

CODE-LESS APP DEVELOPMENT WITH BMC HELIX INNOVATION STUDIO



As a recent hire to BMC, I have enjoyed finding opportunities to help improve our processes. At the behest of my former supervisor, Alessandro Raffa, I was tasked with building an interactive, self-service app that would work twofold as:

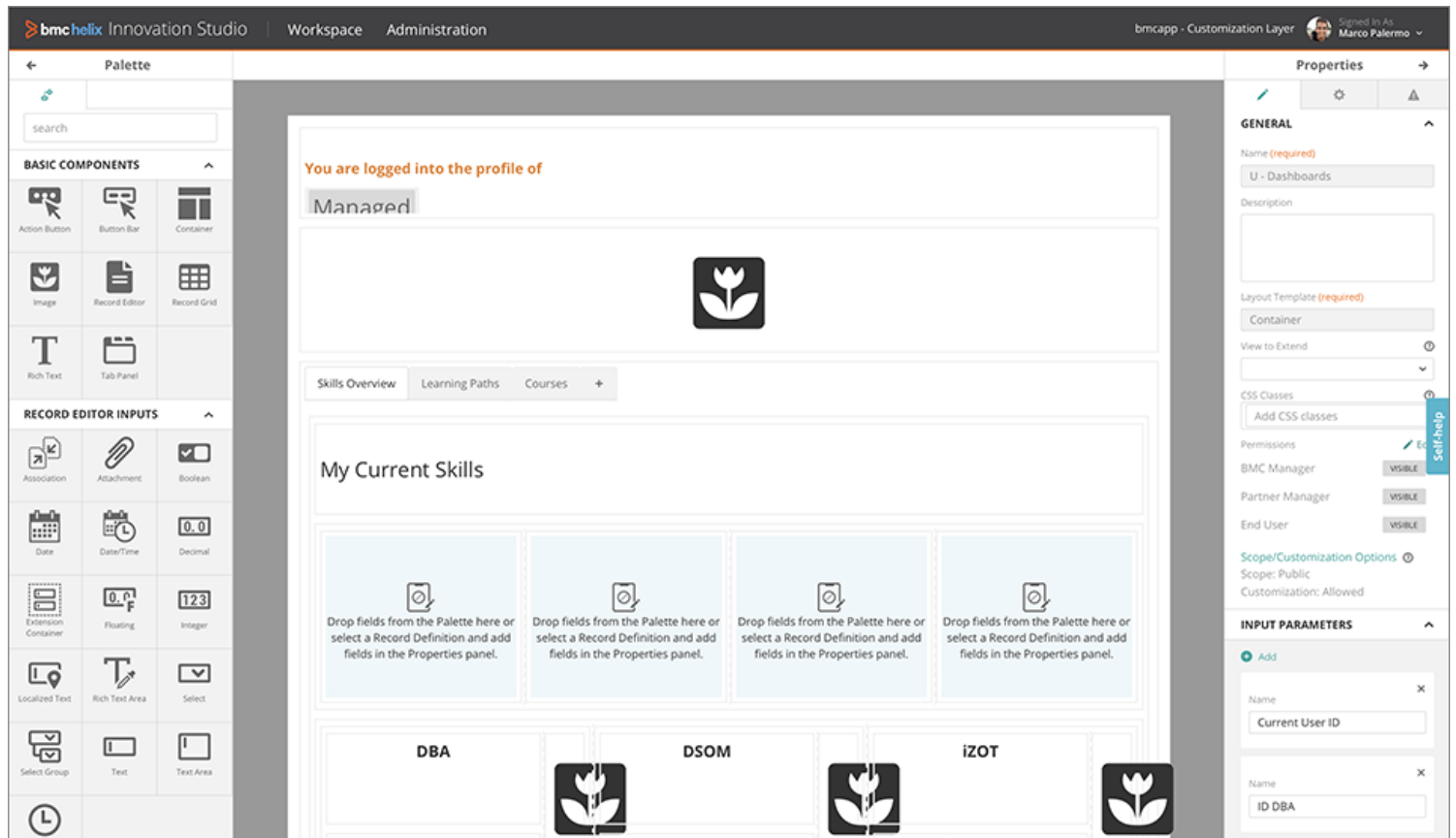
- A skills assessment app to allow our partners to save and keep an updated list of all of their BMC solution skills for easy analysis and monitoring by management teams
- An e-learning app with learning paths for partners to improve their ability to explain, demonstrate, and prove BMC solutions

Alessandro knew we needed a better way to manage partner skills and enablement and created a design for the app and all of its functionalities. I was then tasked with using BMC Helix Innovation Studio tools and components to implement them, collaborating with him throughout the development.

Getting started

I began developing the app as a final project for my graduate program and to gain experience developing apps in the BMC Helix Innovation Studio. This was a project of many firsts—my first time developing an app, first time using BMC Helix Innovation Studio, and first time approaching an application that uses code-less components, workflows and actions to replace code.

First, I studied the recommended step-by-step tutorial for developing a lunch-ordering app, which included features like a list of different food dishes from which you select the dish that you want and add it to your order. From there, I learned how to use all of the basic components of BMC Helix Innovation Studio and its drag-and-drop functionalities. Then, to get the logic of an e-learning app, I looked at several online learning websites and took notes on their main components.



BMC Helix Innovation Studio's drag-and-drop functionalities.

It took about two weeks to do that, and another two weeks to develop the main logic of the app for its skills assessment and e-learning functionalities. Fortunately, Carlos Villoria Gajate, a colleague from the Spanish team at BMC who is skilled in developing apps in BMC Helix Innovation Studio, guided me in the learning process, answering my questions and pushing me to learn new things every day.

bmc helix Innovation Studio | Workspace Administration | bmcapp - Customization Layer | Signed In As Marco Palermo

Skill Level

Fields included in this Regular Record

+ New Field | Delete | Copy | 0 of 21 selected

Field Name	Fiel...	↑	Data Type	Required	Default Value
<input type="checkbox"/> Display ID	1	🔒	Text	Yes (System)	
<input type="checkbox"/> Created By	2	🔒	Text	Yes	\$USER\$
<input type="checkbox"/> Created Date	3	🔒	Date/Time	Yes (System)	
<input type="checkbox"/> Assignee	4	🔒	Text	No	
<input type="checkbox"/> Modified By	5	🔒	Text	Yes (System)	
<input type="checkbox"/> Modified Date	6	🔒	Date/Time	Yes (System)	
<input type="checkbox"/> Status	7	🔒	Selection	Yes	New
<input type="checkbox"/> Name	8	🔒	Text	Yes	
<input type="checkbox"/> Notifier Listening	16	🔒	Selection	Yes (System)	Not Listening
<input type="checkbox"/> GUID	179	🔒	Text	Yes (System)	
<input type="checkbox"/> ID	379	🔒	Text	Yes (System)	
<input type="checkbox"/> Skill Level	536870913		Selection	Yes	Lv 0 - No Skills / New Hire
<input type="checkbox"/> PERSON HAVING SKILLS_ID	536870914		Text	No	
<input type="checkbox"/> CATEGORY OF LEARNING PATHS_ID	536870915		Text	No	
<input type="checkbox"/> Type	536870916		Text	No	
<input type="checkbox"/> Goal	536870917		Selection	No	
<input type="checkbox"/> Priority	536870918		Selection	No	

Details

GENERAL

Name (required)
Skill Level

Description

Scope/Customization Options
Scope: Public
Customization: Allowed
Allow Non-Admin Users to Delete Record

Owner
Allen

Modified Date
Sep 8, 2021 1:33:25 AM

Modified By
ARSERVER

Permissions
End User: VISIBLE
Partner Manager: VISIBLE
BMC Manager: VISIBLE

Should Export Data

RECORD INHERITANCE

The backend of the user profile with simple layout.

How it works

The main screen of the self-service app provides an overview for end users, with visibility into their current expertise across the BMC solution portfolio. They can also see their enablement priorities, which are updated depending on their individual goals. The learning path tab displays current course enrollment as well as completed and archived courses. It's all organized in a tree-type structure to make it easier to find. You can click on each goal in order to update a current target and see available courses or current course progress, if already enrolled.



My Current Skills

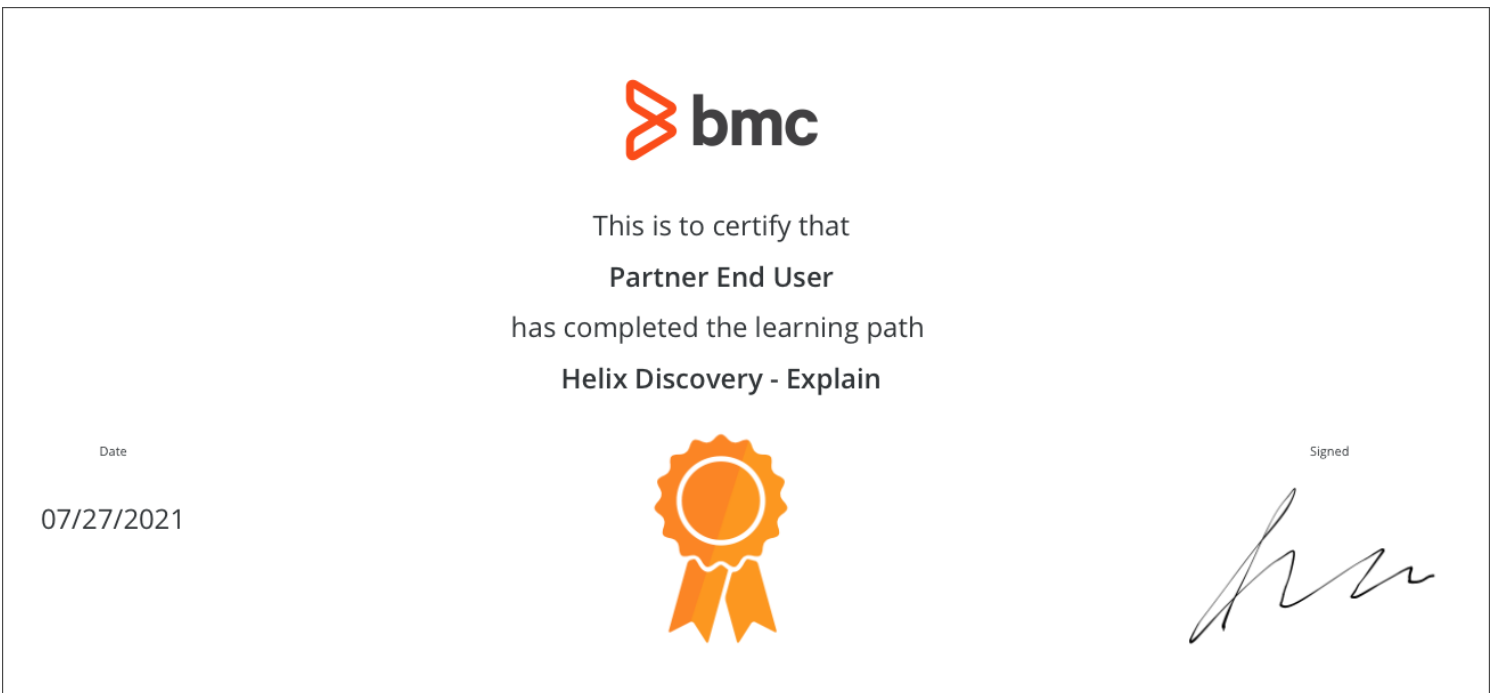
DBA			DSOM			iZOT		
EXPLAIN	DEMO	PROVE	EXPLAIN	DEMO	PROVE	EXPLAIN	DEMO	PROVE
94.2%	48.5%	20.0%	88.2%	58.8%	35.2%	0%	0%	0%

My Enablement Priorities

Priority	Area	SubArea	Knowledge	Skill Level	Goal
High	DSOM	Discovery	Helix Discovery	Lv 0 - No Skills / New Hire	Lv 1 - Explain
High	DSOM	Optimize	Helix Continuous Optimization	Lv 2 - Demo	Lv 3 - Prove
High	DSOM	Monitor	Helix Operations Management	Lv 2 - Demo	Lv 3 - Prove
High	DSOM	Platform	Helix iPaaS	Lv 1 - Explain	Lv 3 - Prove
Medium	DSOM	Platform	Helix Business Workflows	Lv 1 - Explain	Lv 2 - Demo
Medium	DSOM	Service	Helix Knowledge Management	Lv 2 - Demo	Lv 3 - Prove
Medium	DBA	SaaS	Helix Control-M	Lv 1 - Explain	Lv 2 - Demo
Low	DSOM	Platform	Helix Virtual Agent	Lv 1 - Explain	Lv 2 - Demo
Low	DSOM	Platform	Helix Digital Workplace	Lv 1 - Explain	Lv 2 - Demo

The self-service app provides visibility into current BMC solution expertise.

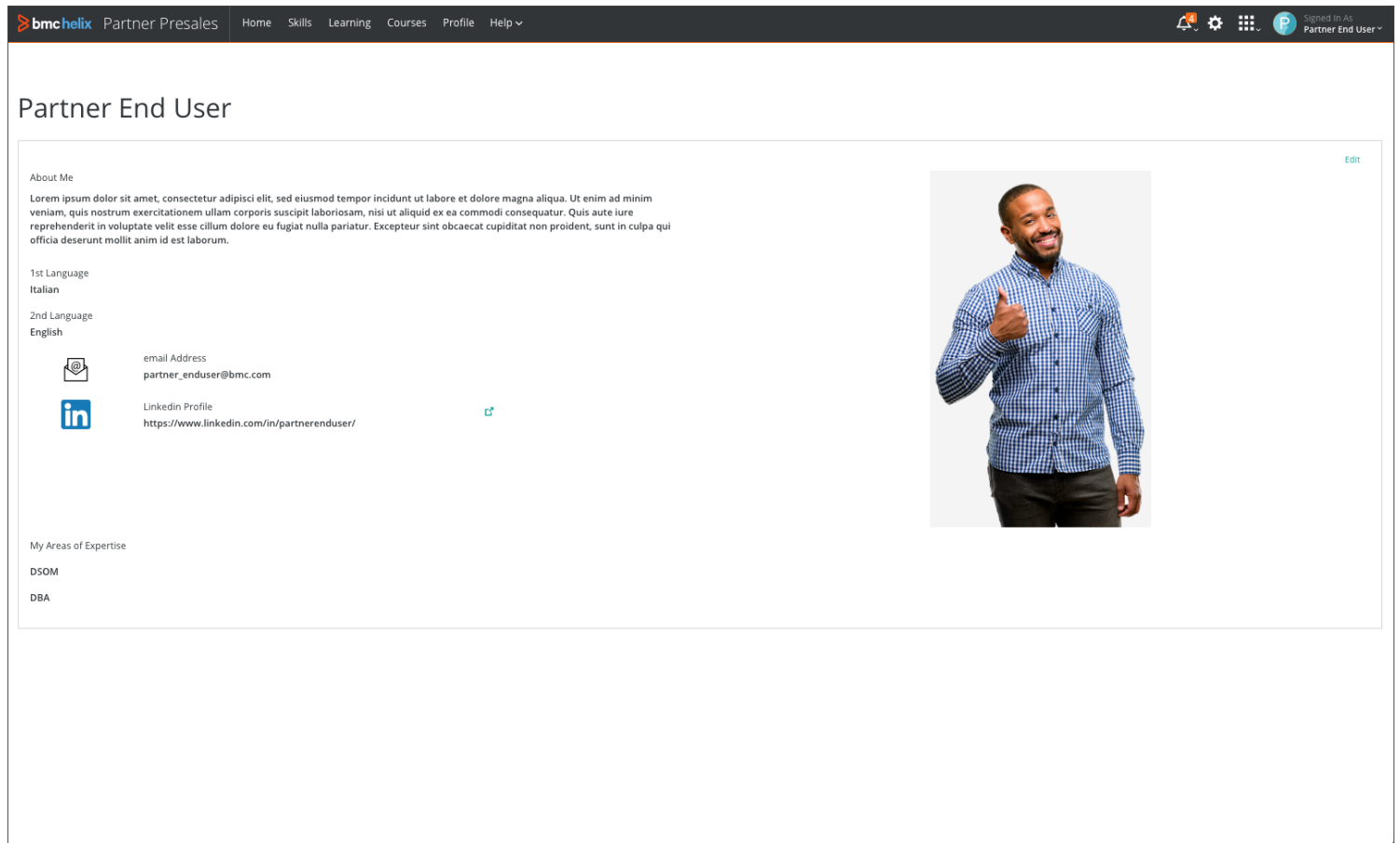
Once you reach 100 percent in a specific learning path, the progress status automatically changes to completed and generates a certificate that can be downloaded, screenshot, and shared on social media, if desired. Users can also enroll in standalone courses if they don't want to follow a whole learning path.



Certificates can be downloaded and shared to show progress.

On the user profile page, users can upload an image, write a short bio, and add links to social media

and their language capabilities, which are useful for managers organizing teams and assigning tasks according to skill set. An analytics view is also available for managers to filter lists by specific criteria—such as the ability to present a complex demo—and only see the corresponding set of staff.



The screenshot displays the user interface of the BMC Helix Partner Presales application. At the top, there is a navigation bar with the BMC Helix logo, 'Partner Presales', and menu items: Home, Skills, Learning, Courses, Profile, and Help. On the right side of the navigation bar, there are icons for notifications, settings, and a user profile dropdown labeled 'Signed in as Partner End User'. The main content area is titled 'Partner End User' and contains a profile card. The profile card includes an 'About Me' section with placeholder text, a photo of a man in a blue checkered shirt giving a thumbs up, and an 'Edit' button. Below the photo, there are fields for '1st Language' (Italian) and '2nd Language' (English). There are also links for 'email Address' (partner_enduser@bmc.com) and 'LinkedIn Profile' (https://www.linkedin.com/in/partnerenduser/). At the bottom of the profile card, there is a section for 'My Areas of Expertise' with 'DSOM' and 'DBA' listed.

End users can customize their profile.

Key takeaways

The whole app was built the code-less way, and it was fun to see, once I understood how to use them, how easy it was to set up the logic for an app with components that are ready and available for use right away, including:

- Action buttons
- Data structures
- Images and other visual elements
- Processes and algorithms

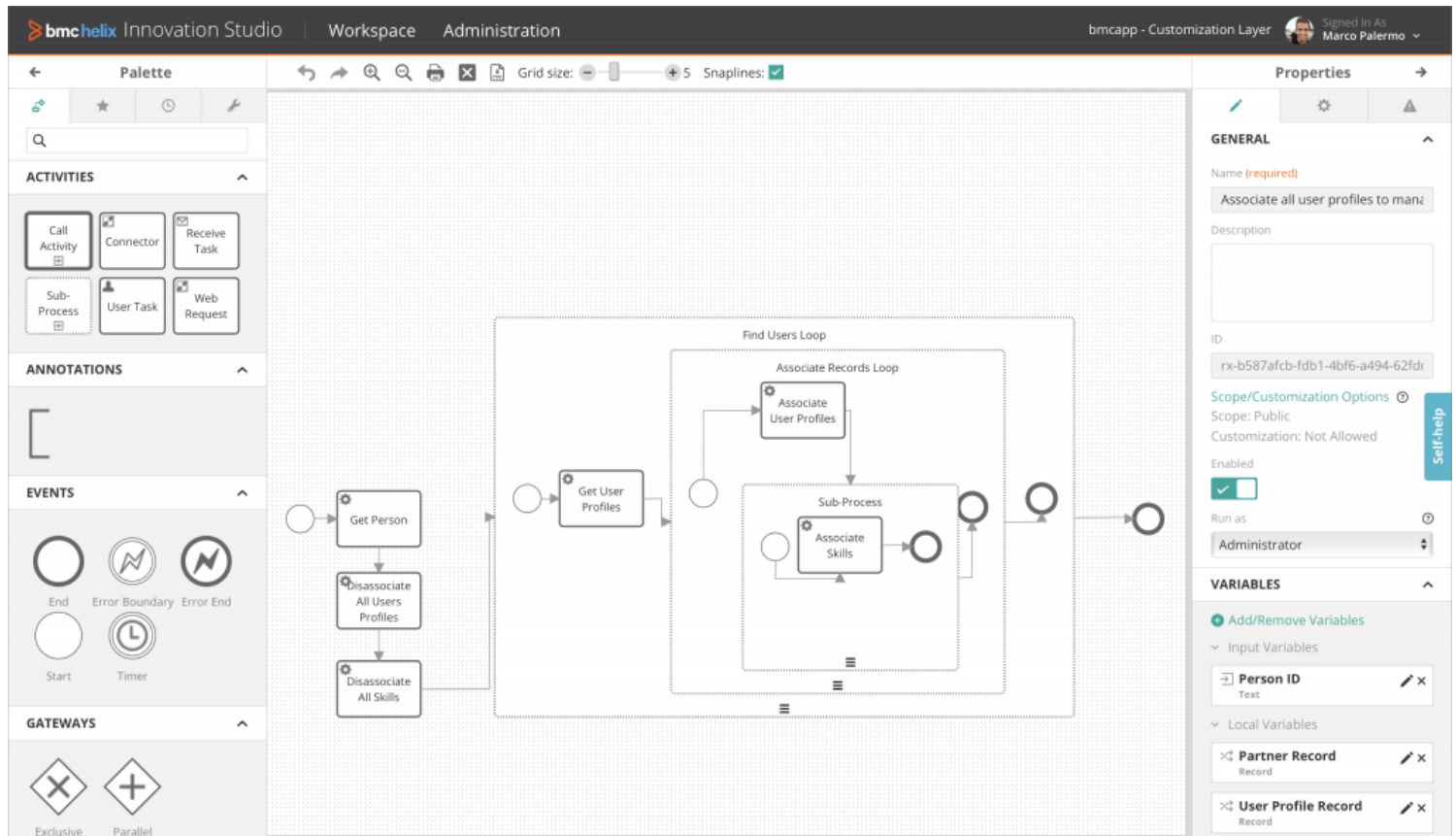
The algorithms were the hardest part of the process, since they required a separate understanding of new building blocks. This piece was made easier for me because I had been coding for five years as part of my university coursework in computer and data science and already knew the logic related to writing an algorithm.

I just had to rethink how to do it using a code-less approach with the drag-and-drop capabilities that create the app logic within a graphical environment. Apart from that, all of the visual components and the graphical elements for the views can be used by anyone, even if they're not experienced at coding.

I also worked with the research and development teams and the privacy department. BMC Helix

Innovation Studio follows all of the best practices for data protection and application development, such as privacy by design, which is one of the BMC principles.

Using BMC Helix Innovation Studio was also a significant time-saver and I appreciated being able to develop such a fleshed-out application without having to code anything. Developing this app in code with my current level of expertise would have taken me at least two years, mostly to build the graphical user interface and single-pane-of-glass view. BMC Helix Innovation Studio already has all of the components ready to use, which really shortened the development process.



Fleshing out the application without having to code anything.

Next steps

When I started, I couldn't have imagined that this app would get productized and be launched for all the BMC partners. I am now fine-tuning the views and processes to prepare it for a pilot. It will also be available internally for the BMC presales team, replacing the manual spreadsheets that are currently used to do skill assessments. The app could be improved even further with the addition of custom components developed in Java using a pro-code approach, which could be the next step in the app's development.

Through this project, I discovered that code-less tools are really powerful and intuitive, with components that allowed me to implement everything that I needed for the logic of the application. Beyond this use case, BMC Helix Innovation Studio could be used to develop flexible, scalable, custom apps to address any specific business need, quickly and efficiently with little resources and time required. We already have a lot of ideas for new applications that we want to develop.