DESIGNING SMARTER DOCUMENTS

AN OVERVIEW OF NETSUITE ADVANCED PDF/HTML TEMPLATES

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ADVANCED PDF/HTML TEMPLATES

OVERVIEW – QUESTIONS TO ANSWER

What are Advanced PDF/HTML Templates?

How does this apply to NetSuite?

Are there Non-Advanced Templates?

Why use Advanced templates?

Do I need to be a developer?

What is HTML? What is CSS?
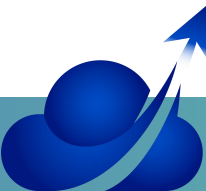
OK – But what next?

What can I do now?

```html
1   <!DOCTYPE html>
2   <html>
3     <head>
4       <style type="text/css">
5         body {
6           font-family: sans-serif;
7           font-size: 14pt;
8           text-align: center;
9           margin-top: 100px;
10        }
11      </style>
12    </head>
13    <body>
14      <p>Hello <strong>Rocky Mountain NetSuite User Group!</strong></p>
15    </body>
16  </html>
```

ADVANCED PDF/HTML TEMPLATES

KEY CONCEPTS

DEFINITIONS TO COVER

Forms — NetSuite's UI control to display and enter data – Also the main control of templates

Template — A blueprint for how NetSuite prints or emails a document, like an Invoice or Check

PDF Output — The final, formatted document from NetSuite

Dynamic Content — Content that changes with the database
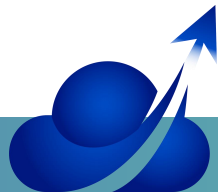
Hard-Coded — A static value or reference that doesn't change

Record — A saved object in NetSuite such as a Customer or Purchase Order that contains data

Field Reference — The internal ID or Name of a field to use to retrieve its data

ENTRY & TRANSACTION FORMS

A crucial piece to the NetSuite system

Custom Transaction Form

Save & Edit | Cancel | Move Elements Between Subtabs | Change ID | Actions

NAME *
Stratos - Custom Invoice

PUBLISHER ID

APP ID

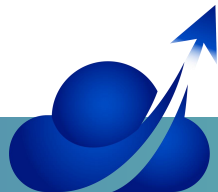ID
custform_425_t2205870_927

TYPE
Invoice

PRINTING TYPE ○ ADVANCED ● BASIC

PDF LAYOUT
Standard Transaction Layout

HTML LAYOUT
Standard HTML Transaction Layout

EMAIL MESSAGE TEMPLATE
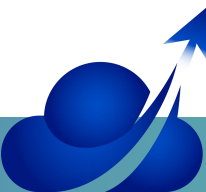Default Email Template

DISCLAIMER

Entry and Transaction forms control:
1. The User Interface (Fields, Tabs, ect...)
2. The Printing Templates
3. The Email Templates
4. Other fields like Logo, Disclaimer, and Address

**Tip: Learning forms will turn you into a super-user

STANDARD TEMPLATES

Custom HTML Templates

- *Customization > Forms > Custom HTML Templates*
- Original option for creating output
- Code-Only Customization
- No FreeMarker support
- Requires code knowledge
- Not User-Friendly
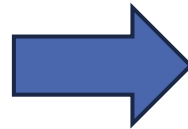- Seldomly Used

Custom PDF Templates

- *Customization > Forms > Custom PDF Templates*
- User Interface Customization
- Newer option than Custom HTML Templates
- No access to scripts, conditional logic, or loops
- More User Friendly than HTML Templates
- Can be used for simple outputs
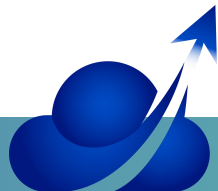- Less control

STANDARD TRANSACTION LAYOUT

ADVANCED PDF/HTML EXAMPLES

Invoice 1

Stairway for Financials GB US v2024.2 04.02
Caitlyn Klipsch
Suite Success Company
98 Professor's Row
Medford MA 02155
United States

Invoice
#INV639
5/24/2025
INV638

Bill To
Jones Andrew
Above The Cloud
1455 Clarity Way
San Jose CA 95020
United States

Ship To
Above The Cloud
1455 Clarity Way
San Jose CA 95020
United States

TOTAL

$8,020.00

Due Date: **6/24/2025**

Terms	Due Date	PO #	Sales Rep	Shipping Method
Net 30	6/24/2025			

Qty	Item	Options	Rate	Amount
1	**SVC_Project Completion** Project Completion			$8,000.00

		Total	$20.00

	Subtotal	$8,000.00
	Tax Total	$20.00
	Total	$8,020.00

Invoice 2

INVOICE

ATTN:
Suite Success Financial Company
1 Harrison Street
San Franciso CA 94105
United States

DATE:
5/4/2025

INVOICE #:
INV638

BILL TO
Stevens Joanne
ABC Co.
5800 Prospect Drive
New York NY 10019
United States

SHIP TO
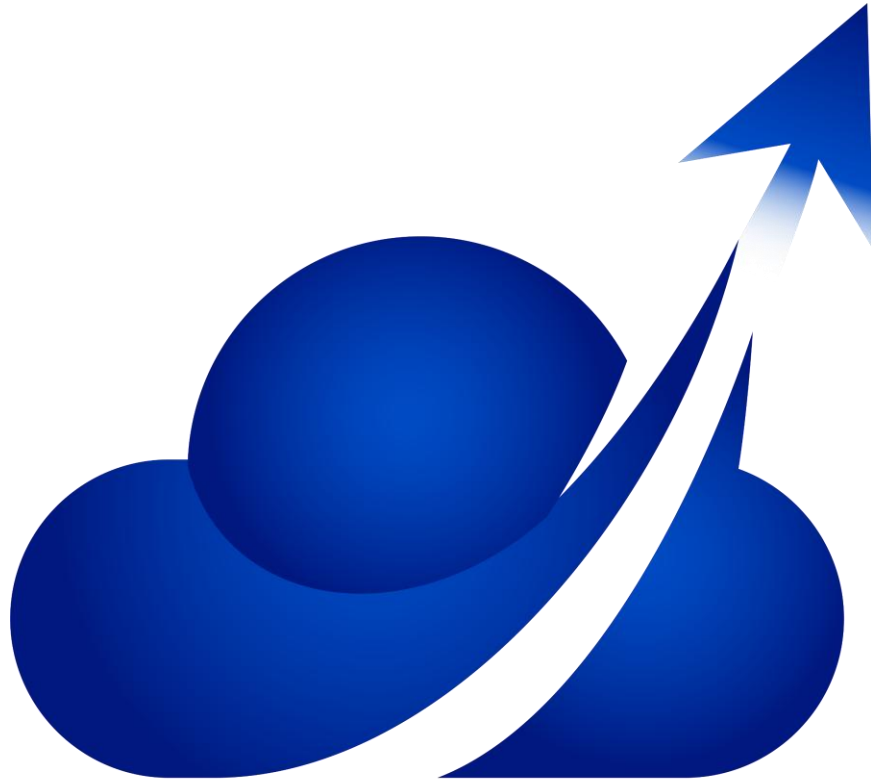ABC Co.
5800 Prospect Drive
New York NY 10019
United States

SALES REP	PO #	SHIPPING METHOD	DUE DATE	TERMS
			6/3/2025	Net 30

ITEM	DESCRIPTION	TAX RATE	QTY	RATE	AMOUNT
NIN_Project Materials		0.25%	50	$0.00	$4,500.00

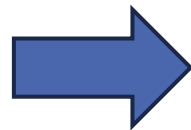|	SUBTOTAL	$4,500.00
	TAX TOTAL	$9.38
	TOTAL	$4,509.38
	AMOUNT PAID	$0.00
	AMOUNT DUE	$4,509.38

ADVANCED TEMPLATES - CORE BENEFITS

- Professional-level styling

- Greater access to record fields, sublists, and related records

- Combines HTML + CSS + FreeMarker

- Conditional Logic

- Highly customizable and scalable

- Embedded dynamic content (Logos, Dates, Signatures)

- Customizations to meet external needs

ADVANCED PDF LAYOUT - WYSIWYG

W.Y.S.I.W.Y.G.

(What You See Is What You Get)

Customization > Forms > Custom PDF/HTML Templates

ADVANCED PDF/HTML TEMPLATES

COMMON USE CASES

COMMON CUSTOMIZATIONS

Invoices

I. External Links
II. Dynamic Logos
III. Dynamic Addresses
IV. Dynamic Bank Account Routing
V. Conditional Logic for Totals

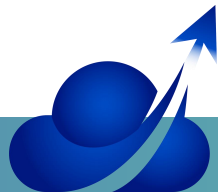## Statements

I. Custom Footer
II. Change Column Headers
III. Custom Remittance Form
IV. Payment Links
V. Custom Messages
VI. Date Conditionals

Purchase Orders

I. Custom Vendor Notes/Instructions
II. Dynamic Shipping Addresses
III. Vendor-Specific Customizations
IV. Line Sequence Numbering
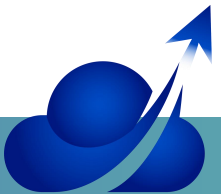V. Terms and Conditions

__Note: We will not cover all the scenarios__

Common Records

- Pick Ticket
- Item Labels
- Sales Orders
- Quotes
- Checks & Vouchers
- Bill of Materials
- Packing Slip

Common Requests

- Include a File attachment
- Languages / Translations
- Add Striping to Line-item rows
- Adding Signature Lines
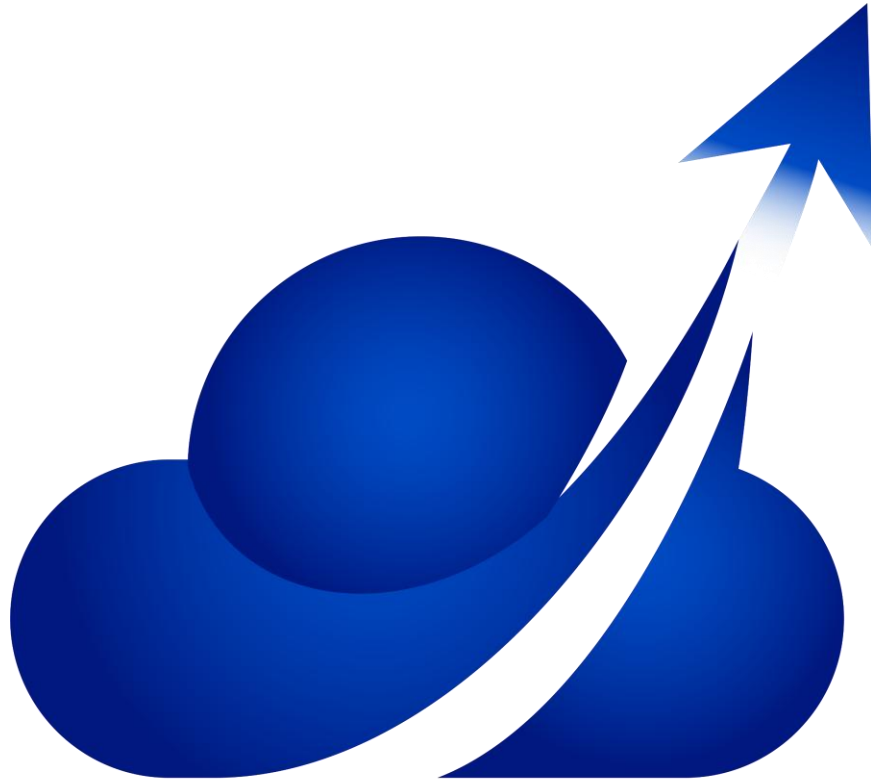- Adding a new font
- Updating branding

ADVANCED PDF/HTML TEMPLATES
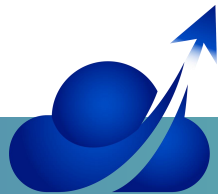
LESS COMMON USE CASES

NOT-SO-COMMON IDEAS

Printing Custom Records
1. Customer Complaints
2. Item/Service One-Page
3. Warranty / Contracts
4. Terms and Conditions

Printing Saved Searches
1. Inventory Counts
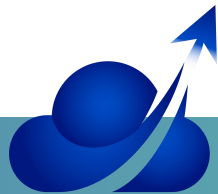2. Item Labels
3. Price List
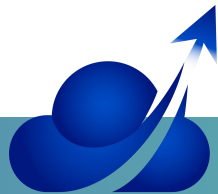4. Employee Census

ADVANCED PDF/HTML TEMPLATES

ADVANCED TACTICS

CODE DEFINITIONS

FreeMarker — NetSuite's template engine to generate PDFs

HTML — The markup language used to define the structure of content in the PDF

CSS — The styling language used with HTML to define the overall look

Record Field — A specific piece of data stored in a NetSuite record such as {item.quantity}

Sublists — A List of related records within another record such as Items on a P.O.

Loop — A programming structure that repeats an action

Condition — Logical decisions based on inputs and other factors

HTML & CSS

```
1   <!DOCTYPE html>
2   <html>
3     <head>
4       <style type="text/css">
5         body {
6           font-family: sans-serif;
7           font-size: 14pt;
8           text-align: center;
9           margin-top: 100px;
10        }
11      </style>
12    </head>
13    <body>
14      <p>Hello <strong>Rocky Mountain NetSuite User Group!</strong></p>
15    </body>
16  </html>
```
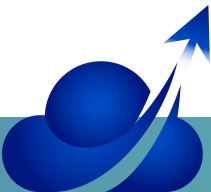
HTML, CSS, AND FREEMARKER

HTML:

The physical structure of our house -- walls, floors, framing, blueprints
HTML holds everything – Like a skeleton

CSS:

The style and appearance of our house – Wall color, Floor material, couch size
Adding visual polish to our Skeleton

FreeMarker:

The brain of our Smart-House that controls everything
For example, Turning on the lights IF we walk into a room

FREEMARKER SYNTAX

```
1    <#if subsidiary.logo?length != 0>
2        <img src="${subsidiary.logo@url}"/>
3    <#else>
4        <#if companyInformation.logoUrl?length != 0>
5            <img src="${companyInformation.logoUrl}"/>
6        </#if>
7    </#if>
8
```

FreeMarker is a templating language that lets you embed logic into documents using tags and variables

Key Features:
Insert Fields i.e. ${record.trandate}
Show/Hide Content with Conditions
Repeat rows with Loops
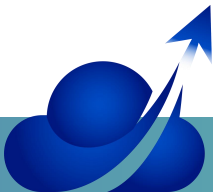Format text, dates, currency

Common Tags & Examples
${..} → Prints a field
<#if> → Conditional Display
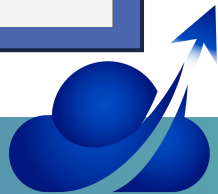<#list> → Looping
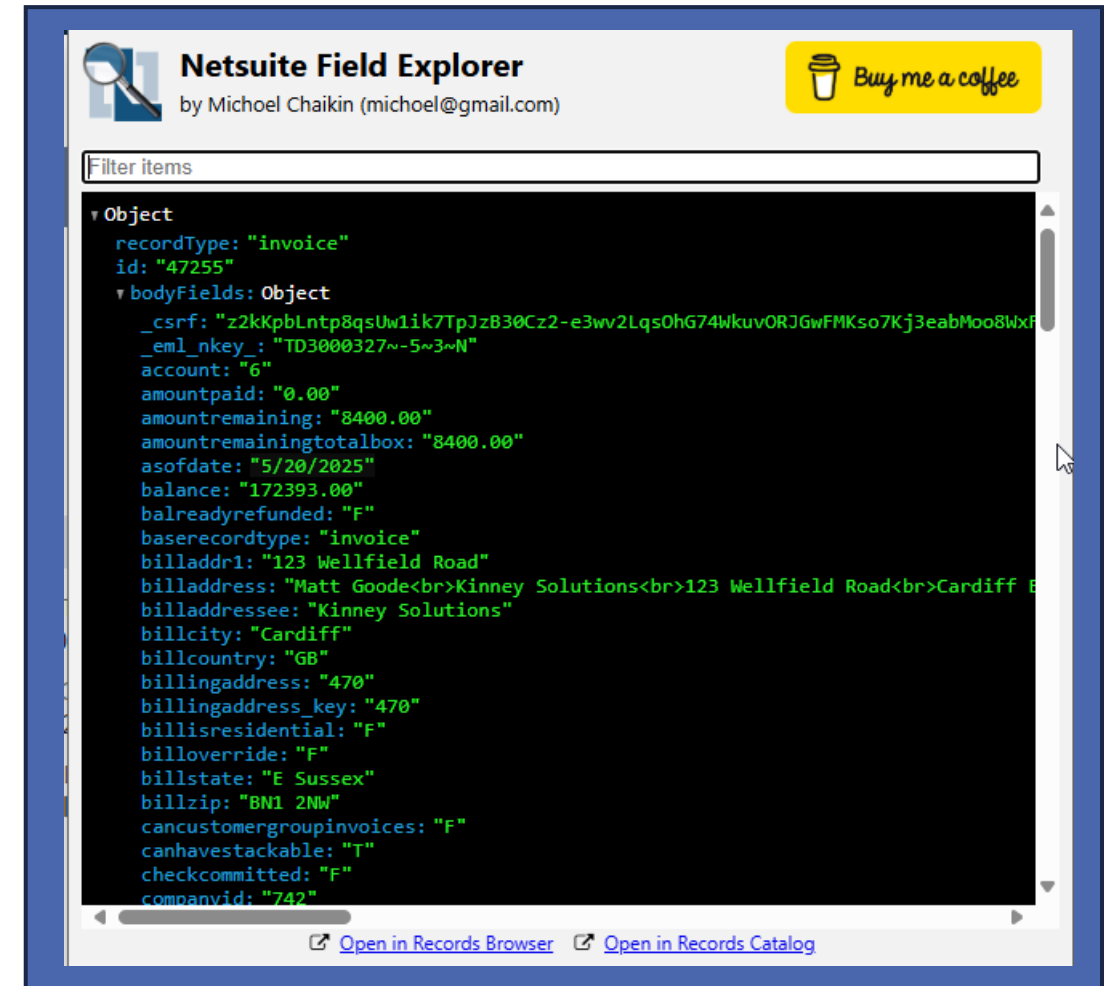?string or ?currency → Formatting helpers

NETSUITE RECORD FIELDS

Referencing fields in NetSuite

1. Records Browser
2. Netsuite Field Explorer
3. Internal IDs on Field Labels

**Tip: Enable Internal IDs in your set preferences
***Tip: Use WYSIWYG to find item labels

TABLES & SUBLISTS

TABLES SYNTAX

```
<table>
 <tr>
   <td>cell 1</td>
   <td>cell 2</td>
   <td>cell 3</td>
 </tr>

 <tr>
   <td>cell 4</td>
   <td>cell 5</td>
   <td>cell 6</td>
 </tr>
</table>
```
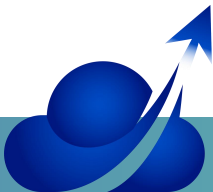
HTML TABLES

cell 1	cell 2	cell 3
cell 4	cell 5	cell 6

Tables are an HTML structure used to organize content into rows and columns – perfect for displaying repeating data.

Invoice Line Items and other sublists are treated specially in code as they have a Many-to-One relationship in NetSuite. For example, One Invoice may have many line items.

Because these sublists contain multiple entries, we need to use a loop to cycle through them. Each Item becomes a row in the Table, repeated dynamically based on the data in the transaction.
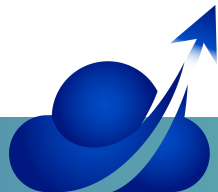
DYNAMIC CONTENT

Dynamic content refers to fields or logic that adjusts output based on the record's data

This allows us to pull in different values based on what the database (NetSuite) has.

Think about filling out a form and all of its fields manually – Including calculations, images, data from other sources

Tip: Adding in Conditional logic is where FreeMarker shows its true power

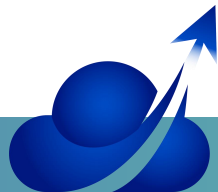| Type	Example	Why Its Useful
Text Fields	${record.entity} OR ${record.address}	Inserts the value in the related record
Calculated Fields	${record.total} - ${record.amountpaid}	Show remaining balance or other custom formulas
Dates & Formatting	${record.trandate?string('MMM dd, yyyy')}	Format date or other field values

CONDITIONALS

Situation	FreeMarker Logic
Display Late Notice	<#if record.amountremaining?gt(0)>Payment is overdue.</#if>
Check for existing discounts	<#if item.discount?has_content>
Display signature only if transaction is approved	<#if record.approvalstatus == "Approved">

Conditionals let you show, hide, or modify content in a template based on logic

"If this field is true" OR if "that value is above a threshold"

Conditionals turn static templates into responsive tools. They let your documents act differently for every customer, every transaction – automatically.

ADVANCED PDF/HTML TEMPLATES

BEST PRACTICES

PREVIEWING & SAVING

1. Preview Button
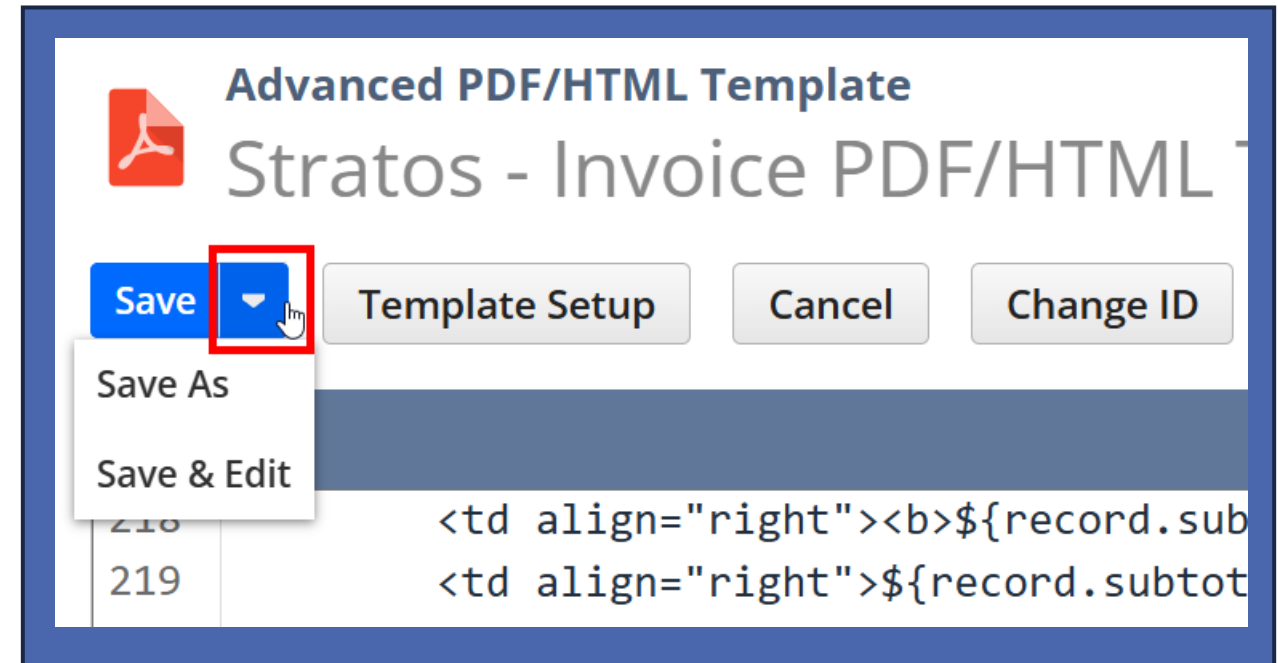2. Save and Edit Button

**Tip: Use a Text-Editor for better formatting

General Tips:
Don't Flip between Source Code and WYSIWYG
Create a standard naming convention
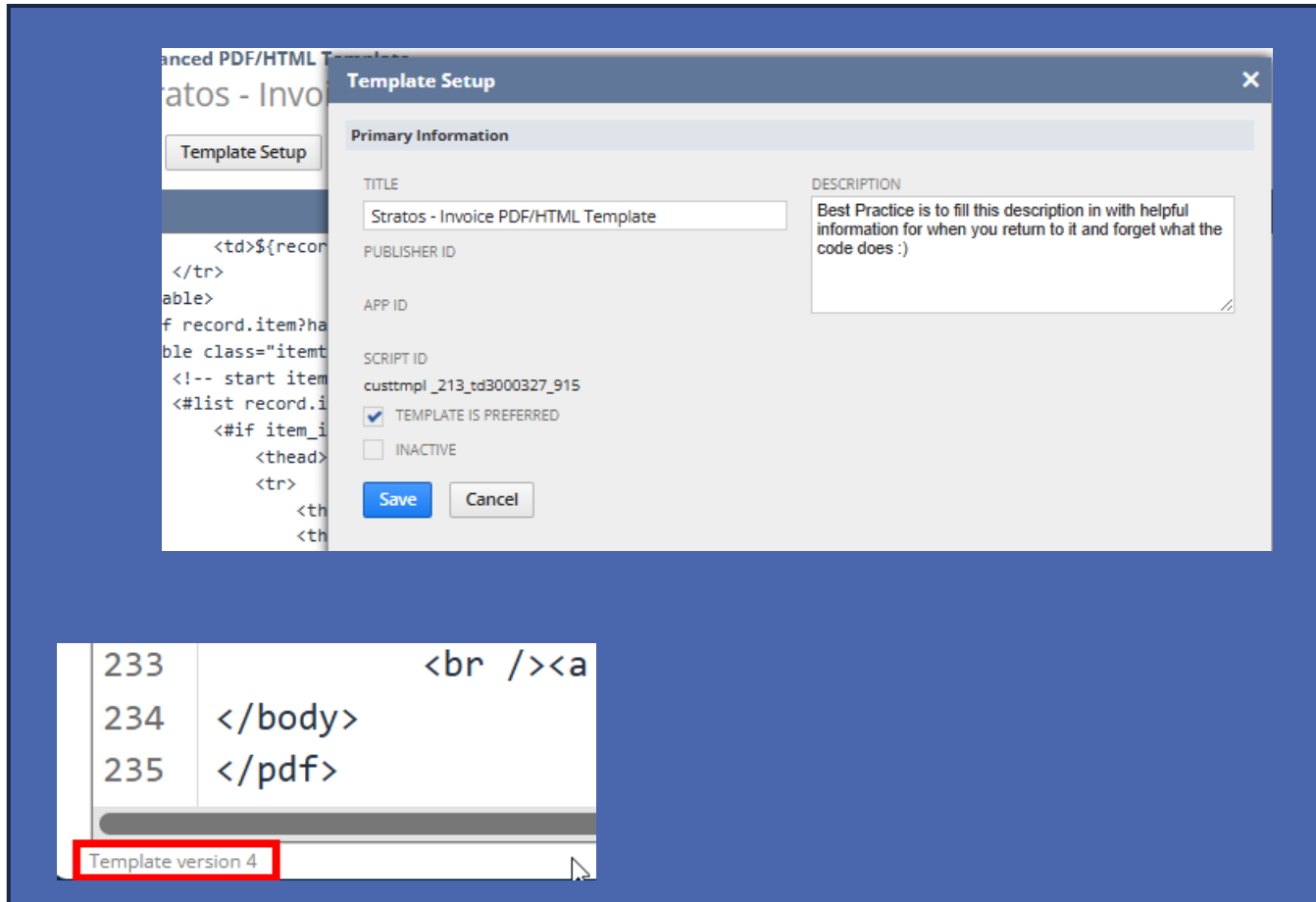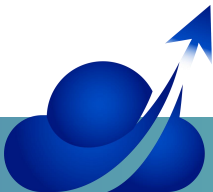Create a code repository

BACKUP & VERSIONING

1. Sandbox if possible
2. Copy and Paste an original version
3. Creating Version controlled templates
4. Remember the Preview Button
5. Copy and Paste a final version

Pro Tip: NetSuite tracks different 'versions' after every save – You can get back to an earlier version via the URL. Append the following code to the end of your current template while replacing '1' with the necessary version
&version=1

WHAT'S NEXT?

Expert-Level moves
Reference template in Scripts
Generate own XML Template

Unlocking more with your new Skills
Saved Searches
External Forms
Email Templates
Custom Item setup
Workflows
Integration Mapping
Web Design

USEFUL RESOURCES

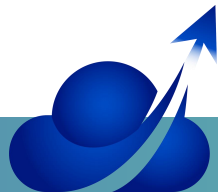|		
Records Browser	NetSuite Field Explorer	WYSIWYG Mode
FreeMarker Built-Ins	SuiteAnswers	Reddit
YouTube	GitHub	ChatGPT

USEFUL RESOURCES

Advanced Templates References:

https://docs.oracle.com/en/cloud/saas/netsuite/ns-online-help/SBADVTemplates.html

Advanced PDF/HTML Templates Overview:

https://docs.oracle.com/en/cloud/saas/netsuite/ns-online-help/chapter_4453550706.html

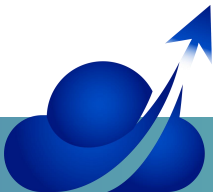NetSuite Field Explorer (Extension by Micheol Chaikin):

https://chromewebstore.google.com/detail/netsuite-field-explorer/cekalaapeajnlhphgdpmngmollojdfnd?pli=1

FreeMarker Manual:

https://freemarker.apache.org/docs/dgui_quickstart_basics.html

SuiteScript Records Browser:

https://system.netsuite.com/help/helpcenter/en_US/srbrowser/Browser2024_2/script/record/account.html

THANK YOU!

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ORACLE NETSUITE
Certified-ERP Consultant