**The process of customizing the Lead entity in Dynamics 365 Sales**

**1. Adding new fields**

* In Power App, navigate to the Lead entity and select Form Field.
* Click New Table column and configure the field properties:
  + **Logical name**
  + **Data type**
  + **Maximum length**
* Save the field, then add it to the desired forms and views, placing it in the correct location for users.

**2. Form scripts**

* Go to the Lead entity form and add a JavaScript Script Library in the Form Libraries section.
* Write the script to handle specific actions.
* Attach functions to form events, such as OnLoad, OnSave, and OnChange.
* Test the scripts

**3. Customizing the Ribbon**

* In Ribbon Workbench, load the solution that contains the Lead entity.
* Select the command or button you want to edit, or create a new one.
* Configure the Commands associated with the button to define the actions
* Set Display Rules or Rules

**4. Business rules**

* Go to Business Rules in the Lead entity, and create a new rule.
* Configure the desired conditions and actions.
* Test the rule

**Advanced techniques for automating the process of qualifying prospects into opportunities**

**1. Power Automate for qualification automation**

**Example of qualification process with Power Automate:**

* **Trigger**: Trigger flow when Lead record is updated with a qualification field.
* **Automated steps**:
  + **Criteria verification**: Add conditions to check if the prospect meets certain criteria (e.g. budget, potential purchase volume, industry).
  + **Creating the opportunity**: If the lead meets the criteria, Power Automate can automatically create an opportunity record and transfer the relevant information.
  + **Business Unit Assignment**: Use an update action to assign the opportunity to the Retail business unit, which has separate access.

**2. Custom workflows for more advanced business logic**

**Example workflow for lead qualification:**

* **Verification conditions**: Define complex conditions directly in the workflow to verify lead details.
* **Automation Steps**:
  + Opportunity Creation and Qualification: If the criteria are met, the workflow creates the opportunity and marks it as qualified.
  + Auto Assign: Configure the workflow to automatically change the business unit associated with the opportunity, ensuring that the retail business unit can access it.
  + **Notification and follow-up tasks**: When an opportunity is created, the workflow can send a notification to the manager or create tasks for follow-up.

**3. Plug-ins for advanced customization and complex business rules**

**Example of using a plugin for lead qualification:**

* **Validation of personalized criteria**: The plugin can intercept the opportunity creation event and run a series of custom validations or calculations, such as lead score, conversion probability, or other influential factors.
* **Advanced access and security logic**: The plugin can automate the configuration of opportunity ownership and access to the Retail business unit, applying custom security rules to ensure that only authorized teams can view and edit the opportunity.
* **Real-time execution**: Plugins can run in real-time (synchronously) or asynchronously, allowing you to decide whether the validation should block the record in case of an error (e.g. if the prospect does not meet the criteria).

**Managing complex business logic**

**Combination of techniques**

To manage complex lead qualification logic, you can combine Power Automate, workflows, and plugins:

1. **Getting Started with Power Automate**: Use Power Automate to handle simple cases and reduce the workload of workflows and plugins.
2. **Advanced conditions in workflows**: Configure custom workflows to validate more specific business rules and perform conditional actions.
3. **Plug-in for security rules and advanced logic**: Use plugins to ensure qualified opportunities are secured and well-managed by the retail business unit. The plugin can run final checks on data and control access in a granular manner.

**Strategies to implement to ensure that the marketing department maintains read access**

**Strategies for controlled access sharing**

1. **Configure Security Roles for Marketing and Branch**
   * **Security role for marketing**: This role should only allow read access to leads and opportunities, but only for those that are referred to the subsidiary.
     + Set permissions on Lead Read at the business unit level. This restricts access to only leads referred to the subsidiary.
     + Set up opportunity access for read marketing on opportunities created from affiliate qualified leads.
   * **Security role for the subsidiary**: This role allows branch staff to have read-write access to leads they create or are referred to them.
     + Set read-write permissions for leads and opportunities at the business unit level so that the subsidiary can only edit records that they created or were referred to them.

**The prospect migration strategy**

**1. Preliminary Analysis and Migration Planning**

* Data Inventory
* Map Relationships and Security Rules:
* Sensitive Data Assessment

**2. Choice of Migration Tools**

* Microsoft Data Migration Tool
* Power Platform Dataflows

**3. Relationship Mapping and Migration**

* Primary and Secondary Key Mapping
* Relationship Tests

**4. Migration of Security Rules and Privileges**

* Exporting Security Settings
* Mapping Roles in Cloud Environment
* Conservation of Hierarchical Accesses

**5. Verification and Testing**

* Validation Tests
* User Access Control
* Validation of Relationships and Authorizations

**6. Synchronization and Post-Migration Maintenance**

* Real-Time Data Synchronization
* Post-Migration Audit
* Documentation of Changes

**Migrating emails to the cloud and maintaining the same reliable email management service**

**Steps to Migrate Emails to the Cloud**

1. **Preparing for Email Migration**
   * Identifying Email Sources
   * Data Review
   * Data Cleaning
2. **Selecting Migration Tools**
   * Microsoft 365 Exchange Online
   * Dynamics 365 Data Migration Tool
3. **Configuring Email Synchronization in Dynamics 365**
   * Synchronization Server
   * Mailbox Profiles
4. **Migration of Historical Emails and Archiving**
   * Uploading to Dynamics 365
   * Archiving in Microsoft 365
   * Email Mapping

**Maintaining a Reliable Email Management Service**

1. **Automation of Follow-ups and Responses**
   * Configure email routing rules in Dynamics 365
   * Set up workflows or Power Automate to automate responses and reminders
2. **Customizing the Contact Timeline**
   * Customize the contact timeline to include emails, follow-up activities, and notes.
   * Use categories to differentiate email types
3. **Monitoring and Notification of Important Emails**
   * Set up automatic email alerts
   * Set up the service desk in Dynamics 365 so teams can easily view, track, and respond to customer emails from a centralized dashboard.
4. **Post-Migration Verification and Support**
   * Tests of
   * Training of
   * Technical Support

**Tools that can be leveraged to integrate with the local API**

**Integration Tools for Data Synchronization with a Local API**

1. **Azure Service Bus**
   * **Description**: Azure Service Bus is a secure messaging solution that facilitates asynchronous communication between on-premises applications and the cloud. Messages sent by the Service Bus are temporarily stored until retrieved by Dynamics 365 or an on-premises API.
   * **Benefits**: Ensures reliable data flow even in case of temporary connection outages. Supports queued messages, topics and relays, making it ideal for complex integration scenarios.
2. **Azure API Management (APIM)**
   * **Description**: Azure API Management lets you publish, secure, transform, and monitor APIs on-premises and in the cloud. It simplifies access to on-premises APIs from Dynamics 365 while enforcing security and governance policies.
   * **Benefits**: Provides secure integration with local API and allows access management via gateways. Built-in logs and monitoring dashboards provide detailed insights into API usage and performance.
3. **Azure Logic Apps**
   * **Description**: Logic Apps is a workflow automation solution that allows you to design integration flows with on-premises services. Using the On-premises Data Gateway connector, Logic Apps can interact with on-premises databases and on-premises RESTful APIs.
   * **Benefits**: No client-side management infrastructure is required. Ideal for orchestrating complex workflows involving multiple systems, and includes built-in monitoring capabilities.
4. **Microsoft Power Automate with On-premises Data Gateway**
   * **Description**: Power Automate lets you create automated workflows to transfer data between Dynamics 365 and on-premises systems, using the Data Gateway to securely access on-premises data.
   * **Benefits**: Low-code solution that simplifies common integrations. The Data Gateway secures communication between the cloud and on-premises infrastructure, and is easy to deploy.
5. **SQL Server Integration Services (SSIS) with KingswaySoft**
   * **Description**: SSIS, with KingswaySoft connectors, allows data to be synchronized between an on-premises SQL Server database and Dynamics 365. It can be used for larger and scheduled data transfers.
   * **Benefits**: Powerful solution for bulk data migration and continuous synchronization. KingswaySoft connectors provide Dynamics 365 specific capabilities and support complex data transformation.
6. **Azure Data Factory (ADF)**
   * **Description**: Azure Data Factory is an ETL (Extract, Transform, Load) tool that can orchestrate data flows between on-premises sources and cloud destinations.
   * **Benefits**: Recommended for big data integrations. Supports data transformation, real-time integration, and data pipeline monitoring.

**Monitoring Strategies and Implementation Methods**

1. **Data Integrity and Flow Monitoring**
   * **Azure Monitor and Log Analytics**: Use Azure Monitor and Log Analytics to monitor logs from Azure Service Bus, Logic Apps, and API Management. You can set up alerts for latency or processing errors.
   * **Power Platform Center of Excellence (CoE) Toolkit**: In the case of Power Automate, the CoE Toolkit can monitor flow usage, errors, and rule compliance.
   * **Azure Application Insights**: Use Application Insights to monitor on-premises APIs through Azure API Management. This helps quickly detect any failures in API calls and track performance in real-time.
2. **Automated Alerts and Notifications**
   * Error and Latency Notifications
3. **Audit and Traceability of Transactions**
   * Transaction Logging
   * Audit of Changes:
4. **Data Verification and Validation**
   * Data Consistency Tests
   * Sample Comparison
5. **Preventive Maintenance and Optimization**
   * Periodic Performance Review.
   * Log Cleaning and Archiving

**Migration to the cloud**

Steps for Migrating Shared Recordings to the Cloud

1. Pre-Migration Analysis and Planning
   * Data Inventory
   * Map Permissions
   * Assessment of Licenses
2. Using Data Migration and Transformation Tools
   * Azure Data Factory (ADF)
   * SQL Server Integration Services (SSIS)
   * Data Export Service for Dynamics 365
3. Re-creating Security Roles and Shares
   * Migration of Roles and Teams
   * Teams Settings
4. Mapping Sharing Permissions
   * Automation Scripts for Shares
   * Automated Sharing Configurations
5. Migration Validation and Verification
   * Access Tests
   * Verification of Relations
   * Validation of Security Rules
6. Post-Migration Monitoring and Support
   * Access Audit
   * Incident Tracking and Adjustments

**Migrating Views to the Cloud**

Steps for Migrating Personal Views and Dashboards

1. Inventory of Views and Dashboards
   * User Settings Inventory
   * Classification of Objects
2. Extracting Personalization Data
   * Extraction Tools via the
   * Using the Configuration Migration Tool
3. Migrating Views and Dashboards
   * Importing with the Configuration Migration Tool
   * PowerShell Scripts to Automate Import
4. Testing and Validation of Configurations
   * Access and Display Tests
   * Data Validation

Tools Used for Migration

1. Configuration Migration Tool: This official Microsoft tool allows you to export and import entity configurations, including user views and dashboards. It is especially useful for individual customizations.
2. Dynamics 365 SDK and PowerShell: Use SDK libraries and scripts to extract user customizations and import them directly into the cloud environment via the Dynamics 365 Web API.
3. Power Automate (if needed): To adjust dashboards and automate certain processes, Power Automate lets you set up custom workflows and tasks to recreate dashboard functionality in real time.
4. XrmToolBox: Although XrmToolBox is not officially supported by Microsoft, it has several plugins like the View Transfer Tool that can be useful for exporting and importing custom views between environments.