

1. **What is CRM?**

CRM stands for Customer Relationship Management. It is a software solution that helps businesses manage their interactions with customers, prospects, and partners. CRM systems enable companies to track customer information, sales activities, marketing efforts, and customer support interactions, allowing businesses to improve customer service, increase sales, and gain insights into customer behavior.

2. **What is XRM?**

XRM (eXtensible Relationship Management) is a concept that extends the functionality of traditional CRM systems. It emphasizes the idea that CRM platforms can be customized and extended to manage relationships and data beyond customers. XRM allows developers to create custom entities, workflows, and business logic to support various business processes, not just those related to customer relationship management.

3. **What are modules in Dynamics 365?**

Dynamics 365 offers several modules (or applications) to cater to different business needs. Some of the main modules include:

- a. **Sales:** Helps organizations manage their sales processes, track leads, opportunities, quotes, and orders, and analyze sales performance.
- b. **Marketing:** Provides tools for creating and managing marketing campaigns, email marketing, events, and customer segmentation.
- c. **Customer Service:** Helps companies manage customer support processes, including case management, service level agreements, and knowledge base articles.
- d. **Field Service (online):** Enables organizations to manage work orders, scheduling, and dispatching of field service technicians, as well as tracking assets, inventory, and customer communications.
- e. **Project Service Automation (online):** Supports project-based organizations with tools for project planning, resource management, time and expense tracking, and billing.

4. **Sales cycle from lead to invoice.**

The sales cycle in Dynamics 365 typically follows these stages:

- 1. **Lead:** A potential customer with whom you have not yet done business.
- 2. **Qualify:** Verify if the lead has the potential to become an opportunity.
- 3. **Opportunity:** A qualified lead that represents a possible sale.

4. Quote: A formal offer to the customer, including products, services, and pricing.
5. Order: A customer's agreement to purchase based on the quote.
6. Invoice: A document requesting payment for the ordered products or services.

7. **What are order statuses?**

Order statuses in Dynamics 365 represent the different stages an order can go through during its lifecycle:

- Active: The order is active and can be modified.
- Submitted: The order has been submitted for processing.
- Canceled: The order has been canceled.
- Fulfilled: The order has been fulfilled, and the products or services have been delivered.

6. **What are invoice statuses?**

Invoice statuses in Dynamics 365 represent the different stages an invoice can go through during its lifecycle:

- Active: The invoice is active and can be modified.
- Paid: The invoice has been paid by the customer.
- Canceled: The invoice has been canceled.
- Partially Paid: The invoice has been partially paid, and there is still a remaining balance.

7. **Could you add a quotation without an opportunity?**

Yes, you can create a quote in Dynamics 365 without associating it with an opportunity. However, doing so might bypass certain business processes and cause a lack of traceability in the sales process.

8. **Could you add a product without a price list?**

Yes, you can create a product in Dynamics 365 without associating it with a price list. However, you will need to associate the product with a price list item in order to use it in quotes, orders, or invoices.

9. **What is a price list?**

A price list in Dynamics 365 is a collection of prices for products and services that your organization offers. Price lists allow you to maintain different pricing structures for different customer segments, geographies, or promotional campaigns.

10. **What is a price list item?**

A price list item in Dynamics 365 is a record that associates a product with a price list, specifying the price of the product within that price list. Each product can have multiple price list items for different price lists.

11. **What is a discount list?**

A discount list in Dynamics 365 is a collection of discounts that can be applied to products or price list items. Discounts can be defined as a fixed amount or a percentage and can have volume-based tiers.

12. **What is a product, product family, product bundle, and unit group?**

- **Product:** An item or service that your organization offers to customers. Products in Dynamics 365 can have properties like name, description, price, and available quantity.
- **Product Family:** A group of related products in Dynamics 365. Product families allow you to organize products hierarchically and define shared properties or characteristics.
- **Product Bundle:** A collection of products or services sold together as a single package in Dynamics 365. Product bundles can offer special pricing or promotions for purchasing multiple products together.
- **Unit Group:** A collection of units of measure used to define quantities for products in Dynamics 365. Unit groups can include different units, such as "each," "box," or "pallet," allowing you to sell products in various quantities and manage inventory accordingly.

13. **Difference between campaign and quick campaign**

- *Campaign:* A campaign is a marketing project that spans over a period of time and includes multiple marketing activities such as emails, advertisements, events, etc. It aims to achieve specific objectives and targets. Campaigns require detailed planning, execution, and monitoring of associated activities and resources.
- *Quick Campaign:* A quick campaign is a simpler, faster, and more focused version of a campaign. It is designed for a single marketing activity, such as sending an email or making phone calls to a targeted group of people. Quick campaigns are useful for addressing immediate marketing needs or testing the effectiveness of a particular marketing message.

14. **Marketing list (static and dynamic) and difference between them**

- *Marketing List*: A marketing list is a collection of leads, contacts, or accounts that are targeted for a specific marketing activity, such as sending emails or making phone calls. There are two types of marketing lists: static and dynamic.
- *Static Marketing List*: A static marketing list is a fixed list of records that doesn't change over time unless manually updated. Records need to be added or removed manually one by one or in bulk.
- *Dynamic Marketing List*: A dynamic marketing list is a list that automatically updates based on predefined criteria or filters. When a record meets the criteria, it is automatically added to the list, and when it no longer meets the criteria, it is removed.

15. Campaign response and conversion to opportunity

A campaign response represents the feedback or interaction received from a lead, contact, or account as a result of a marketing campaign. Campaign responses can be positive (e.g., interest in a product or service), negative (e.g., request to be removed from the mailing list), or neutral (e.g., no response). Yes, a positive campaign response can be converted into an opportunity, which represents a potential sale or business deal. This allows the sales team to track and manage the deal through the sales process.

16. Routing rule

A routing rule is a set of criteria and actions used to automatically assign or route records, such as cases or leads, to specific users, teams, or queues based on predefined conditions. Routing rules help improve efficiency and ensure that records are handled by the appropriate personnel.

17. Difference between queue and team

- *Queue*: A queue is a location where records, such as cases or leads, can be placed and wait to be processed by users or teams. Queues help organize and prioritize work, allowing users to pick up records as needed.
- *Team*: A team is a group of users who work together on specific tasks, cases, or projects. Teams can be assigned to records, and each team member can access and work on those records. Teams facilitate collaboration and help distribute workload among users.

18. Case, subject, entitlement, SLA, and knowledge base

- *Case*: A case represents a customer's issue, problem, or request that needs to be resolved or addressed by the support or service team.

- *Subject*: The subject is the classification or categorization of a case based on the nature of the issue or request. It helps in organizing cases and routing them to the appropriate support teams.
 - *Entitlement*: An entitlement is a customer's right to receive a specific level of service or support based on their contract, agreement, or purchased service plan. Entitlements define the support terms, such as the number of support incidents, hours of support, or response time.
 - *SLA (Service Level Agreement)*: An SLA is a contract between a service provider and a customer that defines the expected level of service, such as response time, resolution time, and availability. SLAs help set expectations and measure the performance of the service provider.
 - *Knowledge Base*: A knowledge base is a centralized repository of information, articles, FAQs, and solutions that address common customer issues or questions. It enables support teams to quickly find answers and helps customers self-serve by providing access to the information they need.
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19. What is a team?

A team is a group of users in a CRM system who work together on specific tasks, cases, or projects. Teams can be assigned to records, and each team member can access and work on those records. Teams facilitate collaboration, help distribute workload among users, and allow for more efficient management of permissions and access to resources.

20. Difference between team and access team

- *Team*: A team is a formal group of users created to collaborate on tasks, cases, or projects. Teams have predefined roles and permissions, and members inherit the team's security roles. Team membership is typically long-term and remains constant over time.
- *Access Team*: An access team is an ad hoc group of users created to provide temporary and specific access to a particular record. Access teams do not have predefined security roles; instead, they have access rights defined by an access team template. Access team membership is dynamic and can change depending on the records they are associated with.

21. What is a security rule?

A security rule, also known as a security role, is a set of permissions and access levels assigned to users or teams in a CRM system. Security roles define what

actions users can perform on records and what level of access they have to data. Security roles help maintain data integrity, privacy, and compliance by ensuring that users can only access and modify data they are authorized to work with.

22. Levels of security rule

There are five levels of access in a security role:

1. *Organization*: Permissions at this level grant access to all records across the entire organization, regardless of the owner.
2. *Parent: Child Business Unit*: Permissions at this level grant access to records in the user's business unit and its child business units.
3. *Business Unit*: Permissions at this level grant access to records owned by the user's business unit.
4. *User*: Permissions at this level grant access to records owned by the user or shared with the user.
5. *None*: No access is granted at this level.

23. Permissions on security rule

Permissions in a security rule define the actions users can perform on records.

Some common permissions include:

- *Create*: The ability to create new records.
- *Read*: The ability to view records.
- *Write*: The ability to modify records.
- *Delete*: The ability to delete records.
- *Append*: The ability to associate records with other records.
- *Append To*: The ability to allow other records to be associated with the current record.
- *Assign*: The ability to change the owner of a record.
- *Share*: The ability to grant access to records for other users or teams.

24. Difference between append and append to

- *Append*: The "Append" permission allows users to associate one record with another. For example, a user with the "Append" permission on contacts can link a contact to an account.
- *Append To*: The "Append To" permission allows users to accept associations from other records. For example, a user with the "Append To" permission on accounts can accept a contact that is being associated with an account.

These two permissions work together and are required to create a relationship between records.

25. What is field security?

Field security is a feature in a CRM system that allows administrators to control access to specific fields or attributes within an entity. This granular level of control helps maintain data privacy and security by ensuring that users can only view or modify the data they are authorized to access. Field security can be configured using field security profiles, which are assigned to users or teams to define their access to secured fields.

26. Entity ownership

Entity ownership determines how access rights to records are granted in a CRM system. There are two types of ownership:

- *Organization-owned*: Records are owned by the organization, and access is not restricted based on owners. Users with appropriate permissions can access all records of this type.
- *User- or team-owned*: Records are owned by individual users or teams. Access is granted based on the owner and the user's security role, which determines the level of access to records.

27. Virtual entity

A virtual entity is a custom entity in a CRM system that retrieves data from an external data source in real-time, rather than storing data within the system. Virtual entities allow for the integration of data from external systems without the need for data replication or synchronization.

28. Difference between option set and global option set

- *Option Set*: An option set is a custom field that presents a list of options for users to select from. It is specific to a single entity and cannot be reused across multiple entities.
- *Global Option Set*: A global option set is a reusable list of options that can be used across multiple entities. This promotes consistency and reduces the effort required to manage and maintain option sets.

29. Types of fields

There are several types of fields in a CRM system, including:

- Text
- Text area
- Number (Whole, Decimal, Floating Point, Currency)
- Date and Time
- Lookup
- Option Set

- Two Options (Boolean)
- Multi-select Option Set
- Image
- URL
- Email
- Phone

30. Types of relationships

There are three main types of relationships between entities in a CRM system:

1. *One-to-many (1:N)*: One record in the primary entity is related to many records in the related entity.
2. *Many-to-one (N:1)*: Many records in the primary entity are related to one record in the related entity.
3. *Many-to-many (N:N)*: Many records in one entity are related to many records in another entity.

31. What are relationship behaviors and the differences among them?

Relationship behaviors define how actions performed on a primary record affect related records. The following are relationship behaviors:

- *Parental*: Actions taken on the primary record cascade to all related records, and the primary record cannot be deleted if there are related records present.
- *Referential*: Related records remain linked to the primary record, but no actions are cascaded. The primary record can be deleted even if there are related records.
- *Referential, Restrict Delete*: Related records remain linked to the primary record, but no actions are cascaded. The primary record cannot be deleted if there are related records.
- *Configurable Cascading*: Allows you to define custom cascading behaviors for specific actions, such as Assign, Share, Unshare, Reparent, and Delete.

32. Business role and its scope

A business rule is a declarative logic used to enforce data validation and consistency within a CRM system. Business rules are applied at the entity level and can span multiple fields. The scope of a business rule is limited to the entity it is defined on and is executed on both the client and server side.

33. Difference between JavaScript (JS) and business rule, and which runs first

- *JavaScript (JS)*: JavaScript is a scripting language used to create custom client-side logic, such as validation, event handling, and UI manipulation. JS can be more complex and requires development skills.
- *Business Rule*: A business rule is a no-code solution for implementing basic data validation and consistency rules. It is easier to create and maintain compared to JavaScript.

The order of execution depends on the CRM system. Typically, business rules are executed before JavaScript. However, the specific order may vary, and it is best to consult the documentation for your CRM system.

34. Types of processes

There are four main types of processes in a CRM system:

1. *Workflow*: Automates tasks and actions based on predefined triggers and conditions.
2. *Dialog*: Guides users through a series of steps to complete a task or collect information.
3. *Action*: A reusable set of steps that can be invoked from a workflow, dialog, or custom code.
4. *Business Process Flow*: A visual representation of a business process that guides users through a series of stages and steps to complete a task or achieve a goal.

35. Difference between workflow and action

- *Workflow*: A workflow is an automated process that executes tasks and actions based on predefined triggers and conditions. Workflows can run in the background or in real-time, and can be triggered by events such as record creation, update, or deletion.
- *Action*: An action is a set of steps that can be invoked from a workflow, dialog, or custom code. Actions are reusable and can be used to encapsulate common logic, making it easier to maintain and update.

36. What is a dialog?

A dialog is an interactive process that guides users through a series of steps to complete a task or collect information. Dialogs typically present users with a series of prompts, questions, or forms to fill out, and may include branching logic based on user input. Dialogs can be used to standardize data entry, ensure data consistency, and streamline complex tasks.

37. What is a business process flow?

A business process flow (BPF) is a visual representation of a business process that guides users through a series of stages and steps to complete a task or achieve a goal. BPFs help standardize and enforce best practices, ensure data consistency, and improve user productivity. They can include steps that require user input, as well as automated steps that are executed behind the scenes.

38. Difference between workflow and plugin, and when to use each of them

- *Workflow:* A workflow is a no-code solution for automating tasks and actions based on predefined triggers and conditions. Workflows are suitable for simple to moderate process automation and can be created and maintained by non-technical users.
- *Plugin:* A plugin is a custom piece of code that extends the functionality of a CRM system. Plugins are more powerful and flexible than workflows, but require development skills to create and maintain. Plugins are typically used for complex logic, real-time processing, or when integration with external systems is required.

Use a workflow for simple to moderate automation and when no-code solutions are sufficient. Use a plugin for complex scenarios, real-time processing, or when integration with external systems is required.

39. Report types

There are several types of reports in a CRM system:

1. *Tabular:* Displays data in a simple table format with rows and columns.
2. *Summary:* Groups data by one or more columns and displays summary information, such as counts or totals.
3. *Matrix:* Displays data in a two-dimensional grid, with rows representing one data grouping and columns representing another data grouping.
4. *Chart:* Displays data in a graphical format, such as bars, columns, lines, or pie charts.

40. How to create a custom report

Creating a custom report in a CRM system typically involves the following steps:

1. *Choose the report type:* Select the appropriate report type (tabular, summary, matrix, or chart) based on your reporting requirements.
2. *Select the data source:* Choose the entity or entities that provide the data for your report.

3. *Define filters and criteria:* Specify the criteria and filters that determine which records are included in the report.
4. *Select columns and groupings:* Choose the columns to display in the report and define any groupings or sorting to be applied.
5. *Configure chart or graphical elements (if applicable):* If your report includes a chart or other graphical elements, configure their appearance and data representation.
6. *Preview and test the report:* Review the report to ensure it meets your requirements and make any necessary adjustments.
7. *Save and share the report:* Save the report and share it with the appropriate users or teams in your organization.

41. How can I connect with CRM to create custom reports?

To create custom reports in CRM, you can use tools like SQL Server Reporting Services (SSRS) and FetchXML. Use the CRM Report Wizard for basic reports, or create more advanced reports using Report Builder, Visual Studio, or other reporting tools that support connecting to CRM. You'll need to authenticate using the CRM connection details (URL, username, and password) and retrieve data using the appropriate query language (such as FetchXML).

42. What is an SDK message?

An SDK message is a request or event in the CRM system that can be intercepted by plugins or custom workflows. SDK messages are predefined in CRM and represent operations like Create, Update, Delete, Assign, and SetState. Plugins or custom workflows can be registered to execute in response to specific SDK messages.

43. What are plugin images?

Plugin images are snapshots of an entity's attributes before or after an SDK message is processed. There are two types of images:

- *Pre-Image:* A snapshot of the entity's attributes before the SDK message is processed. It allows plugins to access attribute values before any changes are made.
- *Post-Image:* A snapshot of the entity's attributes after the SDK message is processed. It allows plugins to access attribute values after changes have been made.

44. What is isolation mode in a plugin?

Isolation mode is a security setting that determines how a plugin is executed within the CRM system. There are two isolation modes:

- *None*: The plugin runs within the CRM application process and has full access to CRM resources. This option is only available for on-premises deployments.
- *Sandbox*: The plugin runs in a restricted environment with limited access to resources. This mode is recommended for online deployments and offers increased security and stability.

45. What is the plugin pipeline?

The plugin pipeline is the sequence of events that occur during the execution of plugins in the CRM system. The pipeline consists of multiple stages (Pre-validation, Pre-operation, Post-operation) and passes the execution context between registered plugins. Plugins can be registered to execute at specific stages in the pipeline, allowing developers to control the order of execution and modify data or perform actions accordingly.

46. What are workflow messages?

Workflow messages are events that trigger the execution of custom workflows. These messages are similar to SDK messages for plugins and can include events like Create, Update, and Delete. Custom workflows can be registered to execute in response to specific workflow messages, allowing for the automation of tasks and actions based on predefined triggers and conditions.

47. What are plugin messages?

Plugin messages refer to the events or actions in the CRM system that can trigger the execution of a plugin. Some common plugin messages include Create, Update, Delete, Assign, Retrieve, and RetrieveMultiple. A plugin can be registered to run on one or more messages, depending on the requirements of the business logic.

48. How can I debug plugin execution?

To debug plugin execution, follow these steps:

1. Attach the debugger to the CRM service process (e.g., w3wp.exe for on-premises or sandbox service for online).
2. Place breakpoints in your plugin code in Visual Studio.
3. Perform the action in the CRM system that triggers the plugin (e.g., create or update a record).
4. The debugger should pause the execution at the breakpoint, allowing you to step through the code and inspect variables.

You can also use tracing in your plugin code to log messages and capture information about the execution. Tracing information can be viewed in the plugin trace log, which is available in the CRM system.

49. How can I debug workflow execution?

To debug a custom workflow activity execution, you can use tracing to log messages and capture information about the execution. Tracing information can be viewed in the plugin trace log, which is available in the CRM system.

50. How can I edit in side map, UCI, ribbon?

To edit the site map, UCI, and ribbon in a CRM system, you can use a custom solution like the XrmToolBox. The XrmToolBox provides various tools that can help you edit the site map, configure the Unified Client Interface (UCI) apps, and modify the ribbon buttons and actions.

51. What is formContext and Xrm.page in JS?

- *formContext*: *formContext* is an object that represents the context of the form in which a script is running. It provides access to the form's fields, events, and other properties. *formContext* is the recommended approach to access form elements in Dynamics 365 and Power Apps.
- *Xrm.page*: *Xrm.page* is a deprecated object that was used in earlier versions of Dynamics CRM to access form elements, such as fields, events, and other properties. It's recommended to replace *Xrm.page* with *formContext* in newer implementations.

52. What are form events (onLoad, onSave)?

Form events are triggers that occur as a result of user interactions with a form in the CRM system. The two main form events are:

- *onLoad*: This event is triggered when a form is loaded. It can be used to initialize form fields, set default values, or apply custom logic based on the record's data.
- *onSave*: This event is triggered when a user saves the form. It can be used to validate form data, perform calculations, or execute custom logic before the record is saved.

53. How can stop normal behavior of event (using preventdefaultbehavior method)?

To stop the normal behavior of an event, such as preventing the form from being saved when the *onSave* event is triggered, you can use the `preventDefault` method of the event arguments object.

In Dynamics 365 and Power Apps, you can use the `getEventArgs` method to obtain the event arguments object and call `preventDefault` as follows:

javascript

```
function onSave(executionContext) {  
  const eventArgs = executionContext.getEventArgs();  
  // Perform validation or custom logic here.  
  if (/* some condition */) {  
    eventArgs.preventDefault();  
  }  
}
```

This will prevent the normal behavior of the event (e.g., saving the form) if the specified condition is met.