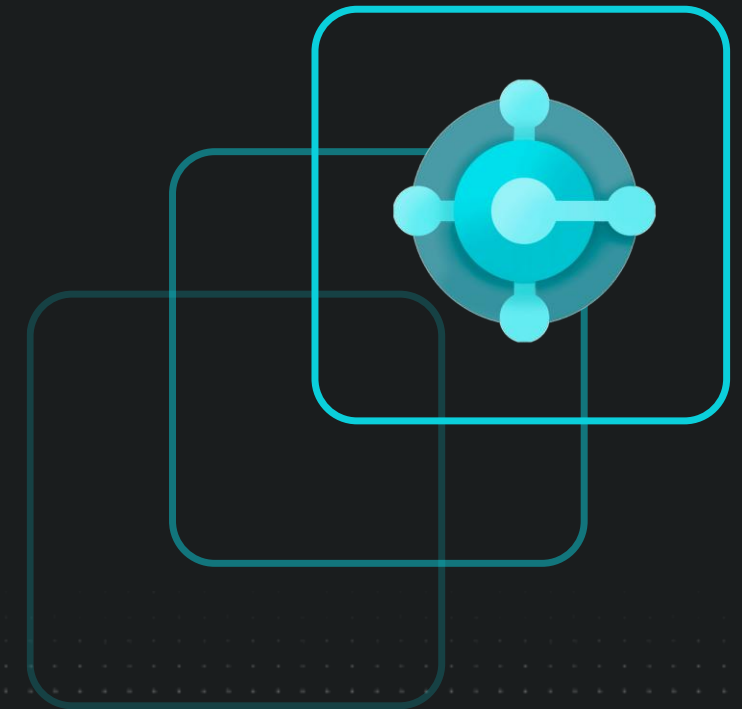


20 Tips to Level Up Your Business Central

TEDDY HERRYANTO



Teddy Herryanto

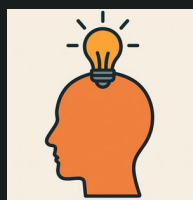
- D365 Business Central Lead Consultant at Theta NZ
- thatnavguy.com
- <https://www.linkedin.com/in/teddyherryanto/>



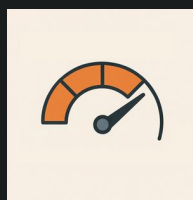
Teddy Herryanto



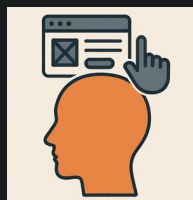
20 Tips to Level Up Your Business Central



Know-How



Performance



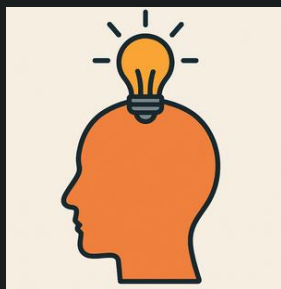
Interface



Testing



Feedback



#1 Master Your BC Tool



BC Tools and Utilities



Configuration Package



Configuration Template



Admin Center



Open / Edit in Excel



Event Recorder



Data Exchange Definition



Profile and Personalisation



Retention Policy











Performance Profiler









Page Inspection

Performance Profiler





✓ Saved

Performance Profiler



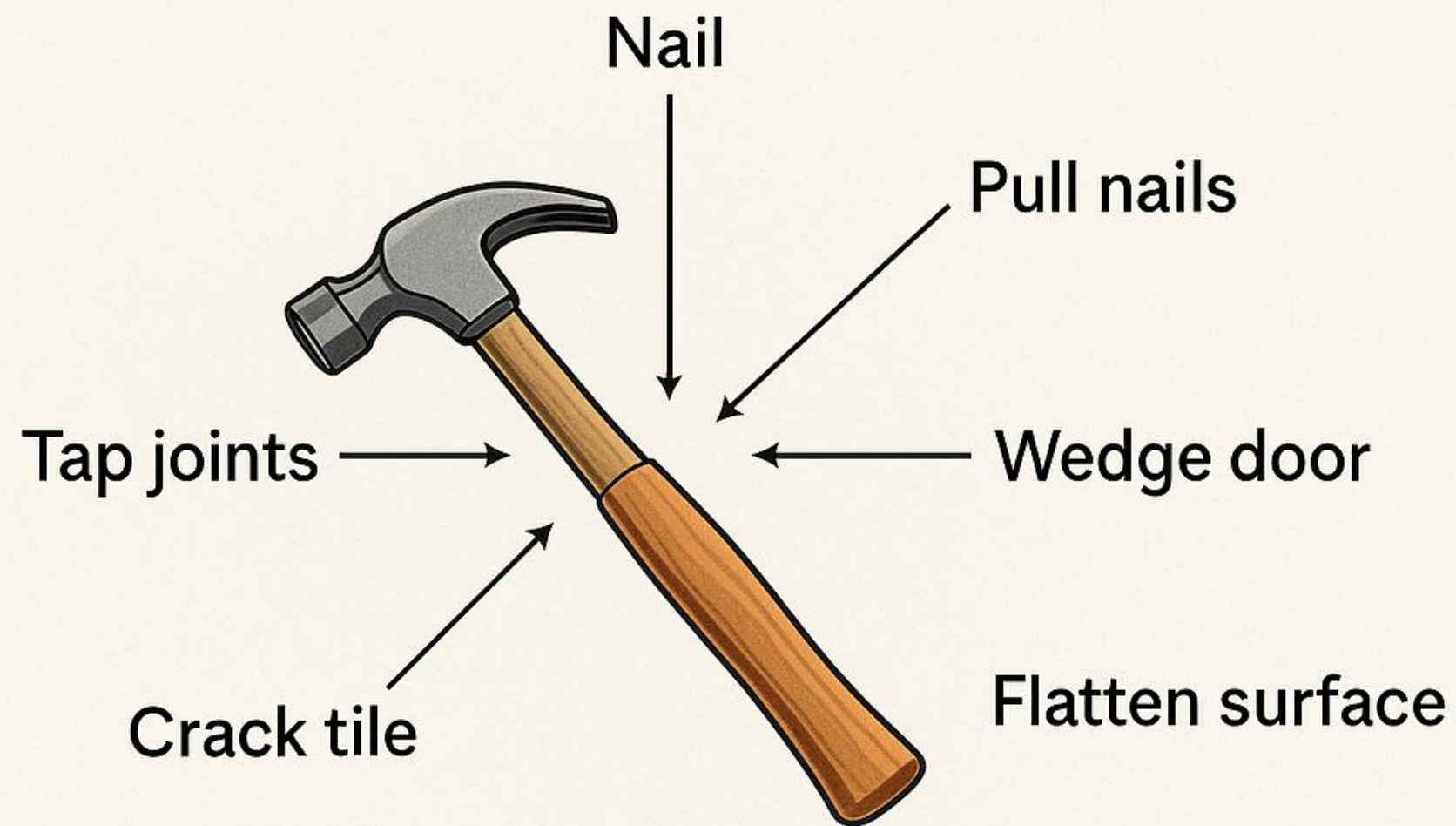
Time Spent by Application Object >

Call Tree

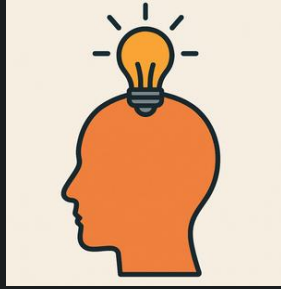


Method Name	Object Type	Object Name	Self Time
> Quantity - OnValidate	Table	Prod. Order Line	
> Calculate	Codeunit	Calculate Prod. Order	
→ > <u>InitProdOrderLine</u>	Codeunit	Create Prod. Order Lines	
✓ InsertProdOrderLine	Codeunit	Create Prod. Order Lines	
✓ Quantity - OnValidate	Table	Prod. Order Line	
> VerifyQuantity	Codeunit	Prod. Order Line-Reserve	
✓ Recalculate	Codeunit	Calculate Prod. Order	
> CalculateComponents	Codeunit	Calculate Prod. Order	
> ReserveMultiLevelStruct...	Codeunit	Create Prod. Order Lines	
OnAfterCopyTrackingFromRe...	Table	Item Tracking Setup	109 millisec

Don't Just Use the Tool. Master It.



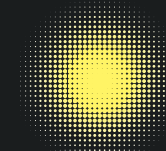
One tool. Many possibilities.



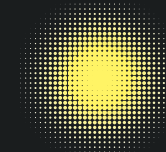
#2 Don't Force BC to Do Everything



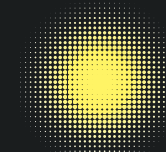
Is BC the right
tool for the
requirement?



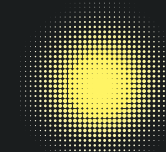
Data Entry



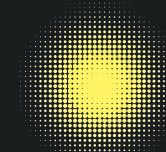
Document and Reporting



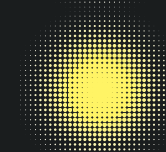
File Storage



Workflow Automation

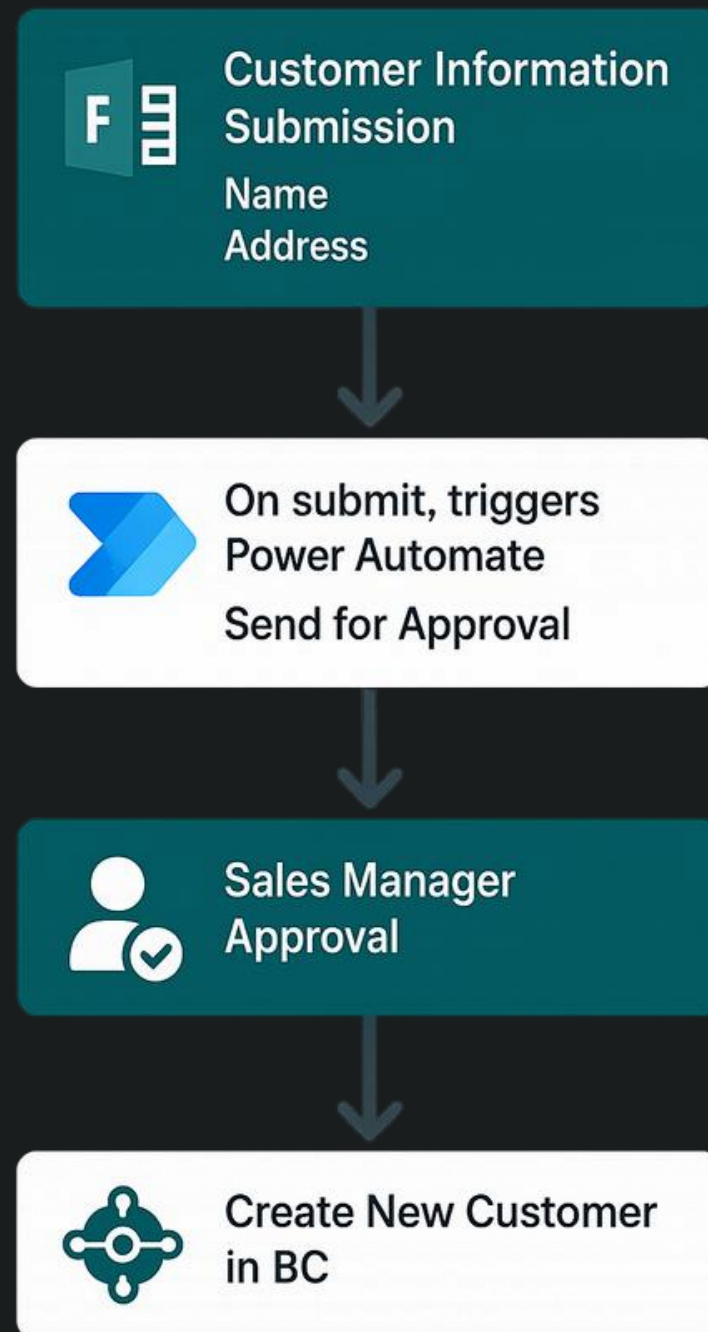
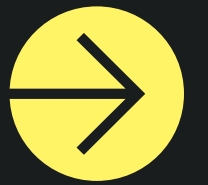


Scheduling and Planning

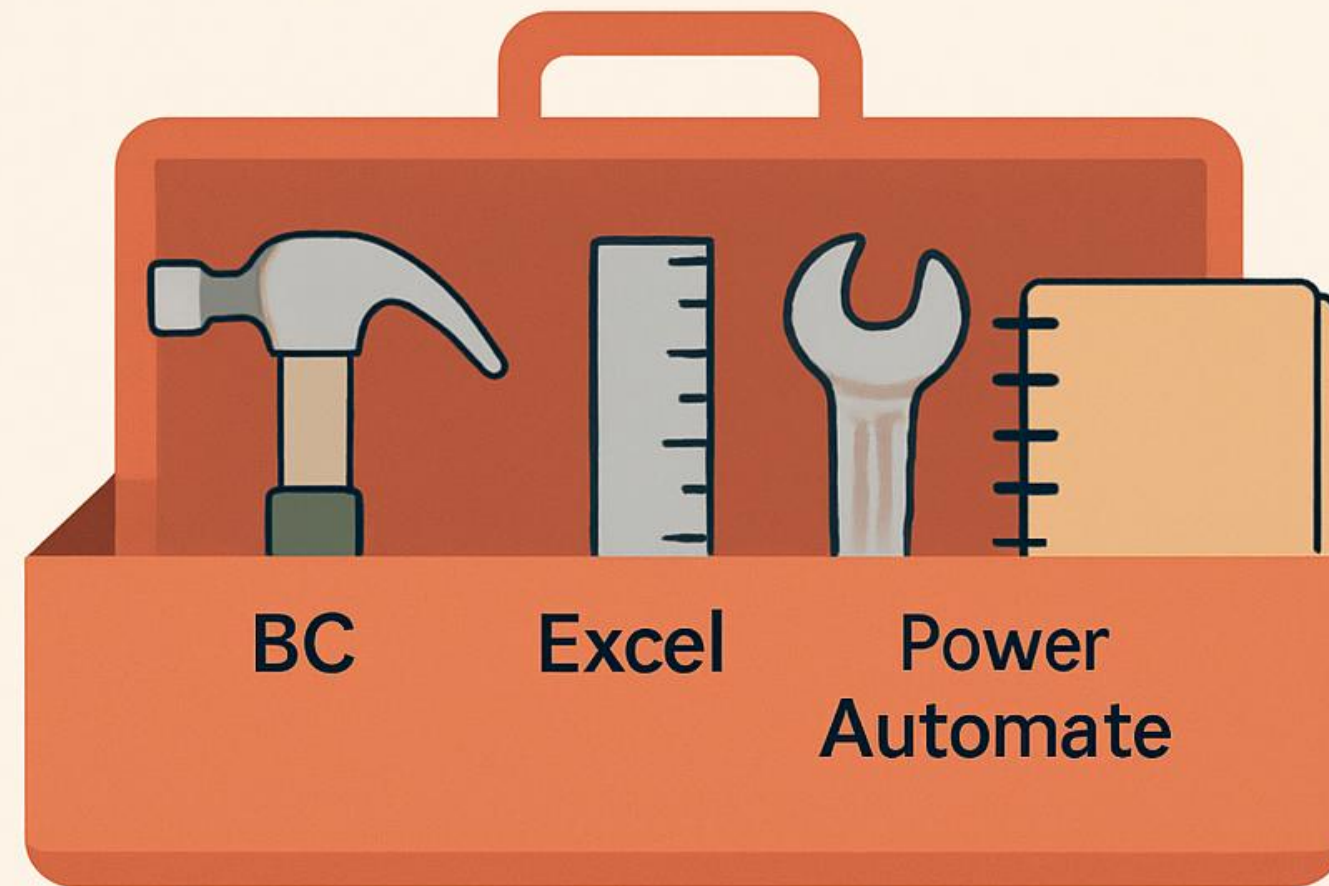


Integration

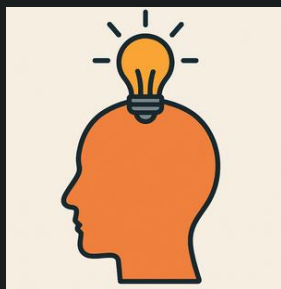
Customer Onboarding System



- Microsoft Form: Create a form to collect customer information.
- Power Automate: Set up a flow that triggers when the form is submitted. This flow would send an approval request to the Sales Manager and wait for the Sales Manager's response.
- Sales Manager Approval: The Sales Manager can approve or reject the request via email.
- Business Central: Once approved, the flow proceeds to automatically create a new customer in Microsoft Dynamics 365 Business Central using the information provided.



Pick the Right Tool for the Task



#3 Know where to use Copilot



Create Documentation



Prompt:

Convert below steps into a manual on how to create sales order in Business Central. Make sure that the steps are easy to understand.

- Type "Sales Order" in the search bar.
- Select the "Sales Orders".
- Click New
- Select the customer
- Enter the item or select from the list
- Fill in Quantity
- Confirm the price
- Release the sales order

Create Documentation



Here is a simple manual on how to create a sales order in Business Central:

How to Create a Sales Order in Business Central

1. Open the Search Bar

- At the top of the Business Central window, click on the search icon or press `Alt + Q`.

2. Search for Sales Orders

- Type "Sales Order" in the search bar.
- Select "Sales Orders" from the search results.

3. Create a New Sales Order

- Click the **New** button to start a new sales order.

4. Select the Customer

- In the Customer field, enter the customer's name or select a customer from the list.

5. Add Items

- In the lines section, enter the item number or select an item from the list.

6. Enter Quantity

- Fill in the quantity for each item you want to sell.

7. Confirm the Price

- Check and confirm the price for each item. Adjust if necessary.

8. Release the Sales Order

- When all details are correct, click **Release** to finalize the sales order.

These steps will help you create a sales order in Business Central quickly and easily.

Create Flow Diagram



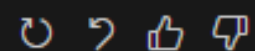
Generate mermaid diagram from it

Here's a Mermaid diagram based on the sales order creation process:

```
graph TD
    A[Start] --> B[Open Search Bar<br/>Alt + Q or click search icon]
    B --> C[Type 'Sales Order' in search bar]
    C --> D[Select 'Sales Orders' from results]
    D --> E[Click 'New' button]
    E --> F[Select Customer<br/>Enter name or choose from list]
    F --> G[Add Items<br/>Enter item number or select from list]
    G --> H[Enter Quantity<br/>Fill in quantity for each item]
    H --> I[Confirm Price<br/>Check and adjust if necessary]
    I --> J[Release Sales Order<br/>Click 'Release' to finalize]
    J --> K[End - Sales Order Created]
```

style A fill:#e1f5fe
style K fill:#c8e6c9
style J fill:#fff3e0

This flowchart diagram shows the step-by-step process for creating a sales order in Business Central, with each step flowing logically to the next. The start and end points are highlighted in different colors for clarity.



Review Code



```
AL SalesInvoicesCOGS.Page.al > ...
e 60251 "Sales Invoices COGS_TNG"

0 references
trigger OnAfterGetRecord()
begin
    AverageUnitCost := 0;
    TotalCost := 0;
    SalesInvoiceLines.SetRange(salesInvoiceNo, Rec."Document No.");
    SalesInvoiceLines.SetRange(salesInvoiceLineNo, Rec."Line No.");
    if SalesInvoiceLines.Open() then begin
        while SalesInvoiceLines.Read() do begin
            UnitCost := (SalesInvoiceLines.costAmountActual + SalesInvoiceLines.costAmountBudget) / SalesInvoiceLines.InvoicedQuantity;
            TotalCost += UnitCost * -SalesInvoiceLines.InvoicedQuantity;
        end;
        SalesInvoiceLines.Close();
    end;

    AverageUnitCost := TotalCost / Rec.Quantity;
end;

var
    SalesInvoiceLines: Query "Sales Invoice Lines_TNG";
    UnitCost: Decimal;
    AverageUnitCost: Decimal;
    TotalCost: Decimal;
```

CHAT EXPLORER

TotalCost: Decimal;

2. Query Column Naming

Suggestion: Use PascalCase for query columns to match AL conventions:

```
column(SalesInvoiceNo; "Document No.")
column(SalesInvoiceLineNo; "Line No.")
column(ItemLedgerEntryQuantity; Quantity)
```

Potential Bugs

1. Critical Bug: Division by Zero

Location: Line 83

```
AverageUnitCost := TotalCost / Rec.Quantity;
```

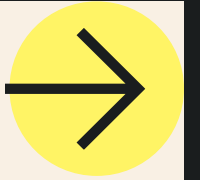
Issue: If `Rec.Quantity` is 0, this will cause a runtime error. Although you filter for `Quantity = filter(<> 0)`, it's still a potential issue.

Suggestion: Add a safety check:

```
if Rec.Quantity <> 0 then
    AverageUnitCost := TotalCost / Rec.Quantity
else
    AverageUnitCost := 0;
```

2. Potential Bug: Division by Zero in Unit Cost Calculation

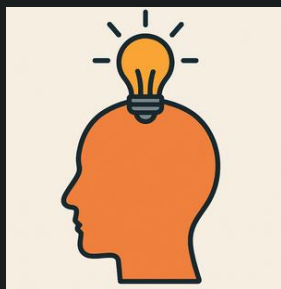
Location: Line 76



USE AI WISELY



Don't outsource your thinking and creativity to AI.
Let it improve your way of thinking, not replace it.



#4 Learn Regex



What is Regex (Regular Expression)?









- Search for a pattern in text.
- Useful to validate, clean or transform text.
- More powerful than the normal Find and Replace.

Replace Blank





Transformation Rule Card







Not saved

REPLACE · Replace

 The page has an error. [Refresh \(F5\)](#) to undo the change, or correct the error.

 Find Value must have a value in Transformation Rule: Code=REPLACE. It cannot be zero or empty.

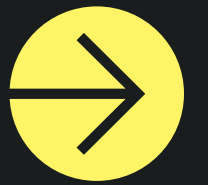
General

Code	<input type="text" value="REPLACE"/>	Next Transformation ...	<input type="text" value=""/>  
Description	<input type="text" value="Replace"/>	Find Value	 <input type="text"/>
Transformation Type	<input type="text" value="Replace Text"/> 	Replace Value	<input type="text" value="NZD"/>

Test

Test Text	<input type="text"/>	Result	<input type="text"/>
		Update	





Regex to Replace Blank





^ → find the start of a string.

\$ → find the end of a string.

Transformation Rule Card



✓ Saved

REPLACEBLANKTONZD · Replace Blank to NZD

Actions ▾ Automate ▾

General

Code ······ REPLACEBLANKTONZD

Description ······ Replace Blank to NZD

Transformation Type ······ Replace by using Regular Expressions ▾

Next Transformation Rule ···· ▾ ...

Find Value ······ ^\$

Replace Value ······ NZD

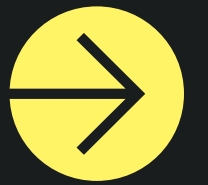
Test

Test Text ······

Result ······ NZD

Update



Regex Example



You, 9 minutes ago | 1 author (You)

```
fields
{
    4 references
    field(1; "Phone Number"; Text[30])
    {
        Caption = 'Phone Number';
        0 references
        trigger OnValidate()
        var
            Regex: Codeunit Regex;
        begin
            if not Regex.IsMatch("Phone Number", '^\\+?[0-9]\\d{1,14}$') then
                Error('Invalid phone number format: %1', "Phone Number");
            end;
        end;
    }
}
```

Phone Number ↑

	0211112223333	
	+621112223333	
✖	✖ -6211122235	
Invalid phone number format: -6211122235		
 		

Regex



<https://regex101.com/>

regular expressions 101

social donate info

SAVE & SHARE

- Save new Regex ctrl+s
- Add to Community LL...

FLAVOR

- PCRE2 (PHP >=7.3) ✓
- PCRE (PHP <7.3)
- ECMAScript (JavaScri...
- Python
- Golang
- Java 8

SPONSORS

There are currently no sponsors.
Become a sponsor today!

Check out the latest remote job listings from the leading job board for designers, developers, and creative pros.

REGULAR EXPRESSION

no match

/ insert your regular expression here / gm

TEST STRING

insert your test string here

EXPLANATION

MATCH INFORMATION

QUICK REFERENCE

Search reference

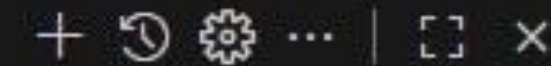
- All Tokens
- ★ Common Tokens ✓
- General Tokens
- ⌨ Anchors
- ⚙ Meta Sequences
- ⌨ Quantifiers
- () Group Constructs
- [] Character Classes
- 🚩 Flags/Modifiers
- ✂ Substitution

A single character of: a, b or c	[abc]
A character except: a, b or c	[^abc]
A character in the range: a-z	[a-z]
A character not in the range: a-z	[^a-z]
A character in the range: a-z or A-Z	[a-zA-Z]
Any single character	.
Alternate - match either a or b	a b
Any whitespace character	\s
Any non-whitespace character	\S
Any digit	\d
Any non-digit	\D
Any word character	\w
Any non-word character	\W
Non-capturing group	(?:...)

Your Regex Friend



CHAT EXPLORER



help me create a regex for email validation

Here is a commonly used regular expression for basic email validation:

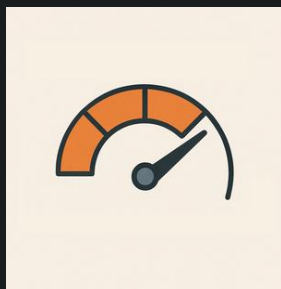
```
^[A-Za-z0-9._%+-]+@[A-Za-z0-9.-]+\.[A-Za-z]{2,}$
```

This regex checks for:

- One or more alphanumeric characters (including ., _ %, +, -) before the @
- An @ symbol
- One or more alphanumeric characters (including . and -) for the domain
- A dot (.)
- At least two alphabetic characters for the domain extension

This pattern works for most standard email addresses. If you need to implement this in AL code or want a more advanced pattern, let me know!

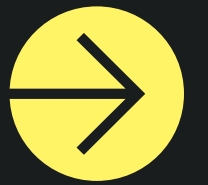




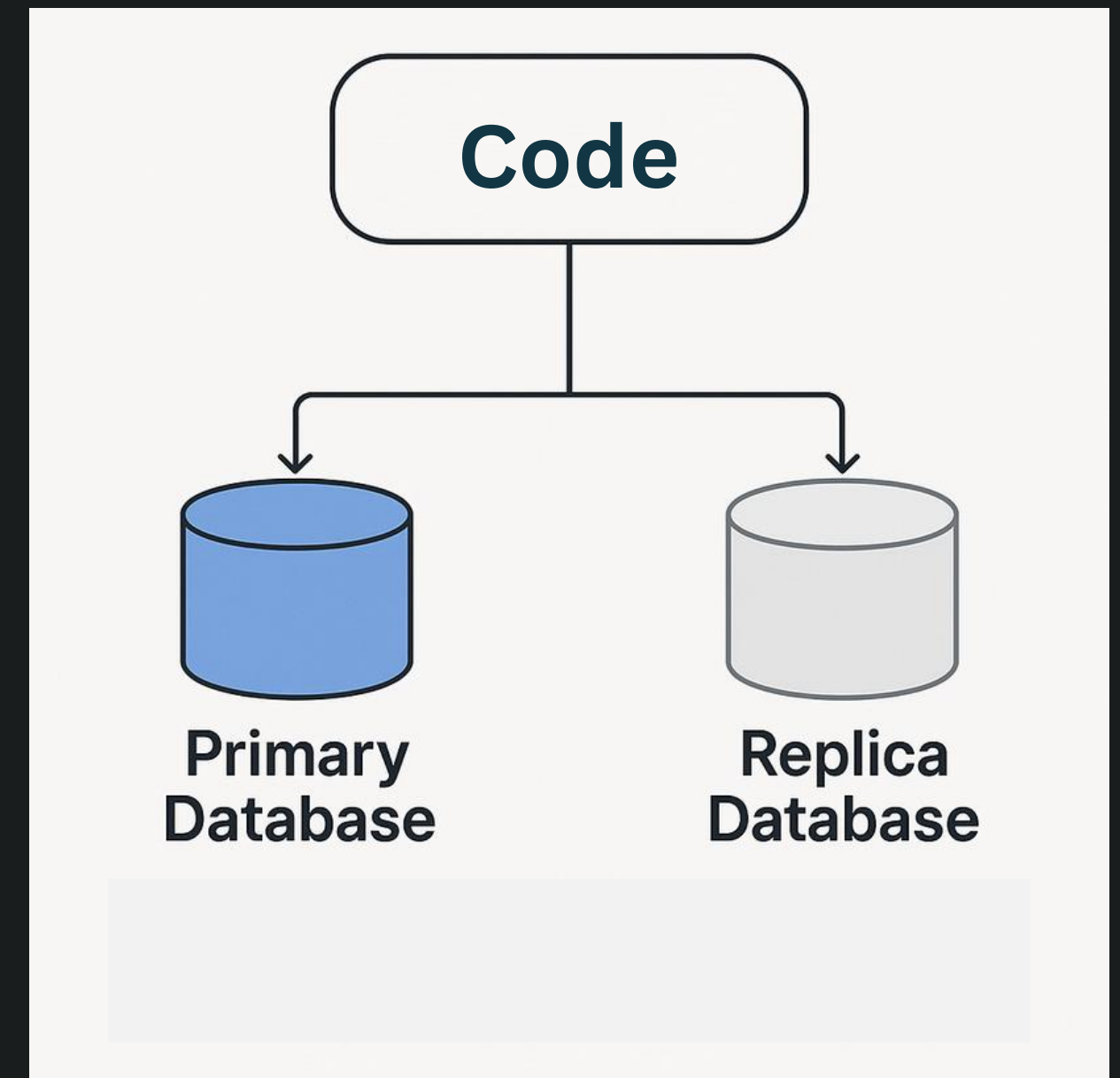
#5 Specify Data Access Intent



What is Data Access Intent?






- A setting that tells BC how you are going to access data
 - ReadOnly
 - ReadWrite
- ReadOnly signals the server to use a replica database when available.
- Using the replica reduces the load on the primary database, ensuring better operation for others.
- Works on reports, API pages, and API queries.








How to use Data Access Intent?

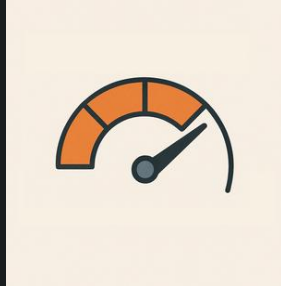


```
7 report 6 "Trial Balance"
8 {
9     DefaultLayout = RDLC;
10    RDLCLayout = './Finance/GeneralLedger/Reports/TrialBalance.rdlc';
11    AdditionalSearchTerms = 'year closing,close accounting period,close fiscal year';
12    ApplicationArea = Basic, Suite;
13    Caption = 'Trial Balance';
14    PreviewMode = PrintLayout;
15    UsageCategory = ReportsAndAnalysis;
16    DataAccessIntent = ReadOnly;
17
18    dataset
19    {
```

Database Access Intent List ✓ Saved   

  | **Edit List** | More options   

	Object Type ↑		Object ID ↑	Object Name	Object Caption	Access Intent	Application Name
	Report		1	Chart of Accounts	Chart of Accounts	Default	Base Application
	Report		2	General Journal ...	General Journal - Test	Default	Base Application
→	<u>Report</u>	:	3	G/L Register	G/L Register	Default ▾	Base Application
	Report		4	Detail Trial Bala...	Detail Trial Balance	Default	Base Application
	Report		5	Receivables-Pay...	Receivables-Payables	Read Only	Base Application
	Report		6	Trial Balance	Trial Balance	Allow Write	Base Application



#6 Uninstall Unused Extensions



Unused Extensions



- Business Central environment comes with many pre-installed extensions.
- If you're not using them, consider uninstalling them.

Extension Management: Custom filtered ▾

Manage ▾

More options

Name ↑ ▾	Publisher ▾	Version
Contoso Coffee Demo Dataset	Microsoft	v. 24.5.23489.24156
Payment Links to PayPal	Microsoft	v. 24.5.23489.25263
Shopify Connector	Microsoft	v. 24.5.23489.24156
Sustainability Contoso Coffee Demo Dataset	⋮	Microsoft v. 24.5.23489.24156

Manage

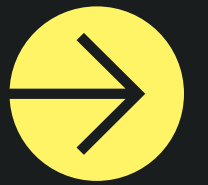
Install

Uninstall

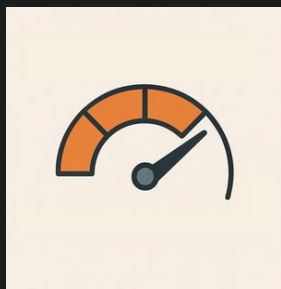
Unpublish

Set up

Why Uninstall Unused Extensions?



- ✓ Improve performance.
Less code means better performance.
- ✓ Avoid Errors.
Unused extensions can cause unexpected issues if accidentally run.



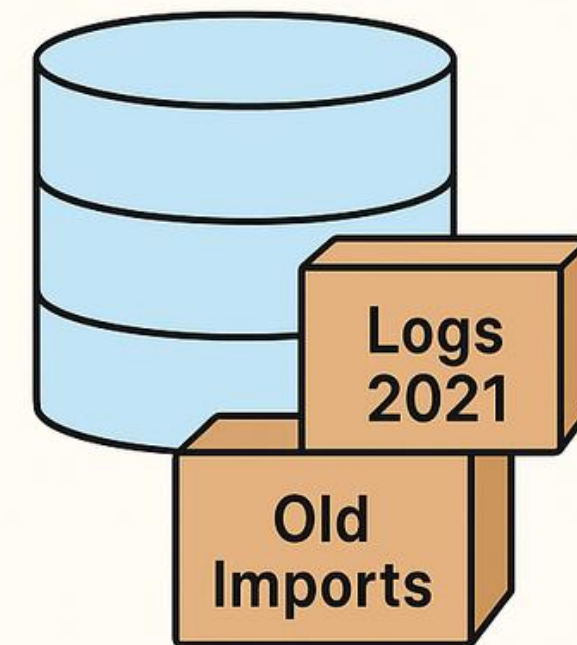
#7 Schedule Data Cleanup



What to clean up?



- Log tables: Change Log Entries, Job Queue Log Entries, Integration Sync. Job.
- Staging Tables.
- Orphan medias.



Log and staging data

Why cleanup?



- ✓ Save database space.
Free up valuable space from unnecessary data. You spend less on database cost.
- ✓ Improve performance.
Smaller data = faster queries.

How to cleanup?



- Media Cleanup Runner

←

Job Queue Entry Card

+

✓ Saved

Codeunit · 1929 · Media Cleanup Runner

Home

Job Queue

More options

Set Status to Ready

Set On Hold

Restart

Run once (foreground)

Show Error

General

Show more

Object Type to Run ·····

Codeunit

▼

Object ID to Run ·····

1929

...

Object Caption to Run ···

Media Cleanup Runner

Description ·····

Media Cleanup Runner

Earliest Start Date/Time ···

...

Job Timeout ·········

12 hours

Status ···········

On Hold

How to cleanup?



- Retention Policy

Retention Policies

+ New

Manage

Home

Navigate

More options

Apply Manually

Apply All

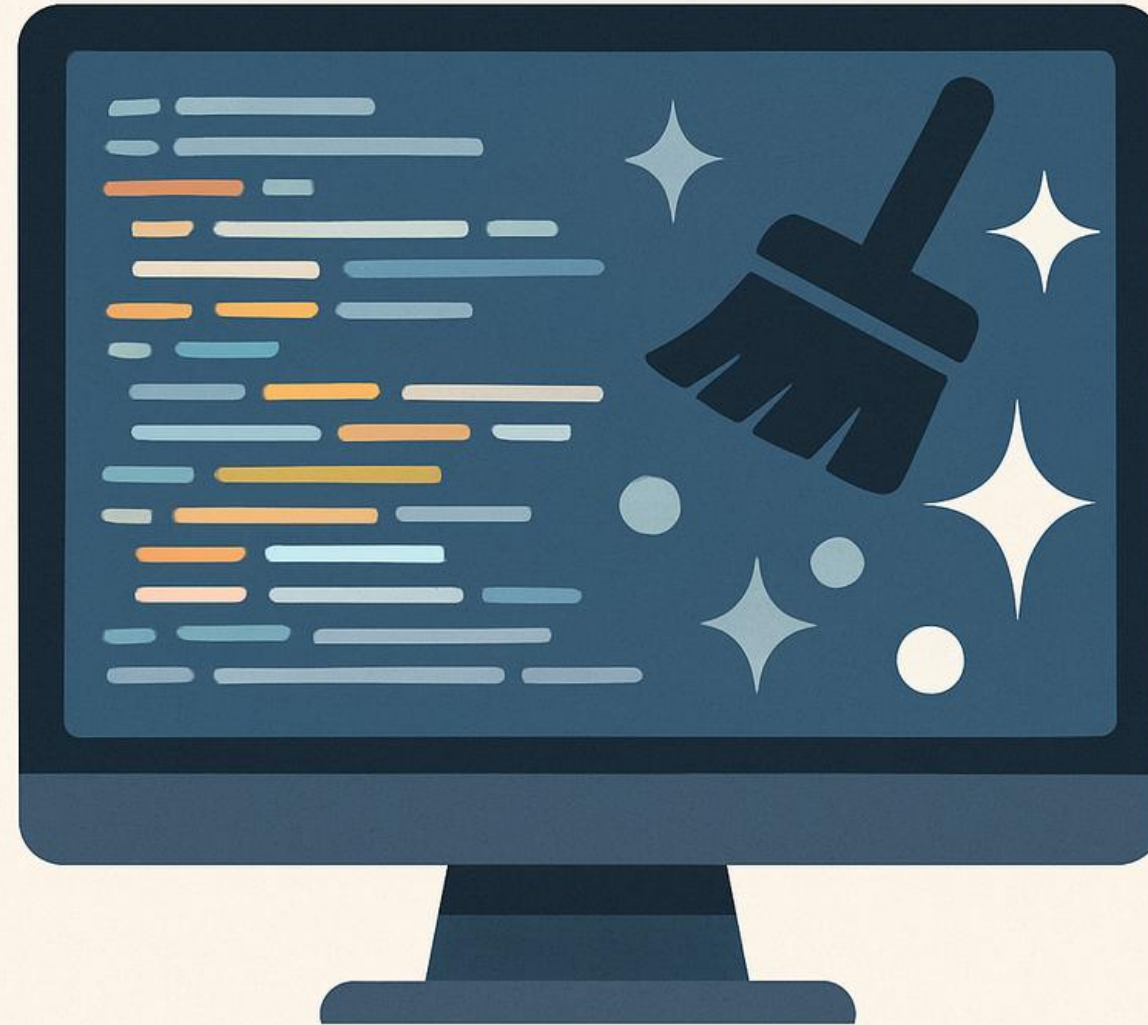
Refresh Allowed Tables

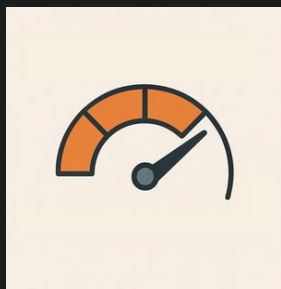
Table Id ↑	Table Caption	Enabled	Manual	Retention Period
405	Change Log Entry	<input type="checkbox"/>	<input type="checkbox"/>	
3905	Retention Policy Log Entry	<input type="checkbox"/>	<input type="checkbox"/>	SIX MONTHS
5338	⋮ Integration Synch. Job	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1 MONTH
5339	Integration Synch. Job Errors	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1 MONTH
5395	Dataverse Entity Change	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1 WEEK
5772	Registered Whse. Activity Hdr.	<input type="checkbox"/>	<input type="checkbox"/>	1 YEAR
7322	Posted Whse. Shipment Header	<input type="checkbox"/>	<input type="checkbox"/>	1 YEAR
30114	Shopify Data Capture	<input type="checkbox"/>	<input type="checkbox"/>	1 MONTH
30115	Shopify Log Entry	<input type="checkbox"/>	<input type="checkbox"/>	1 MONTH
30159	Shopify Skipped Record	<input type="checkbox"/>	<input type="checkbox"/>	1 MONTH
6181279	Mobile Document Queue	<input type="checkbox"/>	<input type="checkbox"/>	SIX MONTHS
6181367	Mobile Print Log	<input type="checkbox"/>	<input type="checkbox"/>	SIX MONTHS
2000000265	Performance Profile Scheduler	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1 WEEK

How to cleanup?



- Develop your own data cleaner.

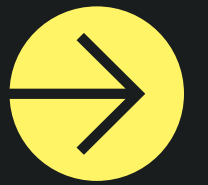




#8 Use Commit Wisely



What is Commit (Database Commit)?



- Save all changes so far into the database permanently.
- Before COMMIT, if something goes wrong, Business Central can roll back.

Why avoid Commit?



- Harder to roll back.
- Risk of data inconsistency.
If you commit too early and something fails, you can end up with half-completed transactions.

Why use Commit?



- ✓ Prevents total data loss.
If something goes wrong in the process, you don't lose everything.
- ✓ Avoids duplicates.
If your process crashes after sending data out, the retry will not send the same data twice.
- ✓ Improve performance.
Any locks by the transaction are automatically released.

When to use Commit?



- Batch processing.
- Multi-step processes.
- Sending data to an external source.
- Only commit when you've completed a safe milestone.



#9 Descending sorting on the historical and log page



Descending Order



Descending = latest entries at the top

G/L Registers					
		Home	Report	Reverse	More options
General Ledger	Vendor Ledger	Bank Account Ledger	Maintenance		
Customer Ledger	Employee Ledger	Fixed Asset Ledger	GST Entries		
No. ↓	Created At	User ID	Source Code	Journal Batch Name	From
852	15/08/2025 6:58 ...	ADMIN	FINCHRG		
851	15/08/2025 6:58 ...	ADMIN	FINCHRG		
850	15/08/2025 6:57 ...	ADMIN	FINCHRG		
849	15/08/2025 6:57 ...	ADMIN	FINCHRG		
848	15/08/2025 6:57 ...	ADMIN	FINCHRG		
847	16/03/2025 9:12 ...	BCBUILD100V3...	GENJNL	DEFAULT	

Why descending?



- ✓ Relevance

Most users are interested in the most recent entries.

- ✓ User Expectations

Users expect to see the latest updates first.

- ✓ Time-Saving

No scrolling.

How to change the sorting?



```
page 116 "G/L Registers"
{
    AdditionalSearchTerms = 'general ledger registers';
    ApplicationArea = Basic, Suite;
    Caption = 'G/L Registers';
    Editable = false;
    PageType = List;
    SourceTable = "G/L Register";
    SourceTableView = sorting("No.")
    | | | | order(descending);
    UsageCategory = History;

    layout
    {

```



#10 Add Additional Search Term



What is Additional Search Term?



- Additional keywords, synonyms, nicknames, abbreviations.
- To help user find the right page easily.

How to use?



```
pageextension 70001 "Blanket Sales Orders_TNG" extends "Blanket Sales Orders"
{
    AdditionalSearchTerms = 'Contracts';
}
```

Tell me what you want to do



contract

Go to Pages and Tasks

Show all (10)

- | | |
|---------------------------------|----------------|
| > Employment Contracts | Administration |
| > Contract Gain/Loss (Resp.Ctr) | Tasks |
| > Blanket Sales Orders | Lists |

Go to Reports and Analysis

Show all (6)

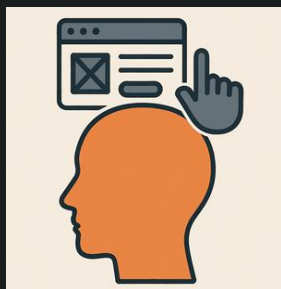
Why use it?



- ✓ Provide multiple terms to search.

- ✓ Improve User Adoption.

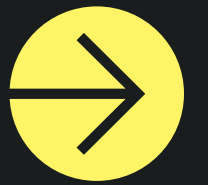
A positive onboarding experience encourages users to embrace the new system.



#11 Enable Save Values



What is Save Values?



- BC remembers the last filter, option, or setting you used.
- Next time you open it, you start exactly where you left off.

Create Warehouse Shipment

↗ ✕

Use default values from Last used options and filters

▼

Options

Do not fill Qty. to Handle ☒

Reserved stock only ▼

Filter: Warehouse Request

✕ Source No. 101001 ▼

✕ Source Document Sales Order ▼

✕ Location Code ▼

Why use it?



- ✓ Better user experience.

Users like it when the system remembers their previous choices.

- ✓ Time-Saving.

Users don't have to reconfigure the parameters.

How to use it?



AL Create+Warehouse+Shipment.dal X

```
10  {
43  }
44
45  requestpage
46  {
47      SaveValues = true;
48
49      layout
50      {
51          area(content)
52          {
53              group(Options)
54              {
55                  Caption = 'Options';
56
57                  field("Do Not Fill Qty. to Handle"; DoNotFillQtytoHandle)
58                  {
59                      Caption = 'Do not fill Qty. to Handle';
60                      Tooltip = 'Specifies if the Quantity to Handle field in the warehouse
```



#12 Emoji as Visual Indicator



Emoji as Visual Indicator



- Use Emoji to represent statuses, warnings, or categories at a glance.

CRONUS NZ								
Finance ▾ Cash Management ▾ Sales ▾ Purchasing ▾ Shopify ▾ Advanced Landed Costs ▾								
Items: All ▾ 🔍 Search + New ▾ 🗑️ Delete Home ▾ Item ▾ Prices & Discounts ▾ Attributes ▾ ... 🔗 🔍								
No. ↑	Description	Type	Inventory	Color Indicator	Substi... Exist	Assem... BOM	Base Unit of Measure	Cost is Adj...
1936-S	BERLIN Guest Chair, yellow	Inventory	100	✅	No	No	PCS	✅
1953-W	Guest Section 1	Inventory	1	⚠️	No	Yes	PCS	✅
1960-S	ROME Guest Chair, green	Inventory	31	✅	No	No	PCS	✅
1964-S	TOKYO Guest Chair, blue	Inventory	7	⚠️	No	No	PCS	✅
1965-W	Conference Bundle 2-8	Inventory	0	❌	No	Yes	PCS	✅
1968-S	MEXICO Swivel Chair, black	Inventory	10	✅	Yes	No	PCS	✅
1969-W	Conference Package 1	Inventory	8	⚠️	No	Yes	PCS	✅
1972-S	MUNICH Swivel Chair, yellow	Inventory	16	✅	No	No	PCS	✅
1980-S	MOSCOW Swivel Chair, red	Inventory	14	✅	Yes	No	PCS	✅
1988-S	SEOUL Guest Chair, red	Inventory	9	⚠️	Yes	No	PCS	✅

Why use it?



- ✓ Quick visual cues without reading text.
- ✓ Helps users spot issues or changes instantly.
- ✓ Makes your UI more engaging and user-friendly.

How to use it?



```
trigger OnAfterGetRecord()  
begin  
    if Rec.Inventory >= 10 then  
        InventoryIndicator := '✅'  
    else  
        if Rec.Inventory > 0 then  
            InventoryIndicator := '⚠️'  
        else  
            InventoryIndicator := '❌';  
        end;  
    end;  
end;
```



#13 DTAP Sandbox Naming Convention



What is DTAP Naming Convention?



- Development, Testing, Acceptance, Production.
- Name the sandboxes for their purpose:
 - Sandbox-Dev
 - Sandbox-Test
 - Sandbox-Acc
 - Sandbox-UAT
 - Sandbox-Demo
- No date and time in the Sandbox name
 - Sandbox-August2025
 - Sandbox-Dev1Aug25

Why use it?



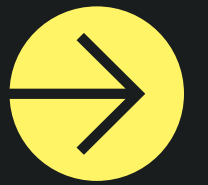
- ✓ Consistency.
- ✓ Easy access. Users don't need to change their bookmarks.
- ✓ Work with integration.



#14 Sandbox Creation Date on the Company Display Name



How to use it?



Companies

New

Edit List

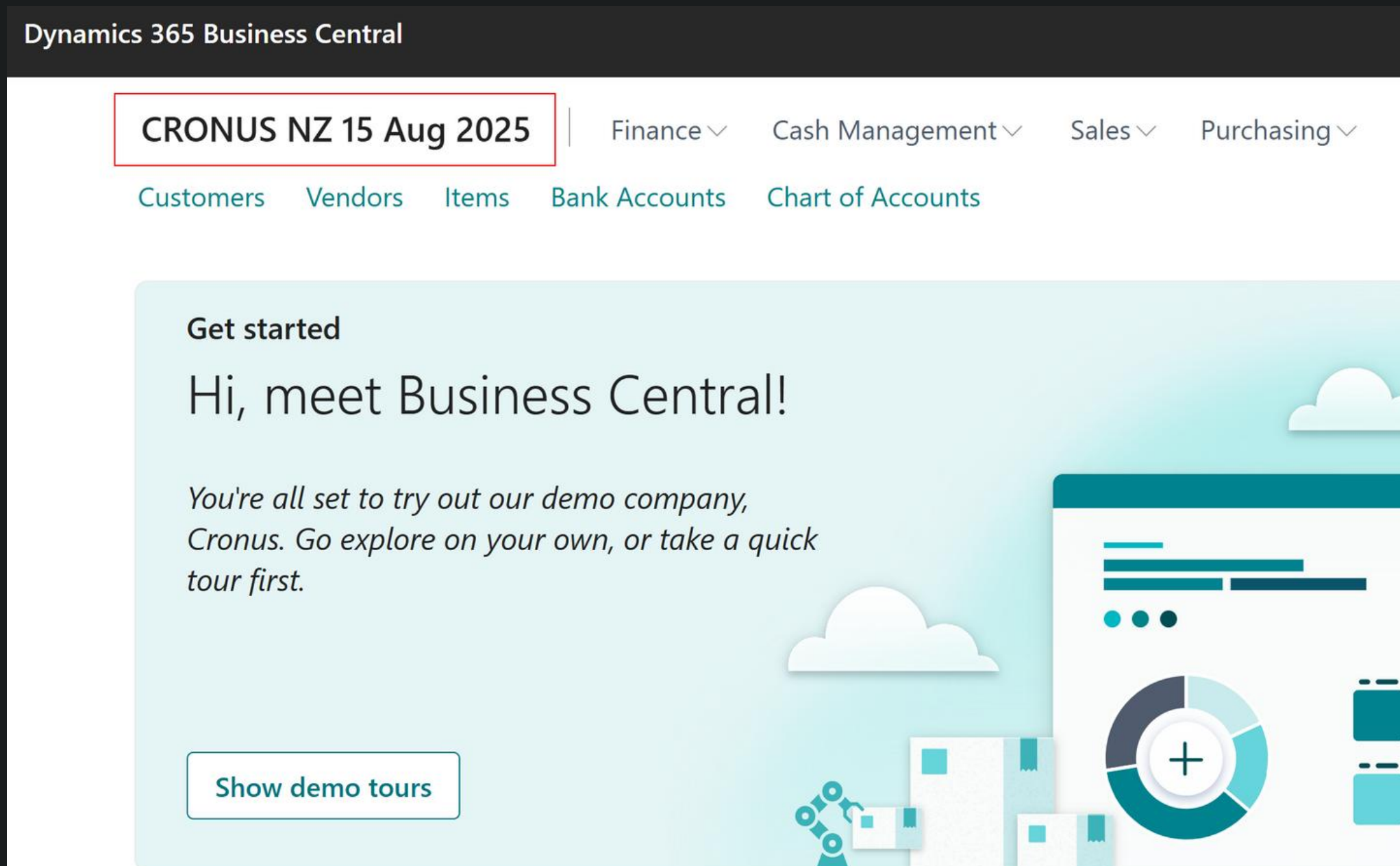
Delete

Copy

More options

Name		Display Name	Evaluati... Company	Enable Assisted Company Setup	Setup Status
→ <u>CRONUS NZ</u>	:	CRONUS NZ 15 Aug 2025	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
My Company		My Company 15 Aug 2025	<input type="checkbox"/>	<input type="checkbox"/>	

Creation Date in Company Display Name





#15 Automate Sandbox Initialisation



Sandbox Initialisation



- Add creation date to Company Display Name.
- Set the company badge.
- Delete email accounts on masters.
- Replace or remove the setup.

Why automate it?



- ✓ Save manual time.
- ✓ Consistent and ready for testing.

How to automate it?



```
[EventSubscriber(ObjectType::Codeunit, Codeunit::"Environment Cleanup", OnClearCompanyConfig, '', false, false)]
```

0 references

```
local procedure EnvironmentCleanup_OnClearCompanyConfig(SourceEnv: Enum "Environment Type"; DestinationEnv: Enum "Environment Type"; CompanyName: Text)
begin
    if CanRunInitialisation(SourceEnv, DestinationEnv) then
        InitialiseSandbox(CompanyName);
    end;
end;
```

1 reference

```
local procedure CanRunInitialisation(var SourceEnv: Enum "Environment Type"; var DestinationEnv: Enum "Environment Type"): Boolean
begin
    if SourceEnv <> SourceEnv::Production then
        exit(false);
    end;

    if DestinationEnv <> DestinationEnv::Sandbox then
        exit(false);
    end;

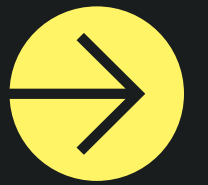
    exit(true);
end;
```



#16 Use Page Scripting

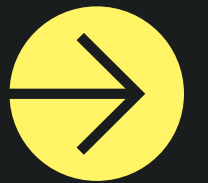


What is Page Scripting?



- Record your BC interaction and automate repetitive clicks.
- Primary use is for automated testing.
- Record once. Run multiple times.

Page Scripting



Dynamics 365 Business Central

CRONUS NZ 15 Aug 2025 | < Finance Cash Management Sales > |

Customers Vendors Items Bank Accounts Chart of Accounts

Get started
Hi, meet Business Central!

You're all set to try out our demo company, Cronus. Go explore on your own, or take a quick tour first.

Show demo tours

Page Scripting (preview)

Create New Item | ↗ ...

- Navigate to Items
- Page Items was shown.
- Invoke New on New
- > If Page **Select a template for a new item ...**
- Page New - Item Card was shown.
- Input **Session.'User ID'** into Description
- Focus Description
- Input **20** into Unit Price

Page Scripting File



```
Create New Item.yml U X
C: > Personal > BC-Resources > Teddy Presentation > Create New Item.yml
1  name: Create New Item
   1  description: Test recording
   2  start:
   3    profile: BUSINESS MANAGER
   4  steps:
   5    - type: navigate
   6      target:
   7        - page: Business Manager Role Center
   8        - action: Items
   9      description: Navigate to <caption>Items</caption>
  10    - type: page-shown
  11      source:
  12        page: Item List
  13      modal: false
  14      runtimeId: b5dx
  15      description: Page <caption>Items</caption> was shown.
  16    - type: invoke
  17      target:
  18        - page: Item List
  19        runtimeRef: b5dx
  20        - action: Control_New
  21      invokeType: New
  22      description: Invoke New on <caption>New</caption>
  23    - type: scope
  24      condition:
  25        type: page-shown
  26        source:
  27          page: Select Item Templ. List
  28          runtimeId: b5ro
```


Convert to Documentation



Read this yaml file and convert it into step to step documentation on how to create a new item

✓ Read `Create New Item.yaml`

Here is a step-by-step guide on how to create a new item, based on your YAML file:

How to Create a New Item

1. Start as Business Manager

- Make sure you are logged in with the "BUSINESS MANAGER" profile.

2. Navigate to Items

- From the Business Manager Role Center, select the "Items" action.

3. Wait for the Item List Page

- The "Items" list page should appear.

4. Create a New Item

- Click the "New" button to start creating a new item.

5. (If prompted) Select an Item Template

- If the "Select Item Template List" page appears:
 - Select the second row in the template list.
 - Click "OK" to confirm your template selection.
 - The template selection page will close.

6. Wait for the Item Card Page

- The "New - Item Card" page will open.

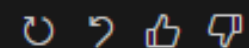
7. Enter Item Details

- In the "Description" field, enter your User ID (or the value shown in your session).
- In the "Unit Price" field, enter "20".

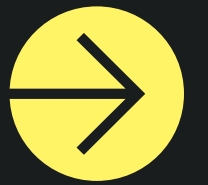
8. Focus on Description (Optional)

- Click into the "Description" field to focus it, if needed.

Let me know if you want this formatted differently or need it as a document!



Record Instructional Video



CRONUS NZ 15 Aug 2025 | < Finance > Cash Management > Sales > | ≡

Items: All ▾ | 🔍 📄 + New ▾ 🗑 Delete Home ▾ ... 📄 🔍 ≡ ⓘ 📄

Select a template for a new item 🔍 ▾ | ✕

Code ↑	Description
ITEM	Item
→ SERVICE	Service

OK Cancel

Page Scripting (preview) ✕

Automation is running. ⏸ Pause

Create New Item | 📄 ... ✕

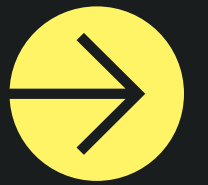
- Navigate to Items ✓
- Page Items was shown. ✓
- Invoke New on New ✓
- ✓ If Page **Select a template for a new it...** ✓
 - Set current row in Control1 ⚠
 - Invoke LookupOk on Select a templ... ⌛
- Page Select a template for a new item ...
- Page New - Item Card was shown.
- Input **Session.'User ID'** into Description
- Focus Description
- Input **20** into Unit Price



#17 Add Successful Feedback



Without Successful Feedback



Did it work? Should I click again? Did I break something?

Why success feedback matter?



- ✓ Reassures users that their action was completed.
- ✓ Acknowledges and builds their trust in the system.
- ✓ Keeps users moving without hesitation.



How to write Success Messages?



- Tell the users what they need to know. Provide enough context to be helpful.
- Tell it in easy-to-understand language. Avoid technical jargon.
- Summarise instead of repeating.
- Guide users to next steps whenever possible.
- Use `GuiAllowed` for Schedule or Background Tasks.

Example Success Messages



- ✗ Sales Order has been posted.
- ✓ Sales Order 101234 has been posted successfully.
- ✗ Purchase Order has been released.
- ✓ Purchase Order 101234 has been released and emailed to the vendor.
- ✗ File has been imported.
- ✓ 250 customer records were imported successfully.
- ✗ Item was added.
- ✓ New item "Coffee Maker" (Item No. 70021) was added.
- ✗ Purchase Order has been approved.
- ✓ All selected purchase orders have been approved. 5 records processed.
- ✗ Sales Invoice prints.
- ✓ Sales Invoice INV-123456 was printed successfully.



#18 Context on Error Message



Importance of Context



When it comes to Error message, context is important.

Error without Context



Sales Order

101001 · Adatum Corporation

Home Prepare Print/Send Request Approval Order Actions Related Automate Fewer options

Post... Release Create Warehouse Shipment Create Inventory Put-away/Pick... Archive Document

General

Customer Name Adatum Corporation

Contact Robert To

Document Date 1/02/2025

Posting Date 1/02/2025

Order Date 1/02/2025

Was this information helpful? ☒ Yes ☐ No

OK

Lines Manage Line Order

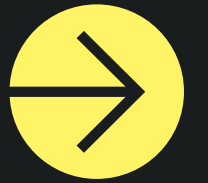
New Line Delete Line Select items...

Incorrect Customer Price Group.

Share details

Show more

Error with Context



Sales Order

101001 · Adatum Corporation

Home Prepare Print/Send Request Approval Order Actions Related Automate Fewer options

Post... Release Create Document

General

Customer Name Adatum Corporation

Contact Robert Toft

Document Date 1/02/2025

Posting Date 1/02/2025

Order Date 1/02/2025

Share details

Was this information helpful? Yes No

OK

Lines Manage Line Order

New Line Delete Line Select items...

Customer Price Group must be equal to 'RETAIL' in Sales Header:
Document Type=Order, No.=101001. Current value is
'WHOLESALE'.

Error with Why Context



Sales Order

101001 · Adatum Corporation

Home Prepare Print/Send Request Approval Order Actions Related Automate Fewer options

Post... Release Create

Document

General

Customer Name Adatum Corporation

Contact Robert T. King

Document Date 1/02/2025

Posting Date 1/02/2025

Order Date 1/02/2025

Customer Price Group on the Document 101001 (WHOLESALE) does not match with Customer Price Group on the Customer 10000 (RETAIL). Please verify and update the Customer Price Group.

Share details

Was this information helpful? Yes No

OK

Lines Manage Line Order

New Line Delete Line Select items...

Why context is important?



- ✓ Avoid confusing Error Messages.
- ✓ Provide clear guidance to make an informed decision.



#19 Add Actionable Error



Error Message with Context



Sales Order

101001 · Adatum Corporation

Home Prepare Print/Send Request Approval Order Actions Related Automate Fewer options

Post... Release Create

Document

General

Customer Name Adatum Corporation

Contact Robert To

Document Date 1/02/2025

Posting Date 1/02/2025

Order Date 1/02/2025

Was this information helpful? Yes No

OK

Customer Price Group on the Document 101001 (WHOLESALE) does not match with Customer Price Group on the Customer 10000 (RETAIL). Please verify and update the Customer Price Group.

Share details

Lines Manage Line Order

New Line Delete Line Select items...

Actionable Error



Sales Order

101001 · Adatum Corporation

Home Prepare Print/Send Request Approval Order Actions Related Automate Fewer options

Post... Release Create

Document

General

Customer Name Adatum Corporation

Contact Robert Toft

Document Date 1/02/2022

Posting Date 1/02/2022

Order Date 1/02/2022

✓ Saved

Customer Price Group does not match

Customer Price Group on the Document 101001 (WHOLESALE) does not match with Customer Price Group on the Customer 10000 (RETAIL). Please verify and update the Customer Price Group.

Share details

Update to RETAIL OK

03/2025

03/2025

en

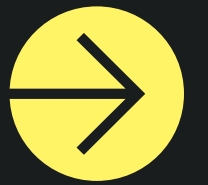
Why use Actionable Error?



- ✓ Give guidance to the user.

- ✓ Save user time.

How to use it?



1 reference

```
local procedure SampleActionableError()
var
    Customer: Record Customer;
    CustomerPriceGroupTitleMsg: Label 'Customer Price Group does not match';
    CustomerPriceGroupDetailedMsg: Label 'You are not allowed to choose different Customer Price Group th
    UpdateActionMsg: Label 'Update to %1', Comment = '%1=Customer."Customer Price Group"';
    MyErrorInfo: ErrorInfo;
begin
    Customer.Get(Rec."Sell-to Customer No.");
    if Rec."Customer Price Group" <> Customer."Customer Price Group" then begin
        MyErrorInfo.Title(CustomerPriceGroupTitleMsg);
        MyErrorInfo.Message(StrSubstNo(CustomerPriceGroupErr, Rec."Customer Price Group", Customer."Custo
        MyErrorInfo.DetailedMessage(CustomerPriceGroupDetailedMsg);
        MyErrorInfo.RecordId := Rec.RecordId;

        MyErrorInfo.AddAction(StrSubstNo(UpdateActionMsg, Customer."Customer Price Group"),
            Codeunit::"Update Customer", 'UpdateCustomerPriceGroupOnDocument');

        Error(MyErrorInfo);
    end;
end;
```



#20 Use Collectable Error



First Error Stop



Sales Order

101001 · Adatum Corporation

Home Prepare Print/Send Request Approval Order Actions Related Automate Fewer options

Post... Release Create Document

General

Customer Name Adatum Corporation

Contact Robert Toft

Document Date 1/02/2025

Posting Date 1/02/2025

Order Date 1/02/2025

Share details

Was this information helpful? Yes No

OK

Lines Manage Line Order

New Line Delete Line Select items...

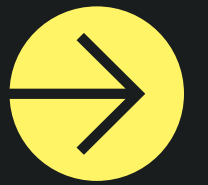
Customer Price Group must be equal to 'RETAIL' in Sales Header:
Document Type=Order, No.=101001. Current value is
'WHOLESALE'.

Collectible Errors

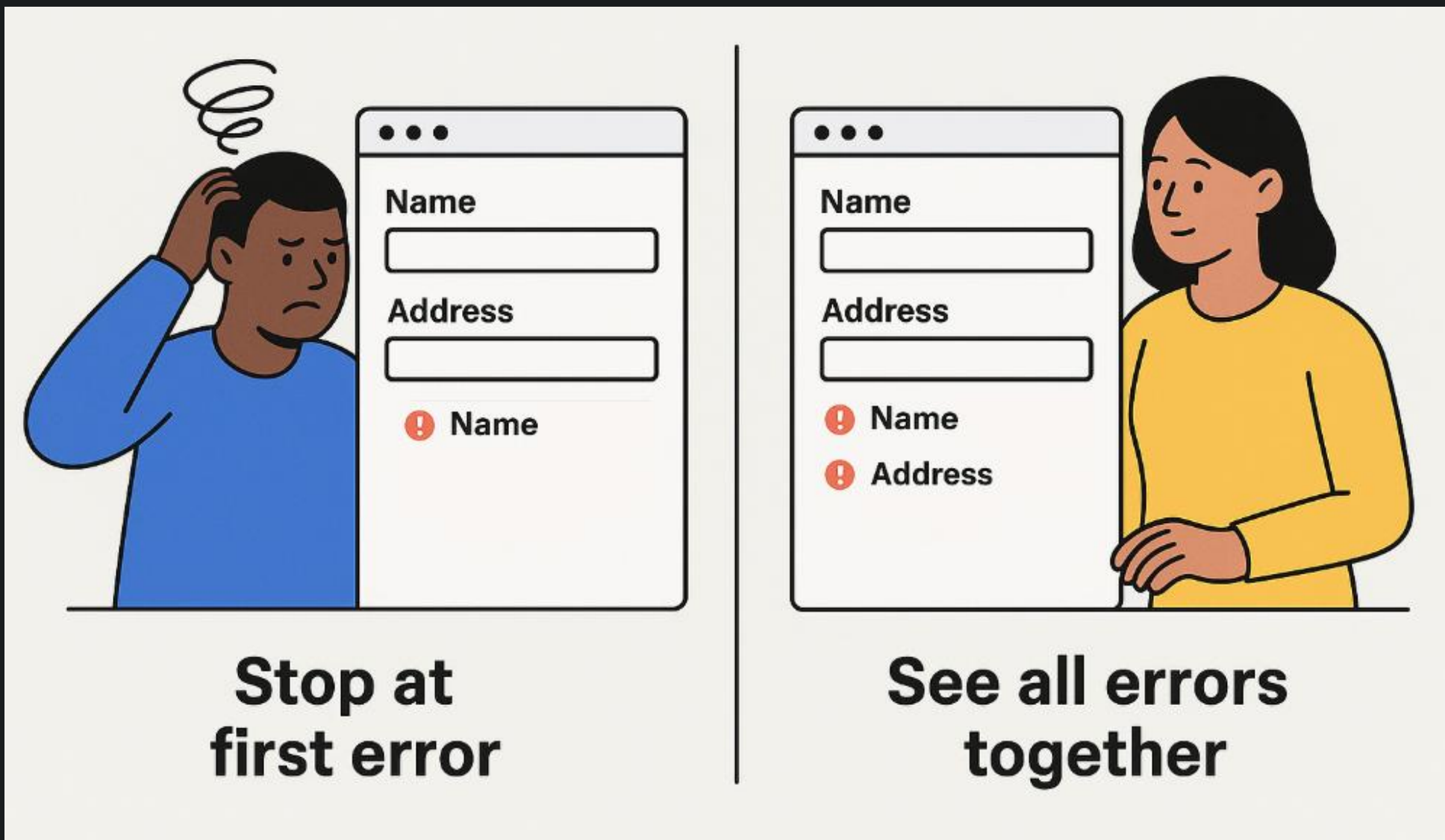


Error Messages						
	Accept recommended action	Hide fixed errors	Open related record			
Description	Context	Error Call Stack	Recomm... action	Message Type	Status	
<i>Customer Price Group must be equal to 'RETAIL' in Sales Header: Document Type=Order, N...</i>	Sales Header: Order,101001	"Sales Orde...	—	Error		
<i>Location Code must have a value in Sales Header: Document Type=Order, No.=101001. It ca...</i>	Sales Header: Order,101001	"Sales Orde...	—	Error		
<u><i>You cannot post.</i></u>	⋮ —	"Sales Orde...	—	Error		

Why use Collectable Errors?



- ✓ Save user time. Users can fix multiple problems in one go.
- ✓ Better user experience. Users feel supported instead of being blocked repeatedly.



How to use it?



```
[ErrorBehavior(ErrorBehavior::Collect)]  
1 reference  
local procedure ValidateOrderWithCollectableError()  
var  
    TempErrorMessage: Record "Error Message" temporary;  
    MyErrorInfo: ErrorInfo;  
begin  
    ValidateOrder();  
  
    if not HasCollectedErrors then  
        exit;  
  
        //Show the errors on page  
        foreach MyErrorInfo in system.GetCollectedErrors() do begin  
            TempErrorMessage.ID := TempErrorMessage.ID + 1;  
            TempErrorMessage.Message := CopyStr(MyErrorInfo.Message, 1, 2048);  
            TempErrorMessage."Context Record ID" := MyErrorInfo.RecordId;  
            TempErrorMessage.SetErrorCallStack(MyErrorInfo.Callstack());  
            TempErrorMessage.Insert(false);  
        end;  
  
        ClearCollectedErrors();  
  
        Page.RunModal(Page::"Error Messages", TempErrorMessage);  
        Error('');  
    end;  
  
1 reference  
local procedure ValidateOrder() //throw multiple errors here  
var  
    Customer: Record Customer;  
begin  
    Customer.Get(Rec."Sell-to Customer No.");  
    Rec.TestField("Customer Price Group", Customer."Customer Price Group", ErrorInfo.Create());  
    Rec.TestField("Location Code", ErrorInfo.Create());  
    Error(ErrorInfo.Create('You cannot post.', true));  
end;
```

Thank you!

