



# LIGHTNING AT LAST:

Automated Solutions for Lightning Templates with Merge Fields

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for the Blaze Your Trail community  
and other Trailblazers in the Salesforce ecosystem

## Overview

One can appreciate the magnitude of Salesforce's development over the roughly two-and-a-half decades since its founding by noting the vestiges that are still hanging on, at least for now. Among the most notable changes is the shift from Salesforce Classic to Lightning Experience. Although Classic still has a few nifty features, Lightning equivalents offer sleek solutions to business problems that are as easy to build as they are easy on the eyes. Some tools, like email templates, remain popular as both Classic and Lightning features. However, both template types come with some limitations. Fortunately, in addition to Mailchimp® and other email services on the AppExchange, unmanaged apps are available which can alleviate some of the template troubles, particularly for modest-sized organizations and smaller mass email jobs. **This document will outline a scenario – sending multi-lingual birthday greetings to contacts – and solutions for using either Classic or Lightning templates in the flow.**

## Setting the Stage

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4. The Decision: A Tale of Two Template Types
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## The Basics: Birthday Fields Forever

Like them or hate them, birthdays offer organizations a great opportunity to connect with their contacts. First, it is necessary to make sure that the Birthdate field is visible on page layouts, the org is populating the field on its records, etc.

Although the Birthdate field is standard on the Contact object, a second birthday field can help make contacts' birthdays stand out in list views. The field will also help a flow retrieve daily birthday records.

This checkbox field has the following formula:

```
IF(
  AND(
    DAY(TODAY()) = DAY( Birthdate ),
    MONTH(TODAY()) = MONTH( Birthdate )
  ),
  TRUE,
  FALSE
)
```

Even in a long list view with many contacts (see below), one can see at a glance that Hildegard Knef, Jacques Brel, and Janelle Monáe are 3 contacts with birthdays today. With the Birthdays This Month List View, all birthdays can be grouped together.

Contacts  
**All Contacts** ▼

100+ items • Sorted by Name • Filtered by All contacts • Updated 8 minutes ago

Search this list...

<input type="checkbox"/>	Name ↑	Account Name	Birthda...	Birthdate	Title	Phone	En
80	<input type="checkbox"/> Helena Clerk	Clerk Household	<input type="checkbox"/>				
81	<input type="checkbox"/> Henry Nyugen	Nyugen and Offermans Household	<input type="checkbox"/>				he
82	<input type="checkbox"/> Hildegard Knef	Knef Household	<input checked="" type="checkbox"/>	3/15/1953			g.
83	<input type="checkbox"/> Hildie Schubert	Schubert and Maddox Household	<input type="checkbox"/>			(202) 756-9723	hi
84	<input type="checkbox"/> Irma O'Shea	O'Shea and Primoz Household	<input type="checkbox"/>				ir
85	<input type="checkbox"/> Irma O'Sullivan	O'Sullivan and Guerra Household	<input type="checkbox"/>				ir
86	<input type="checkbox"/> Jack Rogers	Burlington Textiles Corp of America	<input type="checkbox"/>		VP, Facilities	(336) 222-7000	jr
87	<input type="checkbox"/> Jacques Brel	Brel Household	<input checked="" type="checkbox"/>	3/15/1950			g.
88	<input type="checkbox"/> Jake Llorrac	sForce	<input type="checkbox"/>				
89	<input type="checkbox"/> Jane Grey	University of Arizona	<input type="checkbox"/>	10/15/1940	Dean of Administrati...	(520) 773-9050	ja
90	<input type="checkbox"/> Janelle Monáe	Monáe Household	<input checked="" type="checkbox"/>	3/15/2023			g.
91	<input type="checkbox"/> Jason Chong	Chong Household	<input type="checkbox"/>				
92	<input type="checkbox"/> Jeffry Primoz	Primoz Household	<input type="checkbox"/>				je
93	<input type="checkbox"/> Jessie Nostdal	Nostdal and Rymph Household	<input type="checkbox"/>				dr
94	<input type="checkbox"/> John Bond	Grand Hotels & Resorts Ltd	<input type="checkbox"/>	7/4/1952	VP, Facilities	(312) 596-1000	bc

Contacts  
**Birthdays This Month** ▼

7 items • Sorted by Name • Filtered by All contacts - Birthdate • Updated a few seconds ago

Search thi

<input type="checkbox"/>	Name ↑	Account Name	Birthday Is T...	Birthdate	Title	Phone
1	<input type="checkbox"/> Archibald Lorenzo Fred	Fred Household	<input checked="" type="checkbox"/>	3/15/2023		
2	<input type="checkbox"/> Henry Fred	Fred Household	<input checked="" type="checkbox"/>	3/15/1990		
3	<input type="checkbox"/> Hildegard Knef	Knef Household	<input checked="" type="checkbox"/>	3/15/1953		
4	<input type="checkbox"/> Jacques Brel	Brel Household	<input checked="" type="checkbox"/>	3/15/1950		
5	<input type="checkbox"/> Janelle Monáe	Monáe Household	<input checked="" type="checkbox"/>	3/15/2023		
6	<input type="checkbox"/> Lady Gaga	Gaga Household	<input checked="" type="checkbox"/>	3/15/1980		
7	<input type="checkbox"/> Riccardo Cocciant	Cocciant Household	<input checked="" type="checkbox"/>	3/15/1918		

## Das Setup: Formula Fields for Languages

With 1.5 billion speakers, English is the most widely spoken language in the world. However, at the time of this writing, it is not the *only* language in the world. If an organization is collecting preferred language information from its contacts, a birthday message tailored to the individual might be a nice touch. First, it is necessary to build a picklist field. The example below lists 4 languages: English (also the default), French, Italian, and German, but orgs might decide to add other options (ex: "Other", which could also default to English).

Values				
Action	Values	API Name	Default	Chart Colors
<input type="checkbox"/>   Edit   Del   Deactivate	English	English	<input checked="" type="checkbox"/>	Assigned dynamically
<input type="checkbox"/>   Edit   Del   Deactivate	Italiano	Italiano	<input type="checkbox"/>	Assigned dynamically
<input type="checkbox"/>   Edit   Del   Deactivate	Deutsch	Deutsch	<input type="checkbox"/>	Assigned dynamically
<input type="checkbox"/>   Edit   Del   Deactivate	Français	Français	<input type="checkbox"/>	Assigned dynamically

In order to send automated birthday emails addressed to a list of contacts, it is necessary to build email templates for each of the org's recognized languages. First, however, it is important to remember that many languages use gendered adjectives, so greetings need to be prepared that match the available possibilities.

This can be done with a text field, with something like the following formula:

```

CASE(
  Gender__c ,
    "Male", CASE(
      Language_Preference__c ,
        "English", "Dear Mr.",
        "Français", "Cher Monsieur",
        "Italiano", "Gentile Signore",
        "Deutsch", "Sehr geehrter Herr",
        "Dear Mx."
      ),
    "Female", CASE(
      Language_Preference__c ,
        "English", "Dear Mrs.",
        "Français", "Chère Madame",
        "Italiano", "Gentile Signora",
        "Deutsch", "Sehr geehrte Frau",
        "Dear Mx."
      ),
    "Dear Mx."
)

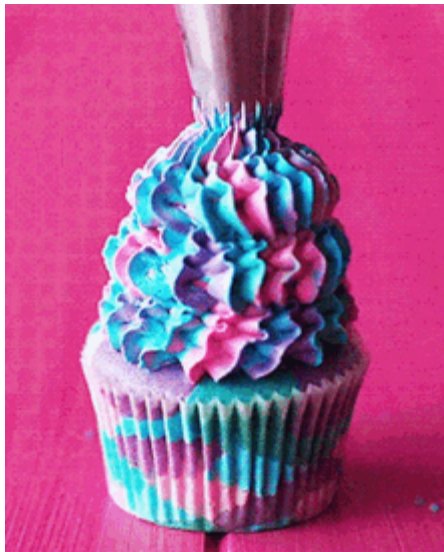
```

## The Frosting: GIFs and Other Goodies

In Salesforce's hometown of San Francisco, a famous nanny once said: "A classic never dies, dear." Salesforce Classic might not die either, not just yet anyway, as long as documents for email templates (Classic and Lightning) continue to be stored there.

A quick note before getting to uploads: some images (.png) contain what may appear to be a checkered background, and is in fact a blank background. While these file types will be accepted by Salesforce, they will show up differently on different apps. For example, in the native Mail app on the iPhone, the background for the Blaze Your Trail logo defaults to white, but if the phone user prefers the Gmail app to view their mail, the Blaze Your Trail logo will show a black background. **This situation can be fixed by exporting the file as .jpg before uploading to Salesforce.**

To use a document such as a .gif, .jpeg, .png, etc. in an email template, first navigate to Classic, find the Documents tab (this might be hidden under the plus sign), click on the New button in the Recent Documents section, and upload your file.

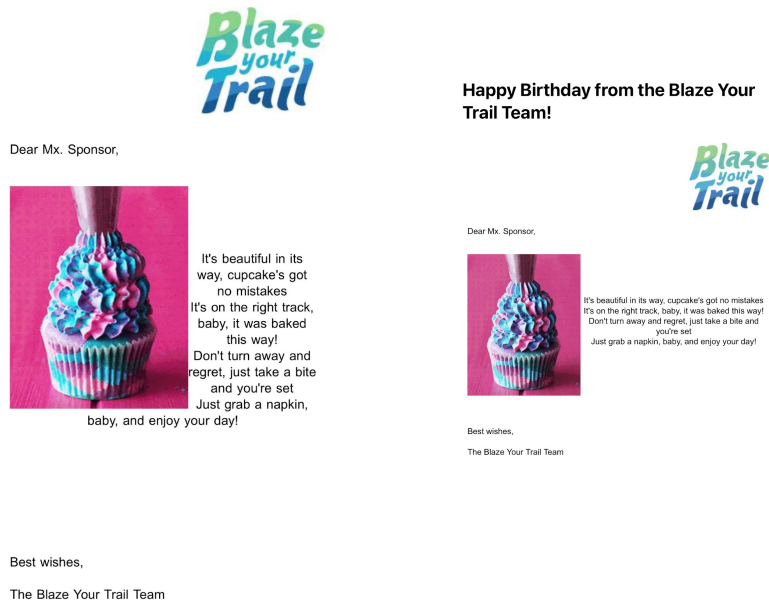


Sweet! Next, it's time to build some templates.

# The Decision: A Tale of Two Template Types

One of the Classic features that can be accessed without switching over to Salesforce Classic are Classic Templates. **Indeed, because they tend to be the only templates that can handle merge fields when referenced in a flow** (without being wrestled into submission by an aggressive and creative developer – the hero of this story) **Classic Templates are often used whenever a merge field is involved.**

The problem is, Classic Templates are a bit messy. They are tricky to format correctly, and often display differently on different screens (ex: the text next to an image may be legible on a computer, but get squeezed around the image when viewed on a phone, or the email may show up with a large logo and tiny font, etc.) Below are some test emails sent from a flow, utilizing the same Classic Email Template, opened on the same phone with the Gmail app and the iPhone's standard Mail app respectively:



Classic Templates will likely remain popular until Salesforce makes it easier to reference Lightning Templates in a flow. Although Classic Templates can technically handle images and other rich formatting, they are ideal for plain-text emails.

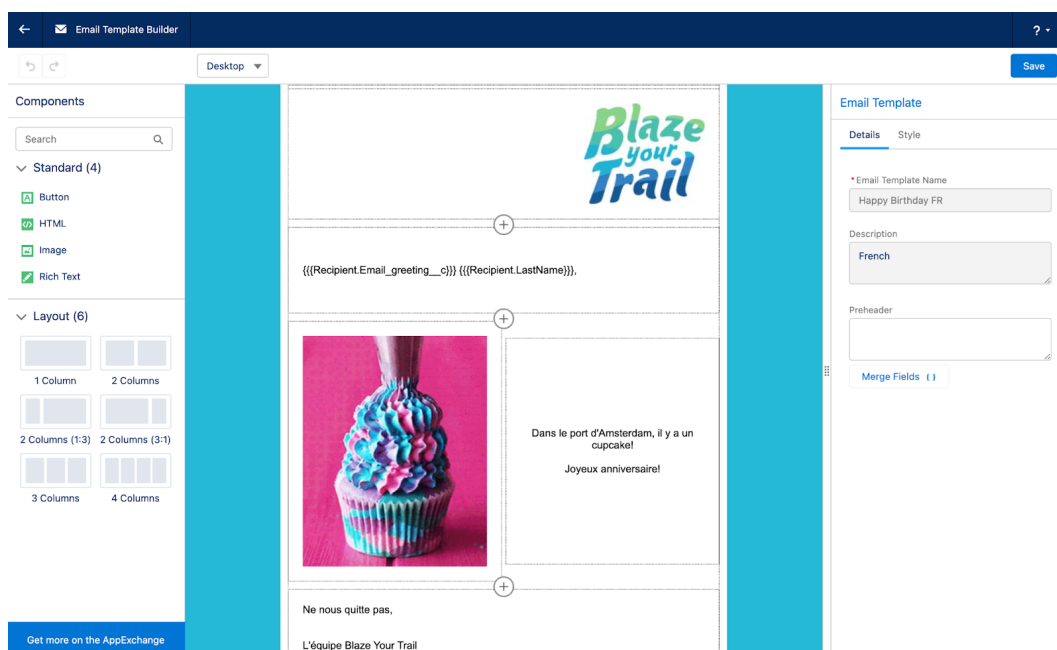
Lightning Templates, on the other hand, are lovely! Elegant, predictable, straightforward. They can be yours forever if you want them badly enough, but you have to turn them on first. Here is a great link from the SalesforceBen blog, written by Paul Ginsberg, on how to set up and use Lightning Templates:

<https://www.salesforceben.com/your-complete-guide-to-salesforce-lightning-email-templates/>

When creating a Lightning Template, **the “Edit in Builder” button will display only after the necessary permission sets are created**; all of the instructions are in the above link.

When setting up the Lightning Template, components can be dragged from the left side of the template, while all text editing and additional formatting takes place on the right. Note that the view can be toggled at the top between desktop and phone, so no more guessing games like with Classic Templates.

Here is an example of what a finished template might look like:



Images of the final emails can be found further down in this document.

Whether a user chooses Classic or Lightning Templates, both should generally be added to an Email Alert in order to be used later in a flow. However, **for the case outlined in this document, it is not necessary to use Email Alerts at all after creating a Lightning Template**. For users working with Classic Email Templates, an Email Alert will be a quick but necessary next step.

## The Package: Not All Heroes Wear Capes

“Send Better Email” is a great name for a tool that does exactly what it claims to do, and more!

When a striking Lightning Email Template has been created, it is a terrible disappointment to realize later, after building a complex flow, that the template’s merge fields will create errors, and the work must be redone with plain old Classic Email Templates. One can only hope that Salesforce is working hard on a solution. In the meantime...

Alex Edelstein (fun fact: his last name means “gemstone” in German, and a gem he most certainly is!) has come to the rescue with a free, unmanaged package on the AppExchange. **Actually, three packages, with information and links for downloads here:**

<https://unofficialsf.com/flow-action-and-screen-component-basepacks/>

**and here, where one can also find detailed instructions for using the tool:**

<https://unofficialsf.com/send-better-email-flow-action/#installation>

And here is a video link for anyone who wants to get to know Alex and his package a little better:

<https://www.youtube.com/watch?v=qhZT6wPIHoc>

Please note, it is necessary to download all 3 packages from the AppExchange, in the order of the links above.

Once all (free! three!) links have been downloaded, it is possible to start building a flow that will incorporate Lightning Email Templates with merge fields.

## The Fun: Go with the Flow Builder

Flows are complicated, but getting started is usually the easy part. First, it is necessary to decide on the flow type. This flow will run daily at a scheduled time, and is therefore a schedule-triggered flow. Choose the time and the frequency (in this case, daily). **It is optional to choose an Object to specify the records which can be passed into the flow. In this case, it can be skipped.**

The following element must be a Get Records element, and this is where the Contact Object will be specified. **The Contact Records that will be pulled into the flow should only include Contacts whose birthdays are today, and who have email addresses. Contacts who should not be included are those whose records specify “Do Not Contact” or “Deceased”, as they are the least likely to appreciate a birthday greeting.**



## Edit Get Records

Find Salesforce records and store their field values in flow variables.

### Birthdays Contacts (Birthday\_Contacts)

This will store the values from records of contacts who have a birthday today.

#### Get Records of This Object





\* Object

Contact

#### Filter Contact Records

Condition Requirements

All Conditions Are Met (AND)

	Field	Operator	Value	
	Birthday_Is_Today__c	Equals	True	
AND	Email	Is Null	False	
AND	npsp__Deceased__c	Does Not Equal	True	
AND	npsp__Do_Not_Contact__c	Does Not Equal	True	

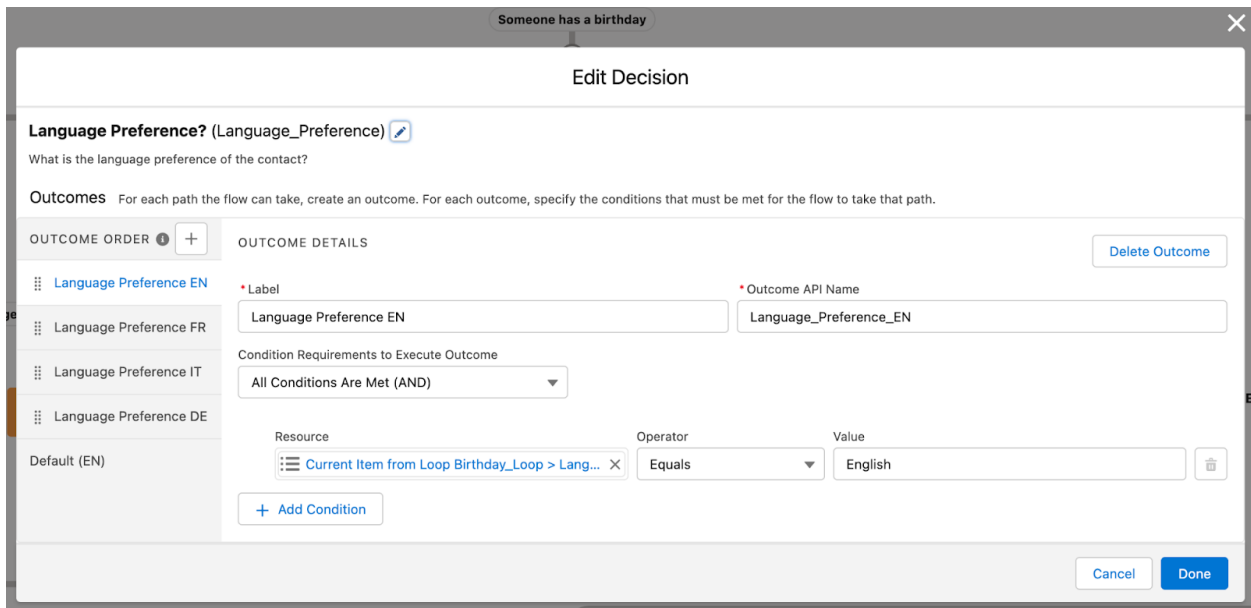
Cancel

Done

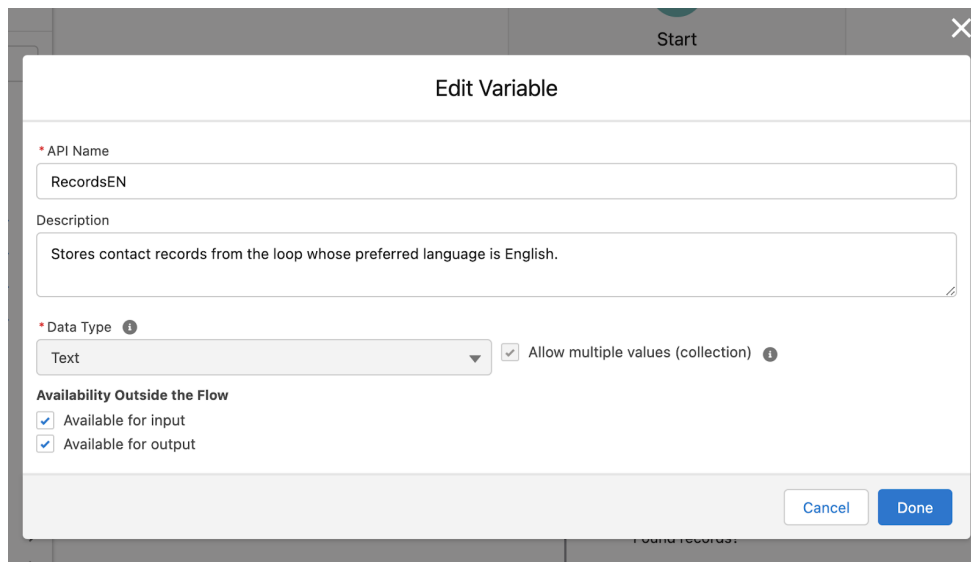
At this point, it is time for a quick decision element. Some days, no one will have a birthday. If no birthdays have been found so far, the flow has done its job, and can rest easy until the next day.

**For the rest of the birthday records, it is time to throw them for a loop, using records from the Get Records collection variable at the beginning of the flow.**

One by one, these records will flow through their second decision element. This decides what the preferred language is.

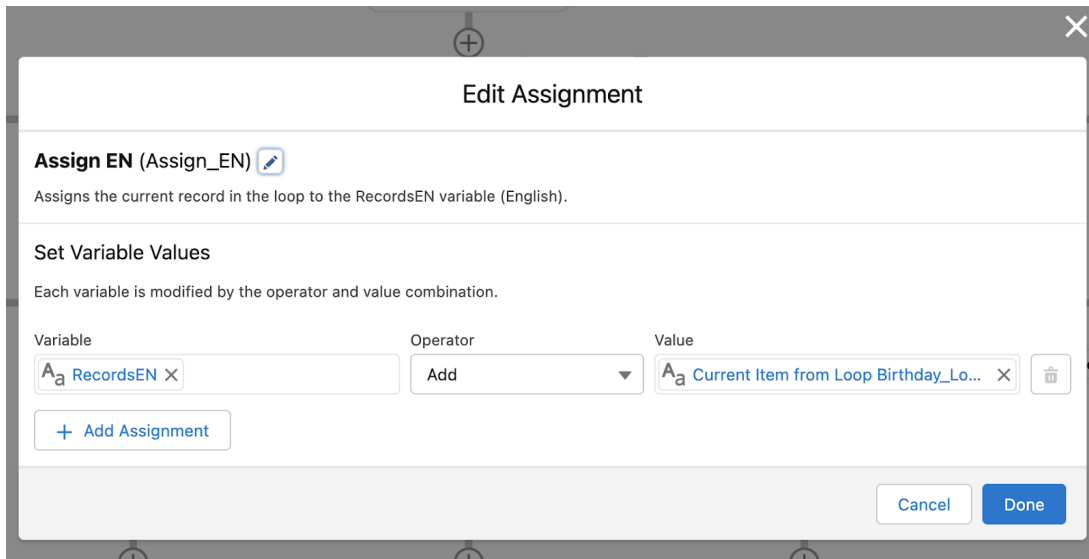


Before creating more elements on the canvas, it is time to create variables. This can be found in the top left corner, in a button that will say “Toggle Toolbox” when scrolled over. **With the button “New Resource”, a resource can be created for each language. It must be a collection variable – after all, more than one person speaking a selected language might have a birthday on the same day!**

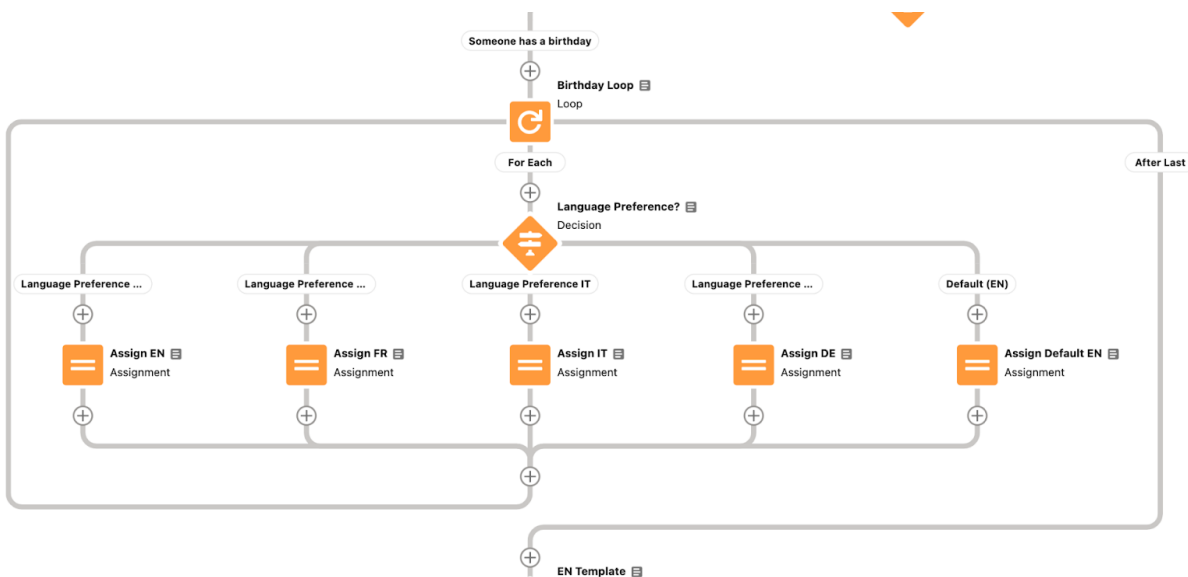


Variables are kind of like jars, and records are kind of like marbles. Sometimes the jars are small and designed to collect only one marble. Sometimes they are large and collect many all at once (ex: the Get Records element at the beginning of this

flow). And sometimes, as in this case, they *potentially* collect many marbles, but only one at a time (because these jars are in a loop, which lets only one marble pass through into the decision element at a time). There can be one assignment element for each language, placed at each leg of the decision element.

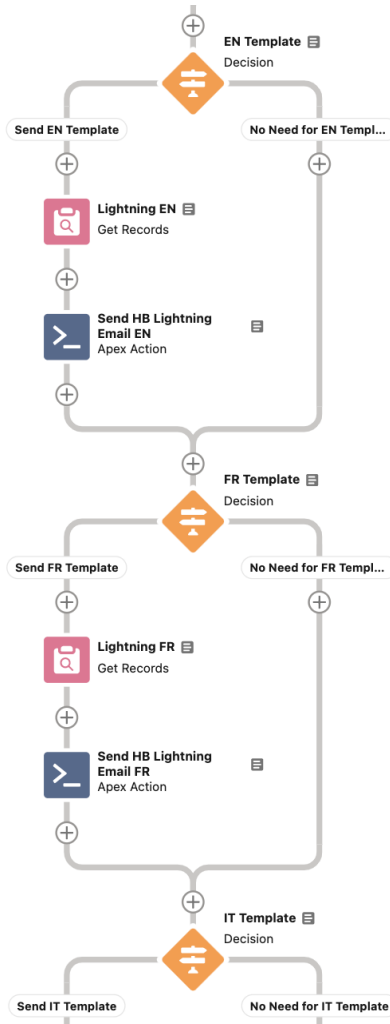


This part of the flow should now look something like this:



One of the rules when it comes to loops is: never perform a DML statement *inside* of a Loop. More simply: **no pink elements inside the loop!**

But the flow still needs pink elements. Remember that for Classic Email Templates it is necessary to set up Email Alerts, but for Lightning Email Templates with the “Send Better Email” action, Email Alerts are unnecessary? **The reason is that the action just needs the template itself. In order to feed the template to the action, the template must first be pulled into the flow through a Get Records element. But is it always necessary to pull *all* of the templates into the flow? Only if birthday contacts have been found in the associated language. This means more decision elements.**



This structure avoids a problem which would otherwise trigger an error: the Apex Actions *want* to do their job. If a record comes to them which they cannot use (because the languages do not match) they fly into a jealous rage and throw an error. **In this third and final series of decision elements (one per language), the question is: were there any records from earlier in the flow, stored in the previous assignment variables, whose language preferences are a match? If so, get the appropriate template, and send the email. If not, move on.**

### Edit Decision

**EN Template** (EN\_Template)

Must send emails in English. Includes default.

**Outcomes** For each path the flow can take, create an outcome. For each outcome, specify the conditions that must be met for the flow to take that path.

OUTCOME ORDER

Send EN Template

No Need for EN Template

**OUTCOME DETAILS**

\* Label  \* Outcome API Name

Condition Requirements to Execute Outcome

Resource	Operator	Value	
<input type="text" value="Assign_EN X"/>	<input type="text" value="Was Visited"/>	<input type="text" value="True X"/>	
<b>OR</b>			
Resource	Operator	Value	
<input type="text" value="Assign_Default_EN X"/>	<input type="text" value="Was Visited"/>	<input type="text" value="True X"/>	

Add Condition

## Edit Get Records

Find Salesforce records and store their field values in flow variables.

\* Label  \* API Name

Description

### Get Records of This Object

\* Object

### Filter Email Template Records

Condition Requirements

Field	Operator	Value	
<input type="text" value="Id"/>	<input type="text" value="Equals"/>	<input type="text" value="00XDn000000OCCPMA4"/>	

Add Condition

### Sort Email Template Records

Field: Id      Operator: Equals      Value: 00XDn000000CCPMA4

[+ Add Condition](#)

---

**Sort Email Template Records**

Sort Order: Not Sorted ⚠ If you store only the first record, filter by a unique field, such as ID.

---

**How Many Records to Store**

Only the first record  
 All records

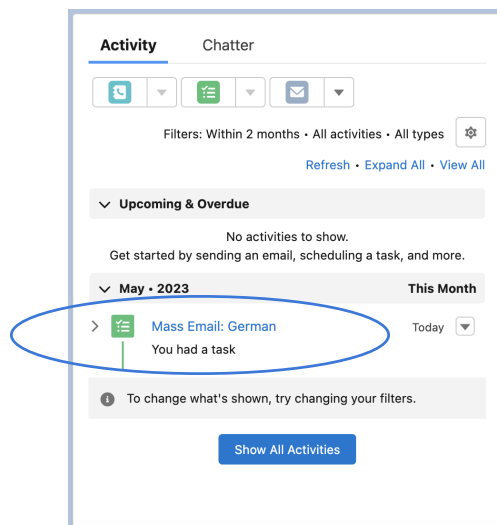
**How to Store Record Data**

Automatically store all fields  
 Choose fields and let Salesforce do the rest  
 Choose fields and assign variables (advanced)

[Cancel](#) [Done](#)

And now, for the best part! Please refer to the previous links (the second link under the section titled “The Package: Not All Heroes Wear Capes” in this document) for a more detailed explanation of how to use the “Send Better Email” action.

As a bonus, it comes with another great feature: Activities and Tasks can be optionally saved on the Contact records! Not only will contacts receive a beautiful birthday message from a Lightning Email Template, their related records will remind users that their birthday message was sent.



## Edit Apex Action

### Send HB Lightning Email EN (Send\_HB\_Lightning\_Email\_EN)

Sends a happy birthday email in English with the associated lightning template.

#### Email Type

- Standard Email  
 Mass Email

### Set Sender Settings

Description (sent in internal email with status after action completes)

Sender Display Name

Sender receives BCC of first email sent?

Reply Email Address

Use Salesforce Signature if executing user has one?

### Email Template

Select Id or Name, but not both

Email Template Id

Template Name

## Edit Apex Action

### Email Template

Select Id or Name, but not both

Email Template Id

Template Name

Template Language

### Recipients & Recipient-Related Records

Recipient Record Id Collection (also for template merge fields and recording Email as an activity)

Related Record Id Collection (for template merge fields and recording Email as a task)

### Record as Activity and/or Task

- Save Email as Activity on Recipient Record(s)?  
 Save Email as Task on recipient related record(s)?

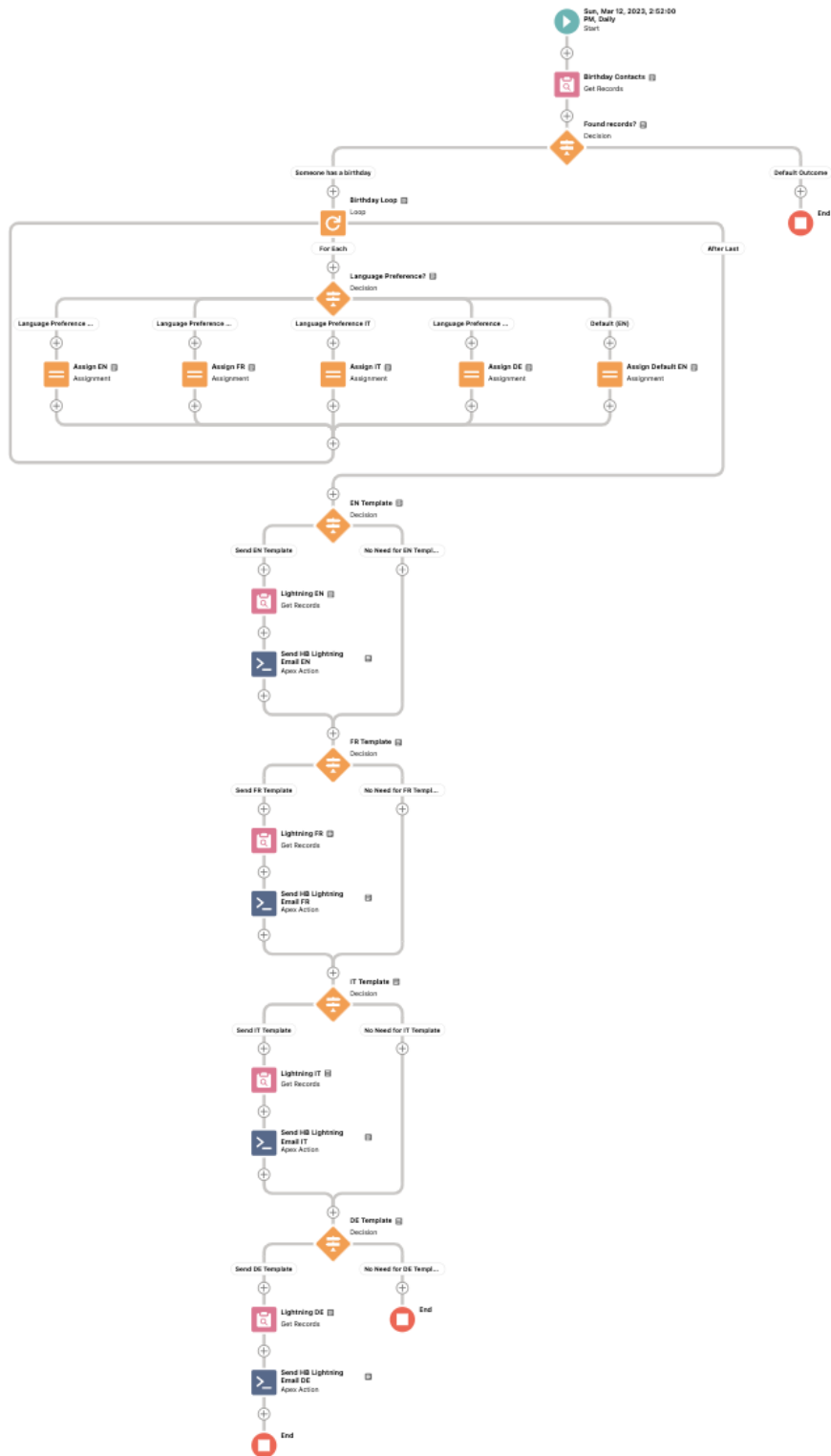
### Advanced Features

Send Email Asynchronously?

Cancel

Done

## Here is the final flow:





And now, some testing. Below are the birthday contacts and their details:

**Contact:** Henry Fred, Male, Email Available, Deceased

**Result:** No email.

**Contact:** Archibald Fred, Male, No Email, No Language Specified

**Result:** No email.

**Contact:** Janelle Monáe, No Gender / Language Specified, Email Available

**Result:** Happy Birthday from the Blaze Your Trail team! (“Dear Mx. Monáe,”)

**Contact:** Lady Gaga, Female, Email Available, EN

**Result:** Happy Birthday from the Blaze Your Trail Team!

**Contact:** Jacques Brel, Male, Email Available, FR

**Result:** Joyeux anniversaire de nous tous chez Blaze Your Trail!

**Contact:** Riccardo Cocciante, Male, Email Available, IT

**Result:** Tanti auguri dal gruppo Blaze Your Trail!

**Contact:** Hildegard Knef, Female, Email Available, DE

**Result:** Alles Gute von Blaze Your Trail!

### **A note on testing and mass emails:**

For Sandboxes, Playgrounds, and DevOrgs, mass emails are **limited to 10 emails / day**. Much of the testing, therefore, will be limited to debugging. **Each licensed Salesforce org can send mass email and list email to a maximum of 5,000 external email addresses per day.**

Blaze  
your  
Trail

Dear Mrs. Gaga,



It's beautiful in its way,  
cupcake's got no mistakes  
It's on the right track, baby,  
it was baked this way!  
Don't turn away and regret,  
just take a bite and you're set  
Just grab a napkin, baby,  
and enjoy your day!

Cheers,

The Blaze Your Trail Team

Cher Monsieur Brel,



Dans le port d'Amsterdam, il y a un  
cupcake!

Joyeux anniversaire!

Ne nous quitte pas,

L'équipe Blaze Your Trail

Blaze  
your  
Trail

Gentile Signore Coccianti,



Perché questa torta è dolce,  
perché questa torta è vera,  
perché questa torta ama,  
e lo fa una notte intera...

Perché questa torta è un sogno,  
perché questa torta è il sale  
perché questa torta è il vento  
e non sa che può far male.

Tanti auguri e tante torte!

Il Gruppo Blaze Your Trail

Blaze  
your  
Trail

Sehr geehrte Frau Knief,



für Sie soll's rose Cupcakes regnen,  
Ihnen sollten sämtliche Wunder  
begegnen,  
die Welt sollte sich umgestalten  
und ihre Sorgen für sich behalten.

Alles Gute zum Geburtstag!

Mit Heimweh nach dem Kurfürstendamm,

Blaze Your Trail

## Acknowledgments

Many thanks to the Blaze Your Trail team, the Trailblazers who helped me problem-solve (particularly Sona Emmanuel, who advised me to skip specifying an Object in my flow, which solved the problem of duplicate emails), and of course, to Alex Edelstein, without whom this solution would not be possible.

And of course to Lady Gaga, Jacques Brel, Riccardo Cocciante, and Hildegard Knef, whose music inspired these singalong-emails.