### **Test Case 1: Validate Current Relationship Based on Date Criteria**

**Objective**: Ensure that relationships are categorized as current based on start and end date criteria.

**Steps**:

1. Log in to the CiviCRM demo site using the provided credentials.
2. Navigate to **Contacts** > **Relationships**.
3. Click **Add Relationship**.
4. Create a new relationship between two contacts, setting the **Start Date** to a past date and leaving the **End Date** field empty.
5. Set the **Enabled** field to “Yes”.
6. Save the relationship.

**Expected Results**:

* The relationship should appear under the **Current Relationships** section.
* The **Start Date** is in the past, and the **End Date** is null.

**Test Data**:

* Contact 1: John Doe
* Contact 2: Jane Smith
* Relationship Type: Sibling
* Start Date: 01/01/2022
* End Date: (empty)
* Enabled: Yes

### **Test Case 2: Validate Inactive Relationship Based on Date Criteria**

**Objective**: Ensure that relationships are categorized as inactive if they do not meet the criteria for a current relationship.

**Steps**:

1. Log in to the CiviCRM demo site.
2. Navigate to **Contacts** > **Relationships**.
3. Click **Add Relationship**.
4. Create a new relationship, setting the **Start Date** to a future date and **End Date** to a past date.
5. Set the **Enabled** field to “No”.
6. Save the relationship.

**Expected Results**:

* The relationship should appear under the **Inactive Relationships** section.
* The **Start Date** is in the future, and/or the **End Date** is in the past, and **Enabled** is “No”.

**Test Data**:

* Contact 1: Alex Johnson
* Contact 2: Emily White
* Relationship Type: Friend
* Start Date: 01/01/2025
* End Date: 01/01/2023
* Enabled: No

### **Test Case 3: Validate Additional Fields for “Employee of / Employer of” Relationship**

**Objective**: Ensure that additional fields (LinkedIn, Website, Attachments) are displayed and validated for the “Employee of / Employer of” relationship.

**Steps**:

1. Log in to the CiviCRM demo site.
2. Navigate to **Contacts** > **Relationships**.
3. Click **Add Relationship**.
4. Select the **Relationship Type** as “Employee of”.
5. Verify that additional fields for LinkedIn, Website, and Attachments appear.
6. Enter a valid URL in the **LinkedIn** field.
7. Enter a valid URL in the **Website** field.
8. Attach a file to the **Attachments** field.
9. Save the relationship.

**Expected Results**:

* The LinkedIn field should accept only valid URLs.
* The Website field should accept only valid URLs.
* The Attachments field should accept file uploads.
* The relationship should save successfully with the additional fields populated.

**Test Data**:

* Contact: Sarah Lee
* Organization: Nonprofit Inc.
* Relationship Type: Employee of
* LinkedIn:<https://www.linkedin.com/in/sarahlee>
* Website:<https://www.nonprofitinc.org>
* Attachment: Resume.pdf

### **Test Case 4: Validate Relationship with Null Dates**

**Objective**: Ensure relationships with null start and end dates are categorized correctly.

**Steps**:

1. Log in to the CiviCRM demo site.
2. Navigate to **Contacts** > **Relationships**.
3. Click **Add Relationship**.
4. Create a new relationship, leaving both **Start Date** and **End Date** fields empty.
5. Set the **Enabled** field to “Yes”.
6. Save the relationship.

**Expected Results**:

* The relationship should appear under the **Current Relationships** section.
* Both the **Start Date** and **End Date** fields are null, and **Enabled** is “Yes”.

**Test Data**:

* Contact 1: Michael Brown
* Contact 2: Laura Green
* Relationship Type: Colleague
* Start Date: (empty)
* End Date: (empty)
* Enabled: Yes

### **Test Case 5: Validate Relationship Categorization with Date Changes**

**Objective**: Ensure relationships are moved to the correct section when dates are updated.

**Steps**:

1. Log in to the CiviCRM demo site.
2. Navigate to **Contacts** > **Relationships**.
3. Add a relationship with the **Start Date** in the future and **End Date** in the past, and set **Enabled** to “Yes”.
4. Save the relationship and verify it appears under **Inactive Relationships**.
5. Edit the relationship, setting the **Start Date** to a past date and **End Date** to a future date.
6. Save the changes.

**Expected Results**:

* The relationship should move to the **Current Relationships** section after date updates.

**Test Data**:

* Contact 1: Robert King
* Contact 2: Mary Taylor
* Relationship Type: Mentor
* Start Date: 01/01/2025 (initial)
* End Date: 01/01/2022 (initial)
* Enabled: Yes
* Start Date: 01/01/2020 (updated)
* End Date: 01/01/2030 (updated)

### **Test Case 6: Validate Incorrect URL Handling in Additional Fields**

**Objective**: Ensure the LinkedIn and Website fields only accept valid URLs.

**Steps**:

1. Log in to the CiviCRM demo site.
2. Navigate to **Contacts** > **Relationships**.
3. Add a new relationship of type **Employee of**.
4. Enter an invalid URL in the **LinkedIn** field (e.g., “invalid\_url”).
5. Enter an invalid URL in the **Website** field (e.g., “website”).
6. Try to save the relationship.

**Expected Results**:

* The system should display an error message indicating that the URLs are invalid.
* The relationship should not save until valid URLs are provided.

**Test Data**:

* LinkedIn: invalid\_url
* Website: website

### **Test Case 7: Validate Attachment Uploads**

**Objective**: Ensure that file uploads in the **Attachments** field function correctly and support various file types.

**Steps**:

1. Log in to the CiviCRM demo site.
2. Navigate to **Contacts** > **Relationships**.
3. Add a new relationship of type **Employee of**.
4. Attach various files (e.g., PDF, DOCX, PNG) in the **Attachments** field.
5. Save the relationship.

**Expected Results**:

* The relationship should save successfully.
* The files should be uploaded and viewable from the contact’s relationship details.

**Test Data**:

* File types: Resume.pdf, Profile.docx, Image.png

### **Test Case 8: Validate Relationship Deletion and Section Update**

**Objective**: Ensure that deleting a relationship updates the relevant sections correctly.

**Steps**:

1. Log in to the CiviCRM demo site.
2. Navigate to **Contacts** > **Relationships**.
3. Add a new relationship and save it.
4. Verify that the relationship appears in the appropriate section (Current/Inactive).
5. Delete the relationship.
6. Check that the relationship is removed from the section and no longer appears in the list.

**Expected Results**:

* The relationship should be removed from the section and no longer appear in the relationships list.

**Test Data**:

* Relationship Type: Any

### **Test Case 9: Validate Duplicate Relationship Handling**

**Objective**: Ensure that the system prevents the creation of duplicate relationships between the same contacts with the same relationship type.

**Steps**:

1. Log in to the CiviCRM demo site.
2. Navigate to **Contacts** > **Relationships**.
3. Add a new relationship between two contacts.
4. Attempt to add the same relationship type between the same contacts again.
5. Save the relationship.

**Expected Results**:

* The system should display an error message preventing the creation of duplicate relationships.
* Only one instance of the relationship should exist.

**Test Data**:

* Contact 1: David Wilson
* Contact 2: Carol Martinez
* Relationship Type: Spouse

### **Test Case 10: Validate Relationship Date Range Display**

**Objective**: Ensure that the relationship's start and end dates are displayed correctly in the relationship details.

**Steps**:

1. Log in to the CiviCRM demo site.
2. Navigate to **Contacts** > **Relationships**.
3. Add a relationship with specific start and end dates.
4. Save and then view the relationship details.

**Expected Results**:

* The start and end dates should be displayedHere's a comprehensive set of test cases for validating the functionalities related to CiviCRM’s contact relationships, including current/inactive status based on dates and additional fields for specific relationships like “Employee of / Employer of”. These test cases aim to cover a range of scenarios to ensure robust testing.