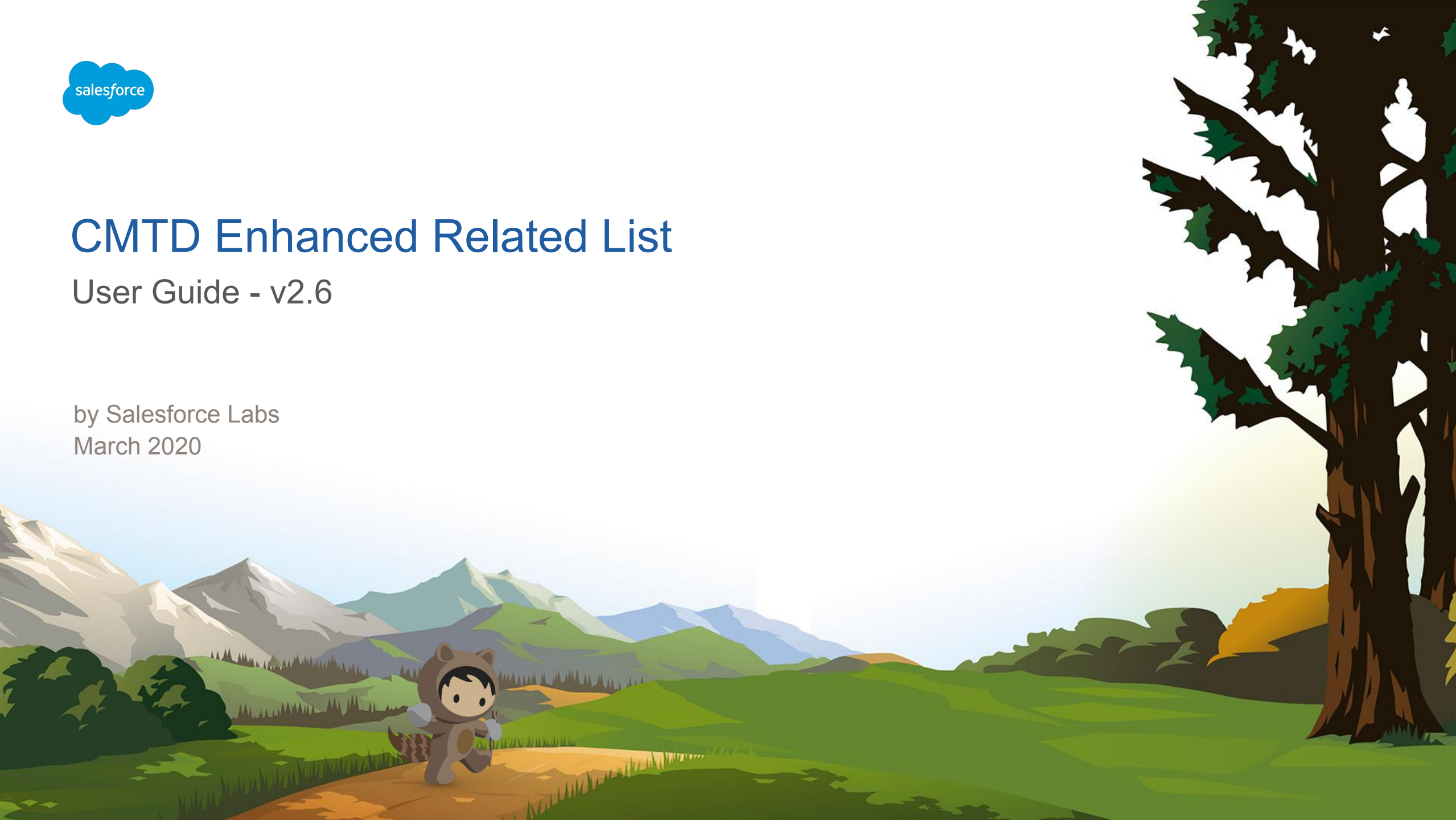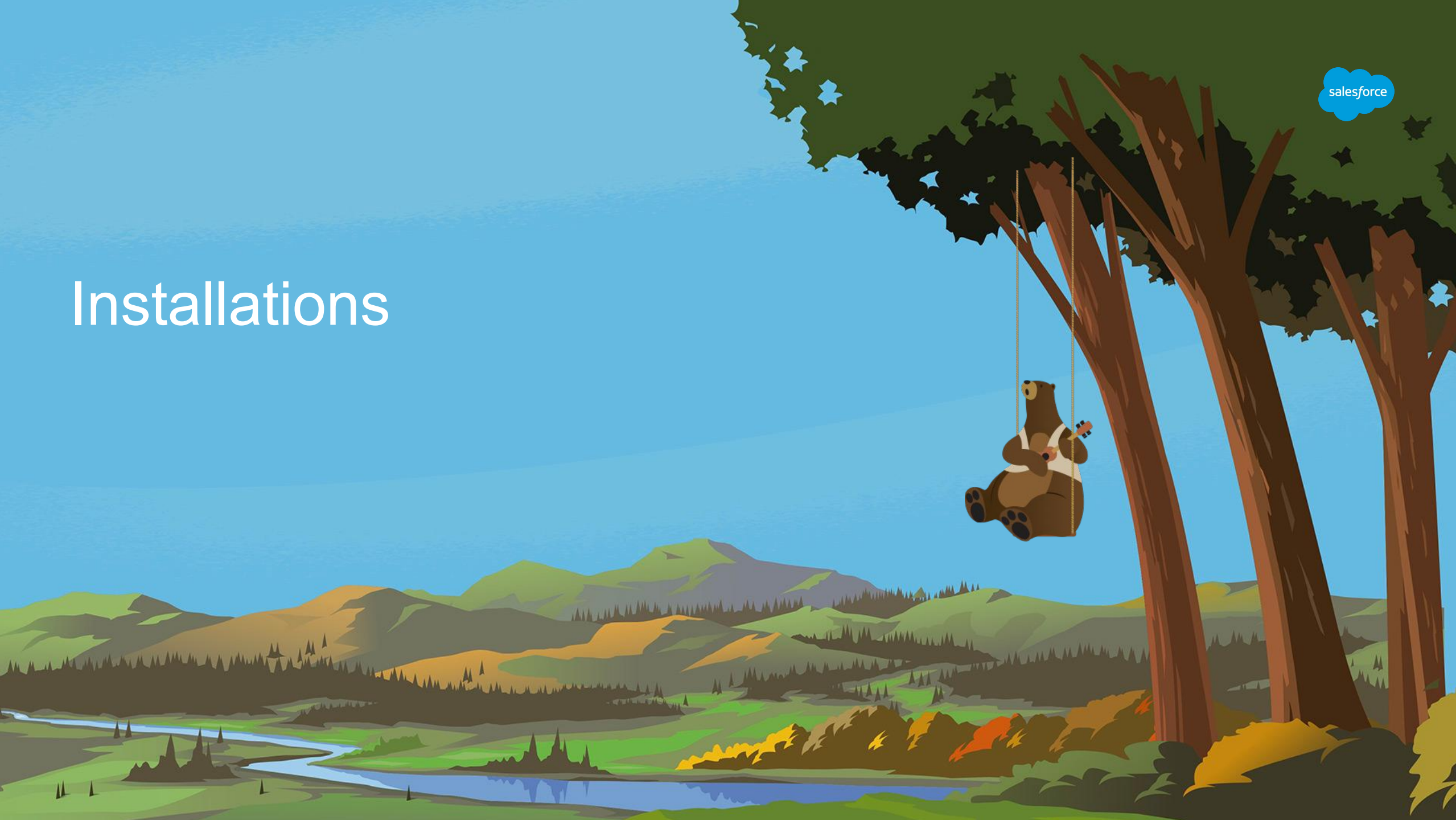# CMTD Enhanced Related List

User Guide - v2.6

by Salesforce Labs
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Installations

Installations
Version 2.0 - Package Components

Package Components

Action	Name	Parent Object	Type
	Target API Name	Enhanced Related List	Custom Field
	Related List Name	Enhanced Related List	Custom Field
	Order	Enhanced Related List	Custom Field
	TestTasks	Enhanced Related List	List View
	All Fields	Enhanced Related List	List View
	Inactive	Enhanced Related List	Custom Field
	EnhancedRelatedList_CC		Apex Class
	UI Type Override	Enhanced Related List	Custom Field
	ERL_List		Aura Component Bundle
	EnhancedRelatedList_Test		Apex Class
	Header	Enhanced Related List	Custom Field
	Field API Name	Enhanced Related List	Custom Field
	Colour	Enhanced Related List	Custom Field
	ERL_Tile		Aura Component Bundle
	ERL_RecordNavigation		Aura Component Bundle
	ERL_RTSelector		Aura Component Bundle
	ERL_RefreshEvent		Aura Component Bundle
	ERL_DeleteRecord		Aura Component Bundle
	EnhancedRelatedList		Aura Component Bundle
	Colour_Populated_For_Badge	Enhanced Related List	Validation Rule
	Enhanced Related List		Custom Metadata Type
	ERL_RecordNavigation_CC		Apex Class
	ERL_RTSelector_Test		Apex Class
	ERL_RTSelector_CC		Apex Class
	Enhanced Related List Layout	Enhanced Related List	Page Layout
	multilineToastCSS		Static Resource

Installations
Version 2.0

- Once installed, "CMTD Enhanced Related List" component is available in App Builder
- Use "Enhanced Related List" Custom Metadata Type to configure the fields

Sample configuration:
- Simply drag the component into Account page (ensure Account has some Case records)
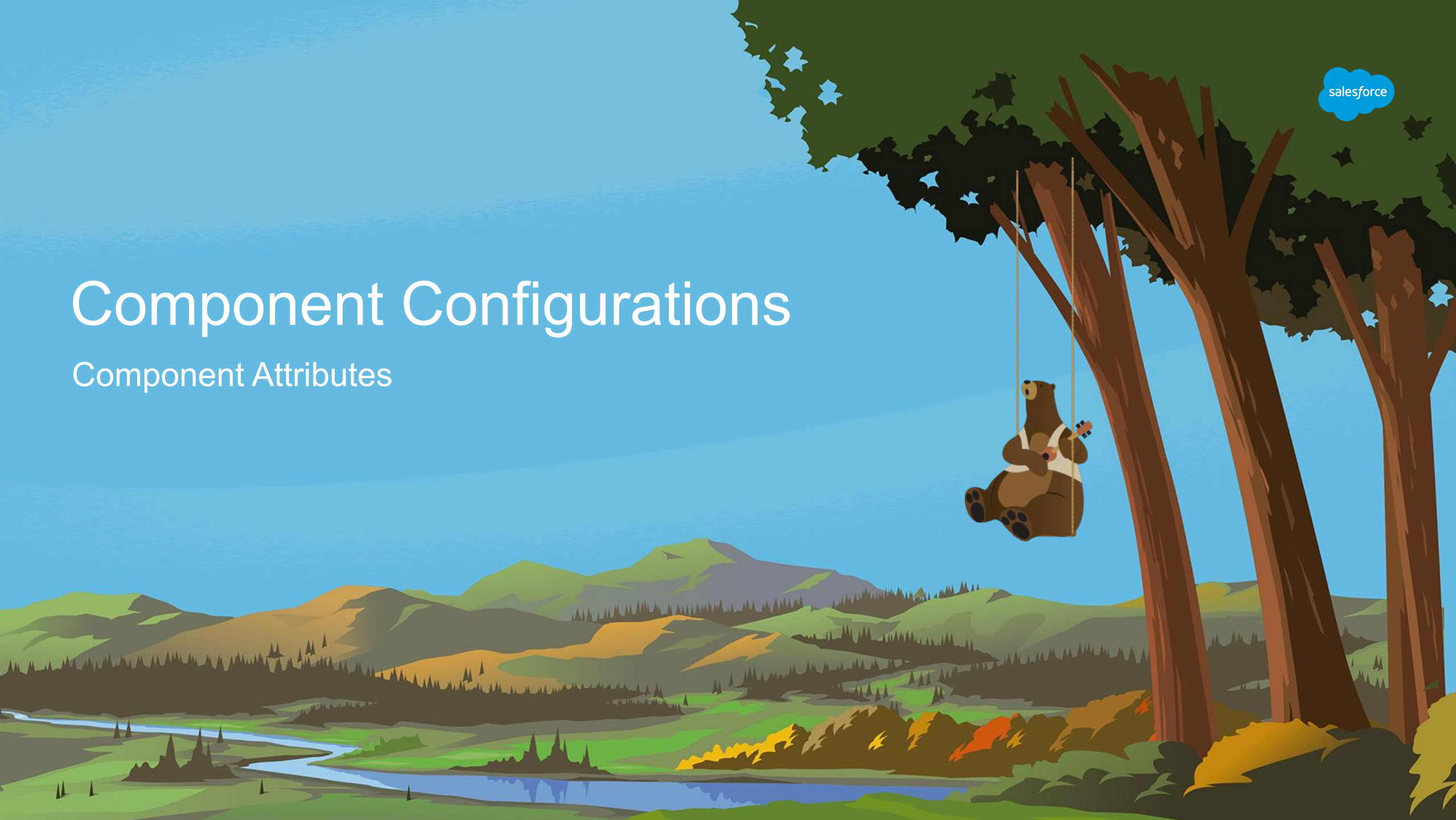- Leave all the attributes as default

Component Configurations

Component Attributes

Component Configurations
Component Attributes

Attribute Name	Attribute API Name	Description
Parent Object Id Field	parentObjectIdField	The API name of the Id field in the Parent object. ● By default(or when it is empty) it uses the record Id of the Parent Object ● Only update
Object API Name*	objectAPIName	API name of the Object whose records will be displayed. When showing related Cases on an Account record page, this value is Case.
Related List Name*	relatedListName	This is a unique identifier for the component. It must match the "Related List Name" in the "Enhanced Related List" Custom Metadata Type records.
Parent Field in Child Object*	parentField	The API name of the field on the Child Object (Object API Name) that holds the record Id of the parent. When showing related Cases on an Account, the value is AccountId (Case object's AccountId field)

*required

Component Configurations

Attribute Name	Attribute API Name	Description
Records Display Type	displayType	Display mode to display the records. List = Display records in List. Tile 1 = Display records in 1 column Tile. Tile 2 = Display records in 2 columns Tile.
Fields Layout Type	layoutType	The layout of fields in the body when Records Display Type = "Tile 1" or "Tile 2" 1 Column = Fields are displayed in 1 column layout 2 Columns = Fields are displayed in 2 columns layout
Filter	filter	Filter criteria for the object. Eg: Status = 'Open'
Sort	sort	Sort mode for the object. Syntax = Field API Name and ASC/DESC. eg: Created DESC. For multiple sorting, use ',' (eg: Created DESC, Amount DESC) Note: Please use sorting in consideration as it will impact performance.
Default Number of Records to Display	defaultNumberofRecordsToDisplay	Number of records displayed when the component is loaded
Max Number of Records to Display	maxNumberofRecordsToDisplay	Maximum number of records that can displayed. Recommended:50 Limit:500
Title	title	Title of the component
Icon Name	iconName	Icon for the title. This is using SLDS icon. Syntax = category:icon name. Eg: standard:case

Component Configurations

Attribute Name	Attribute API Name	Description
New Record	newRecord	Valid value = Standard, StandardWithRecordType, Custom LC Name or leave it blank. Note: The value is case sensitive. ● Leave blank would hide the New button. ● Standard: New record creation without record type. If the object has a record type it will use profile's default record type (or "Default Record Type" when provided) ● StandardWithRecordType: New record creation with record type selection. When "Default Record Type" is provided, it will be pre populated. ● Provide custom LC name (case sensitive) when additional functionality is required eg: setting default value on creation (please refer to Advanced Mode)
Default Record Type	defaultRecordType	Default record type to be selected or populated when 'New Record' attribute is used. The value should be the Record Type Label available for the object.
Show Header?	showHeader	Display/hide the component header. If this attribute is set to false, 'New' record functionality will not be available
Show Refresh Button?	showRefreshButton	Display/hide the refresh button
Show Menu Action?	showMenuAction	Display/hide the Menu Action (eg: Edit/ Delete items)

Component Configurations
Component Attributes

Page > CMTD Enhanced Related List

Parent Object Id Field ⓘ

`Id`

> The API name of the Id field in the Parent object.

* Object API Name ⓘ

`Case`

> API name of the Object whose records will be displayed

* Related List Name ⓘ

`OpenCases`

> Must match with the 'Enhanced Related List' CMT

* Parent Field in Child Object ⓘ

`AccountId`

> The API name of the field on the Child Object (Object API Name) that holds the record Id of the parent.

Records Display Type ⓘ

`Tile 2` ▾

Fields Layout Type ⓘ

`1 Column` ▾

Filter ⓘ

`Status != 'Closed'`

Sort ⓘ

`CreatedDate DESC`

Default Number of Records to Display ⓘ

`4`

Max Number of Records to Display ⓘ

`50`

Title ⓘ

`Open Cases`

Icon Name ⓘ

`standard:case`

New Record ⓘ
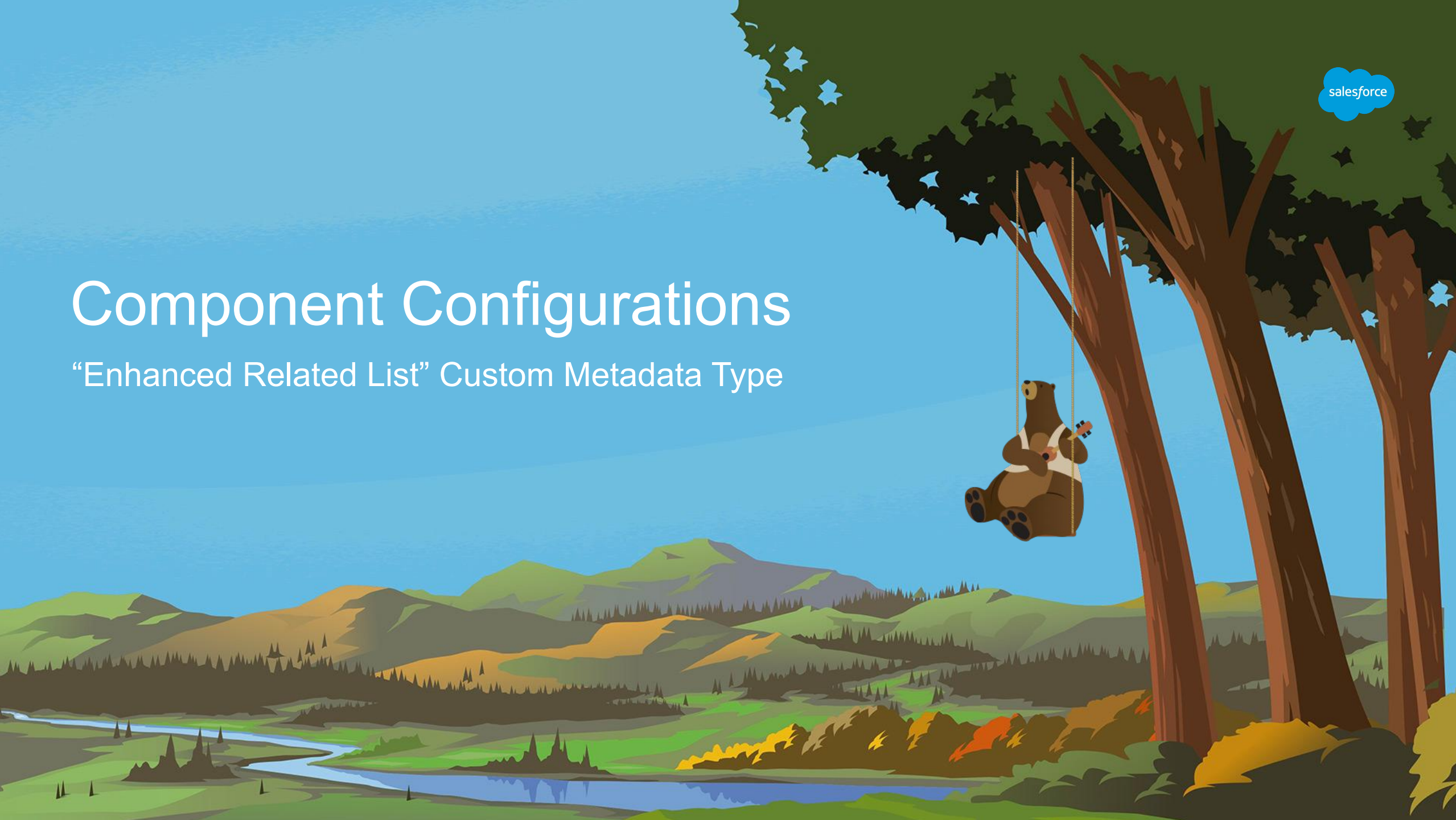
`Standard`

Default Record Type ⓘ

☑ Show Header? ⓘ

☑ Show Refresh Button? ⓘ

☑ Show Menu Action? ⓘ

Component Configurations

"Enhanced Related List" Custom Metadata Type

Component Configurations
"Enhanced Related List" Custom Metadata Type

Attribute Name	Data Type	Description
(Enhanced Related List) Name*	Text	Unique record identifier. Recommended naming convention: Related List Name + "_" + Label. This is a standard field.
Label*	Text	Label to display for the field in CMTD Enhanced Related List component. This is a standard field.
Related List Name*	Text	Related List Name as specified in "Related List Name" attribute of the individual CMTD Enhanced Related List component in App Builder.

Field API Name*	Text	Field API Name of the object as specified in "Object API Name" attribute of the CMTD Enhanced Related List component
		● Reference Field syntax: referenceField__c.FieldName__c
		● Examples (on Case object):
		  ○ Display Account Name: AccountId.Name
		  ○ Display Case Creator's Username: CreatedById.Username
		  ○ Display Account's Creator's Username: AccountId.CreatedById.Username

Header	Checkbox	Used to display fields in the header section when using Tile display mode
Order	Number	Sequence to display the fields in the component

*required

Component Configurations
"Enhanced Related List" Custom Metadata Type

Attribute Name	Data Type	Description
UI Type Override	Picklist	To override the UI display of the field. ● **Checkbox**: to display a checkbox field (Boolean) using a checkbox icon ● **Badge**: To highlight important text 　○ Badge will only display when the field value is not empty. 　○ Hint: Use formula field (text) to display a value that meet certain criteria eg: If(IsEscalated, "Escalated","") ● **Unescaped HTML**: To display any rich text or any formula fields that uses HTML
Colour	Text	Colour for Badge UI Type Override - only accept HEX
Target API Name	Text	When populated, the field value will have a hyperlink (only support Salesforce record Id). Provide field API Name of the Id of the target record.
Inactive	Checkbox	Flag to indicate if the CMT record is used. When this field is checked, the CMT record will be ignored and the field will not be displayed in the component.

*required

Component Configurations
"Enhanced Related List" CMT

- Each Custom Metadata Type (CMT) record represents a single column and its configuration that will be displayed in the component.
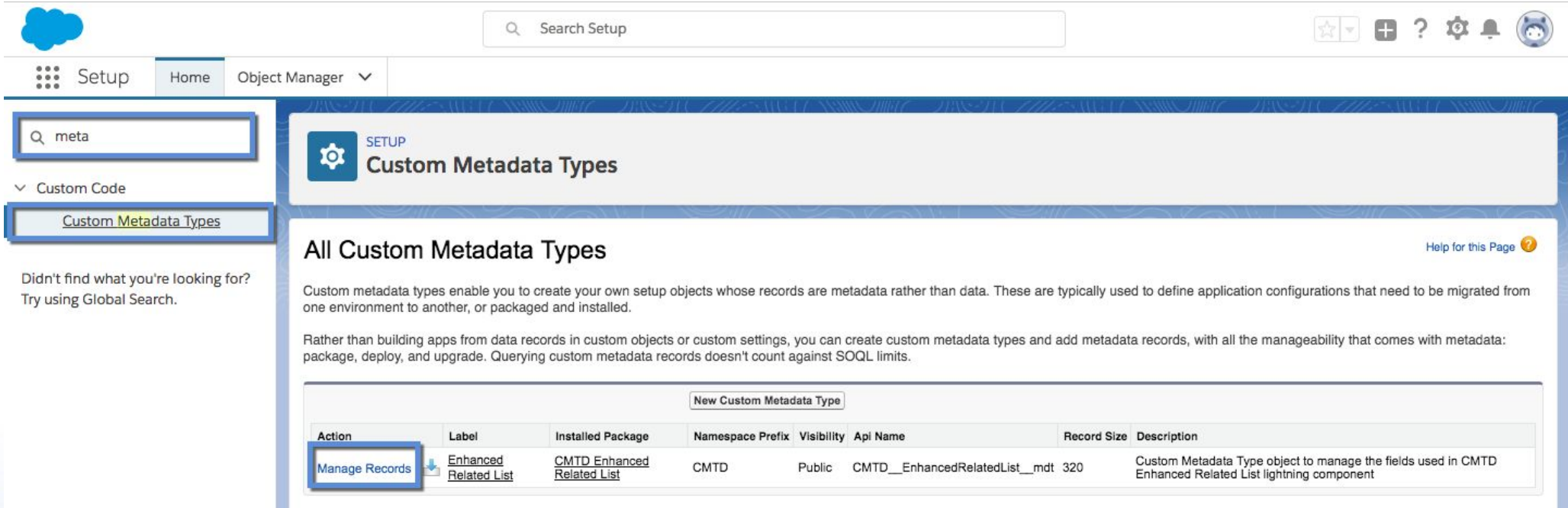

- When the component is added in the AppBuilder, the default values of the attributes uses these sample data below (Note: the records below are used but will not be visible).
- Please create your own records to start using the component

Component Configurations

"Enhanced Related List" CMT Record Creations

To start creating the "Enhanced Related List" Custom Metadata Type records:

1. In Setup, type "meta" and select "Custom Metadata Types"
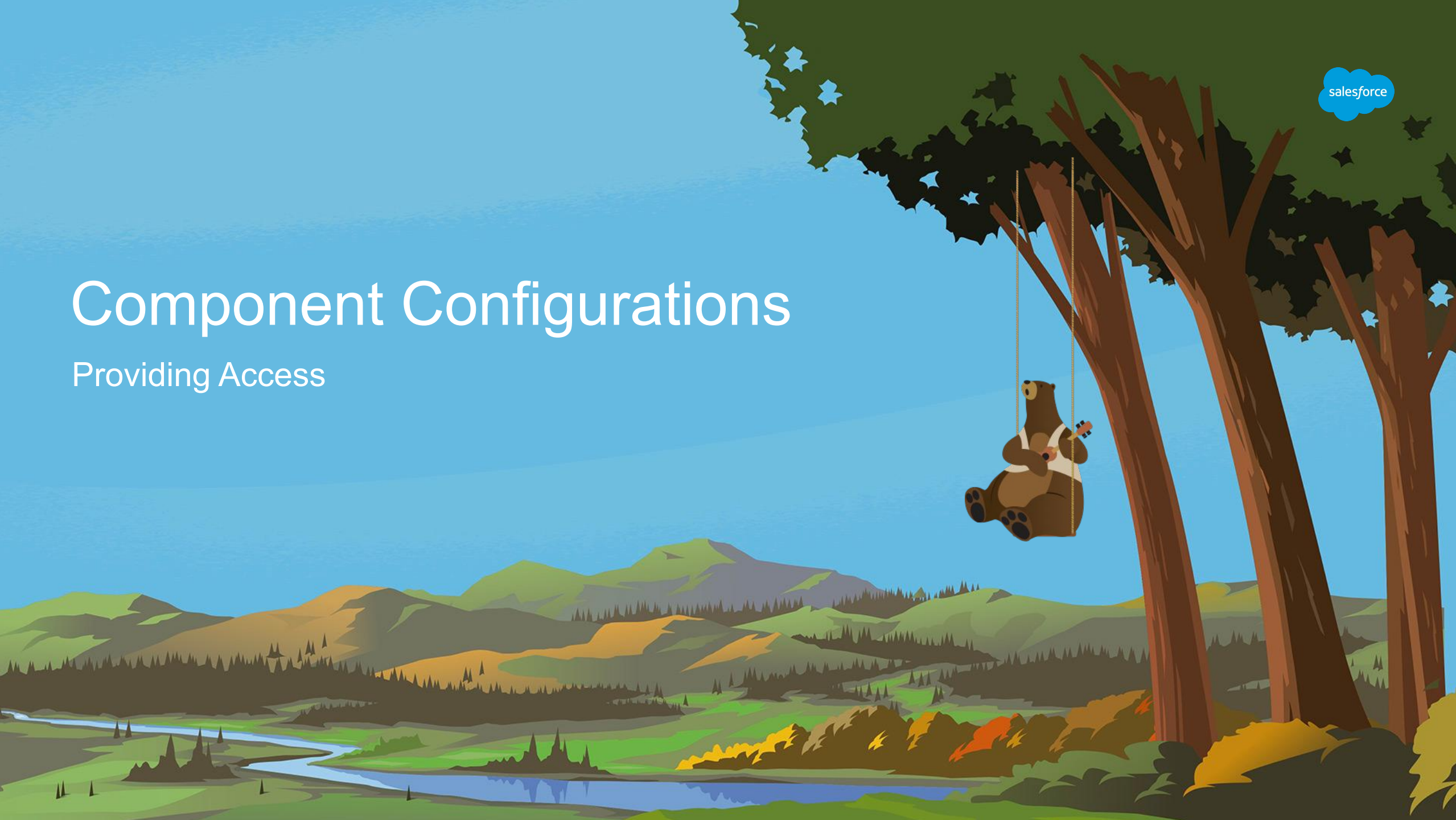2. Click on "Manage Records" on the "Enhanced Related List"

Note: Follow the Examples provided in the AppExchange listing for some sample use cases

Component Configurations

Providing Access

Component Configurations

Providing Access

Options:

1. Add 'CMTD ERL Permission Set' to the users who need access to the App, or
2. Add the following classes in the user profile/ permission set. You may need to enable 'Enhance Profile User Interface' to add the classes.
   a. CMTD.EnhancedRelatedList_CC
   b. CMTD.ERL_RecordNavigation_CC
   c. CMTD.ERL_RTSelector_CC

Note:
This step is needed after activating Critical Update below:
- Restrict Access to @AuraEnabled Apex Methods for Guest and Portal Users Based on User Profile
- Restrict Access to @AuraEnabled Apex Methods for Authenticated Users Based on User Profile

Advanced Mode

Advanced Mode

1. Parent Object Id Field

When to use:

● Display the related list on the Lightning Record page using Id field other than Record Id

Sample use case:

1. Case record page, display a list of Open Opportunities for the same Account.
   ○ Parent Object Id Field: AccountId — This would be AccountId on the Case object
   ○ Object API Name: Opportunity
   ○ Parent Field in Child Object: AccountId — This would be AccountId on the Opportunity object
2. Case record page, display Related Cases for the same Contact
   ○ Parent Object Id Field: ContactId — This would be ContactId on the Case object (*Parent* Object)
   ○ Object API Name: Case
   ○ Parent Field in Child Object: ContactId — This would be ContactId on the Case object (*Child* Object)

Advanced Mode

2. Custom LC Wrapper

When to use:
- Display the related list in Lightning Home page
- Display the related list from Custom Lightning Component

Use parentId attribute (Hidden - not available in App Builder):
- pass the value of the Id to match with the 'Parent Field in Child Object'

Advanced Mode

2. Custom LC Wrapper - Cont'd

Sample use case:

1. Display My Open Cases on the Home Page

   ○ homeMyOpenCases.cmp (sample only)

   ```
   <aura:component implements="force:appHostable,flexipage:availableForAllPageTypes,flexipage:availableForRecordHome" access="global" >
           <aura:attribute name="userId" type="String" />
           <aura:attribute name="showComponent" type="Boolean" default="false" />

           <aura:handler name="init" value="{!this}" action="{!c.doInit}" />
           <aura:if isTrue="{!v.showComponent}">
                   <CMTD:EnhancedRelatedList objectAPIName="Case" relatedListName="Test Open Cases"
                           parentField="OwnerId" parentId="{!v.userId}"
                           displayType="Tile 1" layoutType="1 Column"
                           sort="CreatedDate DESC" filter="Status!='Closed'"
                           defaultNumberofRecordsToDisplay="2" title="My Open Cases"
                           iconName="standard:case"
                           showHeader="true" showRefreshButton="true" />
           </aura:if>
   </aura:component>
   ```

   ○ homeMyOpenCases.js (sample only)

   ```
   ({
       doInit : function(component, event, helper) {
        var userId = $A.get("$SObjectType.CurrentUser.Id");          // hint: call server controller for other fields
   component.set("v.userId", userId);
   component.set("v.showComponent", true);
        }
   })
   ```

Advanced Mode

2. Custom LC Wrapper - Cont'd

2. Custom Lightning Component
   - Customer 360 - display dynamic related list based on certain selections
   - Check out sample usage by my colleague on his blog
     https://cloudmatters.blog/2018/11/04/lighting-out-visualforce-lightning-printing/

Advanced Mode

3. Override New Record using custom LC

- 'New Record' component attribute support custom LC
- Sample use cases:
  - Set default fields on New record. Eg: New case creation, pre populate Contact field with Primary Contact of the Account.
  - Prompt users with some selections before navigating to standard Case creation page layout
- The custom LC must implement the following attributes.
  - `<aura:attribute name="parentFieldName" access="global" type="String" />`
    It will be populated with the value of parentField attribute from "CMTD Enhanced Related List"
  - `<aura:attribute name="parentFieldId" access="global" type="String" />`
    It will be populated with the value of the parent record used in the "CMTD Enhanced Related List"
- Custom LC to utilise the attributes above to retrieve necessary information on init method.
- Custom LC is responsible to display the UI and create new record

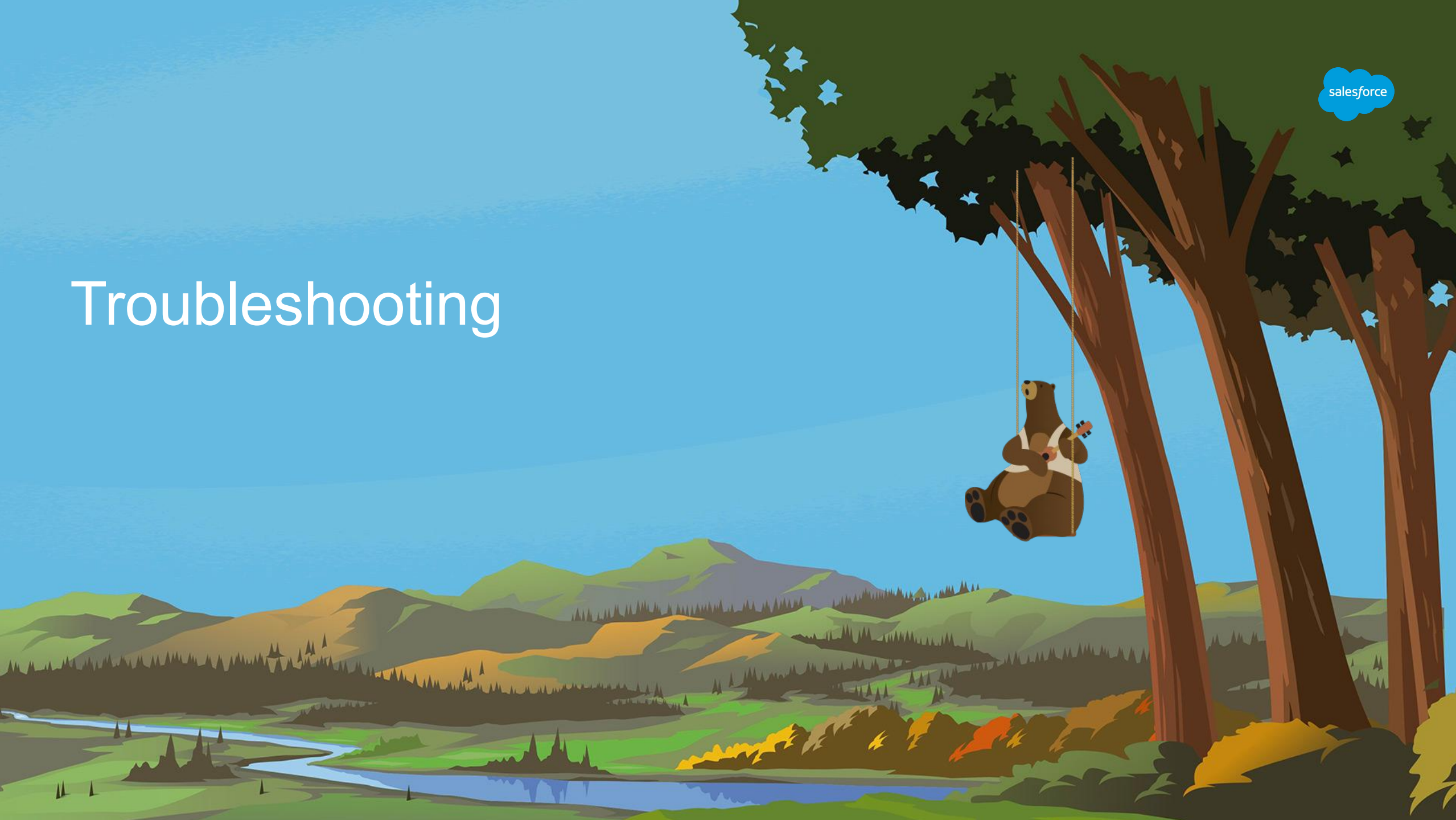# Advanced Mode
Override New Record using custom LC - Sample

caseRecordTypeSelector custom component

AccountId is set in parentId attribute and the Account record Id is available for this component

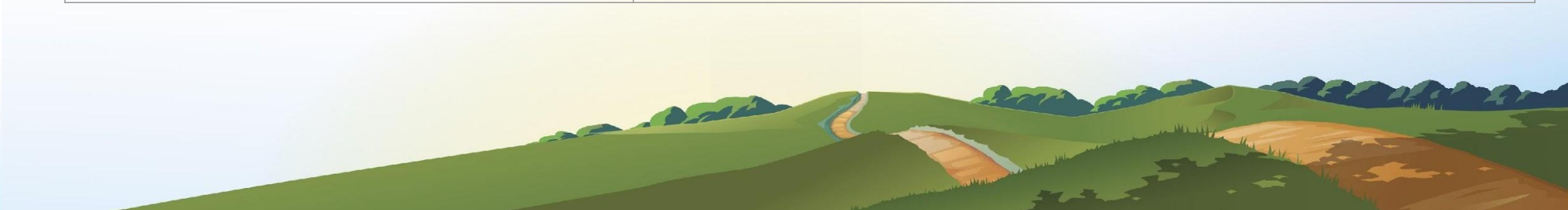**On init, it perform SOQL to retrieve the Primary Contact of the Account and set the value**

Troubleshooting

Troubleshooting

Error/ Issue	Resolution
CMTD_ERL Related List Name: abc - No configuration found	Unable to find records in CMT where Related List Name = 'xyz'. Please check the 'Related List Name' attribute in the component and 'Related List Name' in CMT. Make sure they match.
Invalid Object API Name abc	The field API name for the Object is incorrect. Please check the Component Attributes
No such Field abc on xyz Object	The field API name for the Field is incorrect. Please check the Component Attributes and Custom Metadata Type configuration
No COMPONENT named markup://c:standard found	Please check "New Record" Component Attributes. The value is case sensitive.
Slow in loading the records	This component uses SOQL to retrieve the data based on the fields provided in the CMT.

Please review the query by generating the SOQL listing all the fields (incuding filter and sort). Reduce number of fields or apply index as required. |
| Access Check Failed! AttributeSet.set():... | Disable Lightning Debug mode |

Version History

Version History

2.6

- Added 'CMTD ERL Permission Set' that can be added for the users who need access to the app

2.5

- Updated Apex version to 47 to support new objects that requires newer API version (eg: Financial Service Cloud object)
- Support default NamePointing reference that uses common field name (eg: on Case object OwnerId.Name)

THANK YOU