

SKU & Barcode Generator

A guide to automatic SKUs and barcodes: how the codes are built, the settings, prefixes per category, variants, filling existing products, and the guarantees.

1. Start here

In plain words: Every product needs a code: an **SKU** that people can read and say on the phone, and a **barcode** that scanners can read. Typing them by hand means gaps, duplicates and “which one did we use last?”. This module gives every new product both, **automatically**, the moment you save it.

The screenshot shows the Odoo Product form for 'Ergonomic Standing Desk'. The form is divided into several sections: General Information, Attributes & Variants, Sales, Purchase, and Inventory. The General Information section is active, showing fields for Product Type (Goods), Sales Price (\$489.00), Sales Taxes (15%), Cost (\$0.00), Purchase Taxes (15%), Category (Furniture / Office), Reference (FUR-0001), Barcode (2000000000015), and Company (Visible to all). The Sales section is also visible, showing checkboxes for Sales, Point of Sale, and Purchase. The Purchase section is active, showing checkboxes for Sales, Point of Sale, and Purchase. The Inventory section is also visible, showing checkboxes for Sales, Point of Sale, and Purchase. The form is titled 'Ergonomic Standing Desk' and has a star icon next to it. The top navigation bar shows 'Invoicing', 'Customers', 'Vendors', 'Reporting', and 'Configuration'. The top right corner shows 'My Company (San Francisco)' and a user profile icon. The bottom right corner shows a chat window with 'Mitchell Admin' and a message 'Product created'.

Product
☆ Ergonomic Standing Desk

☒ Sales ☐ Point of Sale ☒ Purchase

General Information | Attributes & Variants | Sales | Purchase | Inventory

Product Type [?] ☒ Goods ☐ Service ☐ Combo

Sales Price [?] \$ 489.00

Invoicing Policy [?] Ordered quantities

Track Inventory [?] ☐

Sales Taxes [?] 15% X (= \$ 562.35 Incl. Taxes)

Cost [?] \$ 0.00

Purchase Taxes [?] 15% X

Category Furniture / Office

Reference FUR-0001

Barcode 2000000000015

Company Visible to all

INTERNAL NOTES

This note is only for internal purposes.

Send message Log note Activity

Today

Mitchell Admin 1:56 AM
Product created

A new product, saved without typing a code: Reference FUR-0001 and an EAN-13 barcode.

What you do	What the module does
Save a new product	Fills the Reference (SKU) with the category prefix and the next number, and the Barcode with a valid EAN-13.
Add variants (colour, size)	Every variant gets <code>SKU-RED-M</code> style code and its own barcode.
Already have thousands of products without codes	One click fills the missing ones. Codes that exist are never touched.

Tip: Nothing you typed is ever overwritten, and the module never creates a duplicate: if a code is already taken, it takes the next free one.

2. What the codes look like

Code	Example	Built from
SKU of a product	<code>FUR-0042</code>	category prefix <code>FUR</code> + separator <code>-</code> + number <code>0042</code>
SKU of a variant	<code>CLO-0001-RED-M</code>	the product's SKU + the first 3 letters of each option (Red, M)
Barcode (EAN-13)	<code>2000000000015</code>	your prefix <code>200</code> + a counter <code>000000001</code> + the check digit <code>5</code>
Barcode (same as SKU)	<code>FUR-0042</code>	the SKU itself, as a Code 128 barcode

In plain words: The prefix, the separator, the number of digits and the barcode type are all settings. The check digit is calculated for you, so every EAN-13 is valid and scans first time.

Tip: 200 to 299 are the numbers GS1 reserves for *internal use*, so they never clash with barcodes that suppliers print on their goods. You can choose any prefix of 2 to 8 digits.

3. Requirements

Item	Details
Odoo	19.0 (Community or Enterprise)
Apps needed	Only the base Products app (<code>product</code>), which every Sales, Inventory, Purchase or Point of Sale database has
License	OPL-1 (Odoo Proprietary License v1.0)

4. Install

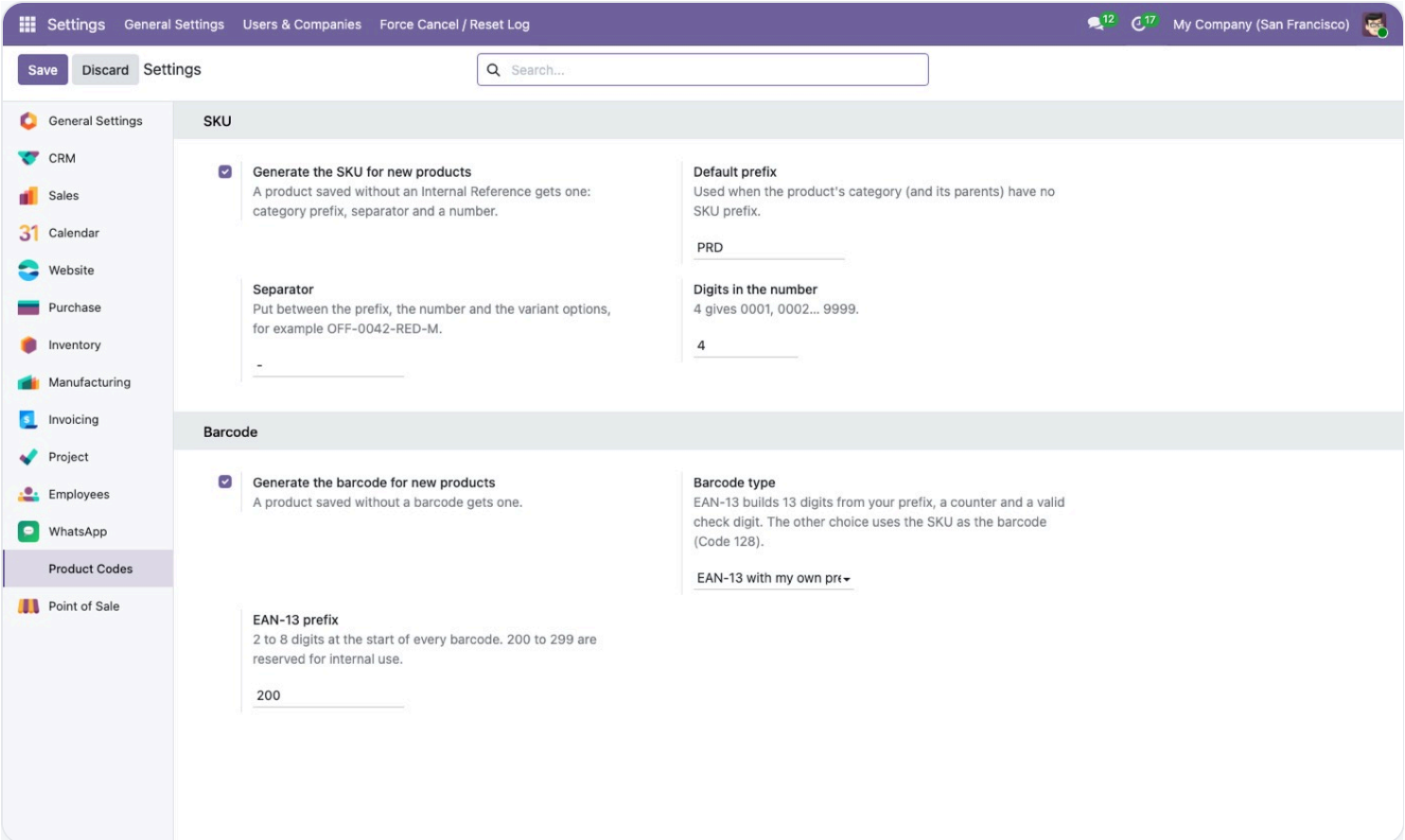
- 1 Unzip the package. Inside is `taqnix_sku_barcode_generator.zip` ; unzip it to get the folder `taqnix_sku_barcode_generator` .
- 2 Copy the folder into one of the `addons_path` folders of your Odoo server and restart Odoo.
- 3 Log in as an administrator, activate **Developer mode**, open **Apps** and press **Update Apps List**.
- 4 Remove the "Apps" filter, search **SKU** and press **Install**.

```
# or from the command line
./odoo-bin -c odoo.conf -d YOUR_DATABASE -i taqnix_sku_barcode_generator --stop-after-init
```

Tip: Installing changes nothing on your existing products. From then on, new products get codes. Use chapter 9 to fill the old ones.

5. Settings

In plain words: Open **Settings** → **Product Codes**. The settings belong to each company.



Settings → Product Codes: SKU and barcode.

Setting	What it does
Generate the SKU for new products	Switch the automatic SKU on or off.
Default prefix	Used for products whose category (and its parents) has no prefix. Default PRD .
Separator	Put between prefix, number and variant options. Default - .
Digits in the number	4 gives 0001 to 9999; 6 gives 000001. Default 4.
Generate the barcode for new products	Switch the automatic barcode on or off.
Barcode type	EAN-13 with your own prefix, or the SKU as the barcode.
EAN-13 prefix	2 to 8 digits at the start of every barcode. Default 200 .

6. Prefix per category

In plain words: The SKU starts with the prefix of the product's category. Open **Inventory** → **Configuration** → **Product Categories** (or Sales or Invoicing, wherever you keep categories) and fill **SKU prefix**.

InvoicingCustomersVendorsReportingConfiguration

1217My Company (San Francisco)

NewCategoriesFurniture

Products41

1 / 1

Category

Furniture

Parent Category

SKU

SKU prefix ?FUR

Prefix in useFUR

Next number1

LOGISTICS

Force Removal Strategy ?

INVENTORY VALUATION

Costing Method ?Standard Price

Inventory Valuation ?Periodic (at closing)

Send messageLog note

Oct 22, 2026

OdooBot

Yesterday at 4:25 PM

Product Category created

The category Furniture has the prefix FUR.

Rule	Example
A category with a prefix uses it	Furniture: FUR → FUR-0001, FUR-0002...
A sub-category without a prefix uses its parent's, and shares its counter	Furniture / Office → FUR-0003
Only letters and digits, up to 12, always capital	off is saved as OFF
No prefix anywhere up the tree	The default prefix: PRD-0001
Two categories with the same prefix	They share one counter: no clash

The screenshot shows the Odoo interface for configuring a product category. The top navigation bar includes 'Invoicing', 'Customers', 'Vendors', 'Reporting', and 'Configuration'. The user is logged in as 'My Company (San Francisco)'. The breadcrumb trail is 'New > Categories > Furniture / Office'. The main content area is titled 'Category Office' and shows the 'Parent Category' as 'Furniture'. Under the 'SKU' section, 'SKU prefix' is set to 'OFF', 'Prefix in use' is 'FUR', and 'Next number' is '1'. The 'LOGISTICS' and 'INVENTORY VALUATION' sections are also visible. A chat window on the right shows a message from 'OdooBot' dated 'Oct 22, 2026' stating 'Product Category created'.

A sub-category with no prefix of its own: it shows the prefix in use and the next number.

In plain words: **Next number** shows the number the next product will get. You can change it, for example to continue after an old system: write 5000 and the next product is FUR-5000.

7. New products

In plain words: Create a product as usual and save it. If the **Reference** or the **Barcode** is empty, the module fills it. That is all.

Situation	Result
You typed a Reference	It is kept. Only the barcode (if empty) is generated.
You typed a Barcode	It is kept. Only the Reference (if empty) is generated.
You duplicate a product	The copy gets new codes (Odoo does not copy them).
The product is created by an import, the website or another app	Same: empty codes are filled, existing ones kept.
The number you would get is already used by another product	The module takes the next free one.
The barcode is already used by another product or packaging	The module takes the next free one.

In plain words: The product title shows the code in brackets, *[FUR-0001] Ergonomic Standing Desk*, in orders, deliveries and invoices.

8. Variants

In plain words: Products with options (colour, size...) have one variant per combination. Each variant gets its own SKU and its own barcode, because that is what you scan and ship.

Sales

Orders

To Invoice

Products

Reporting

Configuration

12

17

My Company (San Francisco)

New

Product Variants

T

Sales

Product

Cotton T-Shirt

Search...

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☐	Internal Reference	Barcode	Name	Variant Values	Sales Price	Cost	On Hand	Forecasted	
☐	CLO-0001-BLU-LAR	2000000000077	Cotton T-Shirt	Colour: Blue Size: Large	24.00	0.00			
☐	CLO-0001-BLU-M	2000000000060	Cotton T-Shirt	Colour: Blue Size: M	24.00	0.00			
☐	CLO-0001-BLU-S	2000000000053	Cotton T-Shirt	Colour: Blue Size: S	24.00	0.00			
☐	CLO-0001-RED-LAR	2000000000046	Cotton T-Shirt	Colour: Red Size: Large	24.00	0.00			
☐	CLO-0001-RED-M	2000000000039	Cotton T-Shirt	Colour: Red Size: M	24.00	0.00			
☐	CLO-0001-RED-S	2000000000022	Cotton T-Shirt	Colour: Red Size: S	24.00	0.00			
							0.00	0.00	

A T-shirt in 2 colours and 3 sizes: six variants, six SKUs, six barcodes.

Option	In the SKU
Red	RED
Blue	BLU
M	M
Large	LAR

In plain words: The product's own SKU (here CLO-0001) is the base, and each option adds its first 3 letters. If two variants would get the same code, the second gets -2 .

Tip: A product with variants shows no Reference on its own form: the codes live on the variants. Open the Variants button, or the Product Variants list.

In plain words: If you add a new colour later, the new variants get their codes automatically; the existing ones keep theirs.

9. Products that already exist

In plain words: Products created before you installed the module, or created with the automatic mode switched off, have no codes. Fill them in one go.

The screenshot shows the Odoo product form for 'Walnut Side Table'. The top navigation bar includes 'Invoicing', 'Customers', 'Vendors', 'Reporting', and 'Configuration'. The product name 'Walnut Side Table' is at the top left. Below it, there are tabs for 'General Information', 'Attributes & Variants', 'Sales', 'Purchase', and 'Inventory'. The 'General Information' tab is active, showing fields for 'Product Type' (Goods), 'Invoicing Policy' (Ordered quantities), 'Track Inventory' (unchecked), 'Sales Price' (\$159.00), 'Sales Taxes' (15%), 'Cost' (\$0.00), 'Purchase Taxes' (15%), 'Category' (Furniture / Office), 'Reference', 'Barcode', and 'Company' (Visible to all). A 'Generate Codes' button is visible in the top right corner of the form. On the right side, there is a chat window with a message from Mitchell Admin: 'Product created'.

A product without codes shows the Generate Codes button.

- 1 In the product list, tick the products you want (or none).
- 2 Open **Actions** → **Generate missing codes**.
- 3 Choose the scope: the selected products, a category (with its sub-categories) or all products.
- 4 Check the counts under **What will happen**, tick SKU and/or barcode, and press **Generate**.

SalesOrdersTo InvoiceProductsReportingConfiguration

12

17

My Company (San Francisco)

NewProducts

1 selected

Actions

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☐	Product Name	Internal Reference	Price	Cost	On Hand	Forecasted	
☒	☆ Acoustic Bloc Screens		95.00	\$ 0.00	16.00	6.00	
☐	☆ Aperol Spritz		9.00	\$ 8.10			
☐	☆ Apple Pie		12.00	\$ 10.80			
☐	☆ Bacon Burger		15.50	\$ 13.95			
☐	☆ Bagel		1.25	\$ 1.13			
☐	☆ Black embroidered t-shirt		\$ 25.00	\$ 0.00			
☐	☆ Blue Denim Jeans		\$ 80.00	\$ 0.00			
☐	☆ Blueberry Muffin		\$ 1.80	\$ 1.62			
☐	☆ Bolt	CONS_89957	\$ 0.50	\$ 0.50			
☐	☆ Bricks		\$ 50.00	\$ 50.00			
☐	☆ Burger Menu Combo		\$ 10.00	\$ 0.00			
☐	☆ Butter Croissant		\$ 1.20	\$ 1.08			
☐	☆ Cabinet with Doors	E-COM11	\$ 140.00	\$ 120.50	33.00	138.00	
☐	☆ Cable Management Box	FURN_5555	\$ 100.00	\$ 70.00	90.00	90.00	
☐	☆ Casual Denim Short		\$ 35.00	\$ 31.50			
☐	☆ Casual T-shirt		\$ 20.00	\$ 0.00			
☐	☆ Cement		\$ 110.00	\$ 100.00			
☐	☆ Chair floor protection		\$ 12.00	\$ 0.00			
☐	☆ Cheese Burger		\$ 13.00	\$ 11.70			

Export

Duplicate

Archive

Unarchive

Delete

Generate missing codes

Print Labels

Compute Price from BoM

Actions → Generate missing codes, in the product list.

SalesOrdersTo InvoiceProductsReportingConfiguration

1217

My Company (San Francisco)

NewProducts

1 selectedActions

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☐	Product Name	Internal Reference	Sales Price	Cost	On Hand	Forecasted	
☒	☆ Acoustic Bloc Screens		\$ 295.00	\$ 0.00	16.00	6.00	
☐	☆ Aperol Spritz		\$ 9.00	\$ 8.10			
☐	☆ Apple Pie						
☐	☆ Bacon Burger						
☐	☆ Bagel						
☐	☆ Black embroidered t-shirt						
☐	☆ Blue Denim Jeans						
☐	☆ Blueberry Muffin						
☐	☆ Bolt						
☐	☆ Bricks						
☐	☆ Burger Menu Combo						
☐	☆ Butter Croissant						
☐	☆ Cabinet with Doors						138.00
☐	☆ Cable Management Box	FURN_5555	\$ 100.00	\$ 70.00	90.00	90.00	
☐	☆ Casual Denim Short		\$ 35.00	\$ 31.50			
☐	☆ Casual T-shirt		\$ 20.00	\$ 0.00			
☐	☆ Cement		\$ 110.00	\$ 100.00			
☐	☆ Chair floor protection		\$ 12.00	\$ 0.00			
☐	☆ Cheese Burger		\$ 13.00	\$ 11.70			

Generate missing codes

Scope

☐ The selected products

☐ A category

☒ All products

Generate missing SKUs

Generate missing barcodes

☒

☒

WHAT WILL HAPPEN

Products in scope

217

Without SKU

157

Without barcode

197

Only empty fields are filled. A code that is already there is never changed.

Generate

Cancel

Generate missing codes

Scope

☐ The selected products
 ☐ A category
 ☒ All products

Generate missing SKUs

☒

Generate missing barcodes

☒

WHAT WILL HAPPEN

Products in scope

217

Without SKU

157

Without barcode

197

Only empty fields are filled. A code that is already there is never changed.

Generate

Cancel

The scope and the counts before anything is changed. "Products in scope" counts variants.

SalesOrdersTo InvoiceProductsReportingConfiguration

1217My Company (San Francisco)

NewProducts

Q Search...

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☐	Product Name	Internal Reference	Sales Price	Cost	On Hand	Forecasted	
☐	☆ Acoustic Bloc Screens		\$ 295.00	\$ 0.00	16.00	6.00	
☐	☆ Aperol Spritz	DRK-0001	\$ 9.00	\$ 8.10			
☐	☆ Apple Pie	FOOD-0001	\$ 12.00	\$ 10.80			
☐	☆ Bacon Burger	FOOD-0002	\$ 15.50	\$ 13.95			
☐	☆ Bagel	FOOD-0003	\$ 1.25	\$ 1.13			
☐	☆ Black embroidered t-shirt		\$ 25.00	\$ 0.00			
☐	☆ Blue Denim Jeans		\$ 80.00	\$ 0.00			
☐	☆ Blueberry Muffin	FOOD-0004	\$ 1.80	\$ 1.62			
☐	☆ Bolt	CONS_89957	\$ 0.50	\$ 0.50			
☐	☆ Bricks	PRD-0001	\$ 50.00	\$ 50.00			
☐	☆ Burger Menu Combo	FOOD-0005	\$ 10.00	\$ 0.00			
☐	☆ Butter Croissant	FOOD-0006	\$ 1.20	\$ 1.08			
☐	☆ Cabinet with Doors	E-COM11	\$ 140.00	\$ 120.50	33.00	138.00	
☐	☆ Cable Management Box	FURN_5555	\$ 100.00	\$ 70.00	90.00	90.00	
☐	☆ Casual Denim Short	CLO-0004	\$ 35.00	\$ 31.50			
☐	☆ Casual T-shirt		\$ 20.00	\$ 0.00			
☐	☆ Cement	PRD-0002	\$ 110.00	\$ 100.00			
☐	☆ Chair floor protection	FUR-0002	\$ 12.00	\$ 0.00			
☐	☆ Cheese Burger	FOOD-0007	\$ 13.00	\$ 11.70			

Afterwards every product has its code. Products with variants show them on each variant.

In plain words: For a single product use the **Generate Codes** button on its form. It is visible only while the Reference or the Barcode is empty.

10. Rules and guarantees

Guarantee	How
Never overwrites	Only empty Reference and Barcode fields are filled.
No duplicate SKU	The number is skipped if any product (archived ones included) already has that SKU.
No duplicate barcode	Skipped if any product or packaging already has it.
Valid EAN-13	13 digits, check digit calculated, 12-digit base made of your prefix and a counter.
Counters never go backwards	They are database sequences, safe when several users save at the same moment.
Numbers are not reused	A deleted or cancelled product leaves a gap. That is normal and keeps codes unique.
Several companies	Settings are per company; SKU counters are shared by prefix, barcode counters are per company.

Important: Changing a category's prefix does **not** rename the SKUs that already exist. Old products keep their old code; new ones use the new prefix.

11. For developers

In plain words: Skip this chapter if you only use the module.

Item	Details
<code>product.product._tx_assign_codes(force=False)</code>	Fills the missing codes of the products. <code>force</code> ignores the automatic switches. Returns (SKUs made, barcodes made).
<code>_tx_make_sku(company)</code> / <code>_tx_make_barcode(company)</code>	Return the next free code. Override them to change the format.
Context <code>tx_skip_codes</code>	Set it to True to create products without generating codes (for example in a migration).
Context <code>install_mode</code>	Data loaded by modules is never given codes.
<code>taqnix.sku.tools</code>	<code>ean13_check_digit()</code> and <code>is_valid_ean13()</code> .

```
# create products without codes, then fill them later
products = env['product.product'].with_context(tx_skip_codes=True).create(vals_list)
products._tx_assign_codes(force=True)

# your own format: PREFIX/YEAR/NUMBER
class ProductProduct(models.Model):
    _inherit = 'product.product'

    def _tx_make_sku(self, company):
        sku = super()._tx_make_sku(company)
        return sku.replace('-', '/', 1)
```

12. Troubleshooting

Problem	What to do
A new product has no code	The automatic switch is off in Settings → Product Codes , or the product was created with <code>tx_skip_codes</code> . Use the Generate Codes button.
The product list shows no Reference for a product with variants	That is how Odoo works: the codes are on the variants.
"The EAN-13 prefix must be 2 to 8 digits"	Use digits only, between 2 and 8 of them.
"The SKU prefix can only contain letters and digits"	Remove spaces, dashes and symbols from the category prefix.
The numbers jump	A number is skipped when a product already uses that SKU, and a deleted product leaves a gap. Both are normal.
I want the SKU to restart at 1	Open the category and set Next number to 1, but only if no product has such an SKU: the module skips used ones.

13. Updating and removing

Replace the folder with the new version, restart Odoo and run `-u taqnix_sku_barcode_generator` . To remove it, uninstall it from Apps. The codes already given stay on your products, as ordinary Reference and Barcode values. The prefixes, counters and settings are removed.

14. Support

Installation help and bug fixes are included for 6 months, with lifetime updates. Contact us through the marketplace page where you bought the module or write to **support@taqnix.com** with your Odoo version and a screenshot.

Changelog

1.0.1 – Bug fix

- Fixed an error when generating codes for products that have no category

1.0.0 – Initial release

- SKU generated on save: category prefix + separator + padded number, one counter per prefix shared by sub-categories
- EAN-13 barcodes with your own prefix and a valid check digit, or the SKU as the barcode
- Variant codes with option suffix and their own barcode, also for variants added later
- Generate Codes button on the product form and a list action with scope and preview
- Settings per company, duplicate protection for SKU and barcode, Arabic translation, automated tests