

Solving CRM Challenges with Microsoft Power Apps and Power Automate with EngineeRD

A Professional Readiness Experiential Program (PREP) Project Effort

----- Authors / Student Project Team Members -----

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***Interested in being an Industry Participant and or PREP Sponsor? Please reach out to
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Introduction

EngineerRD encountered a significant hurdle with their previous CRM system, HubSpot. Our team realized that relying on it for storing contact information was inefficient. The platform lacked the necessary fields to effectively manage our relationships with customers, causing us to miss out on valuable business opportunities. With only basic contact details available, such as names, phone numbers, and emails, we struggled to track activity statuses and follow up with leads. This often resulted in delays or even losing potential deals as we scrambled to recall previous interactions.

Business Challenge

To address the challenges with HubSpot, we embarked on a journey to implement a more robust solution: Microsoft Dynamics 365 Sales. This decision stemmed from our recognition of the need for a CRM platform that could offer extended relationship management capabilities beyond the conventional features. Dynamics 365 Sales provided us with a comprehensive suite of tools, including Power Apps, Power Automate, SharePoint, and Sales Professional, empowering us to build a customized CRM system tailored to our specific needs.

Activities Done to Address the Business Challenge

Our first step was to rapidly upskill ourselves in Dynamics 365, familiarizing ourselves with its various components and functionalities. This enabled us to hit the ground running when it came to building our CRM solution. After gathering and analyzing our requirements, we dove into customizing the platform to suit our unique business processes. We expanded the scope of entities and fields to encompass not only customers but also other stakeholders such as partners, competitors, and vendors.

A key aspect of our customization efforts involved mapping data types into various relationships, ensuring seamless data flow and comprehensive insights into every interaction. We spent hours meticulously connecting the dots, aligning the Dynamics 365 platform with our specific needs and workflows. The result was a tailored solution that empowered us to capture crucial details about individuals and organizations, enabling us to make informed decisions and nurture meaningful relationships.

One of the standout features of our solution is the integration of a business card scanner and seamless connectivity with other Microsoft products such as Outlook, Power Apps, Power BI, and Teams. This integration streamlined data entry and enhanced efficiency through automation, allowing us to focus more on building relationships and less on manual administrative tasks.

Results & The Positive Impact

Major Issues & Solutions

Issue	Solution
Dynamics 365 Sales Professional Mobile App slow in public settings	Created a Power App form for data intake that would be used offline
Sales Dynamics 365 Sales BPF not fit for EngineerRD	Restructured the BPF to incorporate specific if-then functions depending on Lead types
Keyword Search query bar not taking multi-select data types	Reconstructed the system to hold the multi-select data type regardless of count
Data Tables not auto-filling each other when they have similar inputs	Mapping data types through 1 to many or many to many relationships, which created foreign keys for us to assign

Below are samples of screenshots showing how the delivered solution looks to the end users.

Image 1: Contact form with additional input fields

Image 2: Contact form with the business card scanner.

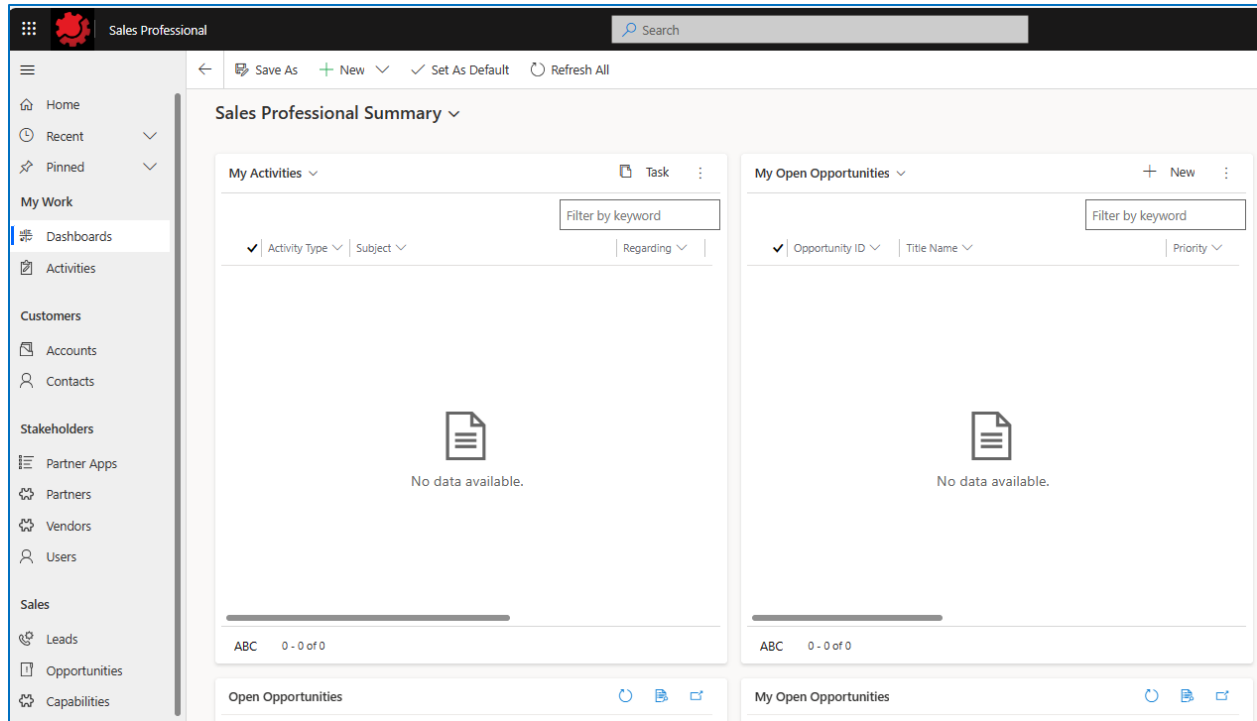


Image 3: Additional entities/tables we implemented (Partners, Vendors, Users, Capabilities) on the lefthand side bar.

Conclusion

Moving forward, we are excited to leverage the full potential of our new XRM system, which we've affectionately dubbed SalesLord. Our aim is to ensure a smooth transition for the EngineerRD team to independently manage and maximize the benefits of our solution. To achieve this, we are committed to providing comprehensive documentation and SOP training sessions, equipping our team with the necessary knowledge and skills to drive our future success. With SalesLord at our fingertips, we are confident in our ability to thrive in today's dynamic business landscape.

PREP Student Reflection

Both of us learned a lot of technical/ software skills throughout this project. Some of the most important are all the Power Platform skills such as Power Apps, Power BI, Power Automate as well as coding with Power Fx etc. We also learned how to use SharePoint and teams in a professional manner. Although all these skills helped us succeed in this project, it was the business skills that we learned that we are the most grateful for. Rehan would teach us how certain aspects of business worked and helped us to learn the in and out of what it takes to run a business.

We additionally gained skills such as Kanban and Scrum project planning, networking, problem solving, decision making etc. What made both of us grow was that this project was constantly keeping us on our feet, forcing us to change and react to issues that arose. Although it could be stressful at times, what I taught us in time management and decision making is invaluable and is what we will take with us to help in the near future.

Neither of us had an internship prior to this class, but what we can compare it to is all that we learned in our time at GMU. Both of us had learned and tested our knowledge on all the topics we used for this project, but what this project differed in is it gave us real time effects and real-world complications. When we are in a project for a class we could make a mistake, but for this experience we had to be 100% sure that if we make a decision that it is the right one.