

ORACLE NETSUITE

Creating NetSuite Saved Search Formulas

Suite Learning
A Product Training Series



Today's Speakers



Ivy Lopez

Technical Support Engineer and NetSuite
Support Community Guru
Oracle NetSuite

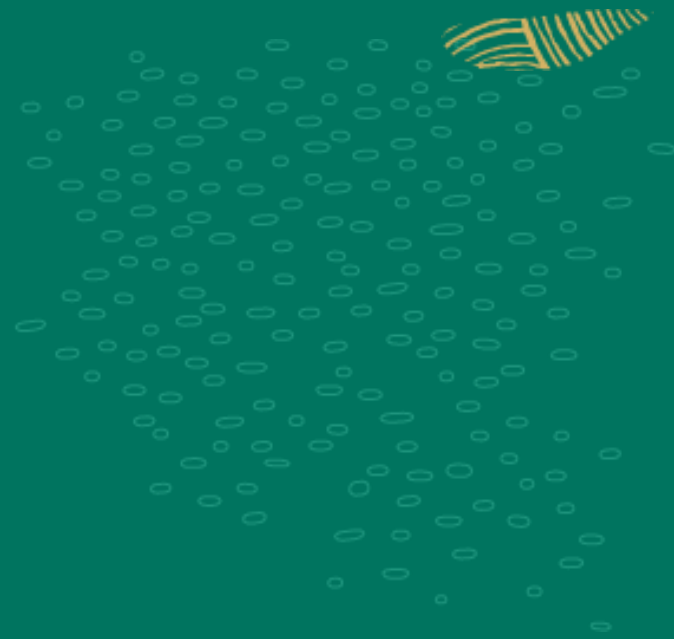


Tessa Jenkins

Product Marketing Analyst
Oracle NetSuite

Agenda

- 1 Formula Foundations
- 2 Embedding Formulas in Searches
- 3 Basic SQL Expressions
- 4 Q&A





Formula Foundations

The Power of NetSuite Saved Search

- Search through all available records existing in NetSuite
- Provide information on any search-record type
- Highlight key information for your business
- You may decide you want to save a search when you are defining a search, or after you have run a search
- Or you may know in advance that you want to create a saved search rather than a search
- Saved Search vs. Reports





Types of Formula Fields

- Formula (Currency)
- Formula (Date)*
- Formula (Date/Time)
- Formula (HTML)
- Formula (Numeric)*
- Formula (Percent)
- Formula (Text)*

** Can be added as a Filter under the Criteria tab > Standard subtab*

Elements of Search Formulas

- Data
 - Numeric
 - Text
 - Date or Date/Time
 - Boolean
 - Null
- Fields
- Functions and Operators



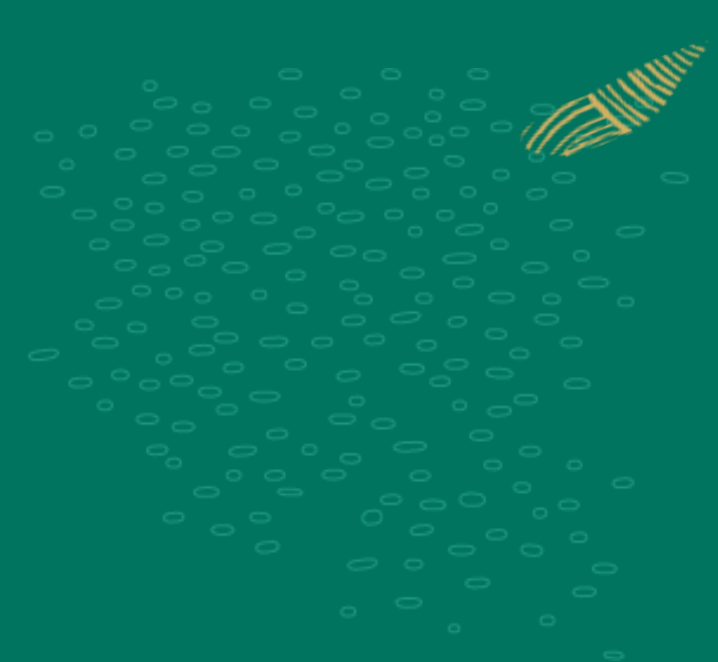
Saved Search Formula Operators

Comparison Operators

- < Less Than
- <= Less Than Or Equal To
- > Greater Than
- >= Greater Than Or Equal To
- = Equal To
- != Or <> Not Equal To

Arithmetic Operators

- + Addition
- Subtraction
- * Multiplication
- / Division





Using NetSuite Fields in Formulas

Finding NetSuite Field ID to Use in a Formula

Formula Picker

FIELD*	SUMMARY TYPE	FUNCTION	FORMULA
Formula (Numeric)			

Saved Item Search

Set Cancel

FUNCTION

FIELD

FORMULA

SuiteScript Records Browser

Schema Browser Records Browser Connect Browser

A B C D E F G H I J K L M N O P R S T U V W Z

Item

Internal ID: Item

Search only

Supports Deleted Record Search

Supports Custom Fields

Search Joins

Join ID	Join Description	Actual Join Name
assemblyitembillofmaterials	Assembly Item Bill of Materials	Assembly Item Bill of Materials
binonhand	Bin On Hand	Item Bin Number
effectiverevision	Effective Revision	Item Revision
inventorydetail	Inventory Detail	Inventory Detail
inventorylocation	Inventory Location	Location
inventorynumber	Inventory Number	Inventory Numbers
inventorynumberbinonhand	Inventory Number/Bin on Hand	Inventory Number Bin
obsoleterevision	Obsolete Revision	Item Revision
preferredlocation	Preferred Location	Location
preferredvendor	Preferred Vendor	Vendor
pricing	Pricing	Pricing
shopper	Shopper	Customer
user	User	Employee
vendor	Vendor	Vendor

Search Filters

Internal ID	Type	Label
accbookrevredforecastrule	select	Accounting Book Rev Rec Forecast Rule
account	select	Account
accountingbook	select	Accounting Book
accountingbookamortization	select	Accounting Book Amortization Schedule
accountingbookcreateplan	select	Accounting Book Create Revenue Plans On
accountingbookrevrecrule	select	Accounting Book Revenue Recognition Rule
accountingbookrevrecschedule	select	Accounting Book Rev. Rec. Schedule
alternatedemandsourceitem	select	Alternate Source Item
atpleadtime	float	ATP Lead Time
atpmethod	select	Default ATP Method
autoleadtime	checkbox	Auto-Calculate Lead Time
autopreferedstocklevel	checkbox	Auto-Calculate Preferred Stock Level
autoreorderpoint	checkbox	Auto-Calculate Reorder Point
availabletopartners	checkbox	Available to Partners

Field Help

Field Help

AVERAGE COST
0.40

PURCHASE PRICE

LAST PURCHASE PRICE
0.75

PURCHASE DESCRIPTION

REORDER POINT AUTO-C

PURCHASE LEAD TIME

SAFETY STOCK LEVEL

SEASONAL DEMAND

EXPECTED DEMAND CHANGE

Customize Field ID: **averagecost**

This field displays the current average cost of the item across all locations. Using the weighted-average method, the average cost is calculated as the total units available during a period divided by the beginning inventory cost plus the cost of additions to inventory.

Note: The average cost calculated per location is listed for each location on the Locations subtab. If you use Multiple Units of Measure, average cost is calculated using stock units.

SuiteAnswers:
74610 & 10493

Rules for NetSuite Fields in Formula

- Enclose ID in curly braces { }
 - ✓ {amount}
 - ✗ amount
- Do not enclose in quotes
 - ✓ {amount}
 - ✗ '{amount}' or {'amount'}
- NetSuite Field ID is not case sensitive
 - ✓ {amount}
 - ✓ {AMOUNT}
 - ✓ {aMOUNT}
 - ✓ {AmoUnt}



Variables in Search Formula

Variable	Description
{today}	Returns current date according to user's time zone, date, and time formatting
{me}	Returns current user ID
{userrole}	Returns current role ID
{user.department}	Returns current user's department ID
{user.location}	Returns current user's location ID
{user.subsidiary}	Returns current user's subsidiary ID
{user.class}	Returns current user's class ID
{usercurrency}	Returns current user's currency

Referencing System Notes Records

- You can reference System Notes fields in numeric and text formulas using the format: `{systemnotes.field_name}`
- Note: you can select a field to be included in a formula expression from the Formula popup window's Field dropdown list
- Join fields appear at the end of the dropdown list. When you select from the dropdown lists, the system puts the correct ID in the formula



Examples of Formula Use Cases

- Including Line Numbers in Transaction Searches
- Referencing Field IDs
- Avoiding Divide By Zero Errors
- Displaying the Percentage Variance between Custom Record Values
- Calculating Days Remaining Until Task Complete
- Comparing Summed Amounts Across Two Fiscal Years for Transactions
- Referencing System Notes Records



Calculating Days a Sale Is In Effect

- Used to calculate the days a sale is in effect up to the date it is canceled, like a contract age
- If there is no cancellation date, substitute today's date
- Select Formula (Numeric) and enter the following formula:
`ABS({custom_field_startdate}-nvl({custom_field_cxldate},{today}))`
- Note: You can use a similar formula to calculate the days remaining on a contract based on the end date field





Displaying the Percentage Variance Between Custom Record Values

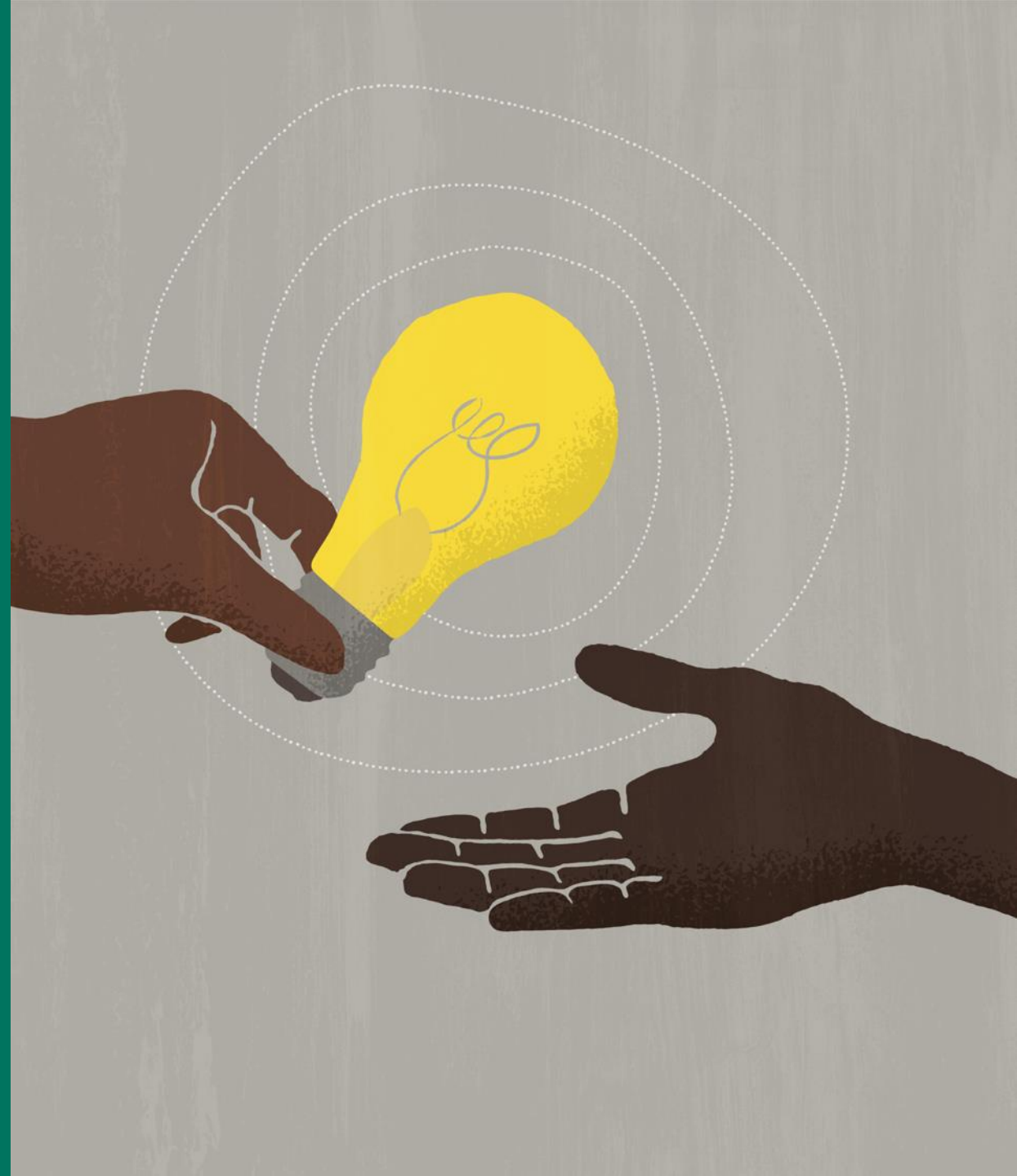
- On the Results subtab, select Formula (Percent), a summary type of Group, a Function of Round to Hundredths, and (if you want) a custom label such as Average
- Enter the following formula: $\text{ROUND} (\{ \text{custrecord_value1} \} / \{ \text{custrecord_value2} \} - 1.00) * 100, 2)$



SQL Functions in Saved Search

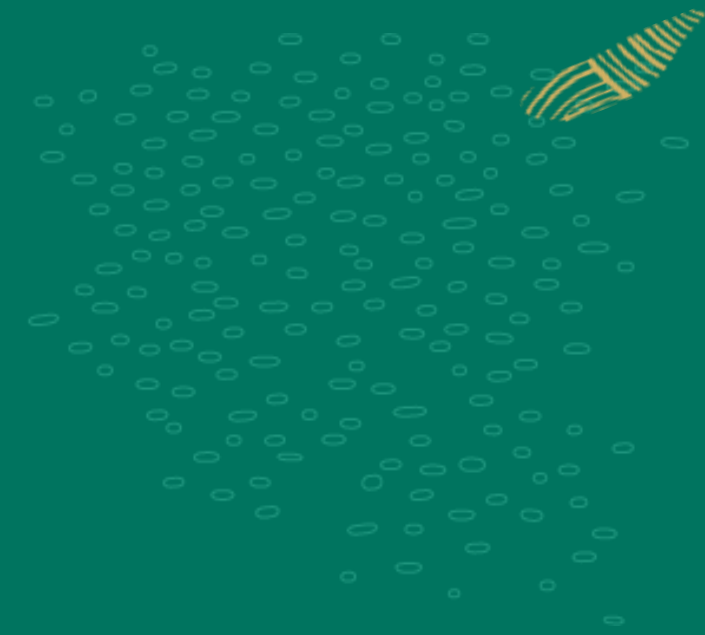
Common SQL Functions

- Common Numeric Functions
 - `ABS` / `ROUND` / `FLOOR` / `CEIL`
- Combining Values
 - `CONCAT` / `||` / `NS_CONCAT`
- Comparing Values
 - `CASE` / `DECODE`
- Handling NULL Values
 - `NULLIF` / `NVL` / `NVL2`



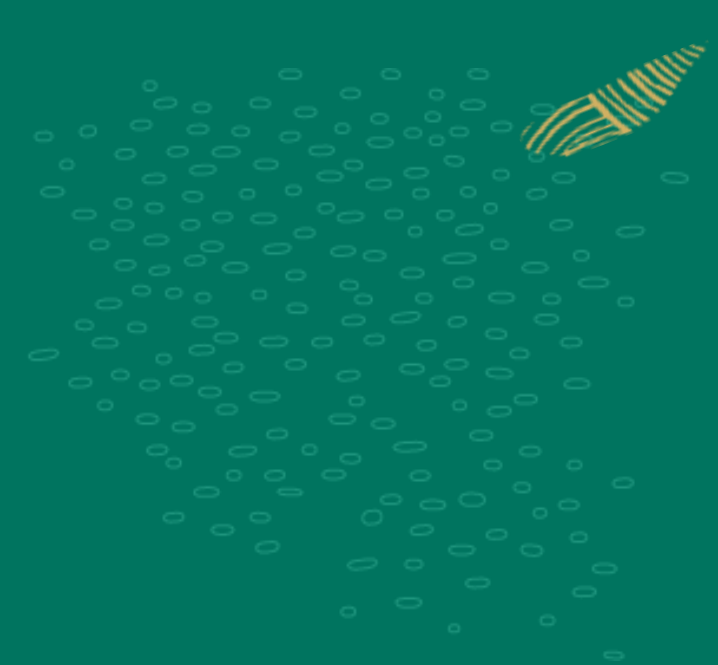
NS_CONCAT

- Syntax: **NS_CONCAT(n)**, where (n) can be a field or an expression
- Limited to 4,000 characters only
- Use Formula (Text) field
- Summary Type = Maximum



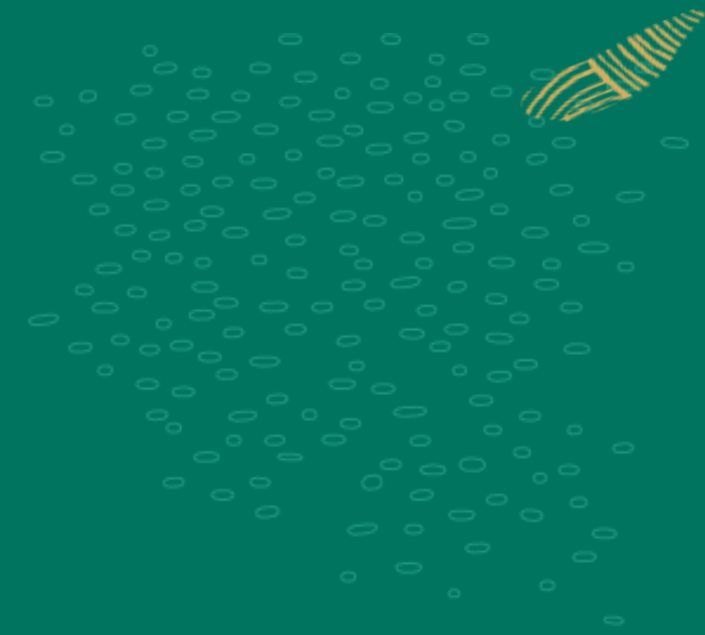
Case When Statement

- Syntax: **CASE WHEN expr THEN r ELSE d END**, where:
 - **expr** is an expression that is being evaluated
 - **r** is the result that will display if **expr** is evaluated to be true
 - **d** is the result that will display if **expr** is false
- Parts:
 - the opening CASE clause
 - the WHEN comparison *
 - its equivalent THEN value *
 - the ELSE default value
 - closed by the END clause
- Example: **CASE WHEN {type} = 'Sales Order' THEN {amount} ELSE 0 END**
- This means: *If the type of the transaction is Sales Order, then show the value of the Amount field. Otherwise, show 0.*



Decode

- Syntax: **DECODE(n, v1, r1 [, v2, r2]...[, d])**
 - **n** can be a field or an expression that is being evaluated
 - **v** is the value being compared to n
 - **r** is the result that will display if v is equal to n
 - **d** is the result that will display if v is not equal to n
- Example: **DECODE({type},'Sales Order',{amount},0)**
 - This means: If the type of the transaction is Sales Order, then show the value of the Amount field. Otherwise, show 0



CASE vs DECODE

- Use **DECODE** if always comparing for **equality**
- Use **CASE** if comparing in other ways such as **>**, **<**, **=>**, **<=**, embedded formulas
- These statements produce the exact same result
 - `CASE WHEN {type} = 'Sales Order' THEN {amount} ELSE 0 END`
 - `DECODE({type},'Sales Order',{amount},0)`





Best Practices

- Use single quotes in the formula to display Text result
- Do not use commas in Numbers
- Enclose calculations in the formula with parentheses
- Numbers are automatically converted to text, but not the other way around
- Use **NS_CONCAT** to display a list of results in only one row
- Null and 0 are two different things
- Add/Test the formula in the Results tab first, before putting it in the Criteria



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Sharpening Your NetSuite Skills

Learn More About Saved Search Formulas

The screenshot shows the NetSuite Applications Suite Help Center page for "Saved Searches". The breadcrumb trail is "Cloud / Cloud Applications / NetSuite". The page title is "NetSuite Applications Suite" and the article title is "Saved Searches". A search bar at the top contains "NetSuite Applications Online Help" and "Search". A left sidebar lists the "Contents" with "Saved Searches" expanded to show sub-topics like "Defining a Saved Search" and "Selecting Available Filters for Saved Searches". The main content area includes a note about Non-Profit (NFP) information, a definition of a saved search, instructions on when to save a search, email notification settings, access permissions, and execution logs. It also provides a list of portlets where saved search results can be displayed.

Help Center Search

Cloud / Cloud Applications / NetSuite

NetSuite Applications Suite

Saved Searches

Note: For information specific to Not-for-Profit (NFP), see [Non-Profit Financial Management](#).

A saved search is a reusable search definition, that can have many advanced search filters and results display options. If you have the Publish Search permission, you can share search results with other users. Saved search results provide reporting and tracking and can serve as the basis for business analysis and strategic decision-making.

You may decide you want to save a search when you are defining a search, or after you have run a search. Or you may know in advance that you want to create a saved search rather than a search. When you have decided to save a search, and you have opened a saved search page, you can define the saved search. For step-by-step instructions, see [Defining a Saved Search](#).

As you are defining a saved search, you can specify that results be sent automatically by email to selected recipients, if you have the Publish Search permission. Email messages of search results can be sent at scheduled intervals, when results are updated, or both, without you needing to rerun the search. See [Saved Search Email](#).

After you have defined a saved search, you and other users designated as audience members can access the search by title from NetSuite saved search menus. For information, see [Accessing a Saved Search](#).

Each saved search has an execution log listing the users who have run or exported the saved search in the past 60 days, and the dates and times of each execution. See [Auditing Saved Search Execution](#). An audit trail is also available for tracking changes to saved searches. See [Audit Trail for Saved Searches, Reports and Schedules](#).

Your account administrator grants general search permissions and search access by record type that enable you to create and run saved searches. Your level of search permissions determines whether you can email, export, and persist saved search results, whether you can share saved searches with other users, and whether you can view saved search execution logs. For more information, see [Permissions for Searches](#).

If your saved search takes a long time to run, you may consider setting up a scheduled email or persisting search results. For more details, see [Enabling Saved Search Scheduled Email](#) and [Persisting Search Results](#). If you have the Application Performance Management SuiteApp installed in your account, you can also use the Search Performance Analysis dashboard to view search performance details. For more information, see [Analyzing Search Performance](#).

Saved search results can be linked to and displayed from dashboard portlets:

- You can add links to results pages in the Shortcuts portlet. See [Creating Shortcuts to Saved Search Results](#).
- You can display detailed results in a Custom Search portlet. See [Displaying Saved Search Results in Dashboard Portlets](#).
- You can use other portlets to display multiple saved searches on your home page. See [Displaying Multiple Saved Searches on Your Home Page](#).

The screenshot shows the SuiteAnswers search results page for the query "saved search". The page has a search bar with "saved search" and a "Contact Support" button. The results are filtered to show 29,582 results. A left sidebar lists filters such as "Content Type" (Help Topics, How To, General, Video Articles, Announcements, FAQ, SuiteWorld Presentations, Release Notes) and "Categories" (Accounting & Tax, Administration, Commerce, CRM & Marketing, Development, Human Resources). The main content area displays a list of search results with titles and brief descriptions.

SuiteAnswers Contact Support Feedback Austin

saved search

Filter Clear 29582 Results

Content Type

- Help Topics (9008)
- How To (20343)
- General (78)
- Video Articles (60)
- Announcements (1)
- FAQ (74)
- SuiteWorld Presentations (5)
- Release Notes (13)

Categories

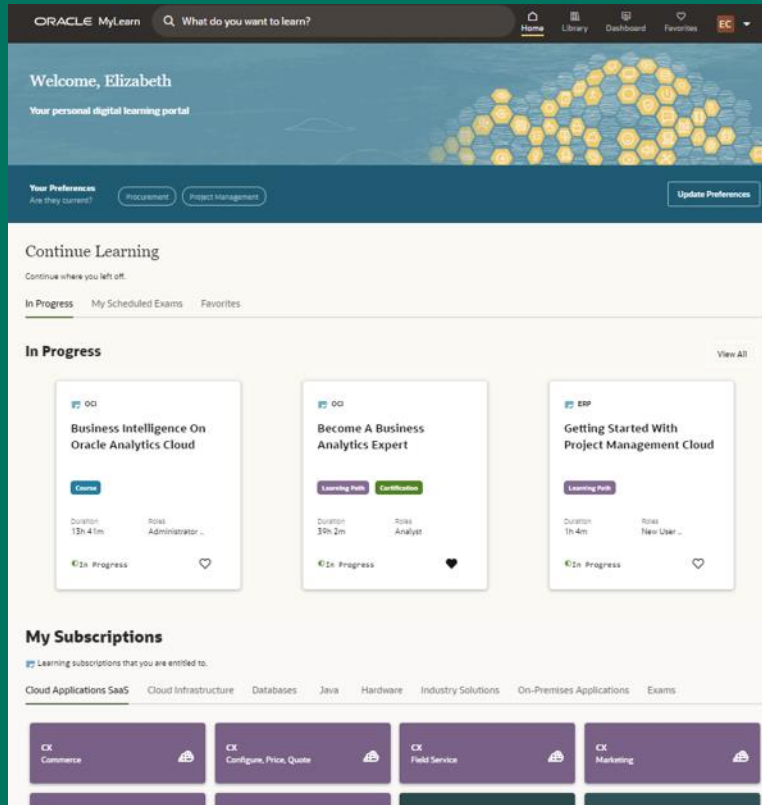
- Accounting & Tax (1719)
- Administration (731)
- Commerce (1170)
- CRM & Marketing (92)
- Development (2355)
- Human Resources (392)

Results:

- Saved Search to Display Invoices the Customer Payment was Applied to**
User would like to create a **Saved Search** to display
- Item Saved Search to Display Preferred Vendor for Multiple Subsidiaries (OneWorld)**
However, when a user add this on an Item **Saved Search** it will only show the most recent Preferred Vendor
- Create a Saved Search to Display All Sales Orders Billed/Invoiced Before Being Fulfilled**
Create a **Saved Search** to show all
- Customize Transaction Saved Search to Display the Custom Field of a Custom Record Type**
2. Create Transaction **Saved Search** Navigate to
- Saved Search to show Bins with no Quantity on Hand**
User would like to create a **Saved Search** to show
- Saved Search That Shows Deleted Records with Deletion Reason**
Alternatively, users may view the Deletion Reason using the Transaction Numbering Audit Log **Saved Search**. Navigate to Lists
- Generate a List of Saved Searches That Contains a Field on Results**

Learning Cloud Support (LCS) Company Pass

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- ✓ User enablement and ask the instructor support



"The LCS Pass exposed me to all the possibilities in NetSuite. It was easy to get started and a smooth transition from basic to more advanced."
Alex Undzis, Business Analyst, AM Signal Inc.

LCS Explorer Pass

- Free access to introductory-level, on-demand content and certifications in NetSuite MyLearn
- Set sail to learn the foundations of navigating NetSuite

[Learn More](#)



NetSuite Support Community

The screenshot shows the Oracle Communities website for the NetSuite Support Community. The header includes the Oracle logo, 'Oracle Communities', language selection ('English (en)'), a search bar with 'Oracle NetSuite' entered, and 'Log In' and 'Register' buttons. A secondary navigation bar contains links for Home, Categories, Groups, Events, Resources, Help, Engagement Excellence, and New to NetSuite. The main content area features a large heading 'Welcome to the NetSuite Support Community' and a sub-heading 'Connect with our community of NetSuite Professionals all over the world'. Below this is a 'Log In' button and a row of profile icons. A large illustration depicts a hand holding a group of people walking towards a bright sun. A red rectangular box highlights the 'Ask a Guru' section, which contains the text 'Start a new discussion and hear from our community of NetSuite Professionals from all over the world.' and a 'Learn' button. Other sections like 'Announcements', 'Videos', and 'SelfAnswers' are partially visible in the background.



Q&A

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