CONCLUSION
LOW CODE COMPANY

100th Mendix Meetup
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Conclusion Low Code Company

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Become an even better Mendix developer

Tips & Tricks that make you an even better developer

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- How the Company Design System makes styling quicker and easier
- Shortcuts that will save you time
- Security, not flashy, but vital
- Practices to create the best microflows

Styling made easy

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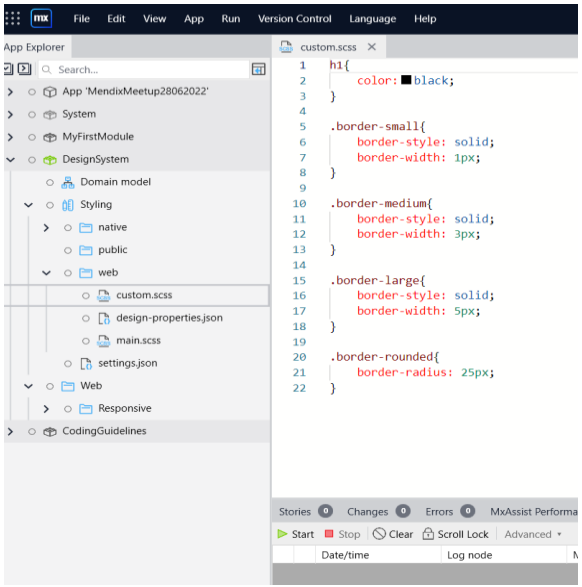
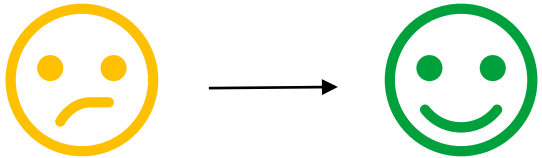
Tip: Create a company design system to **quickly** and **easily** build the styling of your application.



Tip: Use the Company Design System to create a **consistent** style guide throughout your application landscape



Styling made easy

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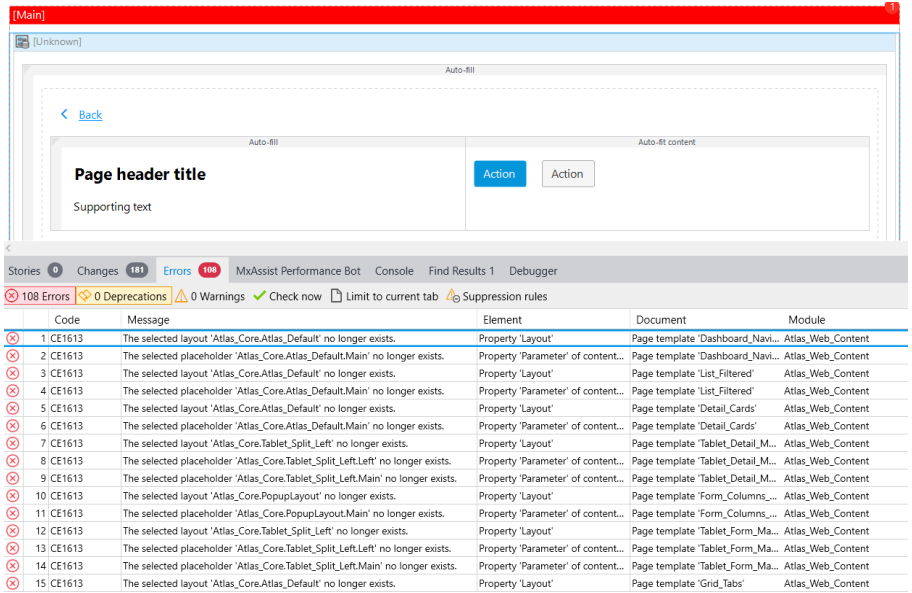
Tip: Create **reusable** design properties inside your Company Design System

Medium Border

Large Border

Trick: *App -> Tools -> Batch update layouts* to **prevent errors** and save time



	Code	Message	Element	Document	Module
1	CE1613	The selected layout 'Atlas_Core.Atlas_Default' no longer exists.	Property 'Layout'	Page template 'Dashboard_Navi...	Atlas_Web_Content
2	CE1613	The selected placeholder 'Atlas_Core.Atlas_Default.Main' no longer exists.	Property 'Parameter' of content...	Page template 'Dashboard_Navi...	Atlas_Web_Content
3	CE1613	The selected layout 'Atlas_Core.Atlas_Default' no longer exists.	Property 'Layout'	Page template 'List_Filtered'	Atlas_Web_Content
4	CE1613	The selected placeholder 'Atlas_Core.Atlas_Default.Main' no longer exists.	Property 'Parameter' of content...	Page template 'List_Filtered'	Atlas_Web_Content
5	CE1613	The selected layout 'Atlas_Core.Atlas_Default' no longer exists.	Property 'Layout'	Page template 'Detail_Cards'	Atlas_Web_Content
6	CE1613	The selected placeholder 'Atlas_Core.Atlas_Default.Main' no longer exists.	Property 'Parameter' of content...	Page template 'Detail_Cards'	Atlas_Web_Content
7	CE1613	The selected layout 'Atlas_Core.Tablet_Split_Left' no longer exists.	Property 'Layout'	Page template 'Tablet_Detail_M...	Atlas_Web_Content
8	CE1613	The selected placeholder 'Atlas_Core.Tablet_Split_Left.Left' no longer exists.	Property 'Parameter' of content...	Page template 'Tablet_Detail_M...	Atlas_Web_Content
9	CE1613	The selected placeholder 'Atlas_Core.Tablet_Split_Left.Main' no longer exists.	Property 'Parameter' of content...	Page template 'Tablet_Detail_M...	Atlas_Web_Content
10	CE1613	The selected layout 'Atlas_Core.PopupLayout' no longer exists.	Property 'Layout'	Page template 'Form_Columns_...	Atlas_Web_Content
11	CE1613	The selected placeholder 'Atlas_Core.PopupLayout.Main' no longer exists.	Property 'Parameter' of content...	Page template 'Form_Columns_...	Atlas_Web_Content
12	CE1613	The selected layout 'Atlas_Core.Tablet_Split_Left' no longer exists.	Property 'Layout'	Page template 'Tablet_Form_Ma...	Atlas_Web_Content
13	CE1613	The selected placeholder 'Atlas_Core.Tablet_Split_Left.Left' no longer exists.	Property 'Parameter' of content...	Page template 'Tablet_Form_Ma...	Atlas_Web_Content
14	CE1613	The selected placeholder 'Atlas_Core.Tablet_Split_Left.Main' no longer exists.	Property 'Parameter' of content...	Page template 'Tablet_Form_Ma...	Atlas_Web_Content
15	CE1613	The selected layout 'Atlas_Core.Atlas_Default' no longer exists.	Property 'Layout'	Page template 'Grid_Tabs'	Atlas_Web_Content

Shortcuts that will save you time

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Switch languages	Ctrl + L and Ctrl + Shift + L
Close pop-ups	Ctrl + Enter
Distraction free mode	Shift + F11
Dissolve and wrap containers	Right mouse click on container
Switch branch	Manage Branch Lines

Security

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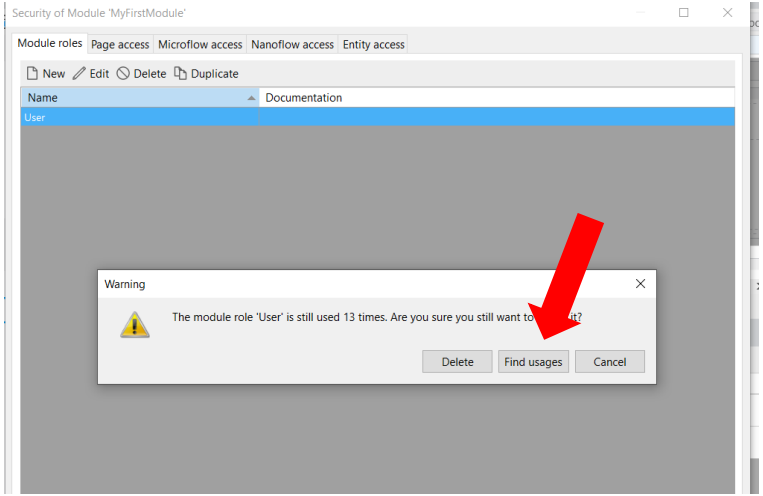
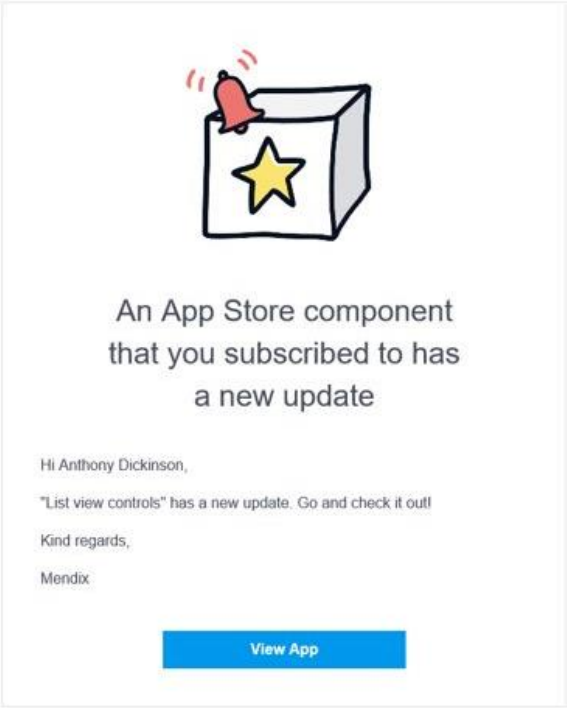
Trick: **Easily** see which project roles have a module role assigned



Tip: **Stay updated** about marketplace module upgrades



Microflow Best Practices

Microflow best practices

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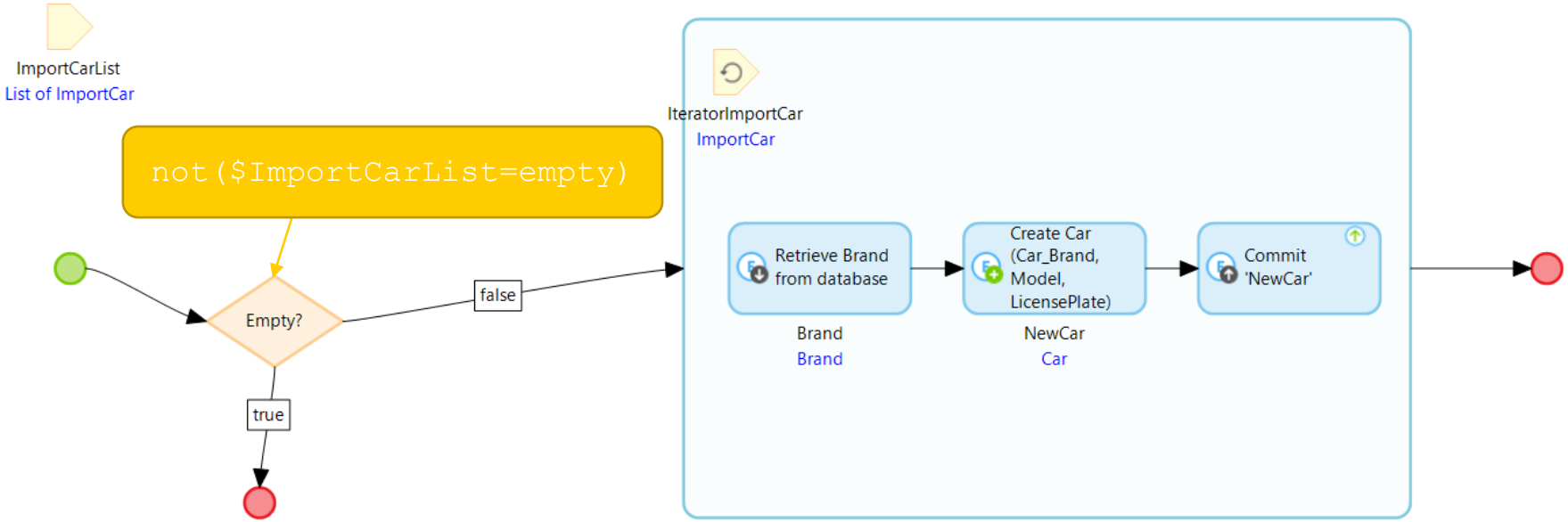
Case: This microflow is called from a Scheduled Event that imports a list of cars. What further improvements can be made to this microflow?



Microflow best practices

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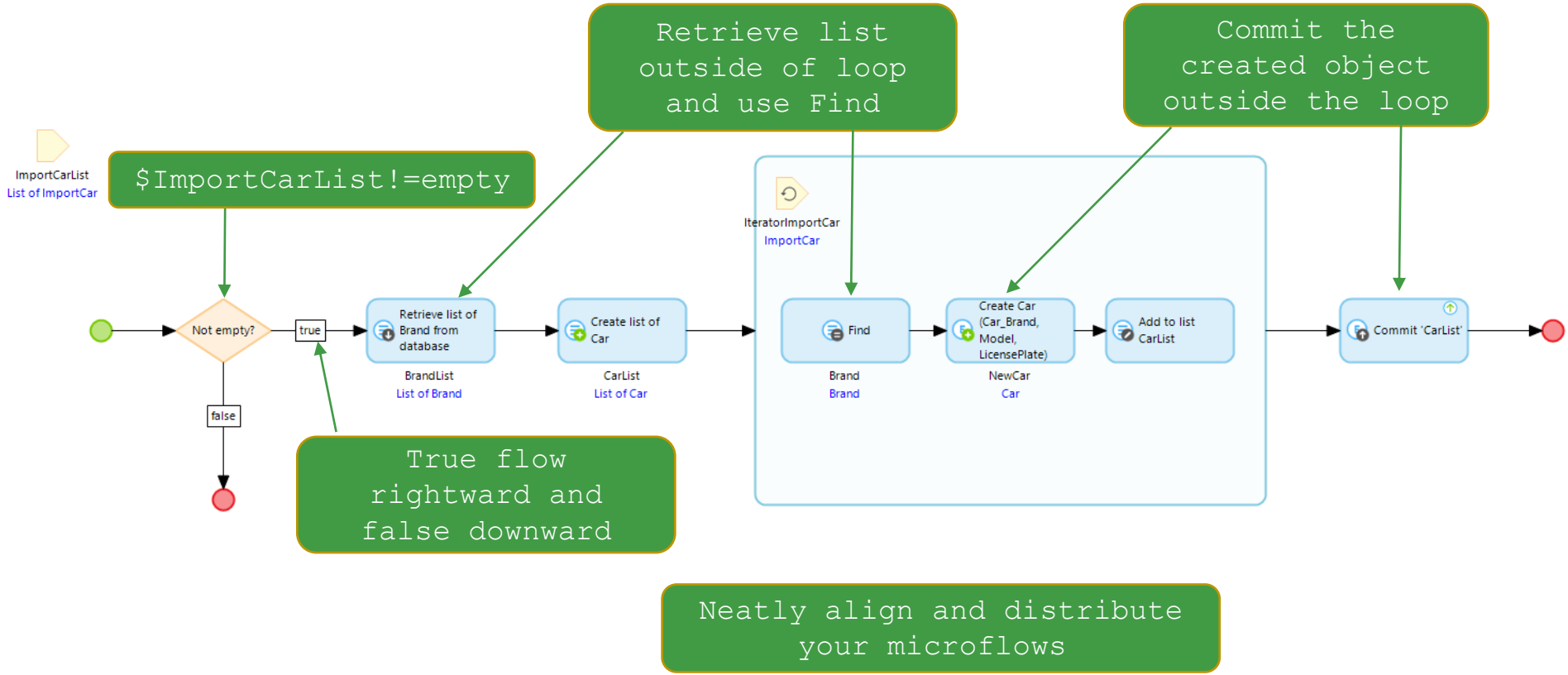
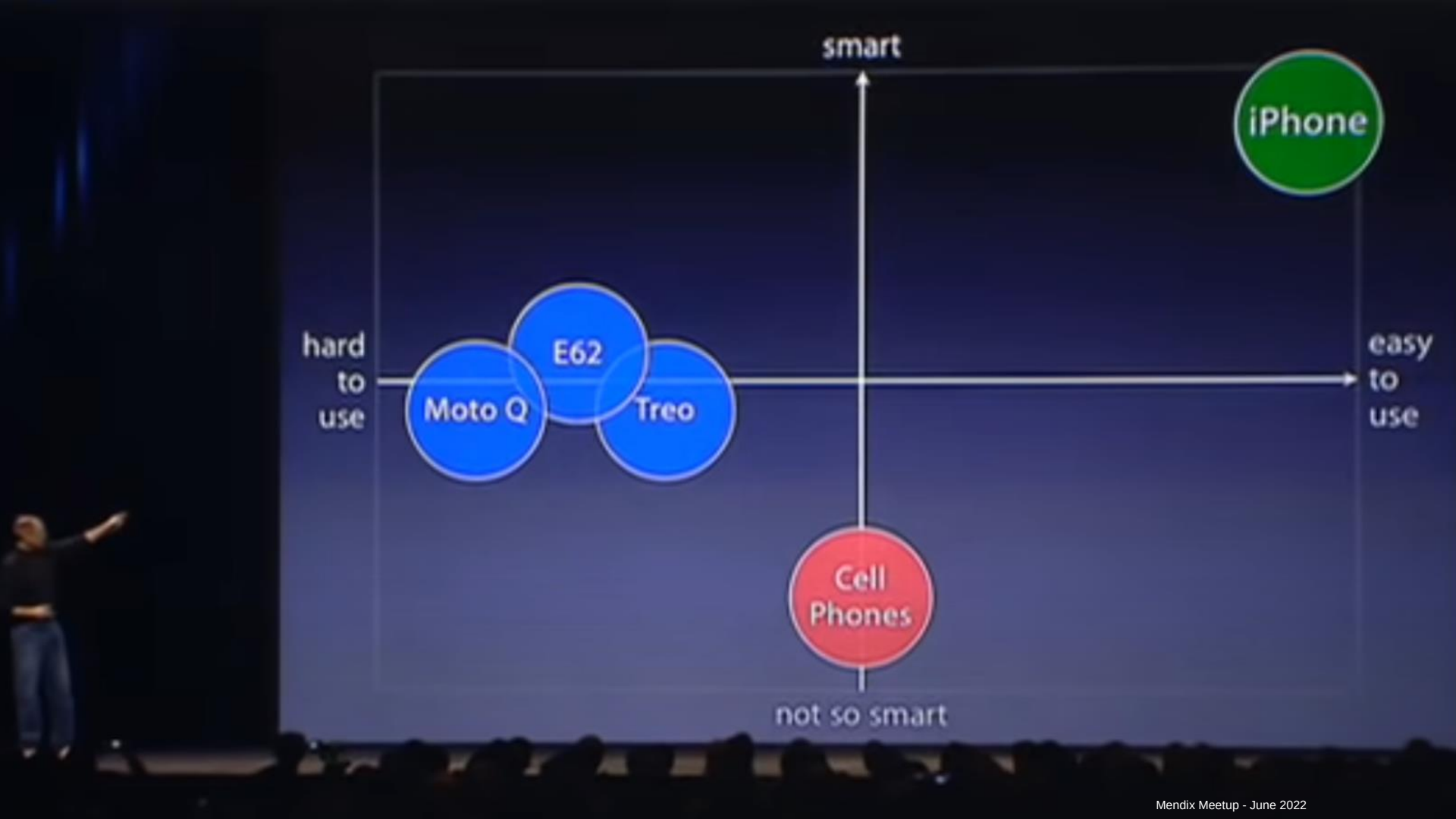


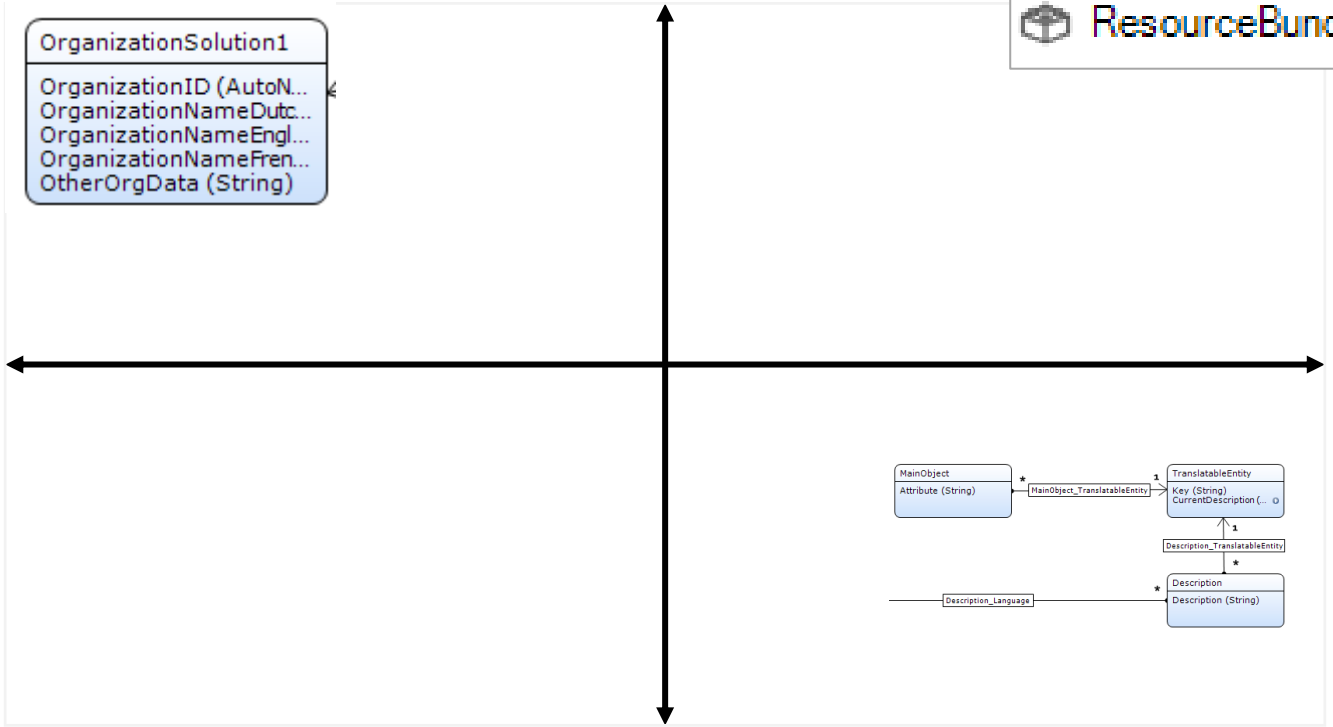
Thank you and good luck with implementing these tips & tricks!

Multilingual master data
Fast and flexible


smart
iPhone
hard
to
use
E62
Moto Q
Treo
easy
to
use
Cell
Phones
not so smart

fast

Not flexible



flexible

not so fast

MULTILINGUAL

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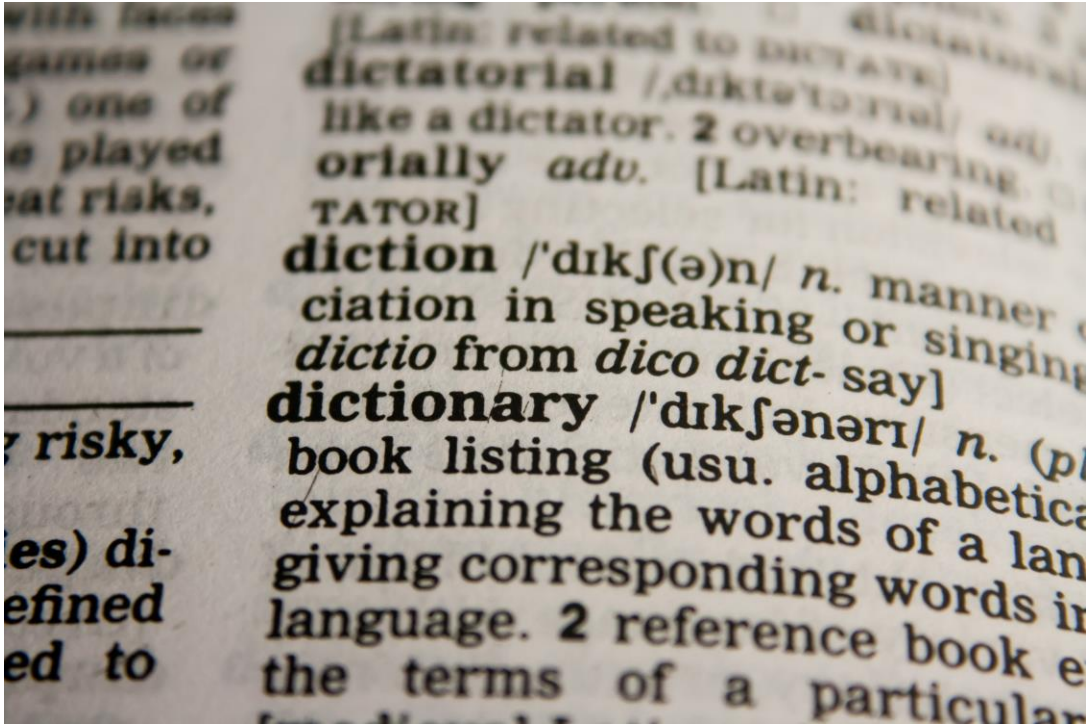
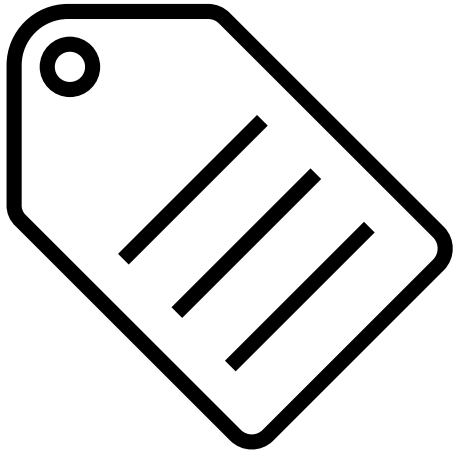
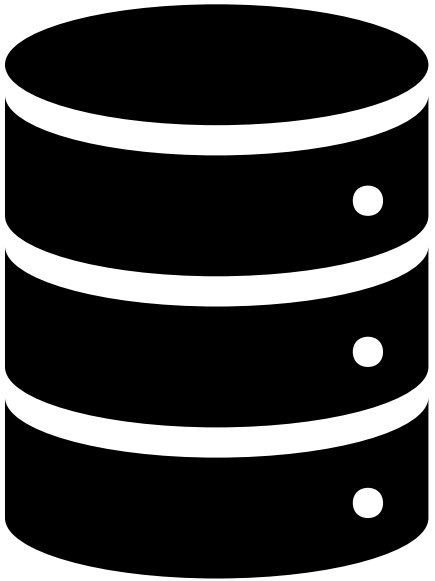


Multilingual application

Labels and text



List of values



Multilingual application

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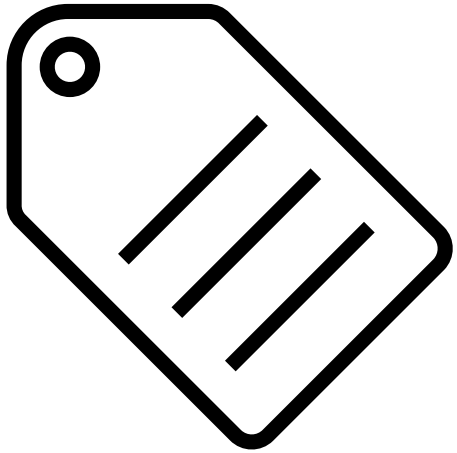
Labels and text



- Design time
- Manage via Studio Pro
  - Export to Excel
  - Translate
  - Import from Excel

Labels and text

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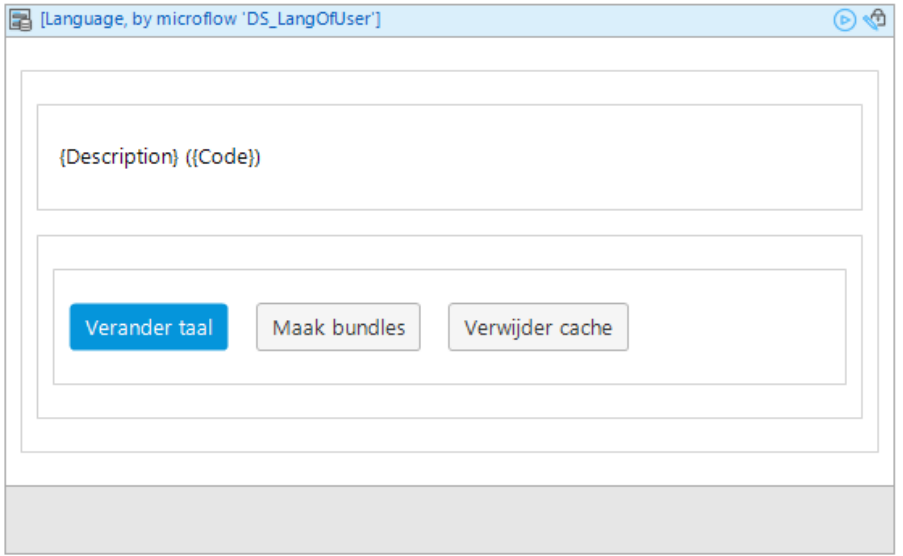
6 | 6

Home

Welkom bij je meertalige app.



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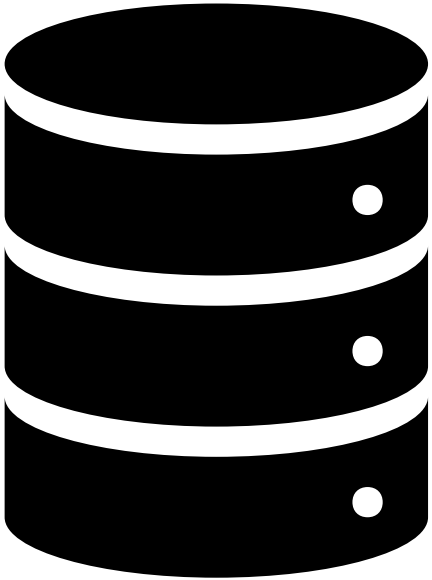
List of values



- Runtime
- Manage in application whilst running
  - UI
  - API
  - Imports

Pattern

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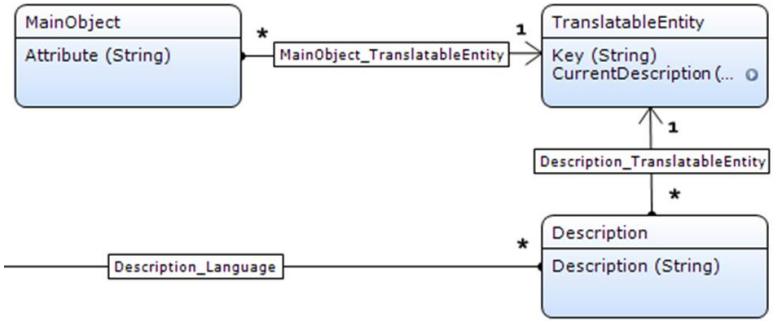
Domain model

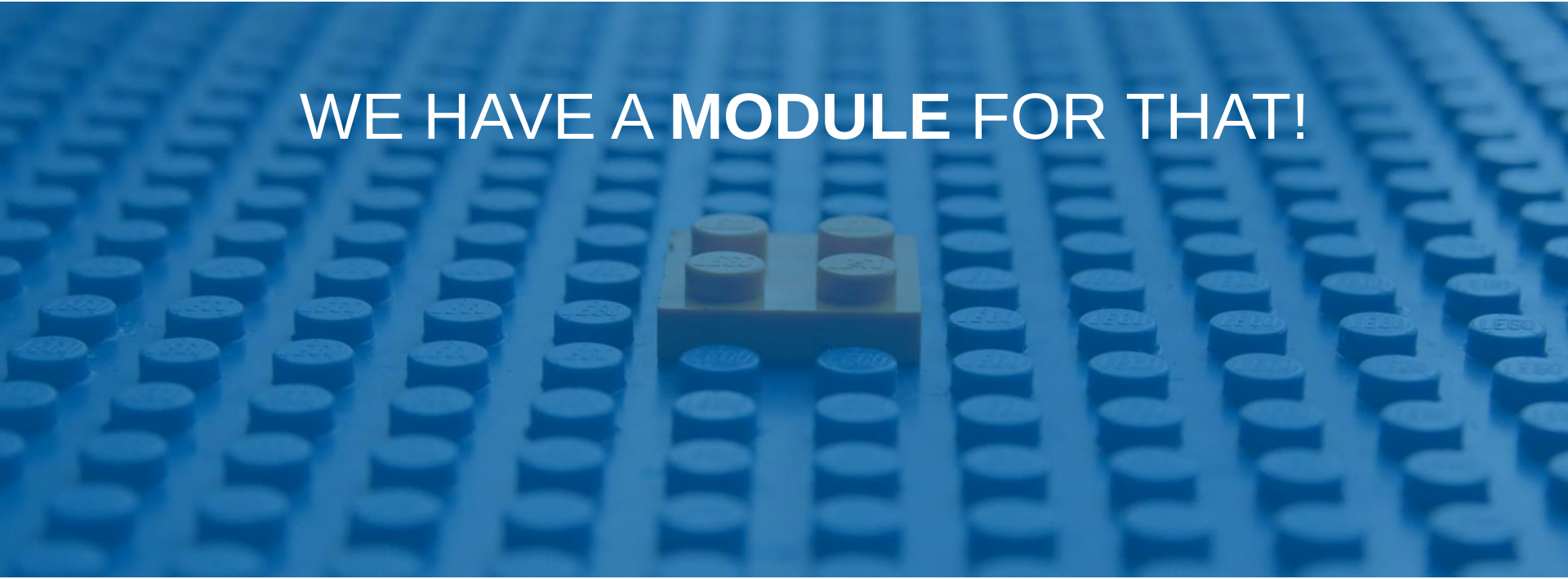


Drawback

- Impact on performance
  - Finding the right translation, per object/record is a retrieve to the database and at least three queries
    - Description
    - Associations

https://forum.mendix.com/link/questions/5419

WE HAVE A **MODULE** FOR THAT!



Inspiration

https://medium.com/mendix/mendix-optimize-runtime-translations-ae6c7ec35dee

Use the power of Java

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OVERVIEW PACKAGE CLASS USE TREE DEPRECATED INDEX HELP — Java™ Platform Standard Ed. 8

PREV CLASS NEXT CLASS FRAMES NO FRAMES ALL CLASSES

SUMMARY: NESTED | FIELD | CONSTR | METHOD DETAIL: FIELD | CONSTR | METHOD

compact1, compact2, compact3
java.util

Class ResourceBundle

java.lang.Object
  java.util.ResourceBundle

Direct Known Subclasses:
`ListResourceBundle`, `PropertyResourceBundle`

```
public abstract class ResourceBundle
extends Object
```

Resource bundles contain locale-specific objects. When your program needs a locale-specific resource, a `String` for example, your program can load it from the resource bundle that is appropriate for the current user's locale. In this way, you can write program code that is largely independent of the user's locale isolating most, if not all, of the locale-specific information in resource bundles.

This allows you to write programs that can:

- be easily localized, or translated, into different languages
- handle multiple locales at once
- be easily modified later to support even more locales

Resource bundles belong to families whose members share a common base name, but whose names also have additional components that identify their locales. For example, the base name of a family of resource bundles might be "MyResources". The family should have a default resource bundle which simply has the same name as its family - "MyResources" - and will be used as the bundle of last resort if a specific locale is not supported. The family can then provide as many locale-specific members as needed, for example a German one named "MyResources_de".

Each resource bundle in a family contains the same items, but the items have been translated for the locale represented by that resource bundle. For example, both "MyResources" and "MyResources_de" may have a `String` that's used on a button for canceling operations. In "MyResources" the `String` may contain "Cancel" and in "MyResources_de" it may contain "Abbrechen".

If there are different resources for different countries, you can make specializations: for example, "MyResources_de_CH" contains objects for the German language (de) in Switzerland (CH). If you want to only modify some of the resources in the specialization, you can do so.

When your program needs a locale-specific object, it loads the `ResourceBundle` class using the `getBundle` method:

Labels and text

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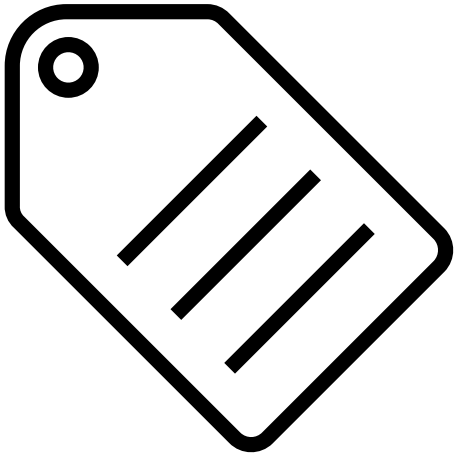

Platform

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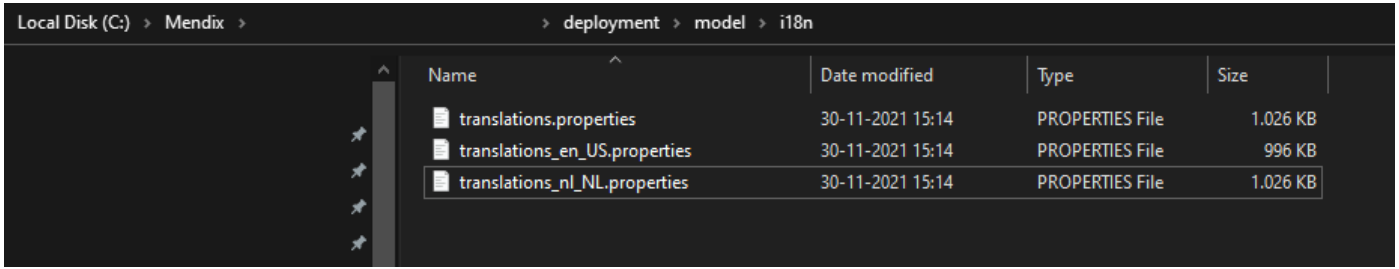

Structure

- Language of the user
  - Default language

Platform - example

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C: > Mendix > > deployment > model > i18n > translations_nl_NL.properties

```
1  55e673f6-c6c1-451b-8a94-bfb115938a17=Home
2  09e28bc7-132b-46a6-9114-051856086217=Werkplaatsbezoek
3  fdeed68f-9486-4aa1-a61f-4e30a5b97dcf=Werkplaatsbezoek
4  e67153b4-6916-479b-a9bf-6cf2f2eac809=Werkplaatsbezoek
5  baade8b0-bfaa-4e94-b56b-1b6ce007ac2a=Meldingen
6  82c163cc-eb4c-4170-a603-270962b06c3c=Meldingen
7  56c27748-b8ad-4830-a076-8eb6cbf30e27=Meldingen
8  61ea05be-5dd8-4700-9687-3a503e8ed060=Planning
9  49f95759-cbfb-49e4-a50e-d131e4a63226=Fleet
10 b25e9448-d91a-439a-b8b6-51fe6630049a=Fleet
11 7aef4c39-9430-44c9-8637-7998c230a4c2=Fleet
12 220bd9da-49ce-4d5f-94c8-2e98c1b88e56=Planning
13 4bc4e978-10d6-4cf1-a132-5034f9d7137a=Beheer
14 dbe6fae0-0d88-4181-8d72-2781219ecce5=Accounts
```

The **same concept** for labels and text
now for **list of values**

The module

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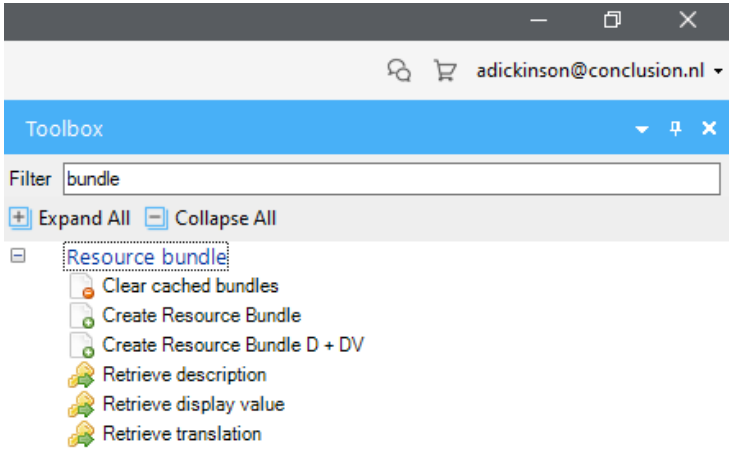
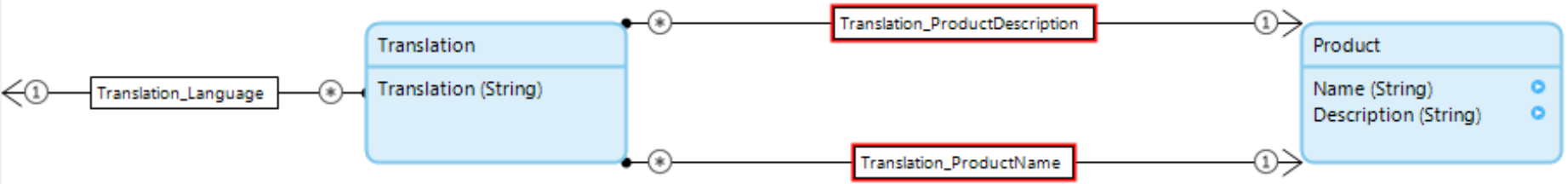
- 6 java actions
- 148 LoC
- Focus on re-use with generic approach
- Ease of implementation
- Control within your project
  - Define your own domain model
- Integrated fallback
  - User language
    - App default language



IMPLEMENTATION IN A PROJECT

Domain model



DEMO TIME

Create translation file

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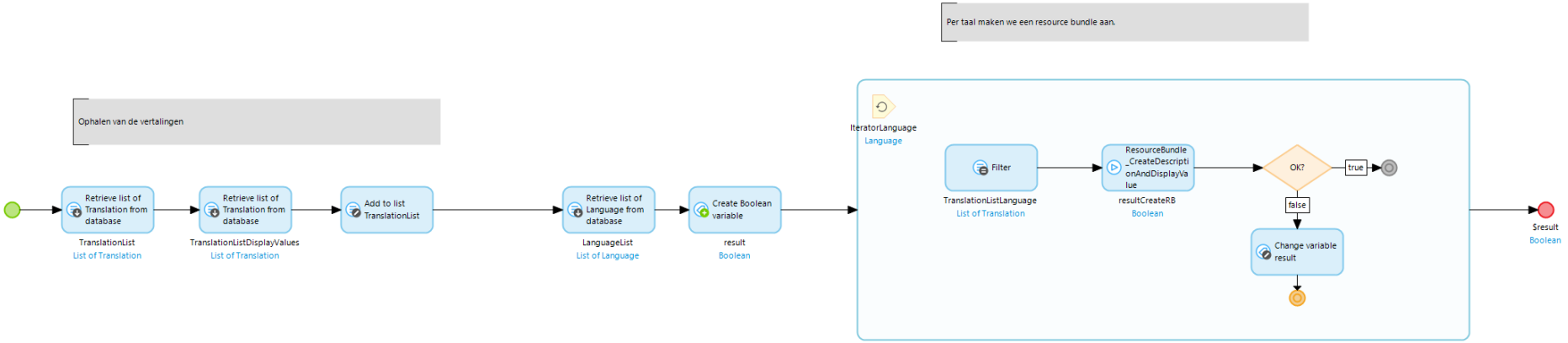
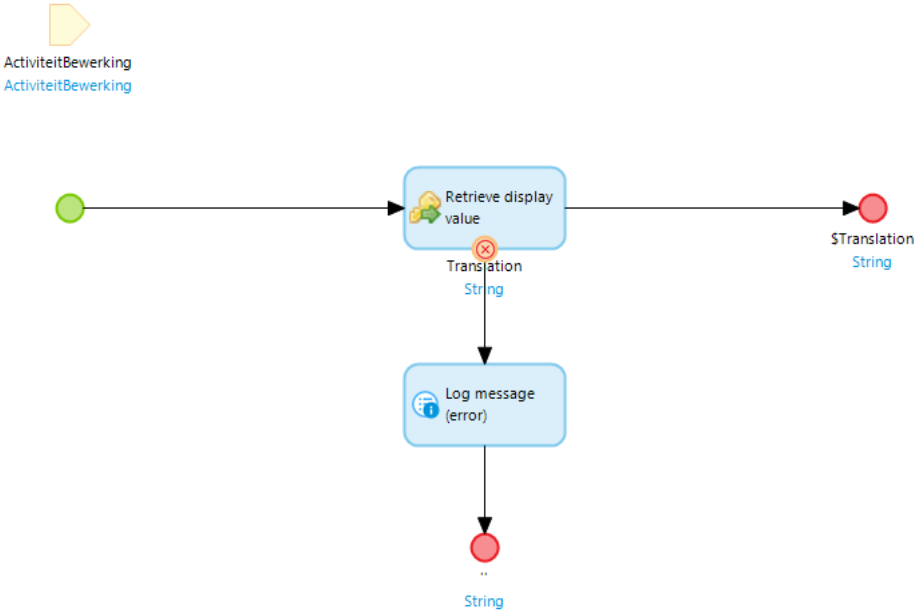
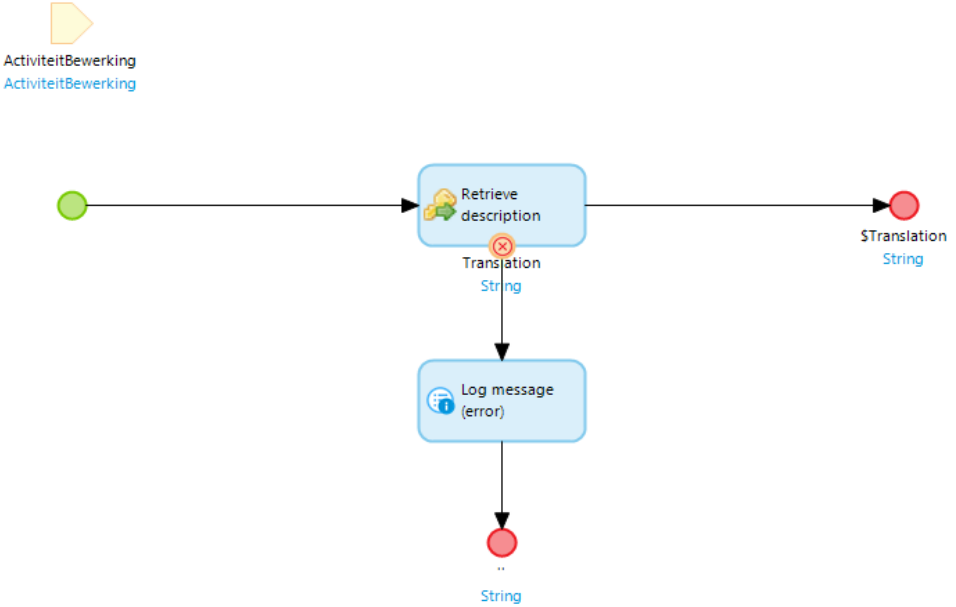
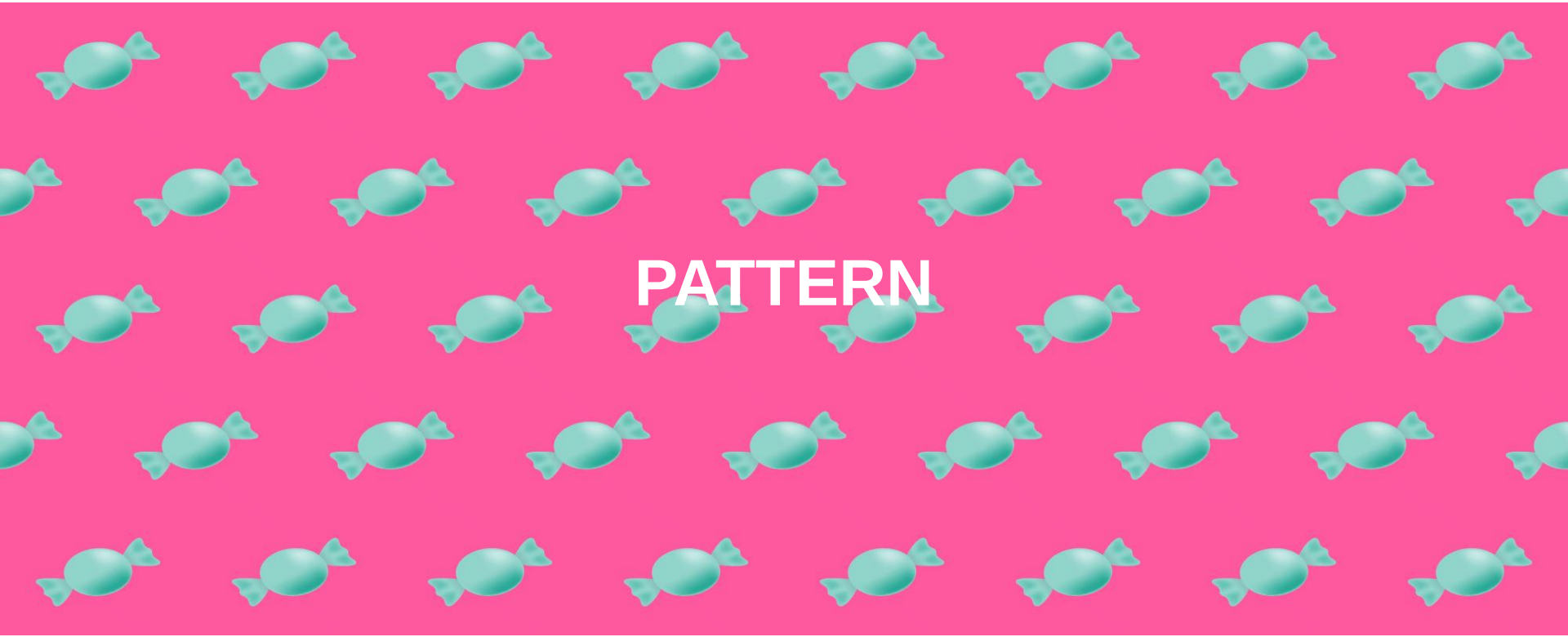


Virtual attribute






PATTERN

Pattern - Associations

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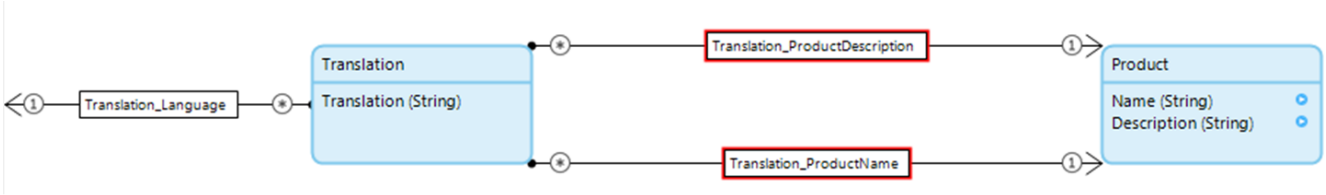


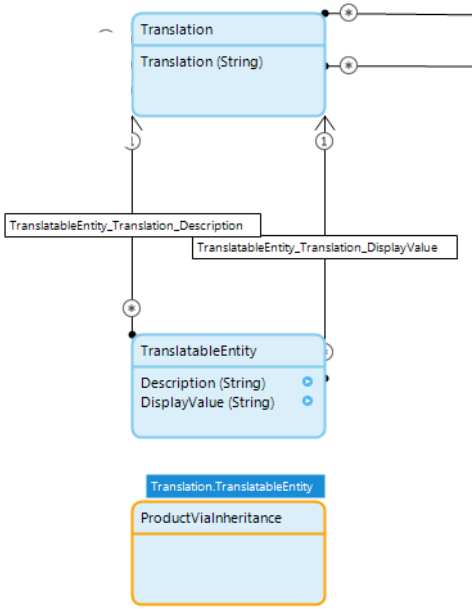
Pro's

- Data spread over multiple entities thus no one big entity with all translations

Cons

- Model virtual attribute(s) per entity

Pattern - Inheritance



Pro's

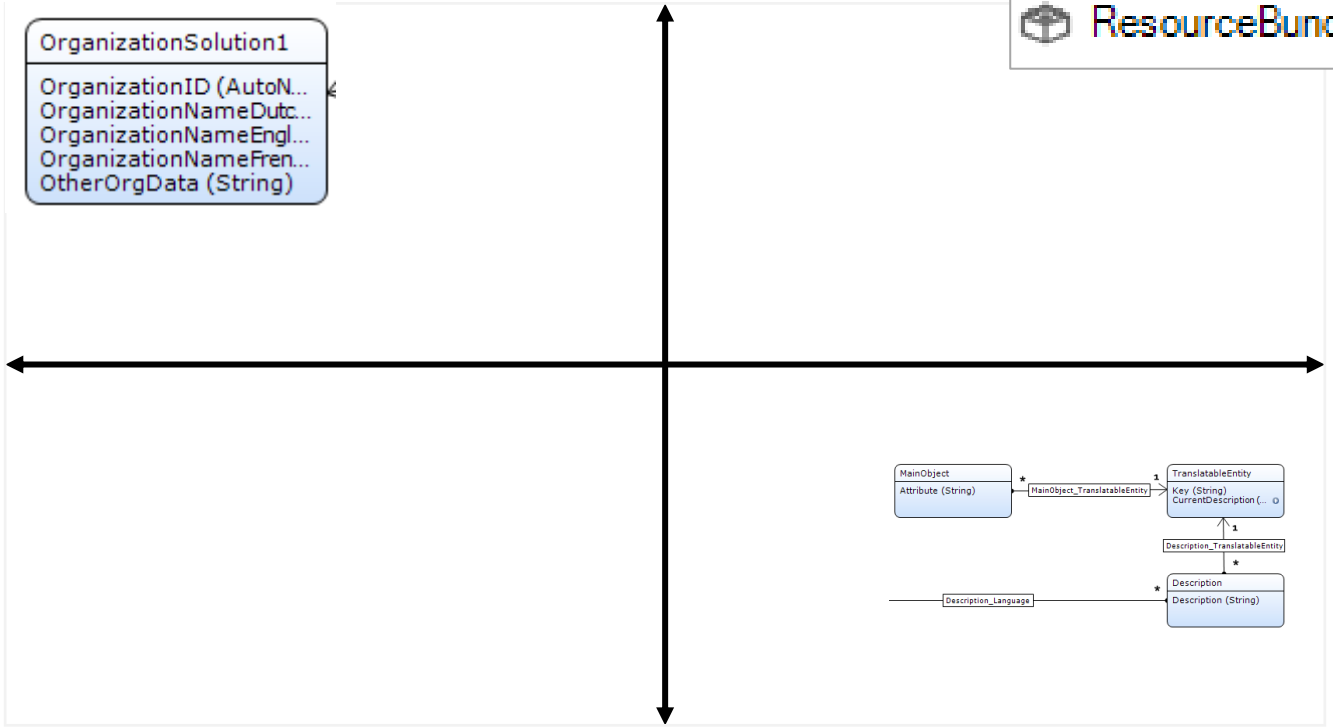
- Only two virtual attributes
- Domain model easier to read

Cons

- All translations in one big table could impact performance
- Blocks use of inheritance for other objectives

fast

Not flexible



flexible

not so fast