS API GATEWAY?



With webMethods API Gateway you can easily create APIs, define Service Level Agreement (SLA) policies, and seamlessly publish your APIs to webMethods API Portal & Developer Portal.

MY ROLE & RESPONSIBILITIES

ROLE: PRODUCT DESIGN LEAD

DATE: DEC 2015 - AUG 2022

Task

New product design & Continue features work

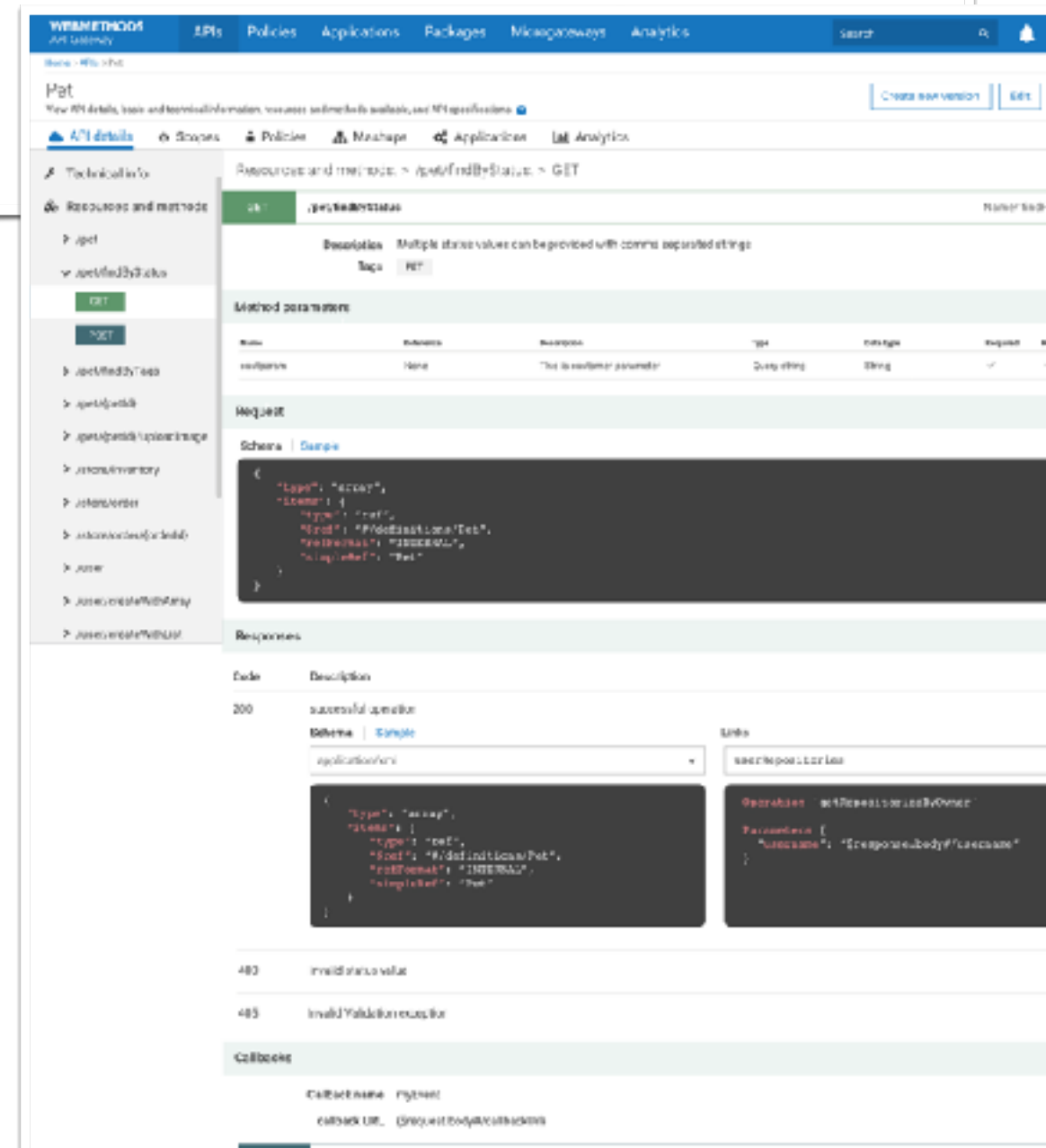
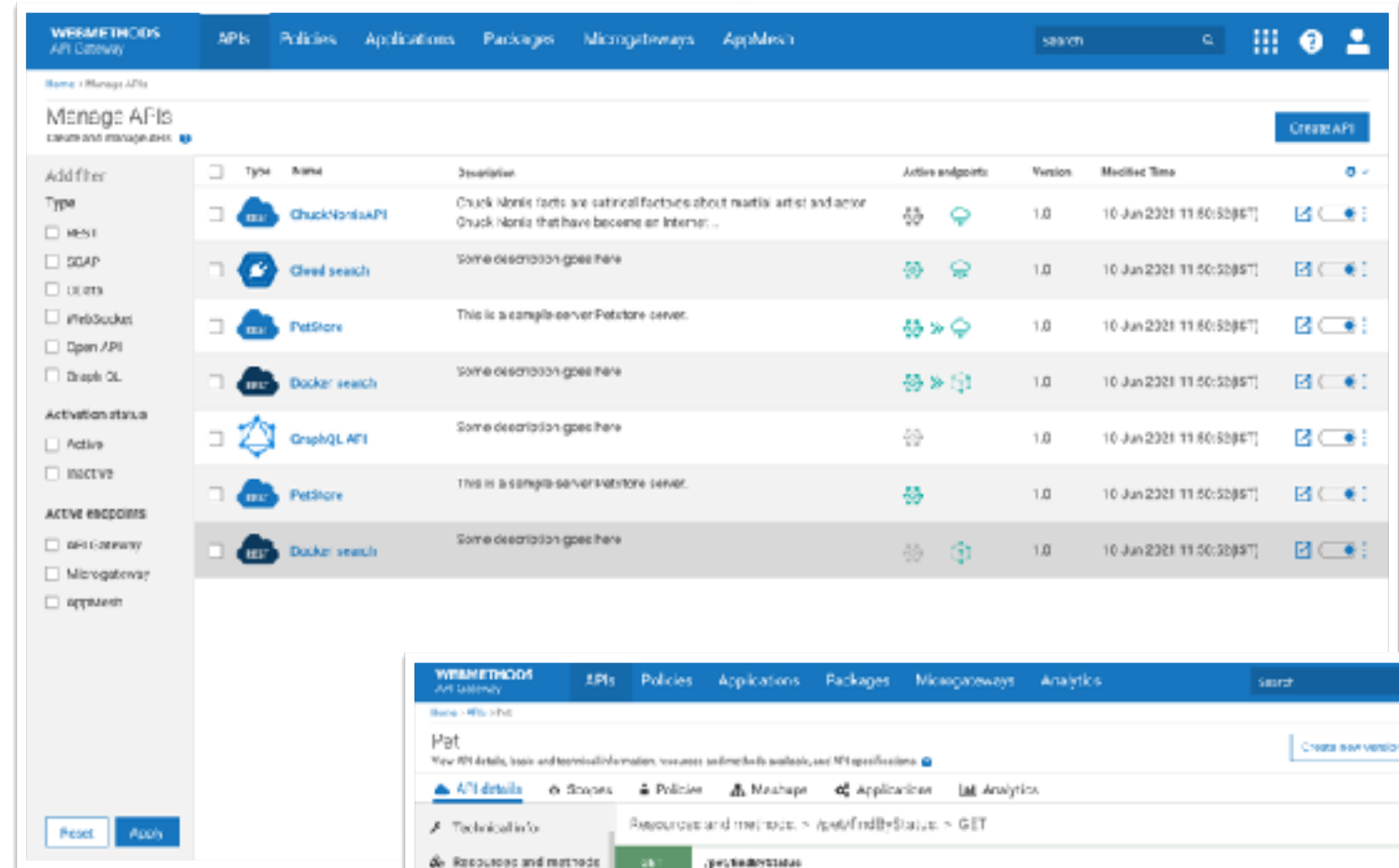
Challenge

Initial challenge - First UX designer in the company so hard to follow all the required UX processes. No existing customers are ready for interviews. The organization needed a quick turnaround so as to keep up with the competitor's products. Also working with a huge product engineering team.

Continued challenges - Keep up with new market requirements - Maintain our leader position on Gartner & Forrester board - Adding new edge functionalities and giving the best user experience.

My Responsibilities

I was assigned this project six years back to craft the whole journey for the product from scratch. I wanted to create an API solution that satisfies customer needs and at the same time brings growth to the company business.



WHO WILL USE WEBMETHODS API GATEWAY?



Role API Product Manager

API Architect /
Infrastructure owner

API Administrator

API Provider / Developer

- Task**
- Create business value
 - Secure business data
 - Create engagement
 - Analyze and optimise the performance
 - Manage API lifecycle

- Set up gateway(s) for authentication and authorization security.
- Set up Dev portal(s) for self-service API Consumption
- Future proof infrastructure (Change management and legacy system data)
- Meet API needs of lines with business and external partners.

- Initial gateway configuration post installation
- Product and secure data from internal exposure and external threats.
- Group APIs for different audiences
- Monetize API.

- Create API - Policies definition
- Expose products, services, and assets to customers
- Build partner-facing APIs to reduce manual data entry for partners and internal reps working with customers.
- Modernize integrations and app development through APIs and Microservices.

02 - TRACER - MONITOR THE COMPLETE LIFE CYCLE OF THE RUNTIME REQUESTS WITHIN API GATEWAY

Need for Tracer

Based on customers requirement & feedback - one of the key functionalities was missing in API Gateway

Problem statements

1. From API Developer's perspective, one of their goals is to check how APIs are performing across different stages. When some failure happens or any issue comes they have to check manually. They have to either check in backend code or dig deep in Analytics logs which is time consuming.
2. API governor would like to check time to time policies enforcement details which right now is only possible through backend.

RESEARCH

Research is the most important part that led me to the right direction while working on this product. Initially I did not get the opportunities to interact with users who are using other software AG products or potential customers. So I took interview of stake holders, global supports and Pre-sales and learnt about the requirements.

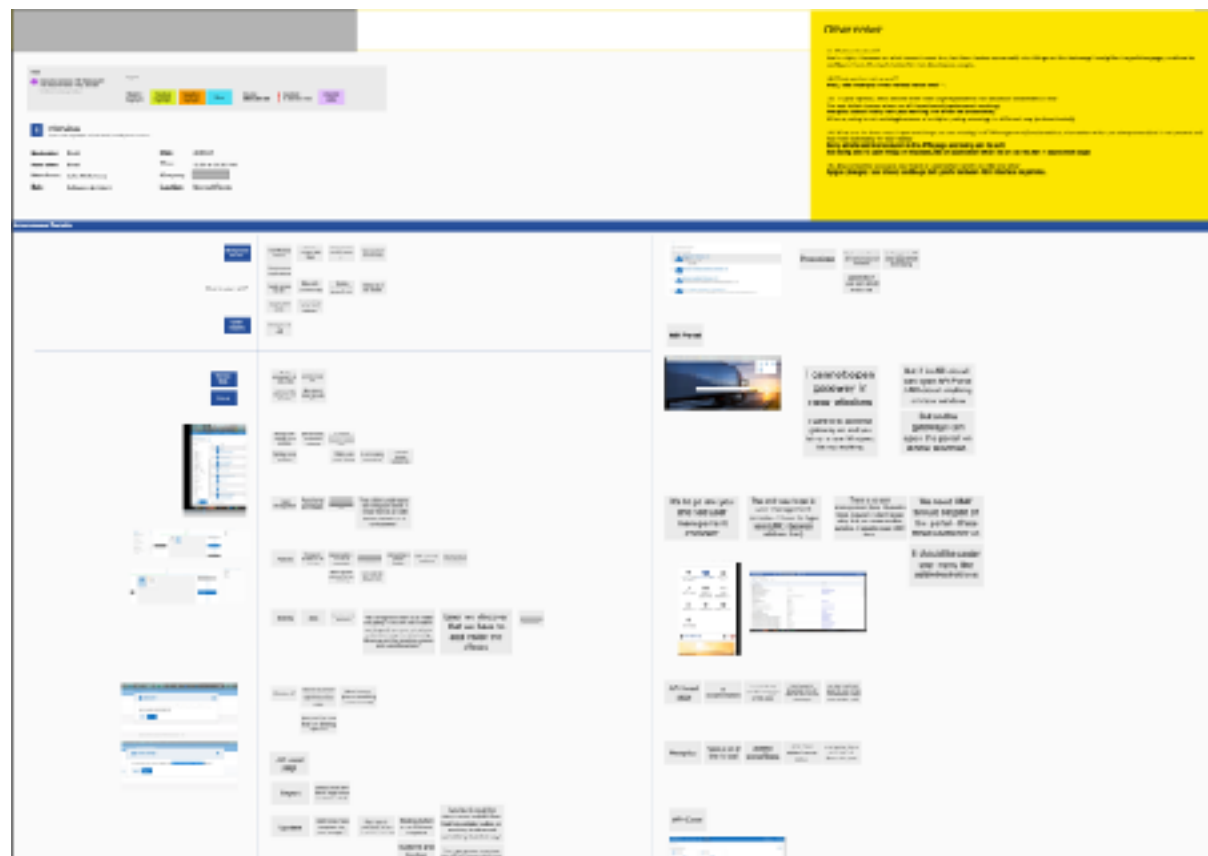
Also, I regularly interact with customers - remote interviews. Doing survey and also get more insights through Software AG annual user conferences.

Interviews - (Mostly Remote and Internal Stakeholders - PM / Product Owners)

Survey

Competitive Analysis

Others (Company events Annual User Group Conference - Tech Community - Global Support - Customer support team



FINAL VISUAL - INTERFACE MEETS EXPERIENCE

The screenshot displays the WebMethods API Gateway interface for the 'Http Method Invoker'. The top navigation bar includes 'APIs', 'Policies', 'Applications', 'Packages', 'Microgateways', and 'Appmesh'. The main content area is divided into several sections:

- Runtime requests:** A list of requests with checkboxes for selection. The selected request is from 'last Tuesday at 12:10 PM'.
- Policies applied:** A list of policies including 'Threat protection', 'Transport', 'Identity & access', 'Request processing', 'Routing', 'Traffic monitoring', 'Response processing', and 'Error handling'. The 'Identity & access' policy is highlighted.
- Trace details:** A section for 'General runtime information' showing 'Correlation Id', 'Start', 'End', and 'Elapsed' time. Below this is a 'Transport time take / Policy stage' section showing an 'Elapsed' time of 0.100ms.

The right-hand side of the interface shows a detailed view of the selected request, including a table of headers and a 'Response' section.

Key	Value
Accept	*/
Content-Type	application/xml
User-Agent	msdn:2008.12.10
Host	223.104.175.33, 5128C.44
Host	dev1.gateway.webmethods.com
Host-IP	10.10.1.44
Host-IP	80
Content-Type	application/xml; charset=UTF-8

Key	Value
WebMethods-Trace	A Policy Failed in 'APIGateway', Basic: Faults - 'Integration Server'
Content-Type	application/json

With Trace API support, now users can monitor the complete life cycle of the runtime requests within API Gateway. This use case explains how to trace an API call in API Gateway. You can perform tracing for any runtime requests. Inspecting the failed runtime requests help you to debug and troubleshoot your API calls. You can trace REST, SOAP, and OData API calls.

SCREENSHOT FROM CURRENT PRODUCT AFTER TWO MORE RELEASES

The screenshot shows the 'Tracer' tab for the 'CovidTrackerByCountryAPI'. The interface includes a top navigation bar with 'APIs', 'Policies', 'Applications', 'Packages', and 'Microgateways'. The main content area is divided into three sections: 'Runtime events', 'Policies applied', and 'Event tracer details'. The 'Runtime events' section has a filter set to 'Last 7 days' and shows a single event with a status of '200' at '10:26 AM'. The 'Policies applied' section lists several policies: Transport (1), Identify & Access (0), Request Processing (1), Traffic Monitoring (0), Routing (1), Response Processing (3), and Error Handling (0). The 'Event tracer details' section shows configuration options for JSON Path, Masking Criteria, and transaction logging. The 'Masking Criteria' table is as follows:

Query Expression	Masking Type	Mask Value
\$ updated	Mask	{date} S(time)
\$ countryInfo.id	Filter	
\$ countryInfo.tag	Filter	

The screenshot shows the 'Tracer' tab for the 'Calculator' API. The interface is similar to the previous screenshot, but the 'Runtime events' filter is set to 'Last 6 months' and shows multiple events with status '400' and '200'. The 'Policies applied' section lists: Transport (1), Identify & Access (0), Request Processing (0), Traffic Monitoring (0), Routing (1), Response Processing (1), and Error Handling (0). The 'Event tracer details' section shows a table for 'Routing stage execution status' with the following data:

Type	Name	Status	Response time (in milliseconds)
Stage	Routing	SUCCESS	569.388
Policy	Straight Through Routing	SUCCESS	569.364

HOW DO I TEST THIS TRACER FEATURE?

Thinking aloud sessions with internal stake holders

What is thinking aloud?

In a thinking aloud test, you ask test participants to use the system while continuously thinking out loud – that is, simply verbalizing their thoughts as they move through the user interface. - NN group

In my words - just say it like you feel it :)

Identify the key candidates from different streams who are not aware of end to end flow of Gateway

1. Create few User tasks
2. Give them task to perform
3. And just listen :)

FEW CUSTOMERS COMMENTS FOR API GATEWAY



I really like the policies page, and how to configure them.

It's much better for non-developers people. - Julie Wallemacq

Hello Przemek,

Yes, I really appreciated the UX meeting I had with Bindi, the way you take care of improving your platform, and your listening of your customers. Last hotfix was implemented without any issue, that's a good point also.

Cordialement / Regards,

Julie **WALLEMACQ**
HR IT Consulting for **CGI** Providing services for Michelin Dept. Information Technology
DCS/Q/DIE/HIP API platform
Catarmux, R1, 2^e
Classification : D3
Conservation : 90 days



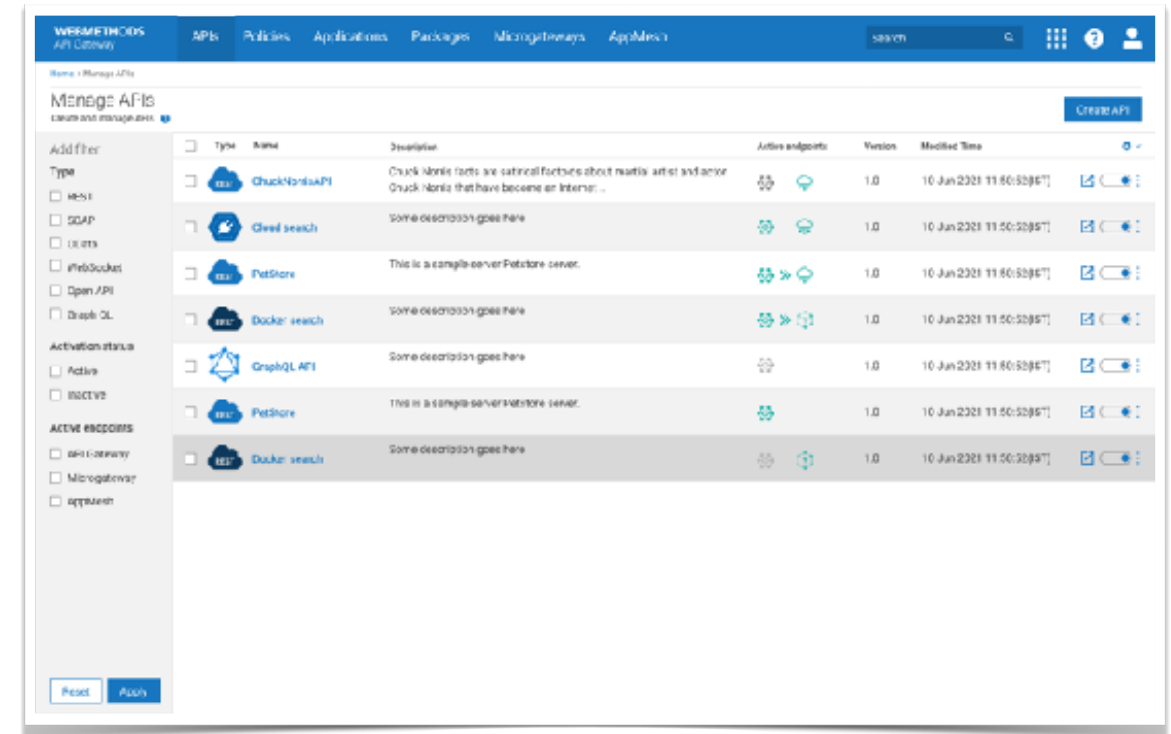
“Capability to handle all the API from one Place really helps”.

- Luca Vescovini



“We really like a single window for policy management”

-Suman



03 - REDESIGN OF MANAGE API

Need for Redesign

Some of the important data table functionalities were missing. The screen needed a re-design as current version was 6 years old.

Problem statements

- 1. Easy API Discovery** - "As a product owner I would like to find particular APIs which were created by particular person or last updated".
- 2. Need of advance filters** - "Most of the companies have hundreds of APIs (sometime thousands) and within different internal groups so for them its hard find particular API or group of APIs".
- 3. Need customizable table as per the our organization requirement** - "We don't need all the these columns - we only required creation date and type of the API" -

My Responsibilities

Being lead designer for the API Gateway its my responsibility that UX enhancements features also get same importance as technical and business features. For that I have to understand the scope and priorities. Worked with the development team and understand how much we can achieve in the one release as its a big feature.

RESEARCH

Feedbacks collected from the different stake holders

COLLECTED FEEDBACK ABOUT SCREEN



INSIGHTS FROM THAT



Manage APIs	We are listing all APIs in a flat list.	Org structures should be added.	Folder structures	Different kind of folders structures	Versions	no creating in folders is currently supported.
	Filtering of APIs	Filters also not saved	filter types should be default and reusable	Users can easily get lost when there are 20+ APIs max/min	Configurable Persistent would be better.	-> Associated filter would be persistent at least for 3 session sessions.

Manage APIs	Sort by name or version not available	Filters are not clear	Why need dropdown apply button, search result should start by filtering on REST (thankyou for example Amazon other big sites)
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Manage APIs	Filters need more options like tags /	When we have many APIs filter mechanism is very difficult	Filters should be save in one sessions	If user changed the page and come back to Manage APIs - filters should stay same
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ACTIONS PERFORMED ON SCREEN

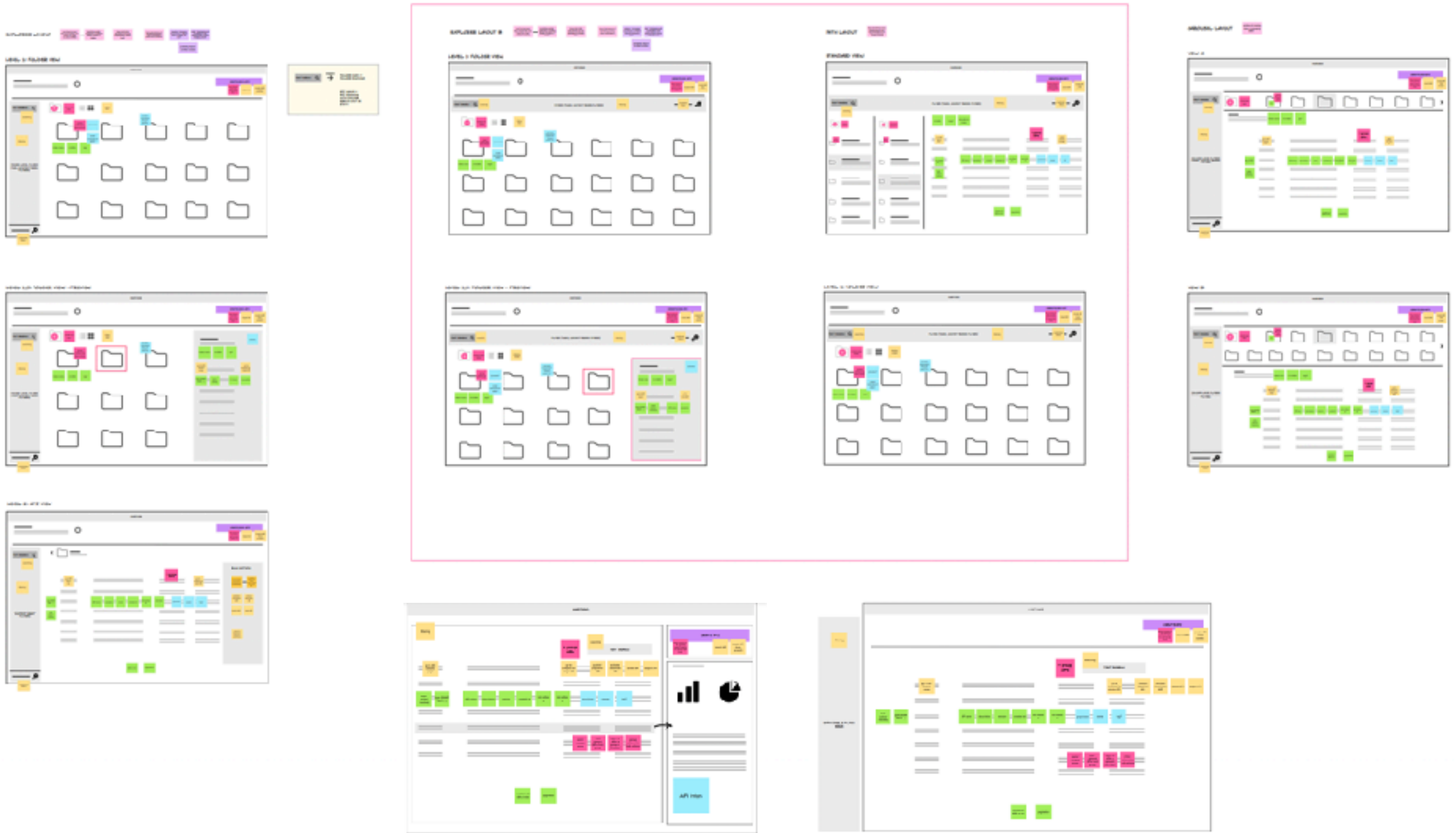


INFORMATION ON SCREEN



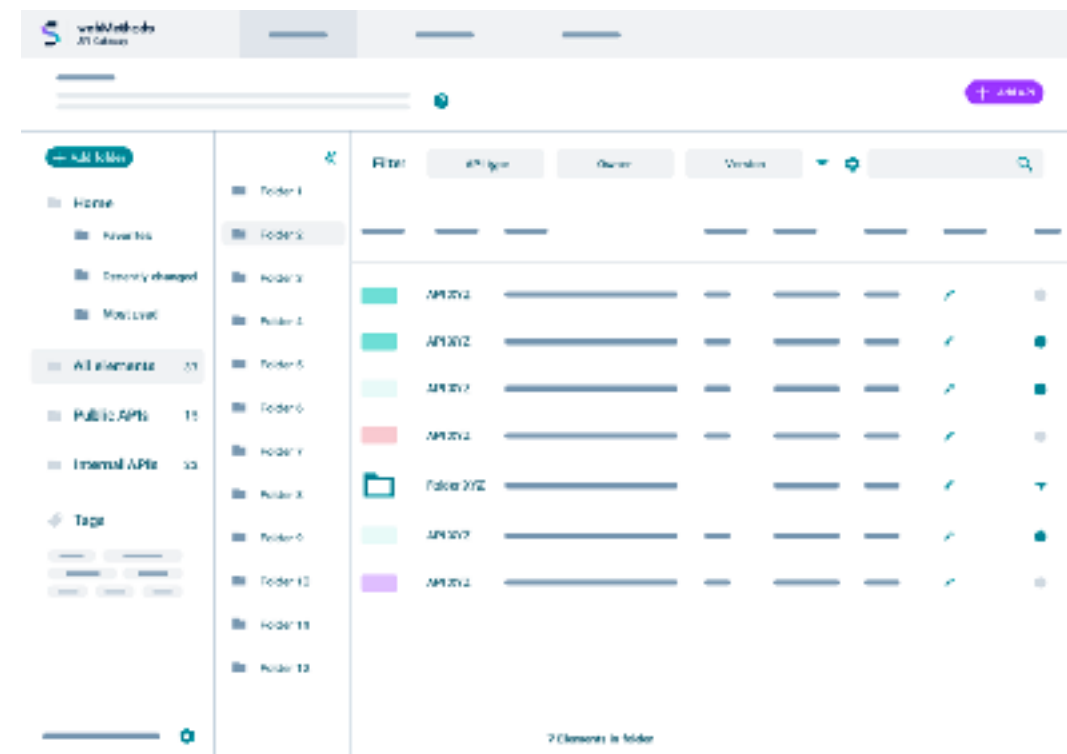
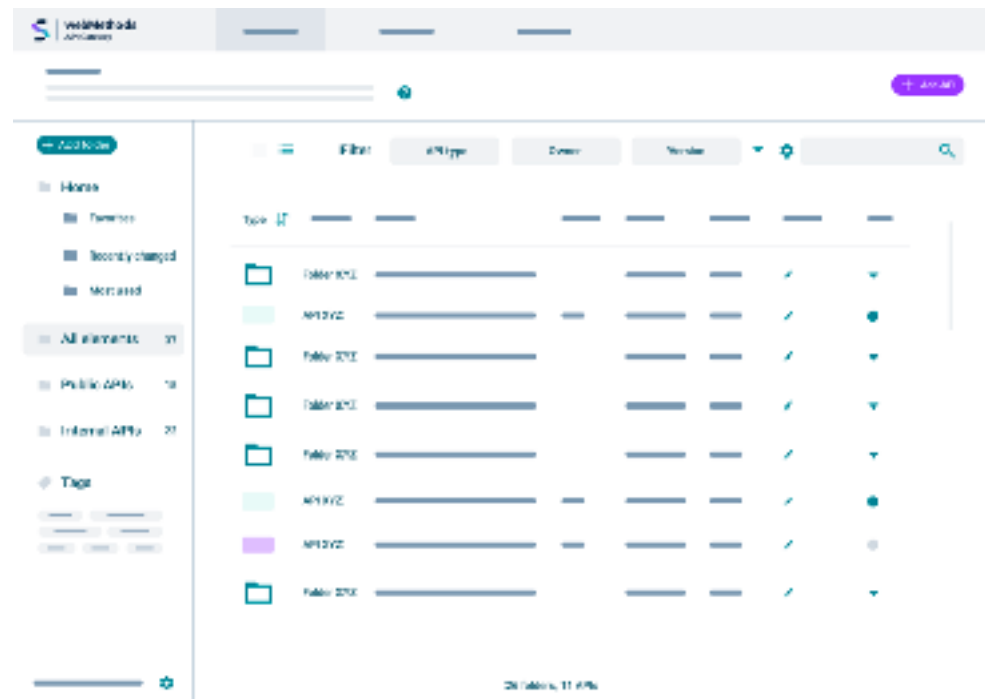
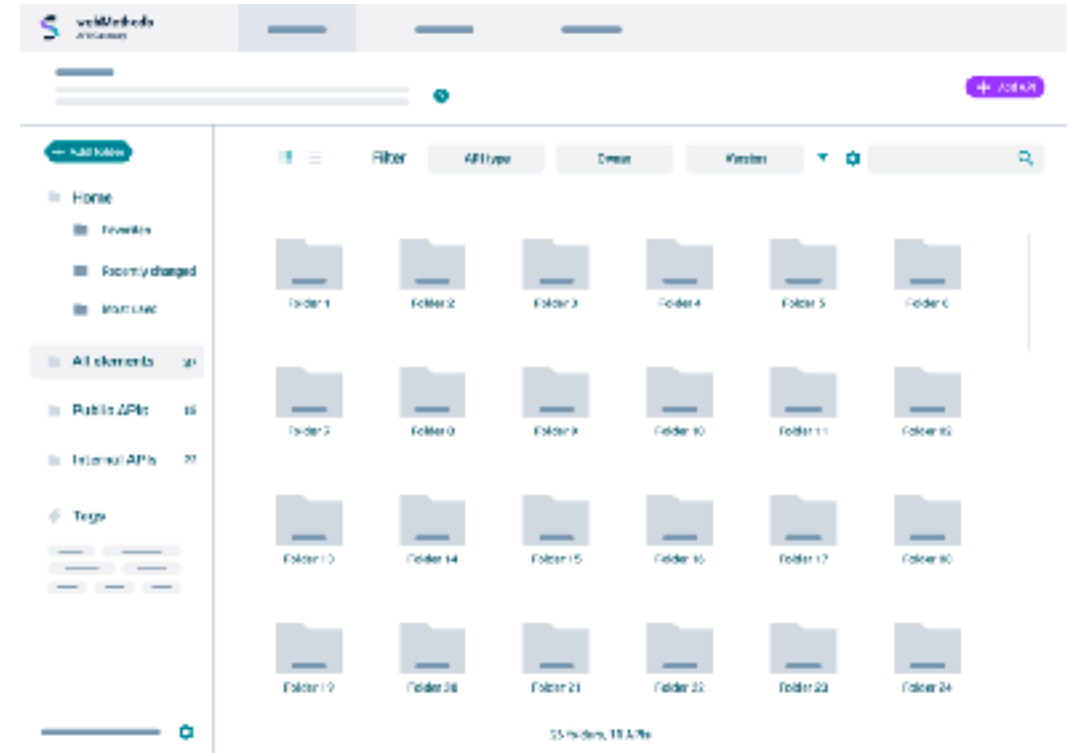
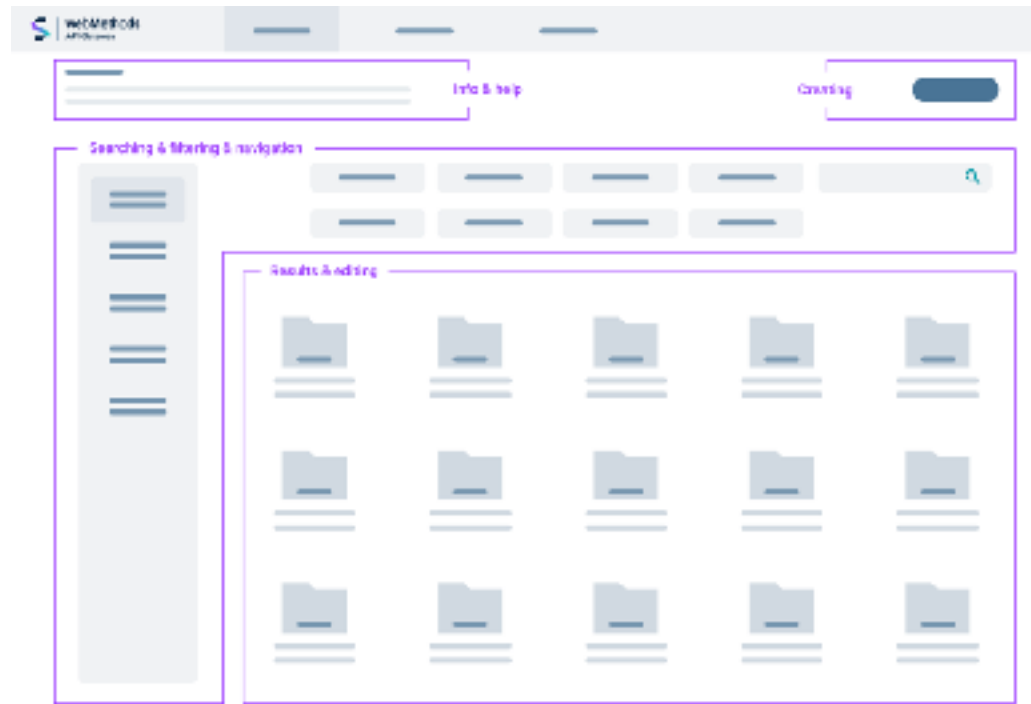
WIREFRAME

Initial ideas to share with management team. - Here I worked with a junior interaction designer. We used Mural for this workshop.



FIRST PROTOTYPE

Initial ideas to share with management team.



VISUAL DESIGN

with new design guidelines which launched in 2021 April.

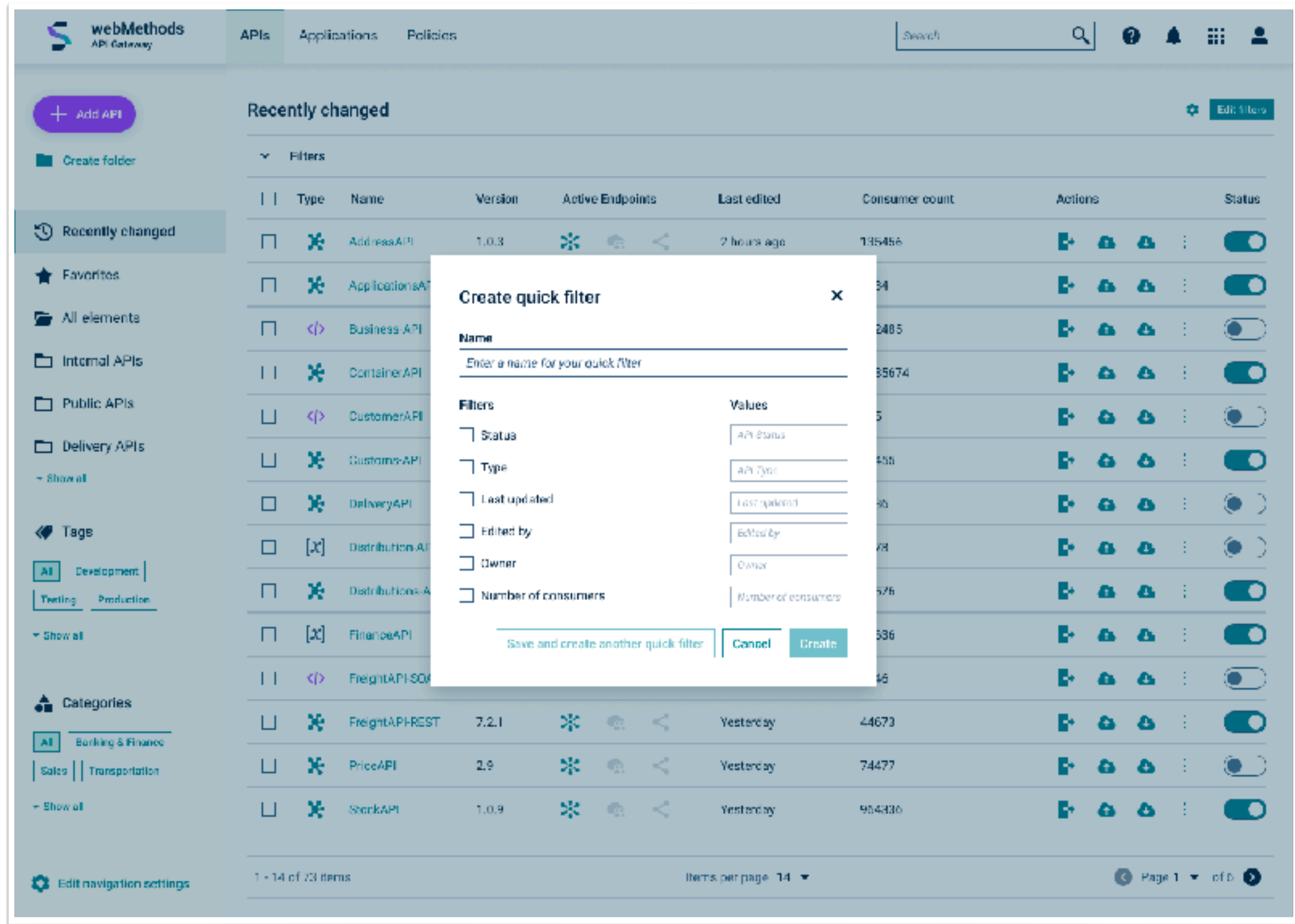
The screenshot displays the webMethods API Gateway interface. The top navigation bar includes the logo, tabs for 'APIs', 'Applications', and 'Policies', a search bar, and utility icons. A left sidebar contains navigation options like 'Add API', 'Create folder', 'Recently changed', 'Favorites', and various API categories. The main content area shows a table of recently changed APIs with columns for Type, Name, Version, Active Endpoints, Last edited, Edited by, Actions, and Status.

Type	Name	Version	Active Endpoints	Last edited	Edited by	Actions	Status
<input type="checkbox"/>	AddressAPI	1.0.3		2 hours ago	Gary Trent Jr.		<input checked="" type="checkbox"/>
<input type="checkbox"/>	ApplicationsAPI	3.1		2 hours ago	Julius Randle		<input checked="" type="checkbox"/>
<input type="checkbox"/>	Business-API	1.2.7		3 hours ago	Anthony Edwards		<input type="checkbox"/>
<input type="checkbox"/>	ContainerAPI	12.5		3 hours ago	Sue Bird		<input checked="" type="checkbox"/>
<input type="checkbox"/>	CustomerAPI	6.1		3 hours ago	Courtney Vandersloot		<input checked="" type="checkbox"/>
<input type="checkbox"/>	Customs-API	12.0.3		3 hours ago	Sue Bird		<input checked="" type="checkbox"/>
<input type="checkbox"/>	DeliveryAPI	0.5		4 hours ago	Natasha Howard		<input type="checkbox"/>
<input type="checkbox"/>	Distribution-API	1.1		7 hours ago	Thomas Bryant		<input type="checkbox"/>
<input type="checkbox"/>	Distributions-API...	3.1		7 hours ago	Myles Turner		<input checked="" type="checkbox"/>
<input type="checkbox"/>	FinanceAPI	28.0.42		Yesterday	Breanna Stewart		<input checked="" type="checkbox"/>
<input type="checkbox"/>	FreightAPI-SOAP	5.0		Yesterday	Candace Parker		<input checked="" type="checkbox"/>
<input type="checkbox"/>	FreightAPI-REST	7.2.1		Yesterday	Brian Scalabrine		<input checked="" type="checkbox"/>
<input type="checkbox"/>	PriceAPI	2.9		Yesterday	Franz Wagner		<input type="checkbox"/>
<input type="checkbox"/>	StockAPI	1.0.9		Yesterday	Franz Wagner		<input checked="" type="checkbox"/>

1 - 14 of 73 items Items per page 14 Page 1 of 6

VISUAL DESIGN

with new design guidelines which launched in 2021 April.



THANK YOU!

Email: bindiraval@gmail.com

Linkedin: <https://www.linkedin.com/in/bindiraval/>