Custom Objects and Fields in Salesforce for Event Management

1. Event Object

Purpose:
The Event object is used to represent events organized by the company. It provides a central place to track and manage essential details about each event, helping with planning, scheduling, and monitoring.

Fields and Their Details:

1. **Event Name (Text):**
   - **Purpose:** Stores the name or title of the event.
   - **Usage:** The Event Name field is crucial for identifying and referencing the event across the Salesforce platform. It is used in reports, dashboards, and user interfaces to distinguish between different events.
2. **Event Date (Date):**
   - **Purpose:** Indicates the scheduled date of the event.
   - **Usage:** This field helps in organizing events chronologically. It is used to sort and filter events, allowing users to plan and schedule effectively. It also helps in tracking upcoming and past events.
3. **Location (Text):**
   - **Purpose:** Provides the venue or location where the event will be held.
   - **Usage:** The Location field is essential for informing attendees where the event is taking place. It can also be used for logistical planning and ensuring that the venue is appropriately managed.
4. **Description (Long Text):**
   - **Purpose:** Allows for a detailed description of the event.
   - **Usage:** This field provides a space for additional details about the event, such as the agenda, special instructions, or any other relevant information. It helps attendees understand what to expect and assists organizers in planning.
5. **Maximum Attendees (Number):**
   - **Purpose:** Defines the maximum number of people allowed to attend the event.
   - **Usage:** This field helps in managing the capacity of the event. It ensures that the number of attendees does not exceed the venue's capacity and assists in planning resources and accommodations.
6. **Event Status (Picklist):**
   - **Purpose:** Tracks the current status of the event.
   - **Options:** Planned, Ongoing, Completed
   - **Usage:** This field is used to track the lifecycle of the event. It helps in monitoring the progress of the event and ensures that all tasks are completed on time.

Custom Formula Field: Available Seats

- **Purpose:** To dynamically calculate the number of available seats for an event.

- **Formula:**
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```sql
Maximum_Attendees__c - (SELECT COUNT(Id) FROM
Registrations__r)
```

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  - `Maximum_Attendees__c`: Represents the maximum capacity of the event.
  - `Registrations__r`: Represents a relationship to the Registration object, which counts the number of registered attendees.
- **Explanation:**
  - The formula subtracts the count of registered attendees from the maximum number of attendees. This provides a real-time count of how many seats are still available.
- **Usage:** The Available Seats field updates automatically as registrations are added or removed, ensuring accurate information about seat availability is always provided.

2. Attendee Object

Purpose:
The Attendee object tracks individuals who attend the events. It holds their personal and contact information, which is critical for managing communication and follow-ups.

Fields and Their Details:

1. **Attendee Name (Text):**
   - **Purpose:** Stores the name of the attendee.
   - **Usage:** This field is used to identify and communicate with the attendee. It is essential for managing attendee lists and personalizing communication.
2. **Email (Email):**
   - **Purpose:** Stores the email address of the attendee.
   - **Usage:** The Email field is crucial for sending event confirmations, updates, and promotional materials. It ensures that attendees are kept informed and can respond to communications.
3. **Phone Number (Phone):**
   - **Purpose:** Contains the phone number of the attendee.
   - **Usage:** This field provides a direct line of communication for follow-ups or urgent updates. It is useful for contacting attendees who may not respond to email.
4. **Company (Text):**
   - **Purpose:** Represents the company where the attendee works.
   - **Usage:** The Company field helps in understanding the professional background of attendees. It can be useful for networking, building relationships, and analyzing the attendee base.

3. Registration Object

Purpose:
The Registration object tracks details about an attendee's registration for specific events. It links attendees to events and records the status of their registrations.

Fields and Their Details:

1. **Registration Date (Date/Time):**
   ○ **Purpose:** Captures the date and time when the registration was made.
   ○ **Usage:** This field helps in tracking when registrations occur. It provides a timeline for managing and analyzing registration trends.
2. **Status (Picklist):**
   ○ **Purpose:** Indicates the status of the registration.
   ○ **Options:** Registered, Canceled, Attended
   ○ **Usage:** The Status field tracks the registration lifecycle, including whether an attendee is confirmed, has canceled their registration, or attended the event. It is useful for managing attendance and handling follow-ups.
3. **Registration ID (Auto Number):**
   ○ **Purpose:** Automatically generates a unique identifier for each registration.
   ○ **Usage:** Provides a unique reference for each registration, which is essential for tracking and managing registration records without duplication.
4. **Event (Lookup Relationship):**
   ○ **Purpose:** Links the registration to a specific event.
   ○ **Usage:** This relationship allows users to view all registrations associated with a particular event. It helps in managing event details and tracking attendee participation.
5. **Attendee (Lookup Relationship):**
   ○ **Purpose:** Connects the registration to a specific attendee.
   ○ **Usage:** This relationship enables tracking of which events a particular attendee has registered for. It is useful for managing and analyzing attendee participation across multiple events.

   Relationships

1. Event to Registration:

● **Type:** Lookup Relationship
● **Purpose:** Each registration is linked to a specific event. This relationship allows users to view and manage all registrations related to an event directly from the Event record.
● **Usage:** Helps in managing event-specific registrations and facilitates reporting on the number of attendees per event. It provides a holistic view of all registrations associated with each event.

2. Attendee to Registration:

● **Type:** Lookup Relationship
● **Purpose:** Each registration is associated with a specific attendee. This relationship tracks which events a particular attendee has registered for and manages attendee-specific information.

- **Usage:** Allows detailed tracking of attendee participation, facilitating communication with specific attendees about their event registrations and helping in analyzing attendee engagement.

This setup ensures that the Event Management System is well-organized, with clear relationships between events, attendees, and registrations. It facilitates efficient management and tracking of events, attendees, and registration statuses, ensuring smooth operation and effective event planning.

Validation Rules

1. **Event Date in Future**
   - **Rule:** Ensure that the Event Date is in the future.
   - **Formula:** `Event_Date__c < TODAY()`
   - **Explanation:** This validation rule prevents users from creating or editing events with a past date.
2. **Attendee Limit**
   - **Rule:** Ensure that the number of attendees does not exceed the Maximum Attendees for an event.
   - **Formula:** `Available_Seats__c < 0`
   - **Explanation:** This rule ensures that the number of registrations does not surpass the allowed number of attendees.

1. Page Layouts

Purpose: Page layouts determine the arrangement of fields, related lists, and other components on an object's detail page. Customizing page layouts allows you to tailor the user interface according to the needs of different users or scenarios.

How to Customize Page Layouts:

1. **Navigate to Page Layouts:**
   - Go to **Setup**.
   - Enter **Object Manager** in the Quick Find box.
   - Select the **Event** object.
2. **Create or Edit Page Layouts:**
   - Click on **Page Layouts** in the left-hand menu.
   - You can either edit an existing layout or create a new one by clicking **New**.
3. **Customize Layouts:**
   - **Add/Remove Fields:** Drag and drop fields onto the layout or remove fields that are not needed. For instance, fields like Event Date, Location, and Description might be placed prominently.
   - **Reorder Fields:** Arrange fields in a logical sequence. For instance, display the Event Name and Date at the top, followed by Location and Description.
   - **Add Related Lists:** Add related lists such as Registrations or Attendees to provide context and quick access to related records.

- ○ **Customize Sections:** Create sections to group related fields together. For example, you might have a section for "Event Details" and another for "Attendee Information."
    4. **Assign Page Layouts to Profiles:**
        - ○ After customizing the layout, assign it to the appropriate profiles. This ensures that users with different profiles see the layout that suits their role.

Example: For the Event Management System, you might have different page layouts for in-person and virtual events. The in-person event layout might include fields like Venue and Seating Arrangement, while the virtual event layout might include fields for Online Platform and Access Links.

2. Record Types

Purpose: Record types allow you to categorize records within the same object and assign different page layouts, picklist values, and business processes to each category. This is useful when you need to manage different types of records that require different data and user interfaces.

How to Configure Record Types:

1. **Navigate to Record Types:**
    - ○ Go to **Setup**.
    - ○ Enter **Object Manager** in the Quick Find box.
    - ○ Select the **Event** object.
    - ○ Click on **Record Types** in the left-hand menu.
2. **Create Record Types:**
    - ○ Click **New Record Type**.
    - ○ Enter a **Record Type Label** and **Record Type Name** (e.g., "In-Person Event").
    - ○ Optionally, select an existing record type to clone or choose **Master** as the starting point.
    - ○ Choose whether to make the record type available to all profiles or only specific ones.
    - ○ Click **Next**.
3. **Assign Page Layouts:**
    - ○ Select a page layout for the record type. For instance, assign a layout that includes fields and sections relevant to an in-person event.
    - ○ Click **Save**.
4. **Repeat for Additional Record Types:**
    - ○ Create another record type (e.g., "Virtual Event") and assign a different page layout tailored to virtual events.

Example:

- ● **In-Person Event:** The record type will use a page layout that includes fields like Venue, Seating Arrangement, and On-Site Contact. It might also have specific picklist values for event status like "Scheduled" or "Completed."

- **Virtual Event:** The record type will use a page layout with fields like Online Platform, Access Links, and Webinar ID. The status picklist might include values like "Scheduled" or "Concluded."

Benefits:

1. **Tailored User Experience:**
   - By customizing page layouts and record types, you ensure that users see only the fields and options relevant to their specific type of record. This reduces clutter and improves efficiency.
2. **Improved Data Accuracy:**
   - Different page layouts and record types help in capturing the right information for different types of events, thereby reducing errors and inconsistencies.
3. **Enhanced Reporting:**
   - Separate record types and layouts allow for better segmentation and analysis of data. For example, you can easily report on in-person versus virtual events by filtering based on record types.
4. **Role-Specific Views:**
   - Page layouts and record types ensure that users in different roles see the most pertinent information and are presented with options suited to their tasks, which enhances productivity.

Profiles and Permission Sets in Salesforce

Profiles and Permission Sets are crucial for controlling user access and permissions in Salesforce. They ensure that users have the appropriate level of access to objects, fields, and records based on their roles and responsibilities. Let's explore how these can be used to manage access for the Event Management System at Ursa Major Solar.

1. Profiles

Purpose: Profiles determine the baseline access that users have within Salesforce. They define the permissions a user has for objects, fields, and other Salesforce features. Profiles are essential for establishing the default level of access for users based on their role in the organization.

Key Settings in Profiles:

1. **CRUD Permissions (Create, Read, Update, Delete):**
   - **Create:** Allows users to create new records.
   - **Read:** Grants access to view records.
   - **Update:** Permits users to modify existing records.
   - **Delete:** Enables users to remove records.
2. **Example for Event Management:**
   - **Support Profile:** Might only have Read access to the Event object, meaning they can view event details but not create, update, or delete them.

- ○ **Sales Profile:** Might have full CRUD permissions on the Event, Attendee, and Registration objects to manage all aspects of events and attendee registrations.
3. **Field-Level Security:**
   - ○ Controls visibility and editability of individual fields within an object. This is crucial for protecting sensitive information or ensuring users only see relevant data.
4. **Example:**
   - ○ For the **Event** object, sensitive fields like `Event Revenue` might be restricted to certain profiles, such as Sales Managers, while Support Agents may not have visibility into this field.
5. **Page Layouts and Record Types Access:**
   - ○ Profiles control which page layouts and record types are available to users. This ensures that users see only the layouts and fields relevant to their role.
6. **Example:**
   - ○ **Support Profile:** Might be assigned a simplified page layout for the Event object with fewer fields and related lists compared to a Sales Profile.

How to Configure Profiles:

1. **Navigate to Profiles:**
   - ○ Go to **Setup**.
   - ○ Enter **Profiles** in the Quick Find box.
   - ○ Select the appropriate profile (e.g., Sales, Support).
2. **Adjust Object Settings:**
   - ○ Click on **Object Settings**.
   - ○ Choose the object (e.g., Event).
   - ○ Modify CRUD permissions according to the role's requirements.
3. **Configure Field-Level Security:**
   - ○ Go to **Field-Level Security** within the object settings.
   - ○ Adjust field visibility and read/write permissions for specific fields.
4. **Assign Page Layouts and Record Types:**
   - ○ Under **Page Layouts** and **Record Types**, assign the appropriate layout and types based on user needs.

2. Permission Sets

Purpose: Permission Sets provide additional permissions to users beyond their profile's baseline settings. They offer a flexible way to grant extra access without changing the profile, allowing for more granular control.

Key Uses of Permission Sets:

1. **Grant Additional Permissions:**
   - ○ Permission Sets are used to give users extra permissions that are not part of their profile. This can be temporary or specific to certain tasks.
2. **Example:**

- If a user needs to manage registrations but does not require full access to Events, a Permission Set can be created to grant them the required permissions without changing their profile.
3. **Specialized Access:**
   - For users who need specific permissions for certain objects or features, Permission Sets can be applied on top of their existing profile permissions.
4. **Example:**
   - A **Registration Manager** Permission Set might include permissions to create, update, and delete Registrations while restricting access to Event management features.

How to Configure Permission Sets:

1. **Navigate to Permission Sets:**
   - Go to **Setup**.
   - Enter **Permission Sets** in the Quick Find box.
   - Click **New** to create a new permission set or select an existing one to modify.
2. **Assign Object Permissions:**
   - Click on **Object Settings** within the Permission Set.
   - Select the object (e.g., Registration).
   - Adjust CRUD permissions as needed.
3. **Configure Field Permissions:**
   - Set up field-level security for the fields in the object if needed.
4. **Assign Permission Sets to Users:**
   - Go to **Permission Set Assignments**.
   - Click **Add Assignments** and select the users who need the permission set.

Creating Reports

1. **Upcoming Events Report**
   Objective: Display a list of all events scheduled for today or in the future.
   Steps:
   - **Navigate to Reports:**
     - Go to the **Reports** tab in Salesforce.
     - Click **New Report**.
   - **Select Report Type:**
     - Choose **Event** as the report type.
     - Click **Continue**.
   - **Configure Report:**
     - **Filters:**
       - Set the filter to include only events with a date greater than or equal to today's date.
       - **Date Field Filter:** Add a filter for the **Event Date** field. Set the condition to `greater than or equal to TODAY()`.
     - **Columns:**

- Add relevant columns to display information such as **Event Name**, **Event Date**, **Location**, and **Description**.
        - **Sorting:**
            - Optionally, sort the report by **Event Date** to list events chronologically.
    - **Save and Run:**
        - Name the report (e.g., "Upcoming Events").
        - Choose a folder to save it in.
        - Click **Save & Run** to view the report.

2. **Number of Attendees per Event Report**
    Objective: Summarize the number of attendees for each event.
    Steps:
    - **Navigate to Reports:**
        - Go to the **Reports** tab in Salesforce.
        - Click **New Report**.
    - **Select Report Type:**
        - Choose **Registration** as the report type.
        - Click **Continue**.
    - **Configure Report:**
        - **Group Rows:**
            - Group by **Event** to aggregate data by each event.
        - **Add a Summary Field:**
            - Summarize the **Registration ID** field (or another unique identifier) to count the number of registrations per event.
        - **Filters:**
            - Optionally, add filters to include only active or specific types of registrations if needed.
    - **Save and Run:**
        - Name the report (e.g., "Number of Attendees per Event").
        - Choose a folder to save it in.
        - Click **Save & Run** to view the report.

Creating Dashboards

1. **Event Registrations Overview Dashboard**
    Objective: Visualize various metrics related to event registrations.
    Steps:
    - **Navigate to Dashboards:**
        - Go to the **Dashboards** tab in Salesforce.
        - Click **New Dashboard**.
    - **Configure Dashboard:**
        - **Name:** Give your dashboard a name (e.g., "Event Registrations Overview").
        - **Folder:** Choose a folder to save it in.
        - **Permissions:** Set the dashboard visibility and permissions according to user roles.
    - **Add Components:**
        - **Total Attendees:**

- - ■ **Type:** Summary
    - ■ **Source Report:** Use the "Number of Attendees per Event" report.
    - ■ **Component Type:** Chart (e.g., Donut Chart) or Metric to show the total count of attendees.
    - ■ **Configuration:** Set the component to display the total number of attendees across all events.
  - ■ **Canceled Registrations:**
    - ■ **Type:** Breakdown
    - ■ **Source Report:** Create a report specifically for canceled registrations if not already available.
    - ■ **Component Type:** Chart (e.g., Bar Chart or Pie Chart) showing the count of canceled registrations by event.
    - ■ **Configuration:** Configure filters to include only registrations with a status of "Canceled."
  - ■ **Event Status:**
    - ■ **Type:** Pie Chart
    - ■ **Source Report:** Create or use an existing report that summarizes events by status.
    - ■ **Component Type:** Pie Chart to show the distribution of events in different statuses (Planned, Ongoing, Completed).
    - ■ **Configuration:** Configure the chart to represent the number of events in each status category.
- ○ **Save and View:**
  - ■ Click **Save** to save the dashboard.
  - ■ Use the **Dashboard Viewer** to analyze and interact with the data visualizations.

1. Flow for Email Confirmation

Objective: Automatically send an email confirmation to attendees upon successful registration.

Steps:

1. **Create a Flow:**
   - ○ **Navigate to Flows:**
     - ■ Go to **Setup**.
     - ■ Search for **Flows** in the Quick Find box and select it.
     - ■ Click **New Flow**.
   - ○ **Choose Flow Type:**
     - ■ Select **Record-Triggered Flow** (since the flow should trigger when a registration record is created).
   - ○ **Configure Trigger:**
     - ■ **Object:** Select **Registration** as the object.
     - ■ **Trigger:** Set the flow to trigger when a record is **Created**.

- **Add Flow Elements:**
  - **Get Records (Optional):** If you need additional details about the event or attendee, use a **Get Records** element to fetch related records.
  - **Decision Element:** Use this to determine if the registration was successful or meets specific criteria (e.g., Registration Status is "Registered").
  - **Email Alert:** Add an **Email Alert** action to send the confirmation email.
    - **Email Template:** Select or create an email template for the confirmation.
    - **Recipient:** Set the recipient to the **Email** field on the **Attendee** record.
    - **Subject and Body:** Customize the subject and body of the email using merge fields for personalized information.
- **Save and Activate:**
  - Save your flow and click **Activate** to make it live.

2. **Test the Flow:**
   - Create a test registration record and verify that the email confirmation is sent as expected.

2. Process Builder or Flow to Change Event Status

Objective: Automatically change the status of an event to "Completed" when the event date has passed.

Steps:

1. **Create a Process Builder Process:**
   - **Navigate to Process Builder:**
     - Go to **Setup**.
     - Search for **Process Builder** in the Quick Find box and select it.
     - Click **New** to create a new process.
   - **Define the Process:**
     - **Object:** Choose **Event** as the object.
     - **Start the Process:** Set the process to start when a record is created or edited.
   - **Add Criteria:**
     - **Criteria Name:** Name your criteria (e.g., "Check if Event Date Passed").
     - **Conditions:**
       - Check if the **Event Date** is less than today's date.
       - Add a condition to ensure that the **Event Status** is not already "Completed".
   - **Define Actions:**
     - **Action Type:** Select **Update Records**.
     - **Record to Update:** Choose to update the current event record.
     - **Field Values:** Set the **Event Status** field to "Completed".

- ○ **Save and Activate:**
  - ■ Save your process and click **Activate** to make it live.
2. **Alternatively, Create a Scheduled Flow:**
   - ○ **Navigate to Flows:**
     - ■ Go to **Setup** and search for **Flows**.
     - ■ Click **New Flow**.
   - ○ **Choose Flow Type:**
     - ■ Select **Scheduled Flow**.
   - ○ **Configure Schedule:**
     - ■ Set the flow to run daily or weekly, based on how often you want to check for passed events.
   - ○ **Add Flow Elements:**
     - ■ **Get Records:** Fetch events where **Event Date** is less than today's date and **Event Status** is not "Completed".
     - ■ **Update Records:** Update the **Event Status** to "Completed" for the retrieved records.
   - ○ **Save and Activate:**
     - ■ Save your flow and click **Activate** to schedule it.
3. **Test the Automation:**
   - ○ Create an event with a past date and check if the status changes to "Completed" as expected.

3. Workflow Rules

Objective: Though Salesforce now favors Flows and Process Builder, Workflow Rules can still be used for simpler automation tasks.

Steps:

1. **Create a Workflow Rule:**
   - ○ **Navigate to Workflow Rules:**
     - ■ Go to **Setup**.
     - ■ Search for **Workflow Rules** in the Quick Find box and select it.
     - ■ Click **New Rule**.
   - ○ **Define the Rule:**
     - ■ **Object:** Choose **Event**.
     - ■ **Evaluation Criteria:** Set to "Evaluate the rule when a record is created, and every time it's edited".
     - ■ **Rule Criteria:** Set criteria to trigger when the **Event Date** is less than today's date and **Event Status** is not "Completed".
   - ○ **Add Workflow Actions:**
     - ■ **Field Update:** Create a new Field Update action to set the **Event Status** to "Completed".
   - ○ **Save and Activate:**
     - ■ Save your workflow rule and click **Activate**.
2. **Test the Workflow Rule:**
   - ○ Create an event with a past date and ensure that the status updates automatically.

Summary

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