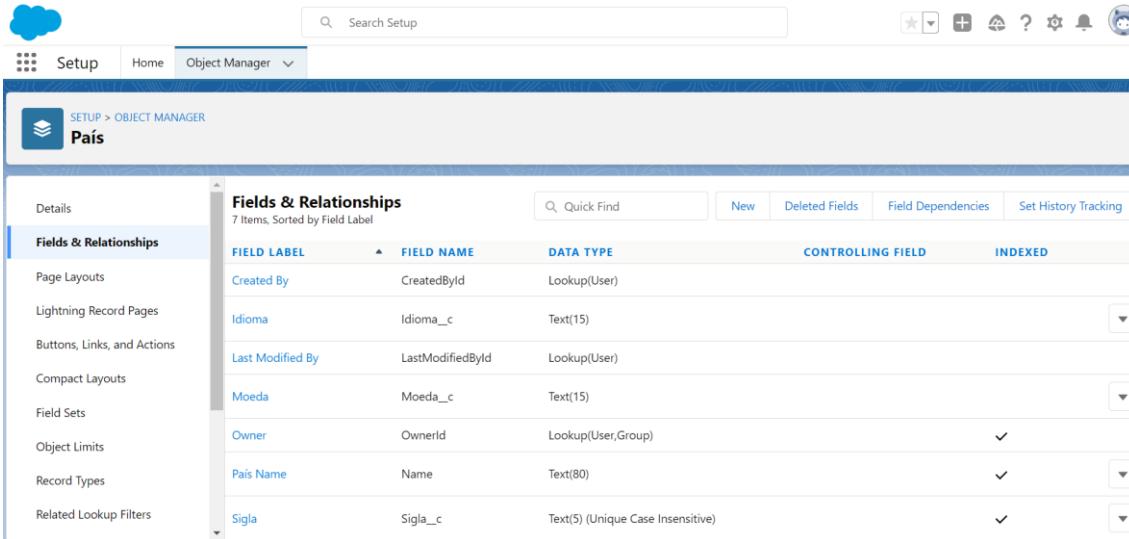


O Desafio

Funcionamento e Build

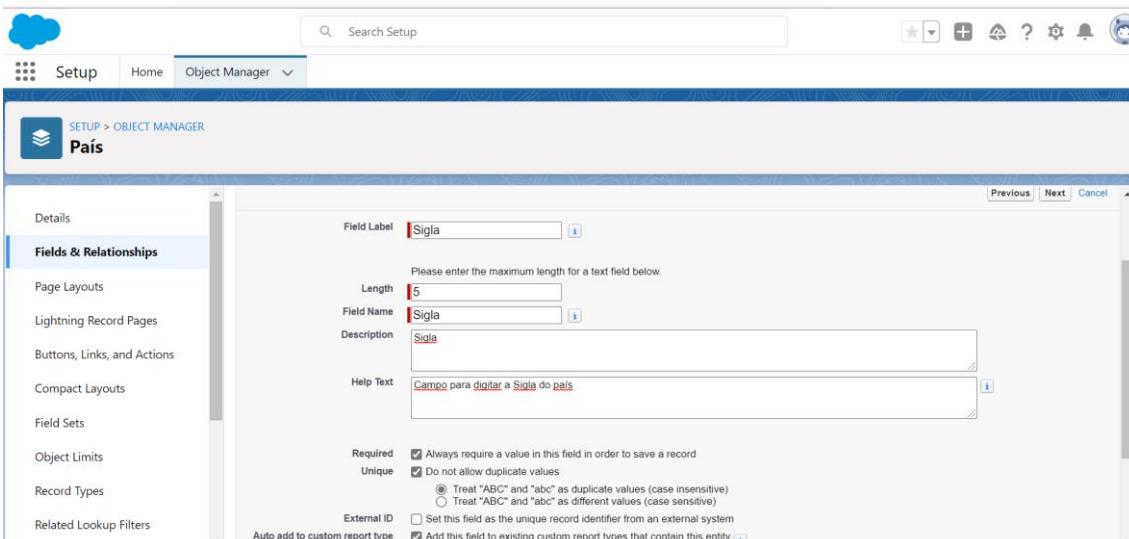
Object Manager

- Crie um objeto customizado chamado País, que deve conter os campos customizados Sigla, Moeda e Idioma. O campo Sigla é obrigatório e deve ser único.



The screenshot shows the Salesforce Object Manager interface. The top navigation bar includes 'Setup', 'Home', and 'Object Manager'. The main title is 'SETUP > OBJECT MANAGER País'. On the left, a sidebar lists various object settings like Page Layouts, Lightning Record Pages, Buttons, etc. The central area is titled 'Fields & Relationships' and displays a table of fields:

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Created By	CreatedById	Lookup(User)		
Idioma	Idioma_c	Text(15)		
Last Modified By	LastModifiedById	Lookup(User)		
Moeda	Moeda_c	Text(15)		
Owner	OwnerId	Lookup(User,Group)		
Pais Name	Name	Text(80)		
Sigla	Sigla_c	Text(5) (Unique Case Insensitive)		



The screenshot shows the configuration details for the 'Sigla' field of the País object. The 'Field Label' is set to 'Sigla'. The 'Length' is set to 5. The 'Field Name' is also 'Sigla'. The 'Description' is 'Sigla'. The 'Help Text' is 'Campo para digitar a Sigla do país'. Under the 'Required' section, the checkbox 'Always require a value in this field in order to save a record' is checked. Under 'Unique', there are two options: 'Treat "ABC" and "abc" as duplicate values (case insensitive)' (selected) and 'Treat "ABC" and "abc" as different values (case sensitive)'. The 'External ID' section has the checkbox 'Set this field as the unique record identifier from an external system' unchecked. At the bottom, there are buttons for 'Previous', 'Next', and 'Cancel'.

Custom Field Definition Detail

Field Label	Sigla	Object Name	Pais
Field Name	Sigla	Data Type	Text
API Name	Sigla__c		
Description	Sigla		
Help Text	Campo para digitar a Sigla do país		
Data Owner			
Field Usage			
Data Sensitivity Level			
Compliance Categorization			
Created By	Ryan Bernardo, 05/01/2022 12:06	Modified By	Ryan Bernardo, 05/01/2022 12:06
General Options			
Required	<input checked="" type="checkbox"/>	Unique	<input checked="" type="checkbox"/>
Case Sensitive	<input type="checkbox"/>		

- No objeto Conta (Account) crie três campos customizados:
 - Um campo que guarda o valor total de vendas para aquela conta.
 - Um campo de relacionamento obrigatório para o País.
 - Um campo que exibe um resumo das informações do país com este formato: N:valor do Nome - S: valor da Sigla - I:valor do Idioma - M: valor da Moeda. Caso alguma das informações não esteja disponível um **N/A** deve ser exibido.

Campo Valor Total

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Total Vendas	Total_Vendas__c	Text(15)		Indexed

Campo País com 'Join' i.e. fazendo referência ao Objeto País recém criado via lookup

Data Type

<input type="radio"/> None Selected	Select one of the data types below.
<input type="radio"/> Auto Number	A system-generated sequence number that uses a display format you define. The number is automatically incremented for each new record.
<input type="radio"/> Formula	A read-only field that derives its value from a formula expression you define. The formula field is updated when any of the source fields change.
<input type="radio"/> Roll-Up Summary	A read-only field that displays the sum, minimum, or maximum value of a field in a related list or the record count of all records listed in a related list.
<input checked="" type="radio"/> Lookup Relationship	Creates a relationship that links this object to another object. The relationship field allows users to click on a lookup icon to select a value from a pop-up list. The other object is the source of the values in the list.
<input type="radio"/> External Lookup Relationship	Creates a relationship that links this object to an external object whose data is stored outside the Salesforce org.
<input type="radio"/> Checkbox	Allows users to select a True (checked) or False (unchecked) value.
<input type="radio"/> Currency	Allows users to enter a dollar or other currency amount and automatically formats the field as a currency amount. This can be useful if you export data to Excel or another spreadsheet.
<input type="radio"/> Date	Allows users to enter a date or pick a date from a pop-up calendar.
<input type="radio"/> DateTime	Allows users to enter a date and time, or pick a date from a pop-up calendar. When users click a date in the pop-up, that date and the current

The screenshot shows the 'Object Manager' section for the 'Account' object. A new field is being created:

- Field Label:** País
- Field Name:** Pa_s
- Description:** Campo de relacionamento obrigatório para o País
- Help Text:** (empty)
- Child Relationship Name:** Accounts
- Required:** Always require a value in this field in order to save a record (checkbox checked)
- What to do if the lookup record is deleted?**
 - Clear the value of this field. You can't choose this option if you make this field required.
 - Don't allow deletion of the lookup record that's part of a lookup relationship.
- Auto add to custom report type:** (checkbox checked)

Below this, the 'Fields & Relationships' list shows the newly created field:

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
País	Pa_s_c	Lookup(País)		

'Campo Calculado' i.e. Fórmula, Resumo País. Fazendo uma validação através de IF (para retornar N/A em caso blank) e concatenação de String

The screenshot shows the 'Object Manager' section for the 'Account' object. A new field is being created:

- Field Label:** Resumo País
- Field Name:** Resumo_Pais_c
- Data Type:** Formula (Text)

The formula definition is as follows:

```

=IF(ISBLANK(Pa_s__Name), 'N/A', Pa_s__Name) &
'S ' & IF(ISBLANK(Pa_s__Sigla__c), 'N/A', Pa_s__Sigla__c) &
'- ' & IF(ISBLANK(Pa_s__Idoma__c), 'N/A', Pa_s__Idoma__c) &
'- M ' & IF(ISBLANK(Pa_s__rMoeda__c), 'N/A', Pa_s__rMoeda__c)

```

Below this, the 'Fields & Relationships' list shows the newly created field:

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Resumo País	Resumo_Pais_c	Formula (Text)		

The 'Custom Field Definition Detail' page for the 'Resumo País' field shows the following details:

- Field Information:**
 - Field Label: Resumo País
 - Field Name: Resumo_Pais
 - API Name: Resumo_Pais_c
 - Description: Resumo das informações do País
 - Help Text: Resumo das informações do País
 - Data Owner: Field Usage
 - Data Sensitivity Level: Standard
 - Compliance Categorization: Not Applicable
- Formula Options:**
 - Data Type: Formula
 - Formula: =IF(ISBLANK(Pa_s__Name), 'N/A', Pa_s__Name) & 'S ' & IF(ISBLANK(Pa_s__Sigla__c), 'N/A', Pa_s__Sigla__c) & '- ' & IF(ISBLANK(Pa_s__Idoma__c), 'N/A', Pa_s__Idoma__c) & '- M ' & IF(ISBLANK(Pa_s__rMoeda__c), 'N/A', Pa_s__rMoeda__c)

Em Tela: antes de apagar um dos dados

Sales Home Opportunities Leads Tasks Files Accounts Contacts Campaigns Dashboards Reports

País ITALY

Related Details

País Name
ITALY

Sigla
ITA

Moeda
EURO

Idioma
ITALIAN

Account
Sample Account for Entitlements

Created By
Ryan Bernardo, 07/01/2022 12:40

Last Modified By
Ryan Bernardo, 13/01/2022 13:25

workbench info queries data migration utilities

RYAN BERNARDO AT ACCENTURE ON API 53.0

Pa_s_c
ITALY

Update Delete Undelete Purge View in Salesforce

Field	Value
Account__c	0015f00000Gj19xAAB
CreatedById	0055f0000085bc1AAA
CreatedDate	2022-01-07T15:40:54.000Z
Id	a005f000006PC8JAAW
Idioma__c	ITALIAN
IsDeleted	false
LastActivityDate	
LastModifiedById	0055f0000085bc1AAA
LastModifiedDate	2022-01-07T15:40:54.000Z
Moeda__c	EURO
Name	ITALY
RecordTypeId	0125f00000AaCAAA0
Sigla__c	ITA
SystemModstamp	2022-01-07T15:40:54.000Z

Requested in 0.075 sec
Workbench 54.0.0

Dentro da tela de Details da Account

The screenshot shows the 'Account' tab selected in the top navigation bar. The main content area displays various account details:

- Industry: Employees
- Annual Revenue: SIC Code
- Total Vendas: 1
- Pais: ITALY
- Resumo País: ITALY - SITA - ITALIAN - M:EURO
- Billing Address: Shipping Address
- Customer Priority: SLA
- SLA Expiration Date: SLA Serial Number
- Number of Locations: Upsell Opportunity
- Active: Active
- Created By: Automated Process, 05/01/2022 11:19
- Last Modified By: Ryan Bernardo, 07/01/2022 15:35
- Description: Billing

The right sidebar shows a message: "No past activity. Past meetings and tasks marked as done show up here."

Em Tela depois de apagar o field Moeda

The screenshot shows the 'Pais' tab selected in the top navigation bar. The main content area displays:

- Pais Name: ITALY
- Sigla: ITA
- Moeda: [REDACTED]
- Idioma: ITALIAN
- Account: Sample Account for Entitlements
- Created By: Ryan Bernardo, 07/01/2022 12:40
- Last Modified By: Ryan Bernardo, 10/01/2022 13:53

The right sidebar shows the 'Activity' section with tabs for New Event, New Task, Log a Call, and Email. It also shows the 'Upcoming & Overdue' section with a message: "No next steps. To get things moving, add a task or set up a meeting." and "No past activity. Past meetings and tasks marked as done show up here."

Dentro da tela de Details da Account

The screenshot shows the 'Account' tab selected in the top navigation bar. The main content area displays the same account details as the first screenshot, including the previously deleted 'Moeda' field.

The right sidebar shows the 'Activity' section with tabs for New Event, New Task, Log a Call, and Email. It also shows the 'Upcoming & Overdue' section with a message: "No next steps. To get things moving, add a task or set up a meeting." and "No past activity. Past meetings and tasks marked as done show up here."

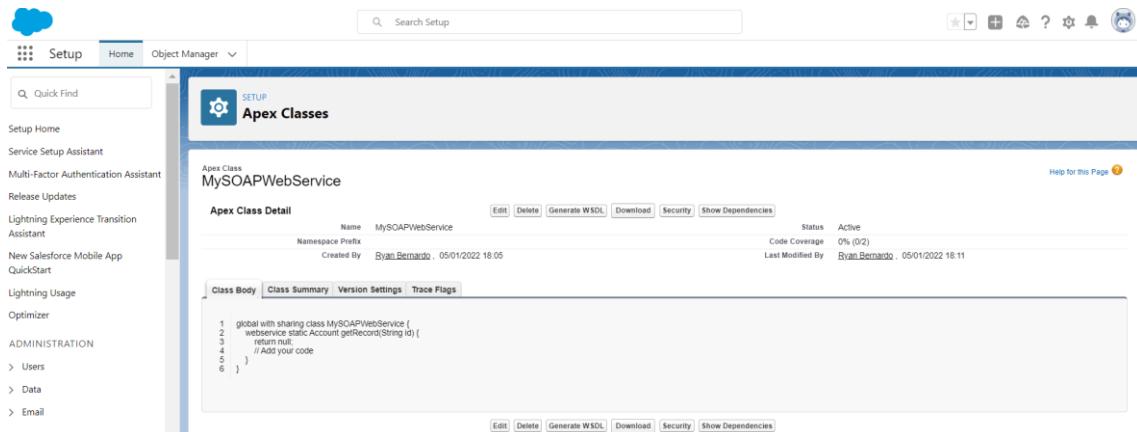
ENDPOINTS

- Implemente um endpoint customizado de "**Upsert**" de uma Conta e defina o contrato de entrada e saída;

Para que haja a comunicação com a interface, criei uma classe global pra funcionar como Webservice. Coloquei um retorno null pois caso contrário ela não permitia salvar. A lógica da comunicação ficará na classe seguinte.



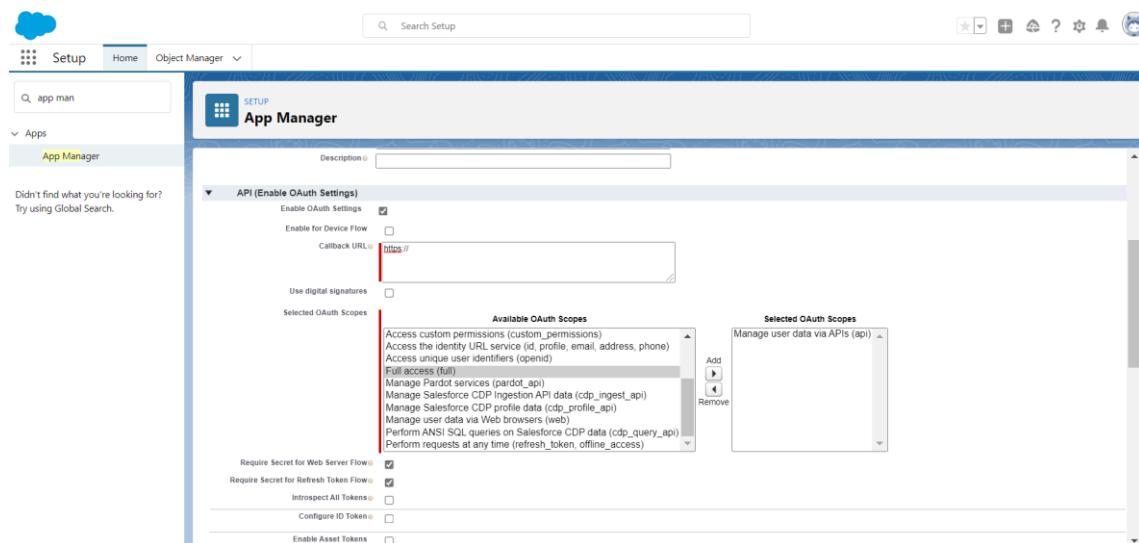
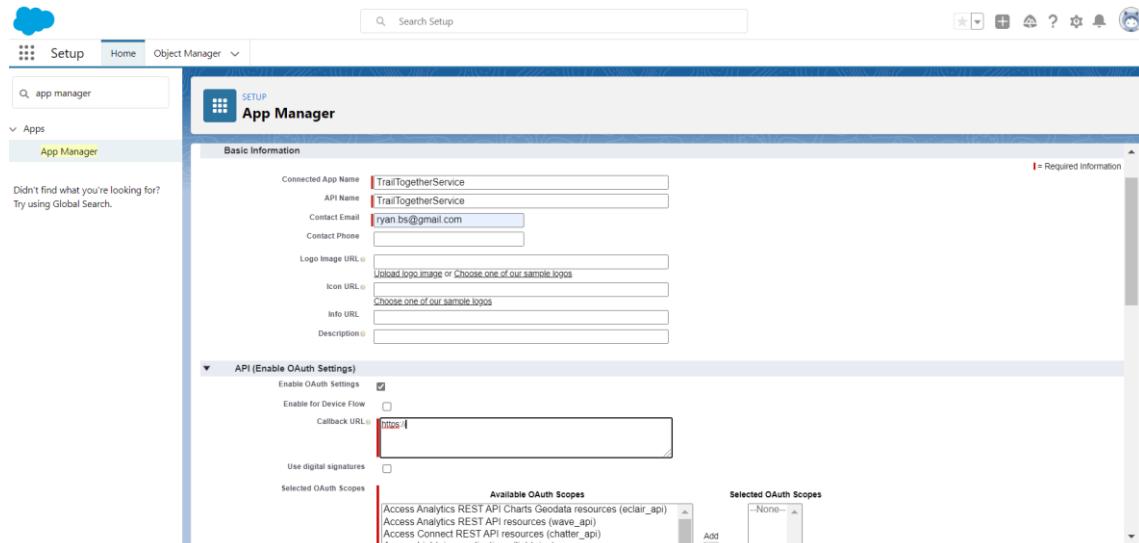
```
global with sharing class MySOAPWebService {
    webservice static Account getRecord(string id) {
        return null;
        // Add your code
    }
}
```



The screenshot shows the Salesforce Setup interface under the Apex Classes section. On the left, there's a sidebar with various setup items like Setup Home, Service Setup Assistant, and Administration. The main area displays the details for the 'MySOAPWebService' class. The class name is 'MySOAPWebService'. It was created by 'Ryan Bernardo' on '05/01/2022 18:05'. The status is 'Active' with 0% code coverage. The 'Class Body' tab is selected, showing the same Apex code as in the developer console:

```
global with sharing class MySOAPWebService {
    webservice static Account getRecord(string id) {
        return null;
        // Add your code
    }
}
```

Tentei utilizar o Curl, mas sem sucesso. Então parti para fazer a criação da classe requisitada no exercício do Desafio, visto que percebi que o teste já poderia ser feito somente com o Workbench (além de ter maior usabilidade e mais fácil de compreender além de mais informações disponíveis no Trailhead e na Internet). Depois voltarei a procurar entender melhor a chamada via linha de comando à titulo de saber outra alternativa.



Alguns dos erros encontrados ao tentar fazer um Upsert visto que considerei inicialmente uma entrada errada no JSON do Request. Fui fazendo alterações no Apex da classe nova que criei ao longo dos testes para poder ajustar.

The screenshot shows the Workbench REST Explorer interface. The top navigation bar includes links for workbench, info, queries, data, migration, and utilities. The main title is "REST Explorer" and the user is identified as "RYAN BERNARDO AT ACCENTURE ON API 53.0". A red banner at the top says "Try the Salesforce APIs for Postman.". Below it, a message says "Choose an HTTP method to perform on the REST API service URI below:". Radio buttons for GET, POST, PUT, PATCH, DELETE, and HEAD are shown, with PUT selected. Buttons for Headers, Reset, and Up are available. The service URI is "/services/apexrest/AccountDesafioSF/" and the "Execute" button is highlighted. A "Request Body" section contains the following JSON:

```
{  
    "Id" : "0015f00000Gj19xAAB",  
    "Name" : "Sample Account for Entitlements 2"  
}
```

Below the request body, there are links for "Expand All", "Collapse All", and "Show Raw Response". The error response is displayed under the "JSON_PARSER_ERROR" section:

- message: Unexpected parameter encountered during deserialization: Id at [line:2, column:11]
- errorCode: JSON_PARSER_ERROR

At the bottom, it says "Requested in 0.062 sec" and "Workbench 54.0.0".

Erro encontrado ao tentar inserir uma conta somente com o 'Name' preenchido, recebo mensagem impeditiva já no POST do workbench. Conforme relatado no erro, faltava o campo País, que eu próprio o havia colocado como obrigatório anteriormente.

The screenshot shows the Workbench REST Explorer interface. The top navigation bar includes links for workbench, info, queries, data, migration, and utilities. The main title is "REST Explorer" and the user is identified as "RYAN BERNARDO AT ACCENTURE ON API 53.0". A red banner at the top says "Try the Salesforce APIs for Postman.". Below it, a message says "Choose an HTTP method to perform on the REST API service URI below:". Radio buttons for GET, POST, PUT, PATCH, DELETE, and HEAD are shown, with POST selected. Buttons for Headers, Reset, and Up are available. The service URI is "/services/apexrest/AccountDesafioSF/" and the "Execute" button is highlighted. A "Request Body" section contains the following JSON:

```
{  
    "name" : "Kuiil"  
}
```

Below the request body, there are links for "Expand All", "Collapse All", and "Show Raw Response". The error response is displayed under the "APEX_ERROR" section:

- errorCode: APEX_ERROR
- message: System.DmlException: Insert failed. First exception on row 0; first error: REQUIRED_FIELD_MISSING, Required fields are missing: [Pa_s__c], [Pa_s__c] Class.AccountManagerDesafioSF.createAccount: line 21, column 1

At the bottom, it says "Requested in 0.681 sec" and "Workbench 54.0.0".

Upsert realizado com sucesso. Sendo o contrato de entrada o Request Body abaixo, e o contrato de saída o Raw Response abaixo

The screenshot shows the Postman REST Explorer interface. At the top, it says "workbench" and "RYAN BERNARDO AT ACCENTURE ON API 53.0". Below that is a red bar with the text "Try the Salesforce APIs for Postman.". Underneath, it says "Choose an HTTP method to perform on the REST API service URI below:" followed by radio buttons for GET, POST, PUT, PATCH, DELETE, and HEAD, with PUT selected. There are also "Headers", "Reset", and "Up" buttons. The URI field contains "/services/apexrest/AccountDesafioSF/". To the right of the URI is an "Execute" button.

Request Body:

```
{
  "id" : "0015f00000Gj19xAAB",
  "pais" : "a005f000006PC8JAAW"
}
```

Raw Response:

```

HTTP/1.1 200 OK
Date: Fri, 07 Jan 2022 18:35:56 GMT
Set-Cookie: CookieConsentPolicy=0;1; domain=playful-raccoon-uh2x1iv-dev-ed.my.salesforce.com; path=/; expires=Sat, 07-Jan-2023 18:35:56 GMT; Max-Age=31536000
Set-Cookie: LSKey-c=CookieConsentPolicy=0;1; domain=playful-raccoon-uh2x1iv-dev-ed.my.salesforce.com; path=/; expires=Sat, 07-Jan-2023 18:35:56 GMT; Max-Age=31536000
Strict-Transport-Security: max-age=31536000; includeSubDomains
X-Content-Type-Options: nosniff
X-KSS-Precision: 1; mode=block
X-Robots-Tag: none
Cache-Control: no-cache,must-revalidate,max-age=0,no-store,private
Set-Cookie: BrowserId=pxF-Sm_oheyMrFLQKHaw; domain=.salesforce.com; path=/
expires=Sat, 07-Jan-2023 18:35:56 GMT; Max-Age=31536000
Content-Type: application/json;charset=UTF-8
Transfer-Encoding: chunked

"0015f00000Gj19xAAB"

```

Below the raw response, it says "Requested in 0.407 sec" and "Workbench 51 n o".

Apex Code (Visible in the screenshot):

```

String AccountId = request.requestURI.substring(
    request.requestURI.lastIndexOf('/')+1);
Account result = [SELECT AccountNumber,Name
                  FROM Account
                  WHERE Id = :AccountId];
return result;
}
@HttpPost
global static ID createAccount(String name, String country) {
    Account thisAccount = new Account(
        Name=name,
        Pa_s_c=country);
    insert thisAccount;
    return thisAccount.Id;
}
@HttpDelete
global static void deleteAccount() {
    RestRequest request = RestContext.request;
    String AccountId = request.requestURI.substring(
        request.requestURI.lastIndexOf('/')+1);
    Account thisAccount = [SELECT Id FROM Account WHERE Id = :AccountId];
    delete thisAccount;
}
@HttpPut
global static ID upsertAccount(String id, String pais) {
    Account thisAccount = new Account(
        Id=id,
        Pa_s_c=pais);
    // Match Account by Id, if present.
    // Otherwise, create new Account.
    upsert thisAccount;
    // Return the Account ID.
    return thisAccount.Id;
}
@HttpPatch
global static ID updateAccountFields() {
    RestRequest request = RestContext.request;
}

```

Depois de executar o PUT acima, preencheu esse campo, que antes estava vazio, na Conta

RYAN BERNARDO AT ACCENTURE ON API :

Account

Sample Account for Entitlements

[Update](#) [Delete](#) [Undelete](#) [Purge](#) [View in Salesforce](#)

Field	Value
AccountNumber	
AccountSource	
Active__c	
AnnualRevenue	
BillingAddress	
BillingCity	
BillingCountry	
BillingGeocodeAccuracy	
BillingLatitude	
BillingLongitude	
BillingPostalCode	
BillingState	
BillingStreet	
CleanStatus	Pending
CreatedById	0055f000008M6ZLAA0
CreatedDate	2022-01-05T14:19:16.000Z
CustomerPriority__c	
DandbCompanyId	
Description	
DunsNumber	
Fax	
Id	0015f00000Gj19xAAB
Industry	
IsDeleted	false
Jigsaw	
JigsawCompanyId	
LastActivityDate	
LastModifiedById	0055f0000085bc1AAA
LastModifiedDate	2022-01-07T18:35:57.000Z
LastReferencedDate	2022-01-07T18:35:57.000Z
LastViewedDate	2022-01-07T18:35:57.000Z
MasterRecordId	
NaicsCode	
NaicsDesc	
Name	Sample Account for Entitlements
NumberOfEmployees	
NumberofLocations__c	
OwnerId	0055f000008M6ZLAA0
Ownership	
ParentId	
Pa_s__c	a005f000006PC8JAAW
Phone	
PhotoUrl	/services/images/photo/0015f00000Gj19xAAB
Rating	
ShippingAddress	
ShippingCity	
ShippingCountry	

workbench  info queries data migration utilities

RYAN BERNARDO AT ACCENTURE ON API 53.0

SOQL Query

Visual Studio Code now includes a [SOQL Builder](#). Try it today!

Choose the object, fields, and criteria to build a SOQL query below:

Object: Account View as: List Matrix Bulk CSV Bulk XML Deleted and archived records: Exclude Include

Fields:

Description
DunsNumber
Fax
Id
Industry
IsDeleted

Sort results by: A to Z Nulls First Max Records: 100

Filter results by: =

Enter or modify a SOQL query below:

```
SELECT Id, Name, Pa_s__c FROM Account where Id='0015f00000Gj19xAAB'
```

Query 

Query Results

Returned records 1 - 1 of 1 total record in 0.067 seconds:

	Id	Name	Pa_s__c
1	0015f00000Gj19xAAB	Sample Account for Entitlements	a005f000006PC8JAAW

Requested in 0.057 sec
Workbench 54.0.0

```
SELECT Id, Name, Pa_s__c FROM Account where Id='0015f00000Gj19xAAB'
```

- Implemente um endpoint customizado que faça um "Insert" de uma Ordem (Order) e defina os contratos de entrada e saída;

Fazendo o de Order análogo ao de Conta feito seguindo a mesma lógica

```

1 global with sharing class MySOAPWebService {
2     webservice static Account getRecord(String id) {
3         return null;
4         // Add your code
5     }
6 }

```

```

1 global with sharing class MySOAPWebServiceOrderDesafioSF {
2     webservice static Order getRecord(String id) {
3         return null;
4         // Add your code
5     }
6 }

```

Action	Name	Namespace Prefix	Api Version	Status	Size Without Comments	Last Modified By	Has Trace Flags
Edit Del Security	AccountManagerDesafioSF		53.0	Active	1.895	Ryan Bernardo	
Edit Del Security	CaseManager		53.0	Active	2.064	Ryan Bernardo	
Edit Del WSDL Security	MySOAPWebService		53.0	Active	127	Ryan Bernardo	
Edit Del WSDL Security	MySOAPWebServiceOrderDesafioSF		53.0	Active	139	Ryan Bernardo	
Edit Del Security	TesteAddPais		53.0	Active	30	Ryan Bernardo	
Edit Security	tl_UltController	tritdips	47.0	Active	893	Ryan Bernardo	
Edit	tl_UltControllerTest	tritdips	47.0	Active	1.079	Ryan Bernardo	

Apex Class Detail	
Name	MySOAPWebServiceOrderDesafioSF
Namespace Prefix	
Created By	Ryan Bernardo , 07/01/2022 17:34
Status	Active
Code Coverage	0% (0)
Last Modified By	Ryan Bernardo , 07/01/2022 17:39

Class Body:

```

1 global with sharing class MySOAPWebServiceOrderDesafioSF {
2     webservice static Order getRecord(String id) {
3         return null;
4         // Add your code
5     }
6 }

```

Ao tentar enviar o Request para o serviço do ENDPOINT que criei, estava dando erro no formato de data. Para saber o tipo (DATETIME, TIMEZONE, Máscara DDMMYYYY – HHMMSS, etc.) eu criei uma Ordem via tela (visto que minha Org não tinha nenhuma) para poder usar esse formato como base.

Criei um Contrato

The screenshot shows a Salesforce page for a 'Contract' record with ID 00000100. The top navigation bar includes links for 'Playground Starter', 'Welcome', 'Install a Package', 'Get Your Login Credentials', and a search bar. The main content area displays the contract details: Account Name (Sample Account for Entitlements), Status (Draft), Contract Start Date (07/01/2022), Contract End Date (06/07/2022), and Contract Term (months) (6). Below the details is a progress bar with three green segments. To the right of the progress bar are buttons for 'Mark Status as Complete' and 'Draft'. The 'Related' section contains a 'Contract History' table with one entry: Date (07/01/2022 18:17), Field (Created), User (Ryan Bernardo), Original Value, and New Value. The 'Notes & Attachments' section is currently empty. The 'Activity' sidebar on the right shows tabs for 'New Event', 'New Task', 'Log a Call', and 'Email'. It includes a 'Set up an event...' input field and a 'Add' button. A filter section at the bottom of the sidebar shows 'Filters: All time • All activities • All types' with buttons for 'Refresh', 'Expand All', and 'View All'.

Pra poder criar uma Ordem

The screenshot shows a Salesforce page for an 'Order' record with ID 00000100. The top navigation bar is identical to the previous screenshot. The main content area displays the order details: Account Name (Sample Account for Entitlements), Contract Number (00000100), Order Start Date (07/01/2022), Status (Draft), and Order Amount (R\$ 0,00). Below the details is a progress bar with two segments: 'Draft' and 'Activated'. To the right of the progress bar are buttons for 'Mark Status as Complete' and 'Activated'. The 'Related' section contains an 'Order Products' table with zero entries and buttons for 'Add Products' and 'Edit Products'. The 'Order History' table shows one entry: Date (07/01/2022 18:18), Field (Created), User (Ryan Bernardo), Original Value, and New Value. The 'Notes & Attachments' section is currently empty. The 'Activity' sidebar on the right is identical to the one in the previous screenshot, showing tabs for 'New Event', 'New Task', 'Log a Call', and 'Email', with a 'Set up an event...' input field and an 'Add' button. A filter section at the bottom of the sidebar shows 'Filters: All time • All activities • All types' with buttons for 'Refresh', 'Expand All', and 'View All'.

Mas o formato, para inserção de data, continuava dando erro

The screenshot shows the Salesforce Workbench SOQL Query interface. At the top, there's a navigation bar with links for workbench, info, queries, data, migration, and utilities. Below the navigation is a red banner that says "Visual Studio Code now includes a SOQL Builder. Try it today!". The main area is titled "SOQL Query" and has a sub-instruction "Choose the object, fields, and criteria to build a SOQL query below:". There are dropdowns for "Object" (set to "Order") and "View as" (set to "List"). To the right, there are options for "Deleted and archived records" (set to "Exclude") and "Max Records". On the left, a list of fields is shown: CustomerAuthorizedById, CustomerAuthorizedDate, Description, EffectiveDate (which is selected), EndDate, and Id. To the right of the fields are sections for "Sort results by" and "Filter results by". Below these sections is a text input field containing the SOQL query: "SELECT EffectiveDate FROM Order". A "Query" button is at the bottom left of the input field, and a help icon is at the bottom right.

Query Results

Returned records 1 - 1 of 1 total record in 0.045 seconds:

EffectiveDate
2022-01-07

Requested in 0.054 sec
Workbench 54.0.0

A screenshot of a browser developer tools console window. The URL is https://weblog.west-wind.com/posts/2014/Jan/06/JavaScript-JSON-Date-Parsing-and-real-Dates. The console contains the following JavaScript code:

```
var date = JSON.parse(json, JSON.dateparser),
    console.log(date);
```

which produces a JavaScript date.

This also works on complex objects so if you have an object like this:

```
{
  "id": "312saAs1",
  "name": "Jimmy Roe",
  "entered": "2014-01-01T23:28:56.782Z",
  "updated": "2014-01-01T23:28:56.782Z"
}
```

both the entered and updated properties will be parsed to dates. If you have an array of these objects – all the dates are still converted. This is much better but still limited in that you have to manually call JSON.parse() in order to apply the filter function.

workbench  info queries data migration utilities

REST Explorer RYAN BERNARDO AT ACCENTURE ON API 53.0

Try the [Salesforce APIs for Postman](#).

Choose an HTTP method to perform on the REST API service URI below:

GET POST PUT PATCH DELETE HEAD Headers Reset Up

/services/apexrest/OrderDesafioSF/

Request Body

```
{
  "name" : "OrderDesafioSF",
  "accountid" : "0015f00000Gj19xAAB",
  "effectivedate" : "2022-01-07T09:28:56.321-10:00",
  "status" : "Draft"
}
```

[Expand All](#) | [Collapse All](#) | [Show Raw Response](#)

JSON_PARSER_ERROR
message: Unexpected parameter encountered during deserialization: effectivedate at [line:4,
column:22]
errorCode: JSON_PARSER_ERROR

Requested in 0.067 sec
Workbench 54.0.0

workbench  info queries data migration utilities

REST Explorer RYAN BERNARDO AT ACCENTURE ON API 53.0

Try the [Salesforce APIs for Postman](#).

Choose an HTTP method to perform on the REST API service URI below:

GET POST PUT PATCH DELETE HEAD Headers Reset Up

/services/apexrest/OrderDesafioSF/

Request Body

```
{
  "name" : "OrderDesafioSF",
  "accountid" : "0015f00000Gj19xAAB",
  "effectivedate" : "2022-01-07T16:28:56.782Z",
  "status" : "Draft"
}
```

[Expand All](#) | [Collapse All](#) | [Show Raw Response](#)

JSON_PARSER_ERROR
message: Unexpected parameter encountered during deserialization: effectivedate at [line:4,
column:22]
errorCode: JSON_PARSER_ERROR

Requested in 0.116 sec
Workbench 54.0.0

workbench  info queries data migration utilities

RYAN BERNARDO AT ACCENTURE ON API 53.0

REST Explorer

Try the [Salesforce APIs for Postman](#).

Choose an HTTP method to perform on the REST API service URI below:

GET POST PUT PATCH DELETE HEAD Headers Reset Up

/services/apexrest/OrderDesafioSF/

Request Body

```
{
  "name" : "OrderDesafioSF",
  "accountid" : "0015f00000Gj19xAAB",
  "effectivedate" : "2022-01-07T09:28:56.321-10:00",
  "status" : "Draft"
}
```

[Expand All](#) | [Collapse All](#) | [Show Raw Response](#)

JSON_PARSER_ERROR
 message: Invalid format: "2022-01-07T09:28:56.321-10:00" is malformed at "T09:28:56.321-10:00" at [line:4, column:52]
 errorCode: JSON_PARSER_ERROR

Requested in 0.080 sec
 Workbench 54.0.0

Funcionou quando percebi que o erro estava no meu Apex no formato do tipo que estava passando como parâmetro na entrada da data. Eu erroneamente havia passado como String. Segue abaixo contrato de entrada e saída, e foco no ajuste no Apex.

workbench  info queries data migration utilities

RYAN BERNARDO AT ACCENTURE ON API 53.0

REST Explorer

Try the [Salesforce APIs for Postman](#).

Choose an HTTP method to perform on the REST API service URI below:

GET POST PUT PATCH DELETE HEAD Headers Reset Up

/services/apexrest/OrderDesafioSF/

Request Body

```
{
  "name" : "OrderDesafioSF",
  "accountid" : "0015f00000Gj19xAAB",
  "effectivedate" : "2022-01-07",
  "status" : "Draft"
}
```

[Expand All](#) | [Collapse All](#) | [Hide Raw Response](#)

Raw Response

```
HTTP/1.1 200 OK
Date: Fri, 07 Jan 2022 21:47:58 GMT
Set-Cookie: CookieConsentPolicy=0;1; domain=playful-raccoon-uh2xiv-dev-ed.my.salesforce.com; path=/; expires=Sat, 07-Jan-2023 21:47:58 GMT; Max-Age=31536000
Set-Cookie: LSKey-c$CookieConsentPolicy=0;1; domain=playful-raccoon-uh2xiv-dev-ed.my.salesforce.com; path=/; expires=Sat, 07-Jan-2023 21:47:58 GMT; Max-Age=31536000
Strict-Transport-Security: max-age=31536000; includeSubDomains
X-Content-Type-Options: nosniff
X-XSS-Protection: 1; mode=block
X-Robots-Tag: none
Cache-Control: no-cache, must-revalidate, max-age=0, no-store, private
Set-Cookie: BrowserId=en7dInAEeySz0eU1lRBA; domain=.salesforce.com; path=/; expires=Sat, 07-Jan-2023 21:47:58 GMT; Max-Age=31536000
Content-Type: application/json;charset=UTF-8
Vary: Accept-Encoding
Content-Encoding: gzip
Transfer-Encoding: chunked

"8015f000000ABgnAAG"
```

Requested in 0.144 sec
 Workbench 54.0.0

Tinha que colocar no formato da Date que estava no banco (sem os time zone e variantes)

"2022-01-07T16:28:56.782Z"

"2022-01-07T09:28:56.321-10:00"

"2022-01-07"

<https://weblog.west-wind.com/posts/2014/Jan/06/JavaScript-JSON-Date-Parsing-and-real-Dates>

```
{  
    "id": "312saAs1",  
    "name": "Jimmy Roe",  
    "entered": "2014-01-01T23:28:56.782Z",  
    "updated": "2014-01-01T23:28:56.782Z"  
}
```

2022-01-07

```
        return result;  
    }  
    @HttpPost  
    global static ID createOrder(String name, String accountid, Date effectivedate, String status) {  
        Order thisOrder = new Order(  
            Name=name,  
            AccountId=accountid,  
            Effectivedate=effectivedate,  
            Status=status);  
        insert thisOrder;  
        return thisOrder.Id;  
    }  
    @HttpDelete  
    global static void deleteOrder() {  
        RestRequest request = RestContext.request;
```

workbench  info queries data migration utilities

SOQL Query

RYAN BERNARDO AT ACCENTURE ON API 53.0

Visual Studio Code now includes a [SOQL Builder](#). Try it today!

Choose the object, fields, and criteria to build a SOQL query below:

Object: Order View as: List Matrix Bulk CSV Bulk XML Deleted and archived records: Exclude Include

Fields: LastModifiedDate LastReferencedDate LastViewedDate Name OrderNumber OrderReferenceNumber

Sort results by: A to Z Nulls First

Max Records:

Filter results by: = 

Enter or modify a SOQL query below:

```
SELECT Id, Name, AccountId, EffectiveDate, Status FROM Order where Id = '8015f000000ABgnAAG'
```

Query 

Query Results

Returned records 1 - 1 of 1 total record in 0.060 seconds:

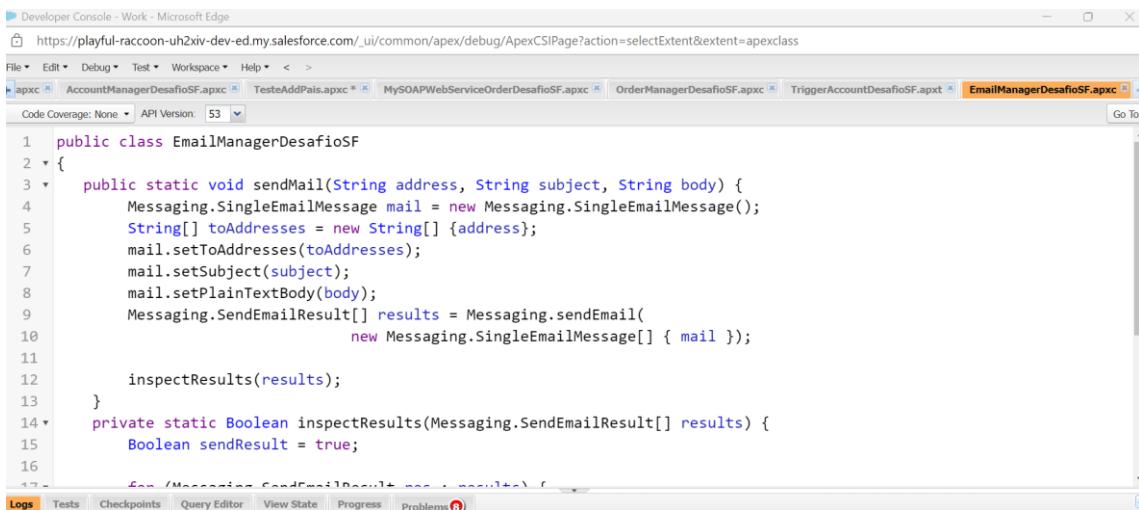
	Id	Name	AccountId	EffectiveDate	Status
1	8015f000000ABgnAAG	OrderDesafioSF	0015f00000Gj19xAAB	2022-01-07	Draft

```
SELECT Id, Name, AccountId, EffectiveDate, Status FROM Order where Id = '8015f000000ABgnAAG'
```

TRIGGER DE E-MAIL

- Implemente uma automação com código para que seja enviado um email sempre que uma conta for criada ou editada. O endereço do email deve ser definido de uma maneira que possa ser editado via interface gráfica.

Via Trigger. Classe base a ser chamada no trigger. Eu já havia feito uma badge com um exercício semelhante no Trailhead, então pude reutilizar parte da lógica.



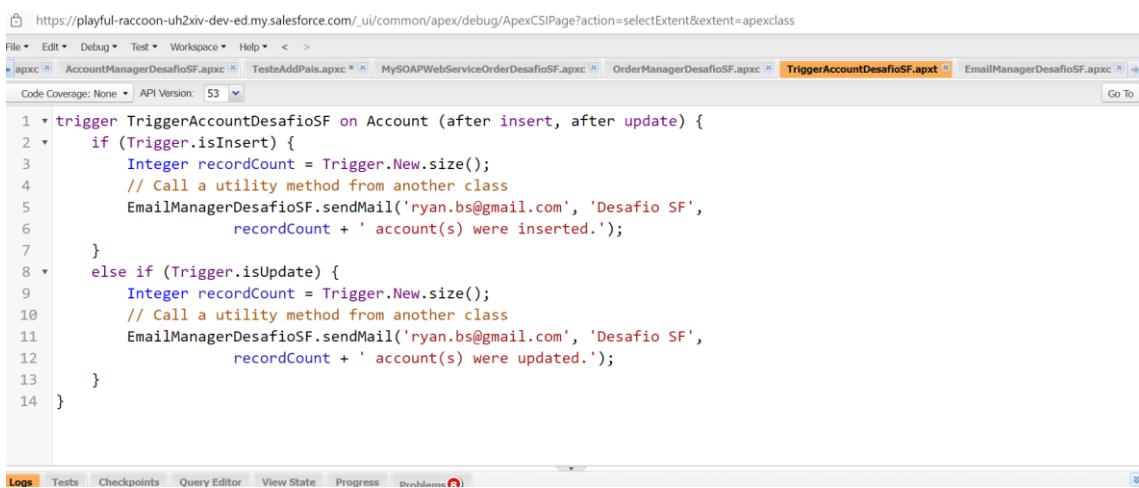
```
Developer Console - Work - Microsoft Edge
https://playful-raccoon-uh2xiv-dev-ed.my.salesforce.com/_ui/common/apex/debug/ApexCSIPage?action=selectExtent&extent=apexclass

File Edit Debug Test Workspace Help < >
apxc AccountManagerDesafioSF.apxc TesteAddPais.apxc MySOAPWebServiceOrderDesafioSF.apxc OrderManagerDesafioSF.apxc TriggerAccountDesafioSF.apxc EmailManagerDesafioSF.apxc
Code Coverage: None API Version: 53 Go To

1 public class EmailManagerDesafioSF {
2 {
3     public static void sendMail(String address, String subject, String body) {
4         Messaging.SingleEmailMessage mail = new Messaging.SingleEmailMessage();
5         String[] toAddresses = new String[] {address};
6         mail.setToAddresses(toAddresses);
7         mail.setSubject(subject);
8         mail.setPlainTextBody(body);
9         Messaging.SendEmailResult[] results = Messaging.sendEmail(
10             new Messaging.SingleEmailMessage[] { mail });
11
12         inspectResults(results);
13     }
14     private static Boolean inspectResults(Messaging.SendEmailResult[] results) {
15         Boolean sendResult = true;
16
17         for (Messaging.SendEmailResult result : results) {
18             if (!result.isSuccess()) {
19                 sendResult = false;
20             }
21         }
22     }
23 }

Logs Tests Checkpoints Query Editor View State Progress Problems 8
```

Aqui o e-mail está fixo e hard-coded na trigger de insert e update da Conta



```
Developer Console - Work - Microsoft Edge
https://playful-raccoon-uh2xiv-dev-ed.my.salesforce.com/_ui/common/apex/debug/ApexCSIPage?action=selectExtent&extent=apexclass

File Edit Debug Test Workspace Help < >
apxc AccountManagerDesafioSF.apxc TesteAddPais.apxc MySOAPWebServiceOrderDesafioSF.apxc OrderManagerDesafioSF.apxc TriggerAccountDesafioSF.apxc EmailManagerDesafioSF.apxc
Code Coverage: None API Version: 53 Go To

1 trigger TriggerAccountDesafioSF on Account (after insert, after update) {
2     if (Trigger.isInsert) {
3         Integer recordCount = Trigger.New.size();
4         // Call a utility method from another class
5         EmailManagerDesafioSF.sendMail('ryan.bs@gmail.com', 'Desafio SF',
6             recordCount + ' account(s) were inserted.');
7     }
8     else if (Trigger.isUpdate) {
9         Integer recordCount = Trigger.New.size();
10        // Call a utility method from another class
11        EmailManagerDesafioSF.sendMail('ryan.bs@gmail.com', 'Desafio SF',
12            recordCount + ' account(s) were updated.');
13    }
14 }
```

Editando um campo qualquer numa Conta e recebendo um e-mail

The screenshot shows the 'Edit Sample Account for Entitlements' page in the Salesforce interface. The 'Account Site' field is highlighted with a yellow background. Other fields like 'Rating', 'Phone', 'Fax', 'Website', 'Ticker Symbol', 'Ownership', 'Employees', 'SIC Code', and 'SLA Serial Number' are visible. Buttons at the bottom include 'Cancel', 'Save & New', and 'Save'.

The screenshot shows the 'Edit Sample Account for Entitlements' page in the Salesforce interface after the changes were saved. A success message 'Account "Sample Account for Entitlements" was saved.' is displayed above the form. The 'Account Site' field (www.something.whatevertest2) is now shown in its original state. The rest of the fields and interface elements are identical to the previous screenshot.

The screenshot shows a Gmail inbox with a new email from 'Desafio SF'. The subject is '1 account(s) were updated.' and the body contains the message '1 account(s) were updated.'

The screenshot shows a Gmail inbox with a reply to the previous email from 'Desafio SF'. The message body is empty.

Inicialmente minha idéia era triggar um pop-up em tela para que o usuário colocasse o e-mail e depois continuasse a execução do Código. Mas, procurando na Internet descobri eu não consigo dar pop-up na tela, permanecer no contexto e continuar a Trigger. Que pop-up dessa forma (Apex/Trigger) somente forçando uma exceção, o que aborta a execução.

A solução que encontrei foi via Custom Settings. Entendi que o de tipo Lista me satisfaria. Como ela não estava disponível, ativei essa opção para que aparecesse na picklist seguindo a instrução da própria tela.

The image consists of two screenshots of the Salesforce Setup interface.

Screenshot 1: Custom Settings

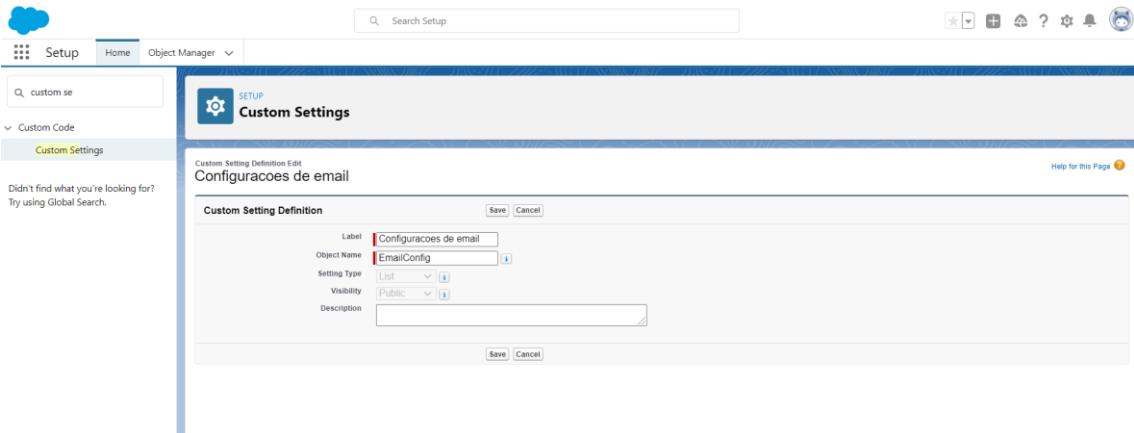
This screenshot shows the 'Custom Settings' page in the Setup menu. A new custom setting is being created:

- Label:** Configurações de email
- Object Name:** EmailConfig
- Setting Type:** Hierarchy
- Visibility:** Public

Screenshot 2: Schema Settings

This screenshot shows the 'Schema Settings' page in the Setup menu. The 'Manage list custom settings type' option is highlighted and enabled:

- Restrict access to custom metadata types:** Enabled (checked)
- Restrict access to custom settings:** Enabled (checked)
- Enable SOSL on custom settings:** Disabled (unchecked)
- Manage list custom settings type:** Enabled (checked)



Daí criei o item com as duas informações que eu precisava: o próprio e-mail e uma flag que validaria direto no código do próprio Trigger.

The screenshot shows the 'Custom Setting Definition Detail' page for 'Configuracoes de email'. It displays the following details:

Custom Setting Definition	Label	Object Name	Setting Type
	Configuracoes de email	EmailConfig	List
	API Name	Setting Type	Description
	EmailConfig_c	List	
	Visibility	Created Date	Record Size
	Public	10/01/2022 21:19	165
	Namespace Prefix		
	Last Modified Date		

Below this, the 'Custom Fields' section shows two fields:

Action	Field Label	API Name	Data Type	Indexed	Modified By
Edit Del	Endereco	Endereco_c	Text(55)		Ryan Bernardo, 10/01/2022 21:20
Edit Del	Habilitado	Habilitado_c	Checkbox		Ryan Bernardo, 10/01/2022 21:21

Clicando no botão 'Manage' acima eu configurei uma linha com os dados abaixo. Também alterei o e-mail em tela para garantir que a customização funcionou. Ao editar a Conta, disparou o Trigger e enviou o e-mail (Subject diff, Desafio SF Custom).

The screenshot shows the Salesforce interface with an open email message. The subject of the email is 'Desafio SF Custom - Inscrição'. The message body contains a warning about a potential security threat and a link to a file named 'Desafio SF Custom - Inscrição.pdf'. The recipient is 'Ryan'.

Troquei o valor que estava hard coded pelo nome da API (EmailConfig__c) que criei, pegando os campos que pertencem à linha 'Ryan'. Testei também que desabilitando aquela flag, o envio do e-mail não ocorre mais quando ela estiver desflagada.

```
https://playful-raccoon-uh2xiv-dev-ed.my.salesforce.com/_ui/common/apex/debug/ApexCSIPage?action=selectExtent&extent=apexclass  
File Edit Debug Test Workspace Help < >  
apxc AccountManagerDesafioSF.apxc TesteAddPais.apxc MySOAPWebServiceOrderDesafioSF.apxc OrderManagerDesafioSF.apxc TriggerAccountDesafioSF.apxc EmailManagerDesafioSF.apxc  
Code Coverage: None API Version: 53 Go  
1 trigger TriggerAccountDesafioSF on Account (after insert, after update) {  
2     if (Trigger.isInsert && EmailConfig__c.getValues('Ryan').Habilitado__c) {  
3         Integer recordCount = Trigger.New.size();  
4         // Call a utility method from another class  
5         EmailManagerDesafioSF.sendMail(EmailConfig__c.getValues('Ryan').Endereco__c, 'Desafio SF Custom',  
6                                         recordCount + ' account(s) were inserted.');//  
7     }  
8     else if (Trigger.isUpdate && EmailConfig__c.getValues('Ryan').Habilitado__c) {  
9         Integer recordCount = Trigger.New.size();  
10        // Call a utility method from another class  
11        EmailManagerDesafioSF.sendMail(EmailConfig__c.getValues('Ryan').Endereco__c, 'Desafio SF Custom',  
12                                         recordCount + ' account(s) were updated.');//  
13    }  
14 }
```

Flow para atualizar sem código

- Implemente uma automação sem utilizar código para que sempre que uma nova Order seja criada o campo valor total de vendas da conta relacionada seja incrementado do valor da Order.

Tentando fazer um flow de maneira análoga. Dentro do que pude compreender a fórmula funciona com base numa lógica apelidada de 'The Power of One'.

The screenshot shows the Salesforce Setup interface with the 'Flows' section selected. The left sidebar includes links like 'Setup Home', 'Multi-Factor Authentication Assistant', 'Release Updates', 'Lightning Experience Transition Assistant', 'New Salesforce Mobile App', 'QuickStart', 'Lightning Usage', 'Optimizer', 'ADMINISTRATION' (with sub-links for 'Users', 'Data', and 'Email'), 'PLATFORM TOOLS' (with sub-links for 'Apps', 'Feature Settings', and 'Workflow Services'). The main area displays a table titled 'Flow Definitions' with the filter 'All Flows'. The table columns are: Flow Label, Process Type, Active, Template, Package State, Package Name, Last Modified, and Last Modified. The table lists several flows, all of which are Screen Flows and Managed-Installed:

Flow Label	Process Type	Active	Template	Package State	Package Name	Last Modified	Last Modified
Cancel Item Flow	Screen Flow	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Managed-Installed			
Create a Case	Screen Flow	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Managed-Installed			
Create Order Summary Flow	Autolaunched Flow	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Managed-Installed			
Create Process Exception Flow	Autolaunched Flow	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Managed-Installed			
Reset Password	Screen Flow	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Managed-Installed			
Return Item Flow	Screen Flow	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Managed-Installed			
Verify Identity	Screen Flow	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Managed-Installed			

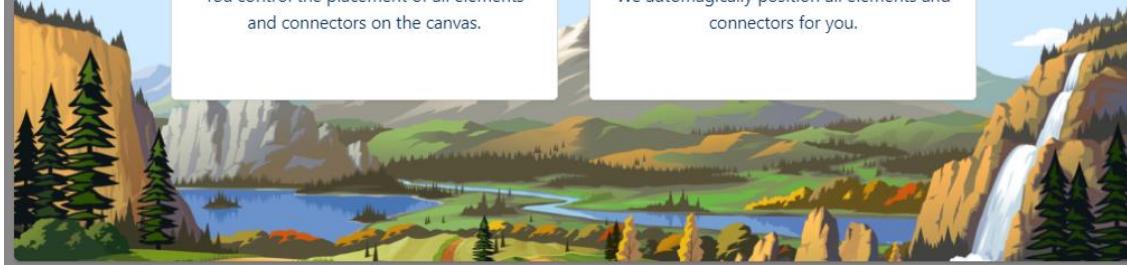
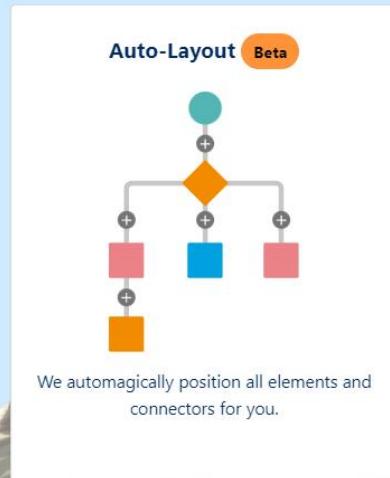
Tentei fazer um Record-Triggered Flow

The screenshot shows the 'New Flow' wizard in the Salesforce setup. The top bar says 'New Flow'. The left sidebar has tabs 'Core' and 'All + Templates'. The main area shows five flow types:

- Screen Flow**: Guides users through a business process that's launched from Lightning pages, Experience Cloud sites, quick actions, and more.
- Record-Triggered Flow**: (highlighted with a blue border) Launches when a record is created, updated, or deleted. This autolaunched flow runs in the background.
- Schedule-Triggered Flow**: Launches at a specified time and frequency for each record in a batch. This autolaunched flow runs in the background.
- Platform Event—Triggered Flow**: Launches when a platform event message is received. This autolaunched flow runs in the background.
- Autolaunched Flow (No Trigger)**: Launches when invoked by Apex, processes, REST API, and more. This autolaunched flow runs in the background.

A 'Next' button is visible at the bottom right.

How do you want to start building?



Configure Start

* Object: Order

Configure Trigger

* Trigger the Flow When:

- A record is created
- A record is updated
- A record is created or updated
- A record is deleted

Set Entry Conditions

Specify entry conditions to reduce the number of records that trigger the flow and the number of times the flow is executed. Minimizing unnecessary flow executions helps to conserve your org's resources.

If you create a flow that's triggered when a record is updated, we recommend first defining entry conditions. Then select the **Only when a record is updated to meet the condition requirements** option for When to Run the Flow for Updated Records.

Condition Requirements: None

* Optimize the Flow for:

Fast Field Updates Actions and Related Records

Cancel Done

Flow Builder SumOrderAmount - V1

New Resource

* Resource Type: Formula

* API Name: Orders

Description:

* Data Type: Number

Decimal Places: 2

* Formula: `{!$Record.SumOrderAmount__c}*1`

Cancel Done

Setup Home Object Manager

SETUP > OBJECT MANAGER Order

Details

Fields & Relationships

Page Layouts

Lightning Record Pages

Buttons, Links, and Actions

Compact Layouts

Field Sets

Object Limits

Record Types

Related Lookup Filters

SumOrderAmount

Custom Field Definition Detail

Field Information

Field Label	SumOrderAmount	Object Name	Order
Field Name	SumOrderAmount	Data Type	Number
API Name	SumOrderAmount__c		
Description	Favor digitar o valor a ser incrementado ao Total Vendas da Conta		
Help Text			
Data Owner			
Field Usage			
Data Sensitivity Level			
Compliance Categorization			
Created By	Ryan Bernardo	Modified By	Ryan Bernardo
	11/01/2022 14:38		13/01/2022 13:05

Validation Rules [0]

Help for this Page

Flow Builder SumOrderAmount - V1

Select Elements

Auto-Layout (Beta) Version 1: Inactive—Last modified 3 minutes ago

Run Debug Activate Save As

Toolbox

Manager

Search this flow...

RESOURCES

- Formulas (1) # f.Orders
- Assignments (1) SumOrderAmount

ELEMENTS

Record-Triggered Flow Start

Edit Formula

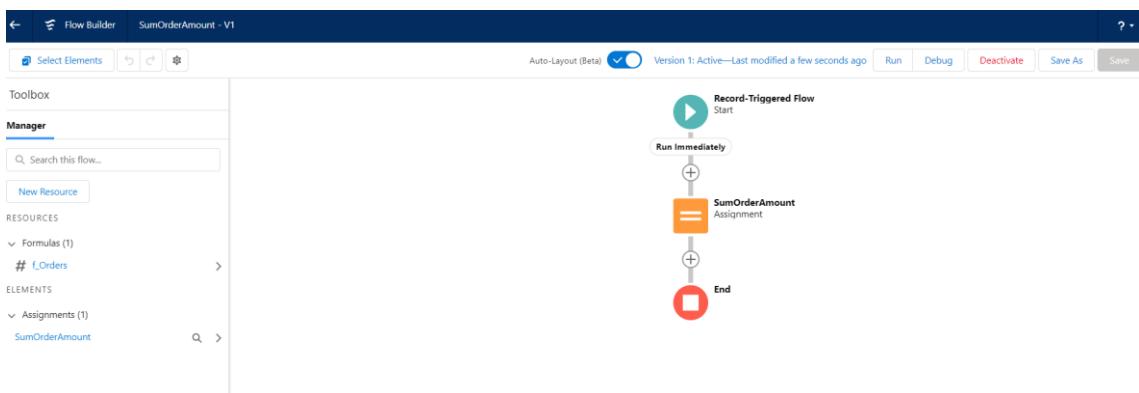
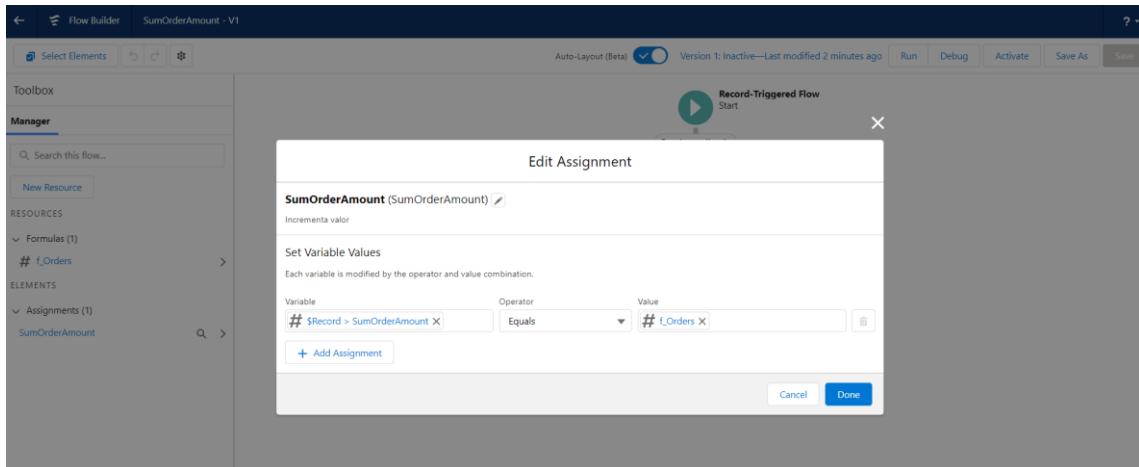
f.Orders

* Data Type: Number

Decimal Places: 2

* Formula: `{!$Record.SumOrderAmount__c}*1`

Cancel Done



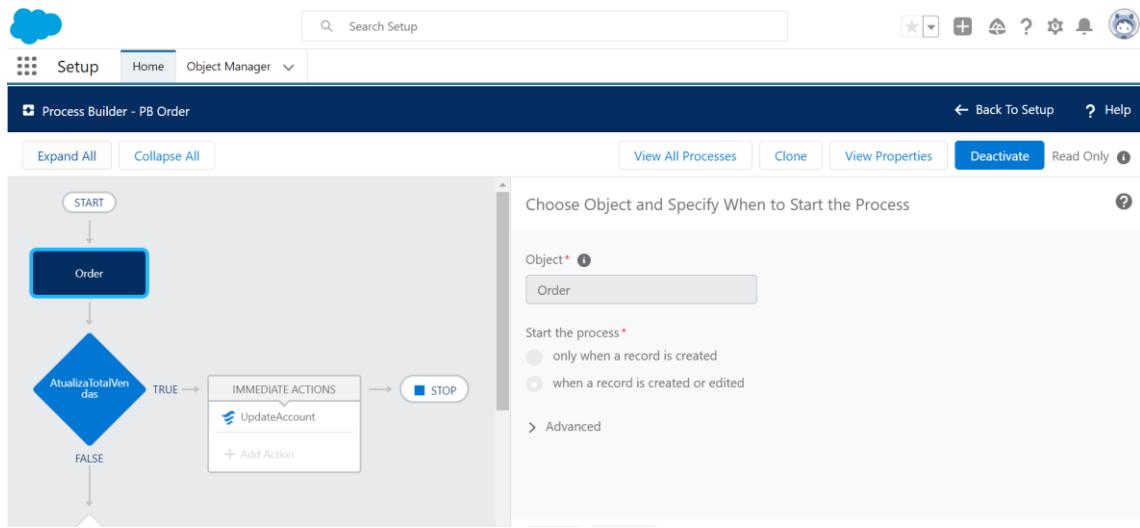
O trigger não deu erro mas também não funcionou conforme eu havia esperado

Tive que agregar à lógica do Flow Build, um Process Builder como auxiliar.

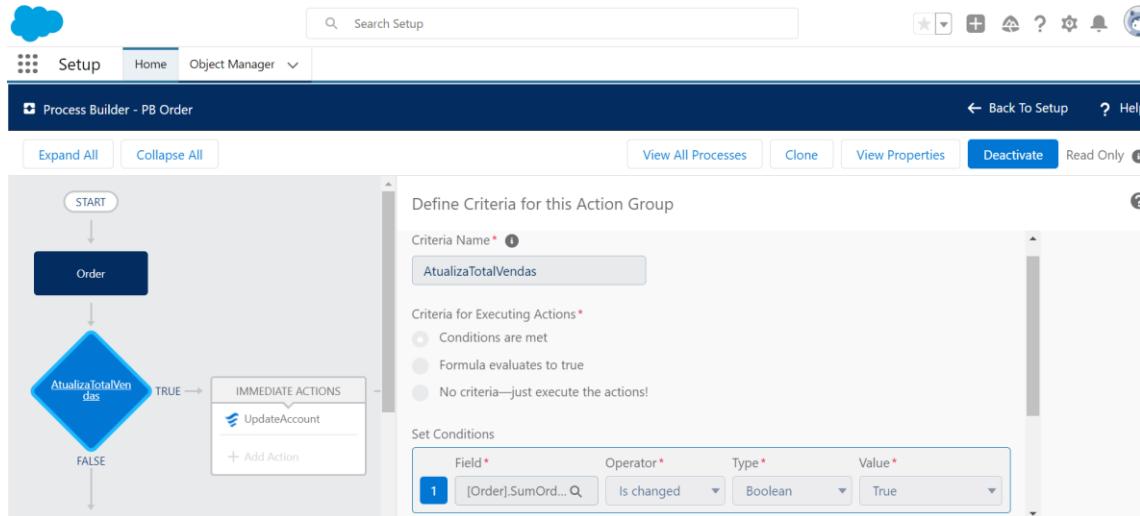
Determinando a entrada jogando em variáveis, chamando também uma fórmula dentro do Flow Build, mas através de um conceito um pouco diferente. Para isso eu tive que mudar o tipo do Flow Build para 'Auto Launched Flow'.

PROCESS	DESCRIPTION	OBJECT	PROCESS TYPE	LAST MODIFIED	STATUS	ACTIONS
PB Order	Version 1: PB Order	Order	Record Change	12/01/2022	Active	<button>New</button>

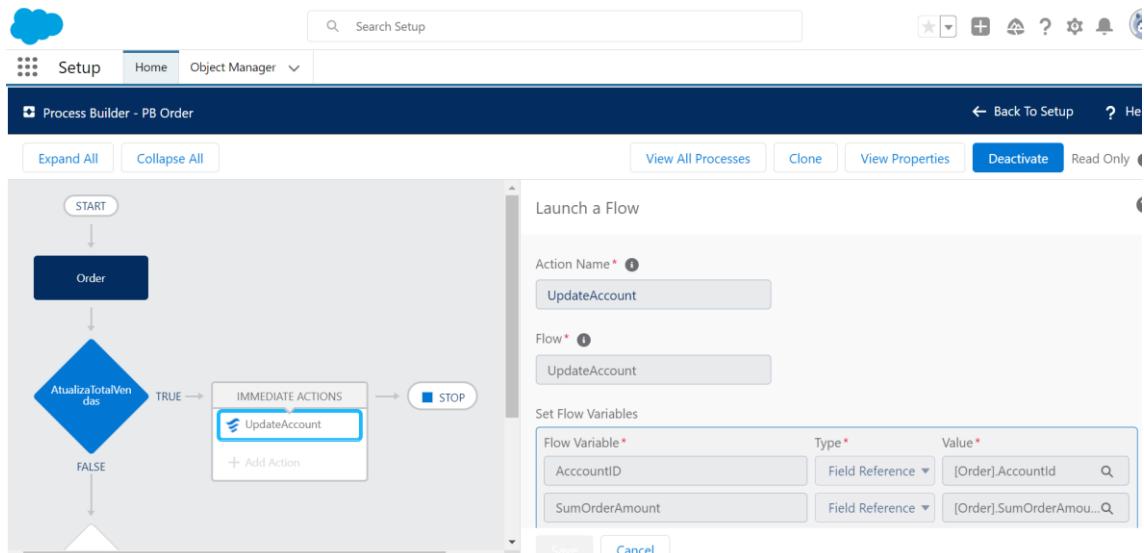
Um PB (Process Builder) usando como base o objeto do tipo Ordem



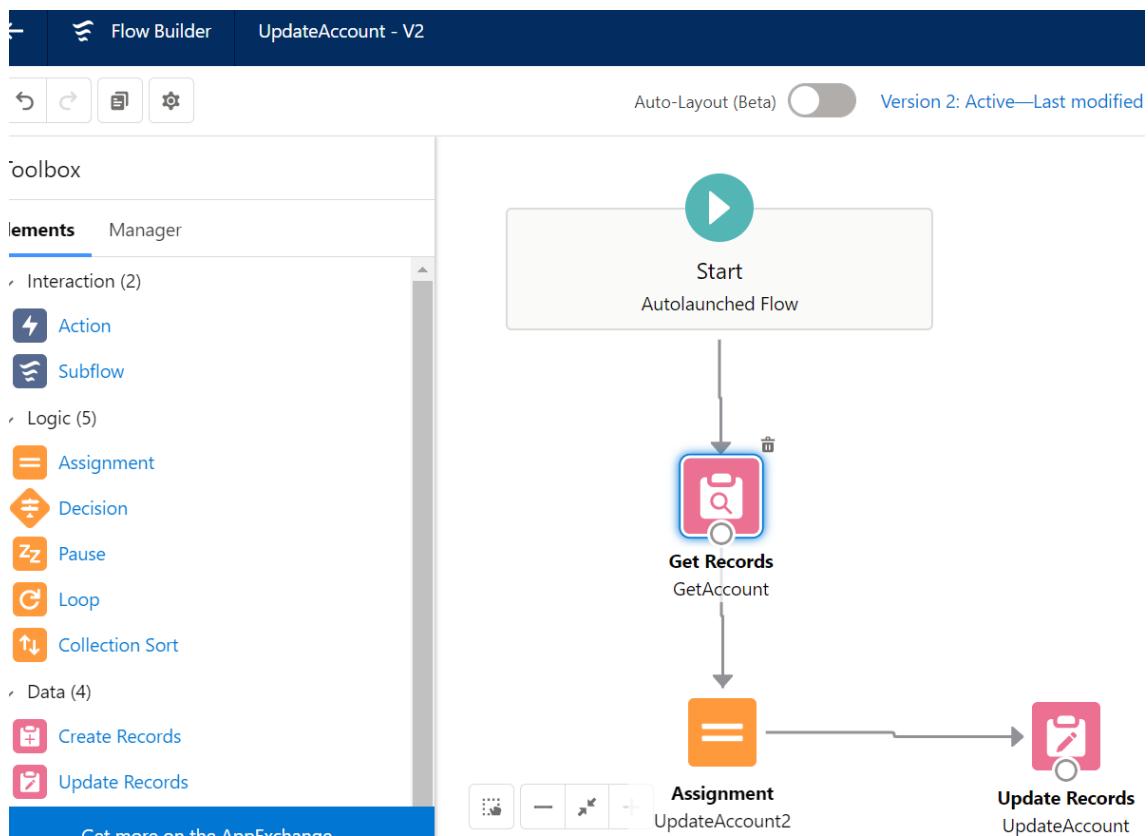
O valor da Ordem que será incrementado na Account terá que ser avaliado, pelo usuário, quando ele adicionar um novo produto. Seguindo essa lógica, faz-se mais pertinente que a alteração seja atrelada somente quando houver a edição específica desde campo. Vida criteria abaixo.



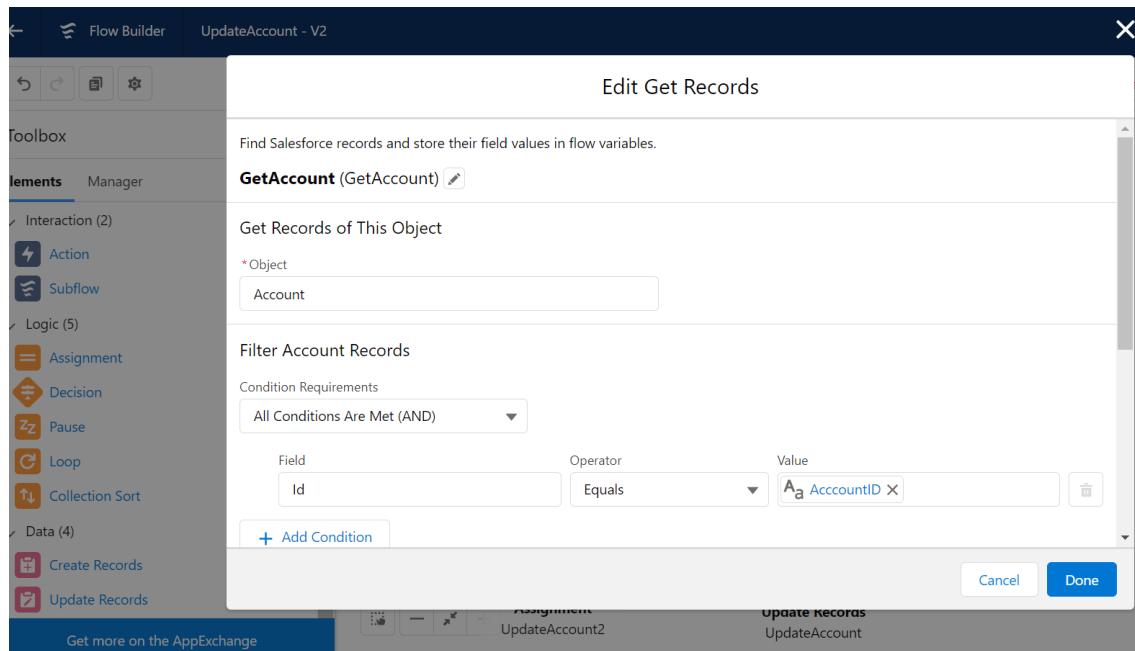
Na etapa seguinte ele chama o Flow de nome 'UpdateAccount' jogando nas variáveis 'AccountId' e 'SumOrderAmount' os valores carregados naquela instância de execução nos Fields de Order e SumOrderAmount.



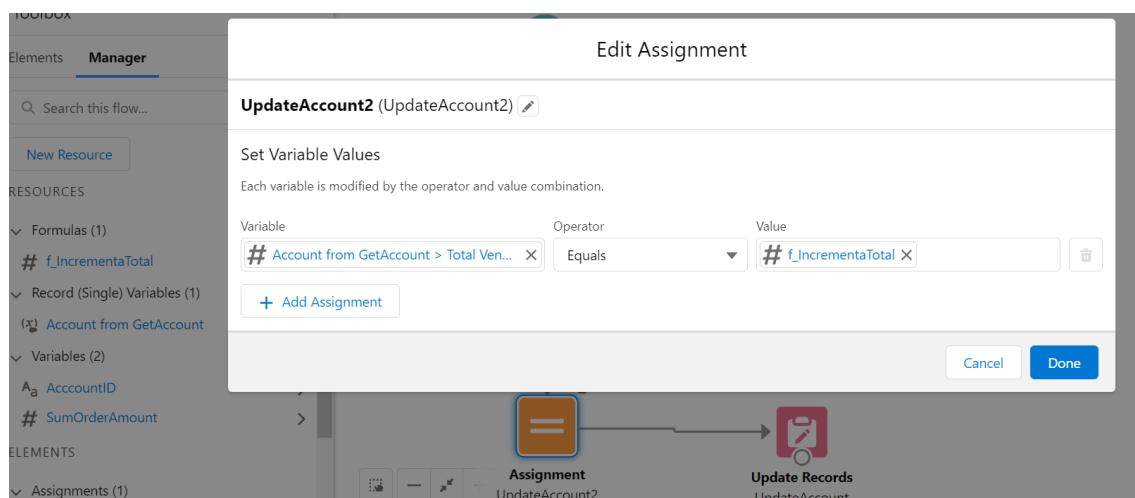
O Flow Builder abaixo será chamado



A primeira etapa pega a conta com base no Id



O Assignment chama a fórmula que criei para fazer o incremento do campo Valor Total criado na Account atrelada àquela Ordem



Edit Formula

f_IncrementaTotal

* Data Type Number

Decimal Places 0

* Formula

Insert a resource...

```
{!SumOrderAmount} + {!GetAccount.Total_Vendas__c}
```

Cancel **Done**

O campo que sofrerá o update será identificado através do Id

Edit Update Records

Update Salesforce records using values from the flow.

UpdateAccount (UpdateAccount)

* How to Find Records to Update and Set Their Values

- Use the IDs and all field values from a record or record collection
- Specify conditions to identify records, and set fields individually

Select Record(s) to Update

* Record or Record Collection

Make sure that each record has an ID. Otherwise the flow can't find the records to update, and it fails.

Cancel **Done**

Consideramos o caso em que o Valor Total Vendas da Conta seja 777.777

The screenshot shows a CRM interface with a blue header bar. On the left is a blue cloud icon. To its right are navigation links: All (with a dropdown arrow), a magnifying glass icon, Search..., Sales, Home, Opportunities, Leads, Tasks, Files, Accounts (which is highlighted with a blue underline), Contacts, and Campaigns.

The main content area has a title bar with an icon of a building and the word "Account". Below it, the account name is listed as "Sample Account for Entitlements". The form contains several fields:

Account Name	Sample Account for Entitlements	Phone
Parent Account		Fax
Account Number		Website
Account Site	www.something.customonceagain222	Ticker Symbol
Type		Ownership
Industry		Employees
Annual Revenue		SIC Code
Total Vendas	777.777	
País	ITALY	
Resumo País		

Para o funcionamento em tela, é necessário que o usuário coloque o valor que ele deseja incrementar no campo em tela da Ordem. Suponhamos que ele some 222.223

The screenshot shows a CRM interface with a blue header bar. On the left is a blue icon with three horizontal bars. To its right are navigation links: Sales, Home, Opportunities, Leads, Tasks, Files, Accounts, Contacts, and Campaigns.

The main content area has a title bar with an icon of a document and the word "Order". Below it, the order number is listed as "00000102". The form contains several fields:

Account Name	Sample Account for Entitlements	Order Type
Order Start Date	07/01/2022	Status
Customer Authorized By		Shipping Address
Company Authorized By		Activated Date
Billing Address		
Favor digitar o valor a ser incrementado ao Total Vendas da Conta		
SumOrderAmount	0	
Created By		Last Modified By

Sales Home Opportunities Leads Tasks Files Accounts Contacts Campaign

Order
00000102

Billing City State/Province
Billing Zip/Postal Code Billing Country

Activated By

SumOrderAmount 222.223

Created By Last Modified By
Ryan Bernardo, 11/01/2022 18:22 Ryan Bernardo, 13/01/2022 17:54

Description

Cancel Save

Sales Home Opportunities Leads Tasks Files Accounts Contacts Campaigns

Order
00000102

Order Start Date Status
07/01/2022 Draft

Customer Authorized By Shipping Address

Company Authorized By Activated Date

Billing Address

Activated By

SumOrderAmount 222.223

Created By Last Modified By
Ryan Bernardo, 11/01/2022 18:22 Ryan Bernardo, 13/01/2022 17:54

Description

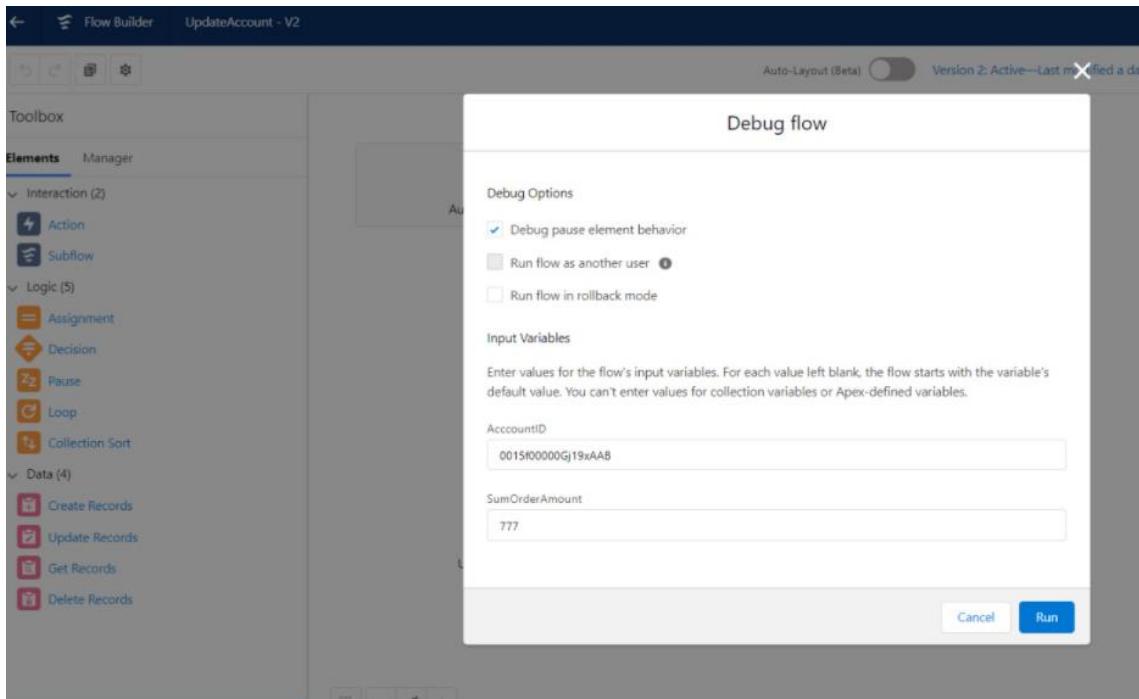
Valor foi atualizado na Conta com sucesso após passar pelo fluxo demonstrado acima

The screenshot shows the Salesforce interface for managing accounts. At the top, there's a navigation bar with tabs for Sales, Home, Opportunities, Leads, Tasks, Files, Accounts (selected), Contacts, and Campaigns. Below the navigation is a search bar with placeholder text 'Search...'. The main content area is titled 'Account' and shows a card for 'Sample Account for Entitlements'. The card contains various account details: Parent Account, Account Number, Account Site (www.something.customonceagain222), Type, Industry, Annual Revenue, Total Vendas (1.000.000), País (ITALY), Resumo País (N:ITALY - S:ITA - I:ITALIAN - M:N/A), Fax, Website, Ticker Symbol, Ownership, Employees, SIC Code, Billing Address, and Shipping Address. The 'Accounts' tab is highlighted in blue.

Nota Extra: Enquanto eu testava o fluxo, recebi dezenas de e-mails do trigger pois todas elas acabavam fazendo update na conta. Fluxo funcionando corretamente conforme esperado.

The screenshot shows the Gmail inbox with a dark theme. The left sidebar lists various folders like Caixa de entrada, Adidos, Importante, Envíados, Rascunhos, Categorias, [Imap]/Sent, [Mailbox], Android, Cm, Junk, Nissan, Pessoal, and ryan_bs@hotmail... The main pane displays a list of emails. Most of them are from 'eu' and have subject lines starting with 'Desafio SF Custom - 1 account(s) were updated.' These emails are timestamped '12 de jan.'. There are also a few other emails from different senders with similar subject lines. The top of the screen shows the standard Gmail header with the search bar and navigation icons.

Entretanto, eventualmente o fluxo parou de funcionar mesmo eu não tido feito mudança alguma no Flow nem no PB. Após simular o Flow no modo debug passando o Id da Conta como entrada, descobri que o erro foi porque o limite e e-mails diários enviados para a organização havia excedido o limite. Desliguei a flag no Custom Profile para que a trigger não mais enviasse o e-mail e o fluxo retornou a funcionar.



⌚ Error Occurred:
The flow tried to update these records:
0015f00000Gj19xAAB. This error occurred:
CANNOT_INSERT_UPDATE_ACTIVATE_ENTITY:
TriggerAccountDesafioSF: execution of AfterUpdate
caused by: System.EmailException: SendEmail failed.
First exception on row 0; first error:
SINGLE_EMAIL_LIMIT_EXCEEDED, Email limit
exceeded: []
Class.EmailManagerDesafioSF.sendMail: line 9,
column 1 Trigger.TriggerAccountDesafioSF: line 11,
column 1. You can look up ExceptionCode values in
the [SOAP API Developer Guide](#).

Liguei a flag novamente algumas horas depois e a trigger voltou a enviar e-mail novamente.

- Implemente um processo que deve executar automaticamente uma vez por dia para deletar Orders com data de modificação maiores que 3 meses. Considere que podem haver muitos milhões de Orders a serem deletadas a cada iteração desse processo.

Ao executar esse código

```

19:25:20:039 USER_DEBUG [4]|DEBUG| minha lista
(Account:{Id=0015f00000I7nwOAAR, LastModifiedDate=2022-01-05 14:15:43},
Account:{Id=0015f00000I7nwPAAR, LastModifiedDate=2022-01-05 14:15:43},
Account:{Id=0015f00000I7nwQAAR, LastModifiedDate=2022-01-05 14:15:43},
Account:{Id=0015f00000I7nwRAAR, LastModifiedDate=2022-01-05 14:15:43},
Account:{Id=0015f00000I7nwSAAR, LastModifiedDate=2022-01-05 14:15:43},
Account:{Id=0015f00000I7nwTAAR, LastModifiedDate=2022-01-05 14:15:43},
Account:{Id=0015f00000I7nwUAAR, LastModifiedDate=2022-01-05 14:

```

O resultado é esse abaixo

```

19:25:20:039 USER_DEBUG [4]|DEBUG| minha lista
(Account:{Id=0015f00000I7nwOAAR, LastModifiedDate=2022-01-05 14:15:43},
Account:{Id=0015f00000I7nwPAAR, LastModifiedDate=2022-01-05 14:15:43},
Account:{Id=0015f00000I7nwQAAR, LastModifiedDate=2022-01-05 14:15:43},
Account:{Id=0015f00000I7nwRAAR, LastModifiedDate=2022-01-05 14:15:43},
Account:{Id=0015f00000I7nwSAAR, LastModifiedDate=2022-01-05 14:15:43},
Account:{Id=0015f00000I7nwTAAR, LastModifiedDate=2022-01-05 14:15:43},
Account:{Id=0015f00000I7nwUAAR, LastModifiedDate=2022-01-05 14:

```

Executei então a chamada do código batch para tentar forçar a deleção exclusivamente um Id dessa query: '0015f00000I7nwTAAR', a título de teste. Para, caso fucionasse, poder trocar o SELECT pelo de 3 meses posteriormente.

```

19:25:20:039 USER_DEBUG [4]|DEBUG| minha lista
(Account:{Id=0015f00000I7nwOAAR, LastModifiedDate=2022-01-05 14:15:43},
Account:{Id=0015f00000I7nwPAAR, LastModifiedDate=2022-01-05 14:15:43},
Account:{Id=0015f00000I7nwQAAR, LastModifiedDate=2022-01-05 14:15:43},
Account:{Id=0015f00000I7nwRAAR, LastModifiedDate=2022-01-05 14:15:43},
Account:{Id=0015f00000I7nwSAAR, LastModifiedDate=2022-01-05 14:15:43},
Account:{Id=0015f00000I7nwTAAR, LastModifiedDate=2022-01-05 14:15:43},
Account:{Id=0015f00000I7nwUAAR, LastModifiedDate=2022-01-05 14:

```

```

1 * global class Batch3MesesDesafioSF implements Database.Batchable<sObject>, Database.Stateful{
2
3 *     global List<Account> start(Database.BatchableContext BC){
4
5 *         //Para evitar deletar todas as contas com mais de 3 meses, limitei a execução da batch
6 *         //a título de teste, para um único Id
7 *         List<Account> lstToUpdate = [Select Id, LastModifiedDate
8 *                                     From Account
9 *                                     Where Id='0015f00000I7nwTAAR'];
10
11     return lstToUpdate;
12 }
13 *     global void execute(Database.BatchableContext BC, List<Account> scope){
14 *         delete scope;
15 }

Logs Tests Checkpoints Query Editor View State Progress Problems
ELECT Id, LastModifiedDate
From OrderItem
Where LastModifiedDate > LAST_N_MONTHS:3
Any query errors will appear here...

```

History
Executed
Select Id, LastModifiedDate from Account
SELECT Id, LastModifiedDate From OrderItem Where LastModifiedDate > LAST_N_MONTHS:3

Instanciei a chamada da batch e mandei deletar somente 1 registro (a despeito dela já retornar somente 1 dada a o WHERE específico no Select). Ao executar, esse segundo parâmetro trata de quantos elementos serão deletados por vez (evitando gargalos quando houverem milhões de registros).

```

1 * global class Batch3MesesDesafioSF implements Database.Batchable<sObject>, Database.Stateful{
2
3 *     global List<Account> start(Database.BatchableContext BC){
4
5 *         //Para evitar deletar todas as contas com mais de 3 meses, limitei a execução da batch
6 *         //a título de teste, para um único Id
7 *         List<Account> lstToUpdate = [Select Id, LastModifiedDate
8 *                                     From Account
9 *                                     Where LastModifiedDate > LAST_N_MONTHS:3];
10
11     return lstToUpdate;
12 }
13 *     global void execute(Database.BatchableContext BC, List<Account> scope){
14 *         delete scope;
15 }

Logs Tests Checkpoints Query Editor View

```

Enter Apex Code

```

1 Batch3MesesDesafioSF executeDelete = new Batch3MesesDesafioSF();
2 Database.executeBatch(executeDelete, 1);

```

Open Log Execute Execute Highlighted

History
Executed
Select Id, LastModifiedDate from Account
SELECT Id, LastModifiedDate From OrderItem Where LastModifiedDate > LAST_N_MONTHS:3

Execution Log

Timestamp	Event	Details
19:34:06:001	USER_INFO	[EXTERNAL]0055f0000085bc1 ryan.bs@playful-raccoon-uh2xiv.com (GMT-03:00) Brasilia Standard Time (America/Sao_Paulo) (GMT-03:00)
19:34:06:001	EXECUTION_ST...	
19:34:06:001	CODE_UNIT_ST...	[EXTERNAL]execute_anonymous_apex
19:34:06:008	VARIABLE_SCO...	[1]executeDelete Batch3MesesDesafioSF true false
19:34:06:008	HEAP_ALLOCATE	[79] Bytes:3
19:34:06:008	HEAP_ALLOCATE	[84] Bytes:152
19:34:06:008	HEAP_ALLOCATE	[399] Bytes:408
19:34:06:008	HEAP_ALLOCATE	[412] Bytes:408
19:34:06:008	HEAP_ALLOCATE	[520] Bytes:48
19:34:06:008	HEAP_ALLOCATE	[139] Bytes:6
19:34:06:008	HEAP_ALLOCATE	[EXTERNAL] Bytes:3
19:34:06:008	STATEMENT_EX...	[1]
19:34:06:008	STATEMENT_EX...	[1]
19:34:06:008	HEAP_ALLOCATE	[1] Bytes:75
19:34:06:008	HEAP_ALLOCATE	[1] Bytes:7

Logs Tests Checkpoints **Query Editor** View State Progress Problems

```
SELECT Id, LastModifiedDate
From OrderItem
Where LastModifiedDate > LAST_N_MONTHS:3
```

Any query errors will appear here...

History

Executed

Select Id, LastModifiedDate from Account

SELECT Id, LastModifiedDate From OrderItem Where LastM...

Entretanto ao executar a query novamente, percebi que não houve deleção e não consegui achar solução para essa etapa. Tentei também com uma variante que encontrei noutro link da chamada para a execução da batch, mas sem êxito. Aumentei também o número da quantidade de elementos (2nd parâmetro) noutra execução. Mesmo resultado.

```
1 * global class Batch3MesesDesafioSF implements Database.Batchable<sObject>, Database.Stateful{
2
3     global List<Account> start(Database.BatchableContext scope) {
4         //Para evitar deletar todos os registros
5         //a título de teste, para
6         List<Account> lstToUpdate;
7
8
9
10
11     return lstToUpdate;
12 }
13     global void execute(Database.BatchableContext scope) {
14         delete lstToUpdate;
15     }
16     global void finish(Database.BatchableContext scope) {
17     }
18 }
```

Enter Apex Code

```
1 Id batch jobId = Database.executeBatch(new Batch3MesesDesafioSF(), 1);
```

Logs Tests Checkpoints **Query Editor** View State Prt Open Log Execute Execute Highlighted

Execution Log

Timestamp	Event	Details
20:18:57:026	USER_DEBUG	[4]DEBUG[minha lista (Account:{Id=0015f00000I7nwTAAR, LastModifiedDate=2022-01-05 14:15:43})]

Log line #28 details

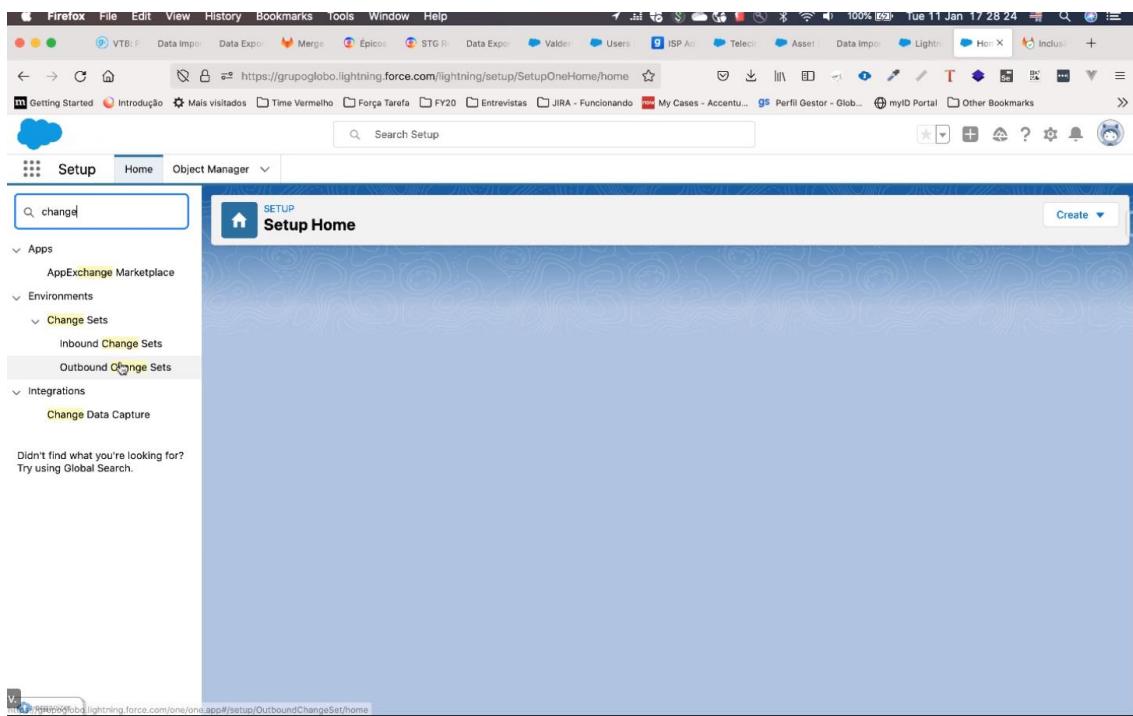
```
20:18:57:026 USER_DEBUG [4]DEBUG[minha lista (Account:{Id=0015f00000I7nwTAAR, LastModifiedDate=2022-01-05 14:15:43})]
```

OK

This Frame Executable Debug Only Filter Click here to filter the log

EXPORTAÇÃO

Tentei fazer via tela dentro da própria aplicação. Porém não tenho acesso ao Change Set (aparentemente acessível apenas à versões pagas). Tela abaixo da Call com o Cheldon de onde seria essa funcionalidade caso eu tivesse acesso na minha aplicação.



Encontrei o Copado e outras alternativas pagas, cheguei a tentar utilizar o DataLoader, até perceber que ele era somente para carregar dados ao invés de objetos. Em seguida tentei, via sugestão do próprio Cheldon fazer via Salesforce DX, seguindo um tutorial do trailhead.



Em paralelo continuei tentando o Package Builder, que estava retornando erro repetidamente mas consegui após resetar a senha da Org algumas vezes.

The screenshot shows a web browser window for the Salesforce package.xml Builder at <https://packagebuilder.herokuapp.com>. The page title is "Salesforce package.xml Builder". A note at the top says: "Help keep Salesforce Package.xml Builder free! Please donate to support development and Heroku running costs. Any value is appreciated!" with a "Donate" button. A note below it states: "Note: This application uses multiple API calls to your Salesforce Org to retrieve metadata and execute the logic it needs to run. Each Salesforce Org has a 24 hour limit of API calls it can make, and may break other integrations if you exceed this limit." The main section is titled "Select Options" with a dropdown set to "Production". The bottom half of the screen shows the raw XML code of the generated package.xml file.

```
<?xml version="1.0" encoding="UTF-8"?>
<Package xmlns="http://soap.force.com/2006/04/metadata">
<types>
<members>AccountManagerDesafioSF</members>
<members>Batch3MesesDesafioSF</members>
<members>CaseManager</members>
<members>EmailManagerDesafioSF</members>
<members>MySOAPWebService</members>
<members>MySOAPWebServiceOrderDesafioSF</members>
<members>OrderManagerDesafioSF</members>
<members>TesteAddPais</members>
<members>trldhtips_tt_UtilController</members>
<members>trldhtips_tt_UtilControllerTest</members>
<name>ApexClass</name>
</types>
<types>
<members>apexEmailNotifications</members>
<name>ApexEmailNotifications</name>
</types>
<types>
<members>TriggerAccountDesafioSF</members>
<name>ApexTrigger</name>
</types>
<types>
<members>AppSwitcher</members>
<members>Salesforce1</members>
<name>AppMenu</name>
</types>
<types>
<members>Case_Standard</members>
<members>Lead_Standard</members>
<name>AssignmentRule</name>
</types>
<types>
<members>Case</members>
<members>Lead</members>
<name>AssignmentRules</name>
</types>
```

USUÁRIO EXTRA CRIADO

The screenshot shows the Salesforce 'Users' page under the 'SETUP' tab. The title 'All Users' is at the top left. A blue header bar has 'SETUP' and 'Users' in white. On the right, there's a 'Help for this Page' link with a question mark icon. Below the header is a sub-header 'All Users'. A note says 'On this page you can create, view, and manage users.' Another note says 'In addition, download SalesforceA to view and edit user details, reset passwords, and perform other administrative tasks from your mobile devices: [iOS](#) | [Android](#)'. A 'View' dropdown is set to 'All Users'. Buttons for 'Edit' and 'Create New View' are visible. A navigation bar above the table includes links for A through Z and 'Other'. The main area is a table with columns: Action, Full Name, Alias, Username, Last Login, Role, Active, Profile, and Manager. The table lists five users:

Action	Full Name	Alias	Username	Last Login	Role	Active	Profile	Manager
 Edit	Bernardo_Ryan	RBern	ryan_bs@playful-raccoon-uh2xiv.com	13/01/2022 16:42	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	System Administrator	
 Edit	Chatter Expert	Chatter	chatty_00d5f000009jphaeae_npevimus30x2@chatter.salesforce.com		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Chatter Free User	
 Edit	globo_globo	globo	ryan_bs@hotmail.com		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	System Administrator	CEO
 Edit	User_Integration	integ	integration@00d5f000009jphaeae.com		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Analytics Cloud Integration User	
 Edit	User_Security	sec	insightssecurity@00d5f000009jphaeae.com		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Analytics Cloud Security User	

At the bottom of the table are buttons for 'New User', 'Reset Password(s)', and 'Add Multiple Users'.