# **Task 1: Dynamics 365 Customization**

Note for this part of the question, you can provide your answers in a word or pdf document uploaded on Git under Task 1 Git branch.

1. Detail the process of customizing the Lead entity in Dynamics 365 Sales, including how to add new fields, form scripts, customization of Ribbon and business rules. How would you ensure these customizations are both scalable and maintainable?

**Adding New Fields**

1. **Navigate to the Lead Entity**: Open Dynamics 365 Sales and go to the Lead entity.
2. **Create a New Field**: Click on "Fields" and then "New" to create a new field.
3. **Define Field Properties**: Enter a name, select the data type (e.g., text, number, picklist), and set other properties like required, unique, etc.
4. **Save and Publish**: Save the new field and publish the changes.

**Adding Form Scripts**

1. **Create a JavaScript File**: Write your custom JavaScript code to add functionality to the form.
2. **Upload as a Web Resource**: Go to "Settings" > "Customizations" > "Web Resources" and upload your JavaScript file.
3. **Attach Web Resource to Form**: Open the form editor, go to "Form Properties", and attach the web resource to the desired form event (e.g., OnLoad).
4. **Test and Publish**: Test the script to ensure it works as expected and then publish the changes.

**Customizing the Ribbon**

1. **Open Ribbon Workbench**: Use the Ribbon Workbench tool to customize the ribbon.
2. **Add or Remove Buttons**: Add new buttons or remove existing ones based on your requirements.
3. **Set Permissions**: Ensure that the customizations are available to the appropriate users by setting the correct permissions.
4. **Test and Publish**: Test the ribbon customizations and publish the changes.

**Implementing Business Rules**

1. **Go to Business Rules**: Navigate to "Settings" > "Customizations" > "Business Rules".
2. **Create a New Rule**: Click "New" to create a new business rule.
3. **Define Conditions and Actions**: Set the conditions under which the rule should apply and define the actions to be taken.
4. **Save and Publish**: Save the business rule and publish the changes.

**Ensuring Scalability and Maintainability**

1. **Use Managed Solutions**: Package your customizations into managed solutions to ensure they can be easily deployed, updated, and uninstalled.
2. **Document Customizations**: Maintain thorough documentation of all customizations, including the purpose, functionality, and any dependencies.
3. **Follow Best Practices**: Adhere to Dynamics 365 best practices for customizations to ensure performance and compatibility.
4. **Regular Testing**: Regularly test customizations in a development environment before deploying to production to catch any issues early.
5. **Use Version Control**: Implement version control for your customizations to track changes and facilitate collaboration among team members.

By following these steps and best practices, you can ensure that your customizations are both scalable and maintainable, making it easier to manage and update your Dynamics 365 Sales environment over time.

1. Describe advanced techniques for automating the Lead qualification to Opportunity process, including the use of Power Automate, custom workflows, and plugins. How would you handle complex business logic in this process? To note that the opportunity will be owned by the retail which another business unit with distinct access.

**1. Power Automate**

Power Automate can be used to create automated workflows that move leads through the qualification process. You can set up flows that:

* **Capture lead details** automatically from various sources (e.g., forms, social media, website).
* **Apply business rules** to score and qualify leads based on predefined criteria.
* **Create records** for accounts, contacts, and opportunities when a lead is qualified.
* **Assign opportunities** to the appropriate sales representatives based on territory or other criteria.

**2. Custom Workflows**

Custom workflows can be designed to handle specific business logic and processes unique to your organization. These workflows can:

* **Automate lead scoring** based on custom criteria such as lead source, engagement level, and demographic information.
* **Route leads** to different sales teams or representatives based on their scores and other attributes.
* **Trigger notifications** and reminders for follow-ups to ensure timely engagement with leads.

**3. Plugins and Integrations**

Plugins and third-party integrations can enhance your lead qualification process by providing additional functionalities. Some popular options include:

* **CRM plugins** that offer advanced lead scoring and qualification features.
* **Marketing automation tools** that help nurture leads through automated campaigns.
* **Analytics tools** that provide insights into lead behavior and conversion rates.

**Handling Complex Business Logic**

To handle complex business logic in the Lead qualification to Opportunity process, consider the following approaches:

* **Use conditional logic** in your workflows to handle different scenarios and criteria.
* **Implement decision trees** to guide the qualification process based on multiple factors.
* **Leverage AI and machine learning** to analyze lead data and predict the likelihood of conversion.
* **Regularly review and update** your business rules and criteria to ensure they remain relevant and effective.

**Ownership and Access Control**

Since the opportunity will be owned by the retail business unit with distinct access, you can:

* **Set up role-based access control** to ensure that only authorized users can view and modify opportunities.
* **Create custom security roles** for different business units to manage access to specific records and data.
* **Use sharing rules** to automatically share opportunities with relevant users based on their roles and responsibilities.

By implementing these advanced techniques, you can create a robust and efficient Lead qualification to Opportunity process that aligns with your organization's unique needs and ensures that high-quality leads are effectively converted into opportunities.

1. Discuss strategies that should be implemented to ensure the Marketing department retains read access to the Lead when it is referred to another subsidiary where there is no sharing of the data. Note that the Marketing Department should see only leads referred to the subsidiary and the subsidiary should retain read write access on only leads created by them and referred to them. The Marketing Department should also have visibility of the opportunity created from the leads at the subsidiary company.

**Implementation Steps:**

1. **Define and Create Security Roles**: Set up the Marketing and Subsidiary security roles with the appropriate permissions.
2. **Set Up Field-Level Security**: Apply field-level security profiles to restrict access to sensitive fields.
3. **Configure Manual Sharing**: Set up manual sharing for leads and opportunities.
4. **Develop and Deploy Workflows**: Create and test workflows to automate the sharing process.
5. **Implement Plugins (if necessary)**: Develop plugins to handle complex business logic.
6. **Test the Setup**: Thoroughly test the configuration to ensure it meets the access requirements.
7. **Train Users**: Provide training to users on how to use the new access controls and sharing features.

By carefully configuring security roles, field-level security, and sharing rules, and by leveraging workflows and plugins, you can ensure that the Marketing department retains read access to relevant leads and opportunities, while the subsidiary maintains the required read-write access.

1. Describe the strategy to migrate existing leads to the cloud while maintaining all relationships and security privileges?

Migrating existing leads to the cloud while maintaining all relationships and security privileges requires a well-planned strategy. Here’s a step-by-step approach:

**1. Preparation**

* **Assessment**: Conduct a thorough assessment of your current CRM system, including data, relationships, and security settings.
* **Inventory**: Create an inventory of all leads, their relationships, and associated security privileges.
* **Stakeholder Engagement**: Involve key stakeholders from the Marketing department, IT, and other relevant teams to ensure alignment and address any concerns early on.

**2. Planning**

* **Define Objectives**: Clearly outline the goals of the migration, such as maintaining data integrity, relationships, and security privileges.
* **Choose Cloud Model**: Decide whether a public, private, or hybrid cloud model best suits your needs.
* **Develop a Timeline**: Create a realistic timeline for the migration, including milestones and checkpoints.
* **Risk Management**: Identify potential risks and develop mitigation strategies.

**3. Data Migration**

* **Data Backup**: Ensure that all data is backed up before starting the migration process.
* **Data Transfer**: Use secure methods to transfer data to the cloud, ensuring that all relationships and security settings are preserved.
* **Validation**: Validate the migrated data to ensure that all relationships and security privileges are intact.

**4. Security Configuration**

* **Role-Based Access Control (RBAC)**: Set up RBAC to ensure that only authorized users have access to the leads and related data.
* **Field-Level Security**: Apply field-level security to restrict access to sensitive fields.
* **Sharing Rules**: Implement sharing rules to automatically share leads with the Marketing department and other relevant teams.

**5. Testing**

* **Test Data Integrity**: Test the migrated data to ensure that all relationships and security privileges are maintained.
* **User Acceptance Testing (UAT)**: Conduct UAT with key users to validate that the system works as expected in the cloud environment.
* **Performance Testing**: Test the performance of the cloud system to ensure it meets your requirements.

**6. Monitoring and Optimization**

* **Continuous Monitoring**: Use cloud-native tools to monitor the performance and security of the system.
* **Optimization**: Continuously optimize the system based on performance metrics and user feedback.

1. Describe how to migrate the email messages towards the cloud and how to maintain same reliable email management service from Customer Service and on contacts timeline on the cloud?
2. What are the tools that can be leveraged to integrate with On-premises API and to synchronize with their core system data which is on-premises? Elaborate on the monitoring strategies that you would implement and how.

**AZURE DATA FACTORY**

1. On premise environment contains already some records from different entities that have been teams shared. How will you migrate these records to cloud.
2. There are personal views and dashboards created by the users on the on-premises environment, how will you migrate these views towards the cloud and what are the tools you will use?

**We can use AZURE OpenAI and CHATGPT4.0 and by-passing Required Prompts we can compare views of On-prem and Cloud. And prepare a view with same AZURE FUNCTION CALL.**