The Problems

Now, let us first try to understand what is problem organizations are facing:

- Ever changing business requirements
- Cost of custom applications development
- More Agile development
- Scale development efficiently

The Power Platform makes it easy for organizations to address all the challenges mentioned. The combination of low code tools, along with the ability to use enterprise level application development tools, provides a collaborative solution. Citizen developers and professional developers can work together to build targeted solutions, based on needs of the people who use these applications every day.

Using a low code/no code approach minimizes the amount of time that development resources spend working on items like screens, automations, and more. This efficiency frees them up to focus on the more advanced portions of the solution where their skills are more appropriately used. With over **900 prebuilt connectors**, Power Platform helps to simplify integration with both internal and external systems. These connectors mean that organizations don't need to build custom integration solutions from the ground up, which can be costly to maintain.

In addition to cost benefits, the Power Platform helps to increase performance and efficiency. The flexibility of the platform lets you build applications and solutions that meet your business initiatives and goals.

Power Platform helps organizations build solutions that meet their ever-changing needs. Power Platform increases business agility by allowing organizations to quickly build applications in hours or days, as opposed to weeks or months.

What is Power Platform?

Let us first understand what is Power Platform?

The Power Platform empowers team members to build solutions using no code or low code solutions. It will help to build solutions that will be helpful to empower everyone including from CEO to front line workers also.

By using Power Platform, we can build solutions within a day or week, instead of months or years.

We can also connect with Microsoft 365, Azure, Dynamics 365 and hundreds of other apps to build end to end business solutions.

Organizations using Power Platform gets over **140 percent** of ROI within 3 years, **USD14.25 million** in benefits due to streamlined business and development

processes, improved business outcomes, and application retirement savings. A **45 percent** decrease in application development costs.

Used by business big and small

Microsoft Power Platform is composed of five key products:

- Power BI
- Power Apps
- Power Automate
- Power Virtual Agents
- Power Pages

Important Link: https://powerplatform.microsoft.com/en-us/

Introduction to Power BI

Power BI is an analytics service that helps to analyze data through data visualizations. It allows us to create reports and dashboards by using data visualizations like pie chart, line chart, bar chart, etc.

A few examples are:

- **Sales Performance Report**: This type of report could provide an overview of sales by region, product, or salesperson. It can help identify trends, like which products are selling best during which seasons, or which regions are underperforming.

- **Inventory Management Report**: A Power BI report could track inventory levels, showing which items are well-stocked and which are nearing shortage. This could help with reordering and maintaining appropriate stock levels.
- **Customer Behavior Report**: If you're working with data about customer purchases, a Power BI report could help identify patterns, like which products are often bought together or what times of day have the most sales.
- **Project Management Report**: Power BI can be used to track project progress, showing things like the status of various tasks, who is responsible for each one, and whether any are overdue.
- **HR Analytics**: HR departments can use Power BI to create reports on employee retention, employee satisfaction, diversity and inclusion metrics, or average time to promotion.
- **Financial Reporting**: For finance departments, Power BI can be used to visualize and analyze financial data such as profit and loss, cash flow, balance sheet analysis, and more.

Each of these reports would include various visualizations, like charts and graphs, to help make the data easy to understand.

Introduction to Power Apps

The out of box solution will not be sufficient to full fill every business requirement and there we can take advantages of Microsoft Power Apps.

Power Apps provides a low code environment that helps us to build custom business applications rapidly according to the business requirements.

These applications are developed for web and mobile applications that can run on any devices. Not only this, it also allows us to connect with various cloud and on-premises data sources.

And to build such applications, you do not need to be a expert developer, a business user can build an application and use it.

A few examples of Power Apps app are:

- **Inventory Management**: A company could create a Power App to manage its warehouse inventory. The app could allow workers to scan barcodes, update inventory numbers in real-time, and automatically flag when stock is low or out of stock.
- **Inspection and Quality Control**: A manufacturing or construction company might develop an app for inspection purposes. Inspectors can use the app to fill out their reports, take and upload pictures of defects, and submit their findings. The data can then be processed and visualized in Power BI for further analysis.

- **Customer Service**: A business could create an app that allows its customer service representatives to log calls or messages, track the progress of customer issues, and schedule follow-ups. This data can then be linked with a CRM like Microsoft Dynamics 365 to provide a seamless customer experience.
- **Employee Onboarding**: HR departments can use Power Apps to streamline the onboarding process. New employees could use the app to complete necessary paperwork, schedule their orientation sessions, and access company policies and procedures.
- **Project Management**: Project managers can use Power Apps to create an app that tracks the status of various projects, assigns tasks to team members, and tracks deadlines.
- **Sales Tracking**: A sales team could use Power Apps to create an app that tracks sales leads, manages customer contact information, and forecasts potential sales.

Introduction to Power Automate

Power Automate allows us to simplify our day-to-day repetitive tasks. We can create automated flows between various applications and services, so that we can save a lot of time (doing manual work). Here are a few examples of Power Automate:

- **Automating Emails**: You can create a workflow that automatically sends an email to a group of recipients whenever a new item is added to a SharePoint list or when a new file is uploaded to a certain OneDrive or SharePoint folder.
- **Social Media Monitoring**: You can set up a flow to monitor mentions of your brand or certain keywords on social media platforms like Twitter, and then save that information to a SharePoint list or send an email notification.
- **Sales Lead Tracking**: In combination with Microsoft Dynamics 365, you can create a flow to track new sales leads, automatically inputting them into the system and notifying the appropriate team members.
- **Automating Approval Processes**: Power Automate can be used to streamline approval processes. For instance, if a team member submits a leave request on a SharePoint list, an approval request can be sent automatically to the manager. Once approved, the requester can be notified automatically.
- **Regular Data Collection and Reporting**: You can set up a flow to regularly pull data from different sources, such as sales figures or website analytics, and compile them into a report that's automatically sent to the appropriate recipients.
- **Document Management**: Power Automate can be used to manage document workflows in Microsoft Teams, SharePoint, or OneDrive. For

example, when a document is uploaded to a designated folder, it can be automatically moved to specific team members for review or approval.

- **Automating Data Entry**: You can set up a flow to monitor an email inbox for specific types of emails, extract relevant information from those emails, and then use that data to populate a Microsoft Excel spreadsheet or a SharePoint list.
- **Customer Support**: Power Automate can be set to automatically create a ticket in your CRM system when a customer sends an email to your support address, ensuring no customer requests are overlooked.

Introduction to Power Virtual Agents

Microsoft Power Virtual Agents allows users to create automated chatbots with a no-code graphical interface. That chatbot can interact with your customers. Here are a few examples:

- **Customer Support Bot**: One common use of Power Virtual Agents is to handle customer service inquiries. For instance, a telecom company could create a chatbot to answer common questions about their services, such as how to upgrade a plan or troubleshoot connection issues. This can help reduce the load on the company's human customer service team and provide quicker responses to customer inquiries.
- **HR Onboarding Bot**: Another example is an HR onboarding bot in a large corporation. This bot can guide new employees through the onboarding process, answering questions about company policies, benefits, and procedures. This saves time for the HR team and allows new employees to get the information they need quickly and efficiently.
- **IT Help Desk Bot**: A third example is an IT help desk bot in a university or large organization. This bot could handle common IT issues, such as password resets or software installation guidance, which can help reduce the workload of the IT department while providing immediate assistance to users.

Introduction to Power Pages

Microsoft Power Pages is a robust, enterprise-grade, low-code Software as a Service (SaaS) solution designed to generate, host, and manage contemporary external-facing business websites. It's a platform suitable for both low-code creators and professional developers, facilitating the swift design, configuration, and publication of websites compatible across various web browsers and devices.

Power Pages offers an array of customizable templates, an intuitive design studio for a dynamic visual experience, and a comprehensive learning hub to expedite the creation of websites tailored to your distinctive business requirements.

As the latest addition to the Microsoft Power Platform family, Power Pages allows you to construct websites utilizing the same shared business data housed in

Microsoft Dataverse, which you also use for creating apps, workflows, smart virtual agents, reports, and analytics with other Power Platform components within your organization.

Here are a few examples:

- **Enterprise Resource Portal**: A multinational corporation could use Power Pages to create an enterprise resource portal. This portal could be a one-stop solution for employees to access relevant company news, HR policies, training materials, and more. With Power Pages' low-code capabilities and rich customizable templates, the portal could be built and maintained by internal teams, reducing the reliance on external vendors for website development and maintenance.
- **Customer Support Site**: An e-commerce company could design a comprehensive customer support site with Power Pages. The site could include FAQs, product manuals, and interactive virtual agents built with Microsoft's intelligent virtual agents. The shared data feature with Microsoft Dataverse could allow the site to offer personalized product recommendations based on the customer's purchase history.
- **Community Forum**: A non-profit organization might create a community forum to facilitate discussions and information sharing among its members. Power Pages could be used to design an intuitive, user-friendly site with features like threaded discussions, member profiles, and event calendars. The integrated learning hub could help the organization's small tech team get up to speed quickly with the platform.