



Integration of NetSuite with Tableau for Data visualization

Sno	Date	Modification	Author	Verified By
1	2019/11/11	Initial Document	Sumit	Neeraj Soni

What is NetSuite?

NetSuite is a cloud based software platform that provides a single view of a business across financials, back office Operations, CRM and event marketing. Many companies are turning to the cloud for delivery of their business system to lower their operating costs and strengthen their competitive advantage.

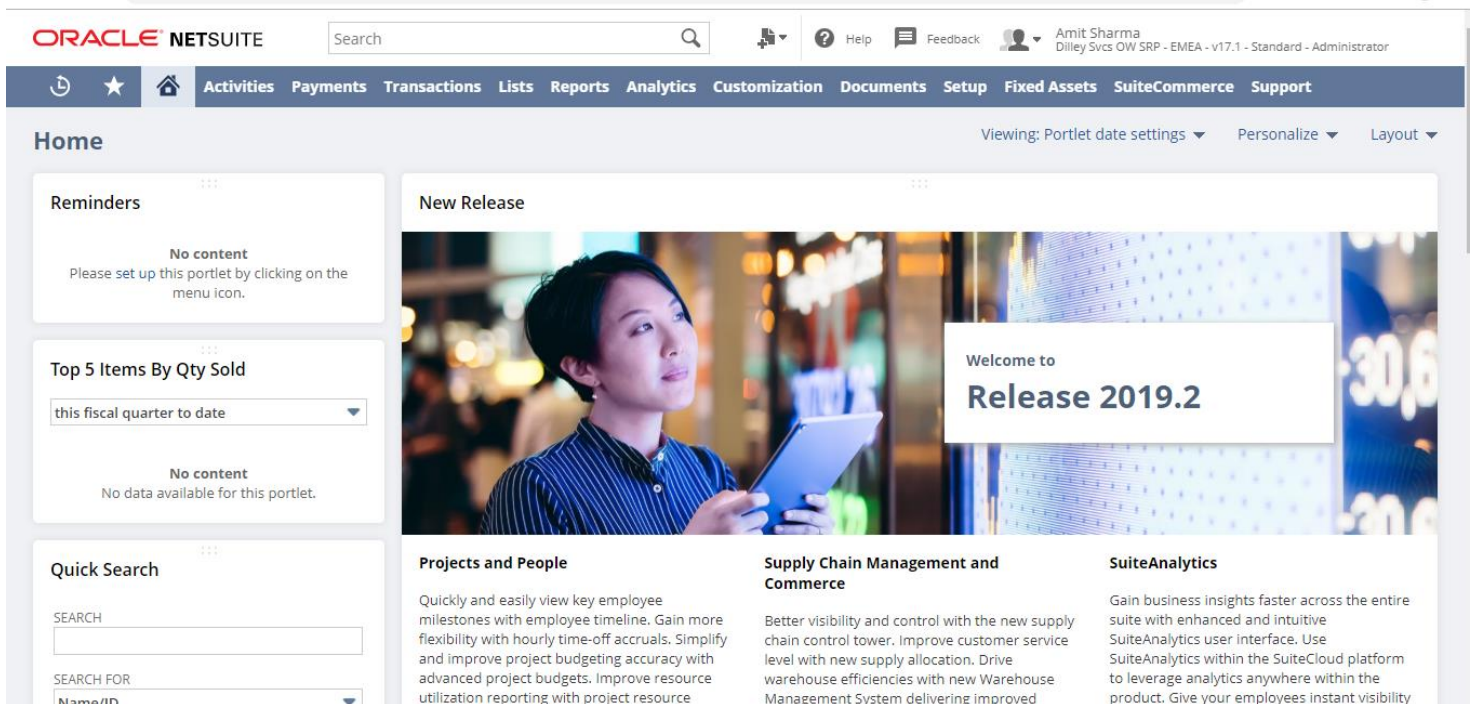
What is Tableau?

Tableau is a most powerful, secure, flexible and fastest growing data visualization tool used in the Business Intelligence Industry. It elevates people with the power of data. It is the best way to change or transform the raw set of data into an easily understandable format with zero technical skills and limited coding knowledge.

NetSuite Tableau Integration Steps:

This document will provide you step by step Implementation how to integrate your NetSuite with Tableau and Import data from NetSuite into Tableau for visualization.

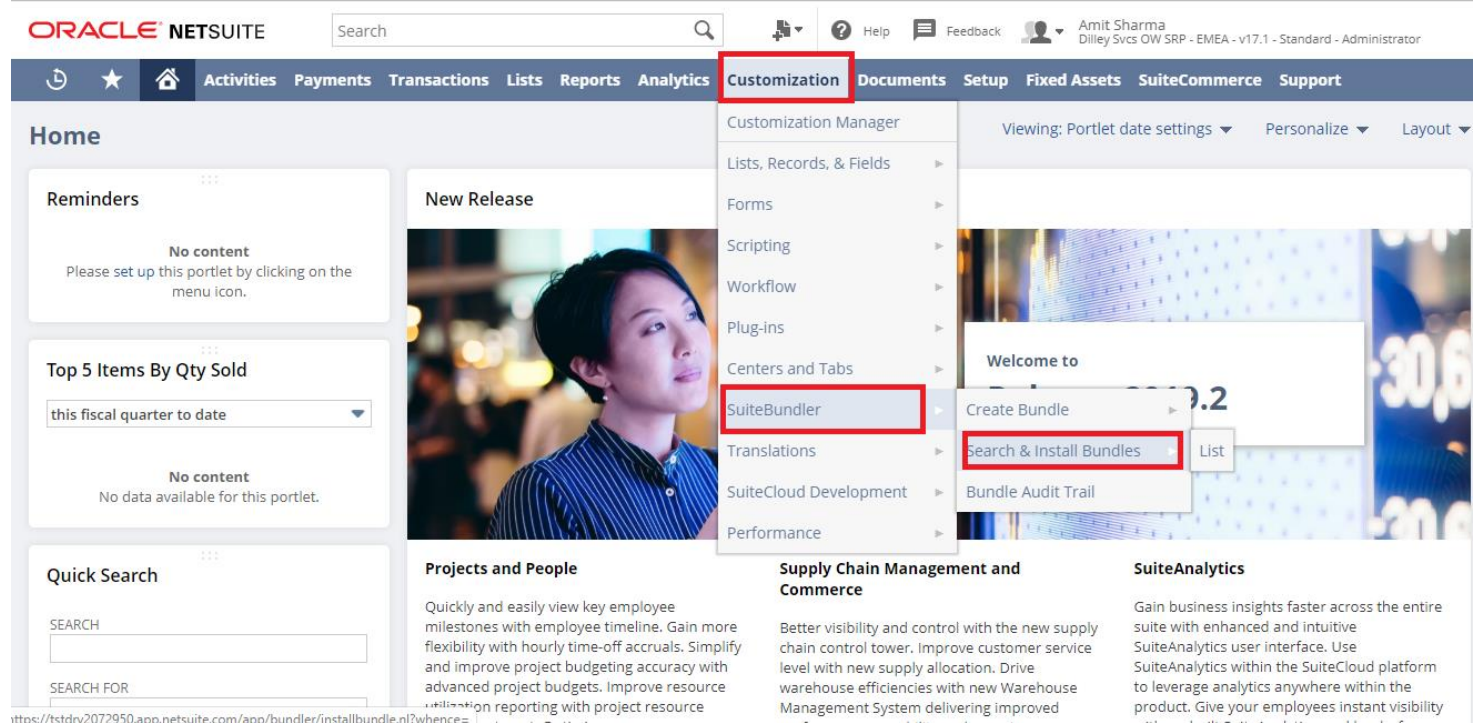
Login into your NetSuite App (If already a registered user)



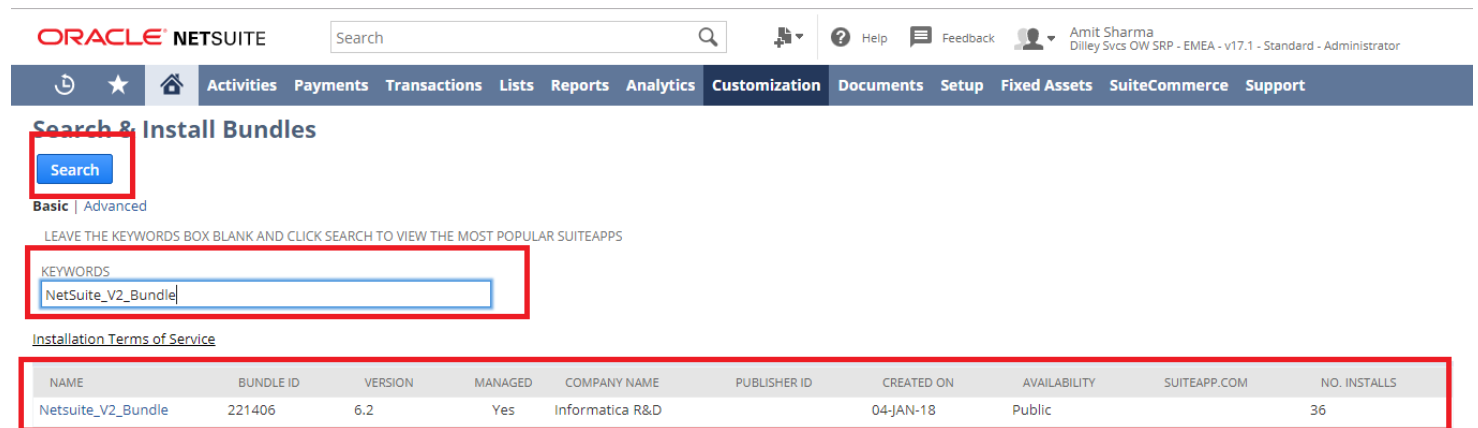
The screenshot displays the NetSuite user interface. At the top, there is a navigation bar with the Oracle NetSuite logo, a search bar, and user information for Amit Sharma. Below the navigation bar is a main menu with various application areas. The main content area is titled "Home" and features several portlets: "Reminders" (No content), "Top 5 Items By Qty Sold" (No content), "Quick Search" (SEARCH input field), and "New Release" (Welcome to Release 2019.2). The "New Release" section includes three columns of text describing updates in "Projects and People", "Supply Chain Management and Commerce", and "SuiteAnalytics".

Once logged in, install a bundle which will help in Integration between NetSuite and Tableau

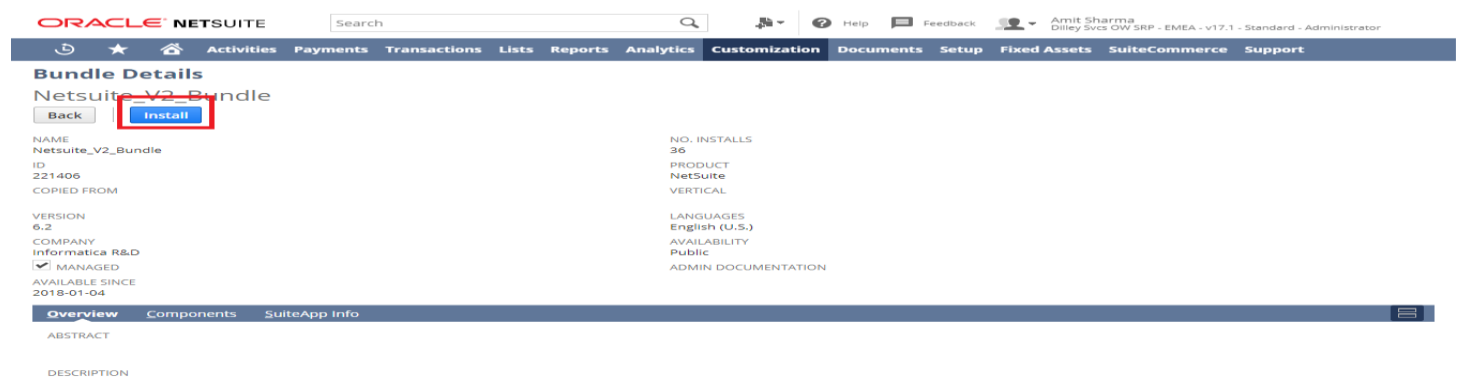
1 Steps to Install Bundle in NetSuite



1.1 Click on Search and Install Bundle, Search for Bundle named as "NetSuite_V2_Bundle"



1.2 Click on Bundle name and click on Install in next window



2 Installed Bundle can be checked from list

Installed Bundles									
TOTAL: 72									
ACTION	NAME ▲	BUNDLE ID	VERSION	MANAGED	ABSTRACT	ADMIN DOCUMENTATION	STATUS	OWNER	PUBLISHED
					your customers. Intended for use within a single country.				
	NetSuite Electronic Payments (OneWorld)	21147	1.00	Yes			✓	Netsuite Platform Solutions Group - NetSuite Electronic Payments for OW (3525954)	
	NetSuite OpenAir SRP Integration	2851	1.38	No	Users must install this bundle in order to use the OpenAir integration.	Admin Documentation	✓	Dev: Jeremy Blanchard test acct on 99 (660883)	
	NetSuite OpenAir SRP Real-time Add-on	12610	1.6	No	Bundle required for real-time integration	Admin Documentation	✓	OpenAir Bundle Account (660883)	
	Netsuite_V2_Bundle	221406	6.2	Yes			✓	Informatica R&D (TSTDRV1477373)	
	NSTS Shared Vendor Bill	45598	v1.0	No			✓	TSS-Release [TSTDRV1221897] Blank OW (TSTDRV1221897)	
	Online Client Form - UK	75223		No			✓	Dilley Services OneWorld SRP-v15.1 Prov 4.8.15(Test) (TSTDRV1309086)	
	Open Strong - Dashboard Tiles	34544	0.6	No			✓	01: Gill Inc Opening Strong (TSTDRV1153591)	

Once Bundle is installed, the next step is to generate Security Token, Setting up Token Roles, Creating a new Integration App and extracting Access Token Id for Integration.

3 Steps to Setup a new Token based Authentication

The screenshot shows the Oracle NetSuite interface. The top navigation bar includes 'Setup', 'Fixed Assets', 'SuiteCommerce', and 'Support'. The 'Setup' menu is open, showing a list of options. The 'Company' option is selected, and the 'Enable Features' option is highlighted with a red box. The main content area shows various dashboards and reports, including 'Reminders', 'Top 5 Items By Qty Sold', 'Quick Search', 'New Release', 'Projects and People', and 'Supply Chain Management Commerce'.

3.1 Click on Suite Cloud and Look for “Token Based Authentication”, check that option and click on save button.

Enable Features

Subsidiary Feature: After enabling this feature, you must enable and set preferences for individual subsidiaries using the [Subsidiary Settings Manager](#).

Company Accounting Tax Transactions Items & Inventory Employees CRM Analytics Web Presence **SuiteCloud**

VIEW SUITECLOUD [TERMS OF SERVICE](#).

Manage Authentication

SUITESIGNON

USE NETSUITE AS THE TRUSTED SYSTEM TO AUTHENTICATE ACCESS TO INTEGRATED EXTERNAL APPLICATIONS THROUGH SINGLE SIGN-ON. BY ENABLING THIS FEATURE, YOU AGREE TO [SUITECLOUD TERMS OF SERVICE](#).

OPENID SINGLE SIGN-ON

ENABLE GOOGLE OPENID AS AN ADDITIONAL AUTHENTICATION MECHANISM FOR YOUR USERS. BY ENABLING THIS FEATURE, YOU AGREE TO [SUITECLOUD TERMS OF SERVICE](#).

OPENID CONNECT (OIDC) SINGLE SIGN-ON

ENABLE OPENID CONNECT (OIDC) AS AN ADDITIONAL AUTHENTICATION MECHANISM FOR YOUR USERS. BY ENABLING THIS FEATURE, YOU AGREE TO [SUITECLOUD TERMS OF SERVICE](#).

SAML SINGLE SIGN-ON

ENABLE SAML AS AN ADDITIONAL AUTHENTICATION MECHANISM FOR YOUR USERS. BY ENABLING THIS FEATURE, YOU AGREE TO [SUITECLOUD TERMS OF SERVICE](#).

TOKEN-BASED AUTHENTICATION

ENABLE TOKEN-BASED AUTHENTICATION AS AN ADDITIONAL AUTHENTICATION MECHANISM FOR YOUR USERS. BY ENABLING THIS FEATURE, YOU AGREE TO [SUITECLOUD TERMS OF SERVICE](#).

Step to setup a new Token Role

This step is required to create a new role and give permission to a user to generate and access token.

3.2 Click on Setup and select role to create a new role

The screenshot shows the Oracle NetSuite interface. The top navigation bar includes 'Setup', 'Fixed Assets', 'SuiteCommerce', and 'Support'. The 'Setup' menu is open, showing a list of options: Setup Manager, Company, Accounting, Tax Audit Files, Sales, Marketing, Merchandise Hierarchy, Support, Issues, Site Builder, Import/Export, Users/Roles, Integration, Custom, and Dunning. The 'Users/Roles' option is highlighted with a red box. A sub-menu is open for 'Users/Roles', showing options: Manage Users, Manage Roles, Show Role Differences, View Login Audit Trail, Access Tokens, User Access Reset Tool, TWO-FACTOR AUTHENTICATION, Two-Factor Authentication Roles, and Two-Factor Reset Tool. The 'Manage Roles' option is highlighted with a red box. The URL in the browser address bar is <https://tstdrv2072950.app.netsuite.com/app/setup/role.nl?whence=>.

3.3 Add required values

Role

← → List Search Copy to Account (Beta) More

Save Cancel Reset Change ID Actions

General

NAME *

BISPApps-Role

ID

customrole1129

CENTRE TYPE

Accounting Centre

EMPLOYEE RESTRICTIONS

none - no default

ALLOW VIEWING

ISSUE ROLE

DO NOT RESTRICT EMPLOYEE FIELDS

RESTRICT TIME AND EXPENSES

SALES ROLE

SUPPORT ROLE

PARTNER ROLE

INACTIVE

3.4 Set properties

Subsidiary Restrictions

ACCESSIBLE SUBSIDIARIES

ALL

ACTIVE

USER SUBSIDIARY

SELECTED

ALLOW CROSS-SUBSIDIARY RECORD VIEWING

Authentication

SINGLE SIGN-ON ONLY

WEB SERVICES ONLY ROLE

RESTRICT THIS ROLE BY DEVICE ID

TWO-FACTOR AUTHENTICATION REQUIRED

Not required

DURATION OF TRUSTED DEVICE

Per session

DUNNING ROLE

3.5 Click on permission and add required permissions

Permissions Restrictions Forms Searches Users Preferences Dashboard Translation History

Transactions • Reports Lists Setup • Custom Record

PERMISSION *	LEVEL
Customer Deposit	Full
Invoice	Full
Opportunity	Full
Sales Order	Full

Add Cancel Insert Remove

3.6 Click on Setup to add additional transactions

Permissions Restrictions Forms Searches Users Preferences Dashboard Translation History

Transactions • Reports Lists Setup • Custom Record

PERMISSION *	LEVEL
Accounting Lists	Full
Custom Body Fields	Full
Custom Entity Fields	Full
User Access Tokens	Full
Web Services	Full

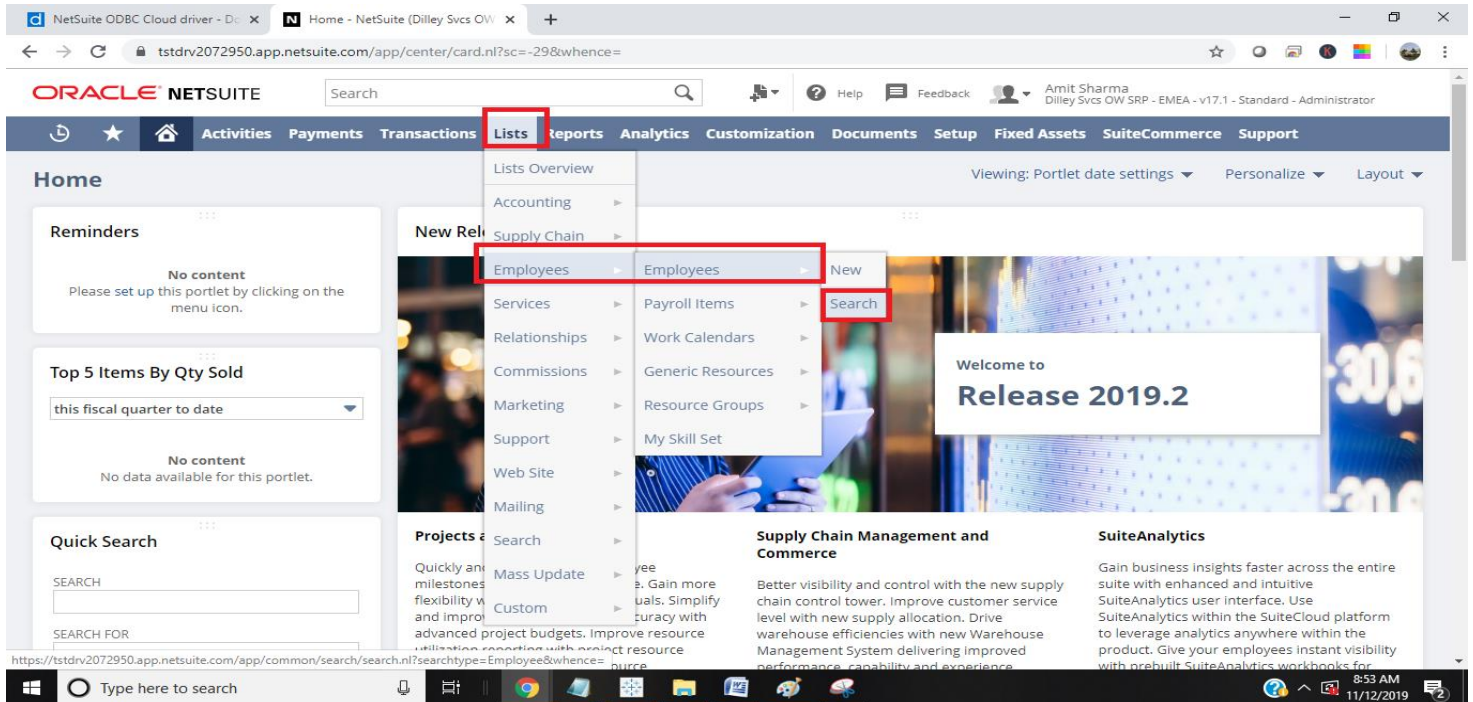
Add Cancel Insert Remove

3.7 Once added all required permissions and transactions click on save. Role is created.

4 Step to Assign Role to existing User

In this step we will going to assign role to existing user that we created in previous step

4.1 Search existing user following below step



4.2 Enter Employee name in search box and click on Search button.

Employee Search

List Search More

USE ADVANCED SEARCH

NAME/ID
has keywords

EMAIL
Any

PHONE
Any

TOWN/CITY
Any

COUNTY/STATE
Any

STATE/PROVINCE
any of
- None -
Australia - Australian Capital Territory
Australia - New South Wales
Australia - Northern Territory

BILLING CLASS
any of
- None -
Business Analyst
Consultant
Developer

SOCIAL SECURITY NUMBER
Any

SUPERVISOR
any of
- Unassigned -
- Mine -
- My Team -
Alan Badoev

JOB TITLE
Any

STATE/PROVINCE (DFPRECATFD)

4.3 Once Employee record open click on edit button to add permission.

Amit Sharma **ACTIVE**

[Edit](#) [Back](#) [Actions](#)

Contact Information	Primary Address	Profile Picture
EMPLOYEE ID Amit Sharma	ADDRESS	IMAGE
NAME Amit Sharma		
EMAIL amit.sharma@bisptrainings.com		
PHONE		

Classification Information		
JOB TITLE	DEPARTMENT	SUBSIDIARY UK-HQ
SUPERVISOR	BILLING CLASS	CLASS

OUT OF OFFICE

4.4 Add a new access to user for the role created in previous step

Human Resources Communication Related Records **Access** System Information Skills & Expertise

GIVE ACCESS CONCURRENT WEB SERVICES USER

Roles • Global Permissions History •

ROLE
Administrator
BISPAppls-Role

Finally click on save to save the changes

5 Steps to generate consumer secret and consumer key for integration

This step will help us to create new secret and key

5.1 Click on setup → Integration

ORACLE NETSUITE Search

Activities Payments Transactions Lists Reports Analytics Customization Documents **Setup** Fixed Assets SuiteCommerce Support

Home

Reminders: No content. Please set up this portlet by clicking on the menu icon.

Top 5 Items By Qty Sold: this fiscal quarter to date

Quick Search: SEARCH

New Release:

Projects and People: Quickly and easily view key employee milestones with employee timeline.

Supply Chain Management Commerce: Better visibility and control.

Setup Manager

- Company
- Accounting
- Tax Audit Files
- Sales
- Marketing
- Merchandise Hierarchy
- Support
- Issues
- Site Builder
- Import/Export
- Users/Roles
- Integration**
- Custom
- Dunning

INTEGRATION MANAGEMENT

- SOAP Web Services Preferences
- SOAP Web Services Process Status
- SOAP Web Services Usage Log
- Manage Integrations**
- Integration Governance

MANAGE AUTHENTICATION

- SuiteSignOn
- OpenID Single Sign-on
- Device ID

New

5.2 Fill required details and click on save

Edit Back Actions

APPLICATION ID A6BE79FE-AD28-4358-A4C3-3F750AA701D2	STATE Enabled	CREATED 2019-11-06 00:00:00.0
NAME BISPAPP Integration	NOTE	CREATED BY Amit Sharma
DESCRIPTION	CONCURRENCY LIMIT	LAST STATE CHANGE 2019-11-06 00:00:00.0
	MAX CONCURRENCY LIMIT 14	LAST STATE CHANGED BY Amit Sharma

Authentication Execution Log System Notes

TOKEN-BASED AUTHENTICATION (TBA)
 TBA: ISSUETOKEN ENDPOINT
 TBA: AUTHORIZATION FLOW

CALLBACK URL
http://localhost.com

USER CREDENTIALS

Consumer key / secret

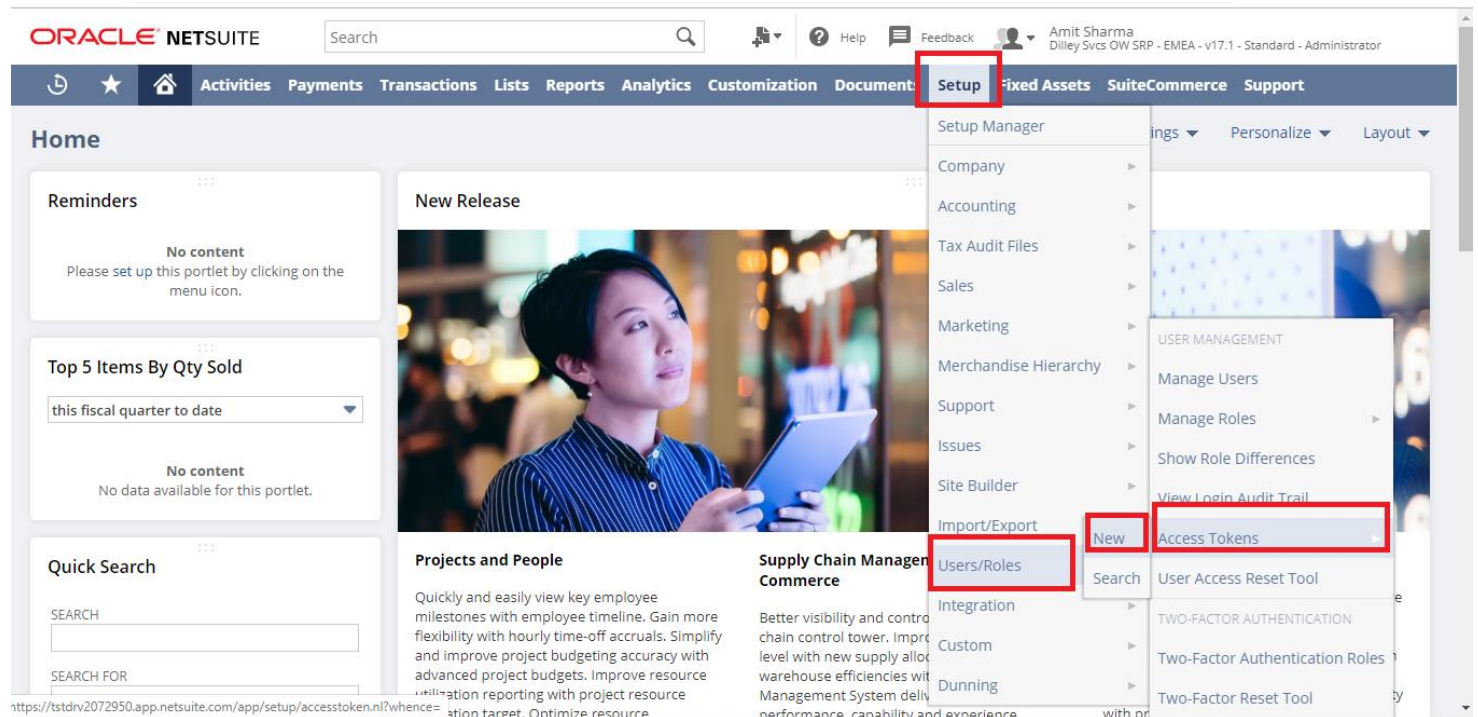
Important: For security reasons, the values for Consumer Key and Consumer Secret are only displayed on the initial setup page. They cannot be retrieved from the system. If you did not retain this information, you will need to reset credentials to obtain new values. Click Edit to reset the credentials.

Note: Once saved a new consumer key and consumer secret will be generated. Save that for later user.

6. Steps to attach user role with Integration app to give permission to generate Access Token for Integration

In this step we will be going to attach role with Integration app we created in previous step to give permission to generate access token and Token ID

6.1 Click on setup and look for user roles



6.2 Add required settings and click on save

The screenshot shows the Oracle NetSuite interface. At the top, there is a search bar and navigation tabs for Activities, Payments, Transactions, Lists, Reports, Analytics, Customization, Documents, Setup, Fixed Assets, SuiteCommerce, and Support. The 'Setup' tab is selected. Below the navigation bar, the 'Access Token' page is displayed. It includes buttons for 'Save', 'Cancel', 'Reset', and 'Revoke'. The 'Primary Information' section contains the following details: APPLICATION NAME: BISPAPP Integration; USER: Amit Sharma; ROLE: BISPApps-Role; TOKEN NAME: BISPAPP Integration - Amit Sharma, BISPApps-Role (highlighted with a blue box); and an 'INACTIVE' checkbox. Below this is the 'Token id / secret' section with a warning: 'Important: For security reasons, the values for Token ID and Token Secret are only displayed on the initial setup page. They cannot be retrieved from the system. If you did not retain this information, you will need to create a new token.'

7 Step to generate Token Id and Token Secret

7.1 To generate new token id and Secret click on Setup → user Roles → Access Token → Click on view for desired token

The screenshot shows the Oracle NetSuite interface with the 'Setup' menu open. The 'Setup' tab is highlighted in the navigation bar. The 'Setup' dropdown menu is visible, showing options like Setup Manager, Company, Accounting, Tax Audit Files, Sales, Marketing, Merchandise Hierarchy, Support, Issues, Site Builder, Import/Export, Users/Roles (highlighted with a red box), Integration, Custom, and Dunning. The 'Users/Roles' option has a sub-menu open, showing 'New Access Tokens' (highlighted with a red box), 'User Access Reset Tool', 'TWO-FACTOR AUTHENTICATION', 'Two-Factor Authentication Roles', and 'Two-Factor Reset Tool'. The background shows the 'Home' dashboard with various portlets like Reminders, Top 5 Items By Qty Sold, Quick Search, Projects and People, and Supply Chain Manager Commerce.

7.2 Click on View

Access Tokens

List Search

VIEW Access Tokens

Customise View

New Access Token

FILTERS

EDIT VIEW	TOKEN NAME	USER	ROLE	APPLICATION	INACTIVE	CREATED	CREATED BY
Edit View	BISPAPP Integration - Amit Sharma, BISPAApps-Role	Amit Sharma	BISPAApps-Role	BISPAPP Integration	No	2019-11-07 4:50 AM	Amit Sharma

7.3 Token Id and Token Secret can be reset if already created

Access Token

List

Edit

Back

Actions

Primary Information

APPLICATION NAME
BISPAPP Integration

USER
Amit Sharma

ROLE
BISPAApps-Role

TOKEN NAME
BISPAPP Integration - Amit Sharma, BISPAApps-Role

INACTIVE

Token Id / secret

Important: For security reasons, the values for Token ID and Token Secret are only displayed on the initial setup page. They cannot be retrieved from the system. If you did not retain this information, you will need to create a new token.

Now NetSuite environment is ready to integrate with Tableau.

8 Steps to Integrate NetSuite with Tableau for visualization

8.1 Download and install Tableau professional version as public version does not support Tableau Integration with NetSuite.



9 To Integrate Tableau with NetSuite an external ODBC driver will be required. You can download and install driver from below link

<https://www.devart.com/odbc/netsuite/download.html>

www.bispsolutions.com

<http://www.tmfldgroup.com/>

Download Windows

ODBC Driver for NetSuite 2.0

14.17 Mb

DOWNLOAD



Download Documentation

CHM documentation

3.35 Mb

DOWNLOAD



SUPPORT INFORMATION

On this page you can download a trial version of ODBC Driver for NetSuite for evaluation purposes.

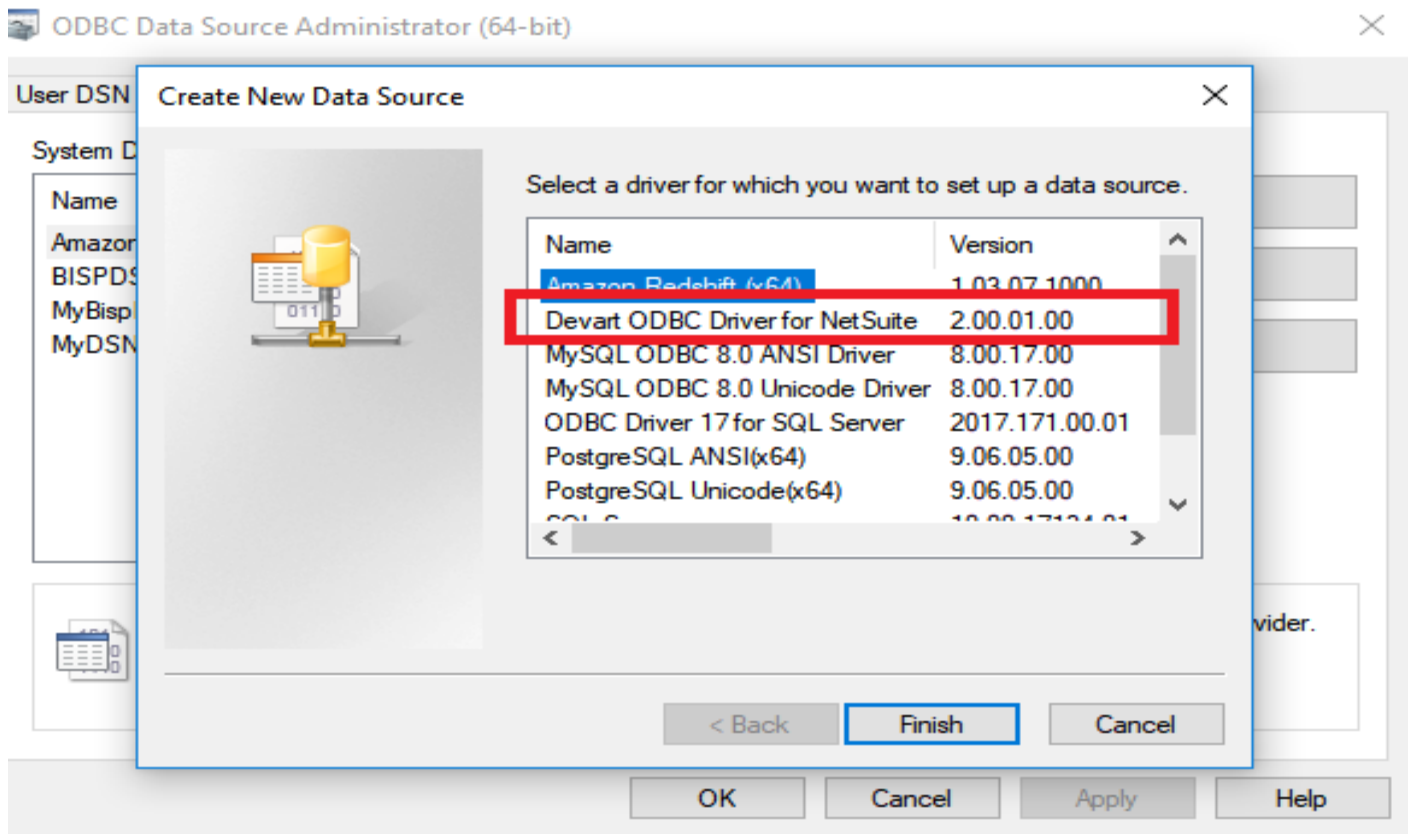
EULA

Revision history

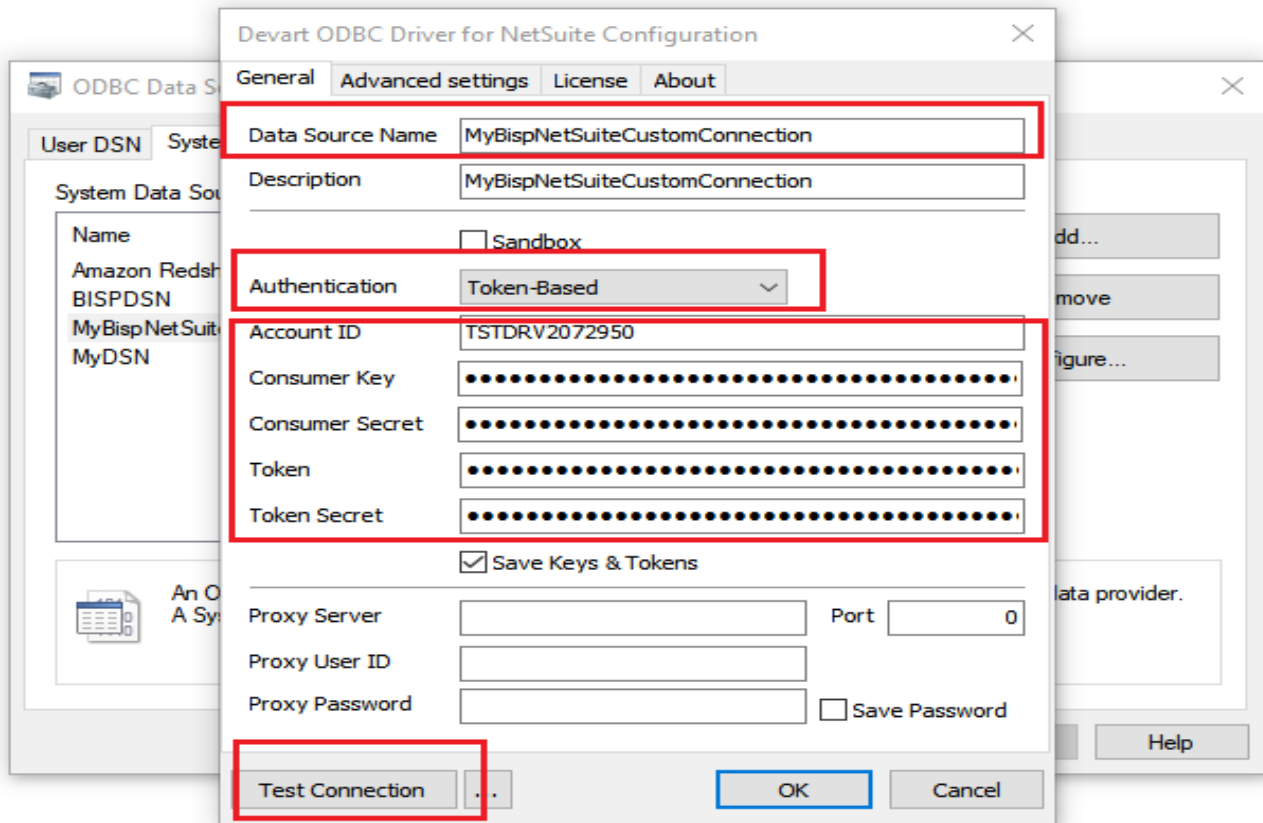
The latest version 2.0.1

Release date 04-Oct-2019

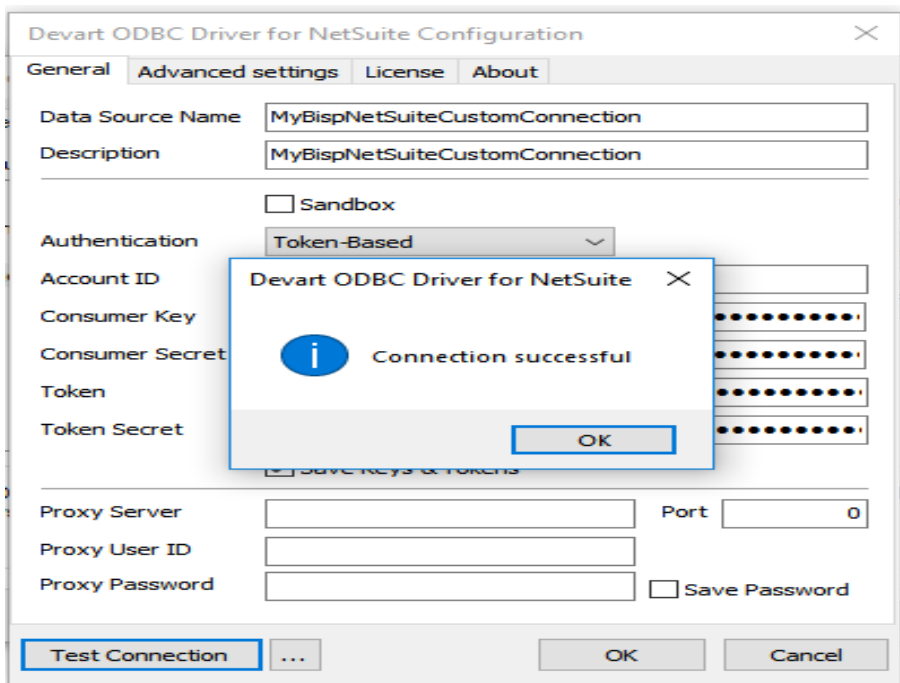
9.1 Download and install ODBC driver. Once installed you can find it in driver set.



9.2 Setup a new DSN using ODBC driver installed by providing required information

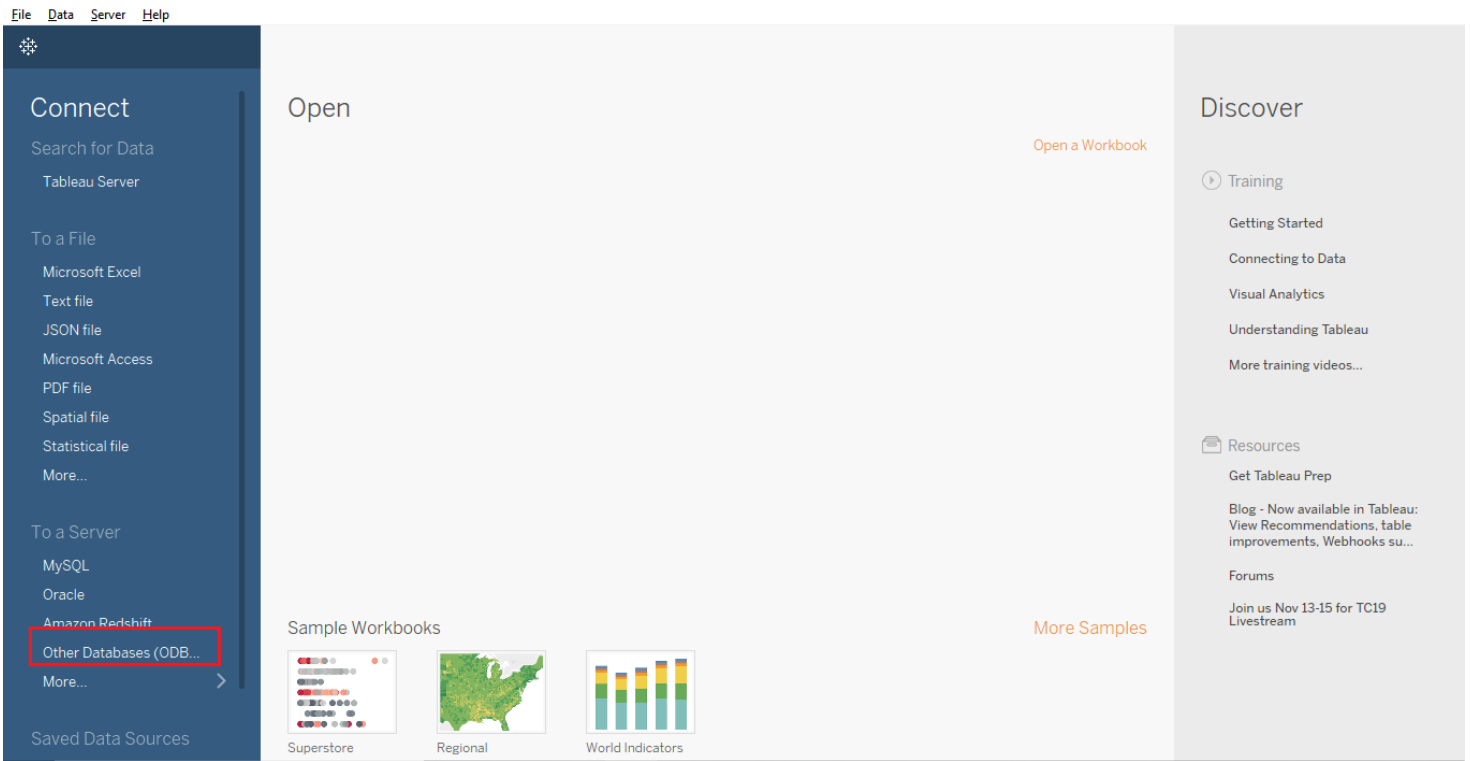


9.3 Once entered required details click on test connection

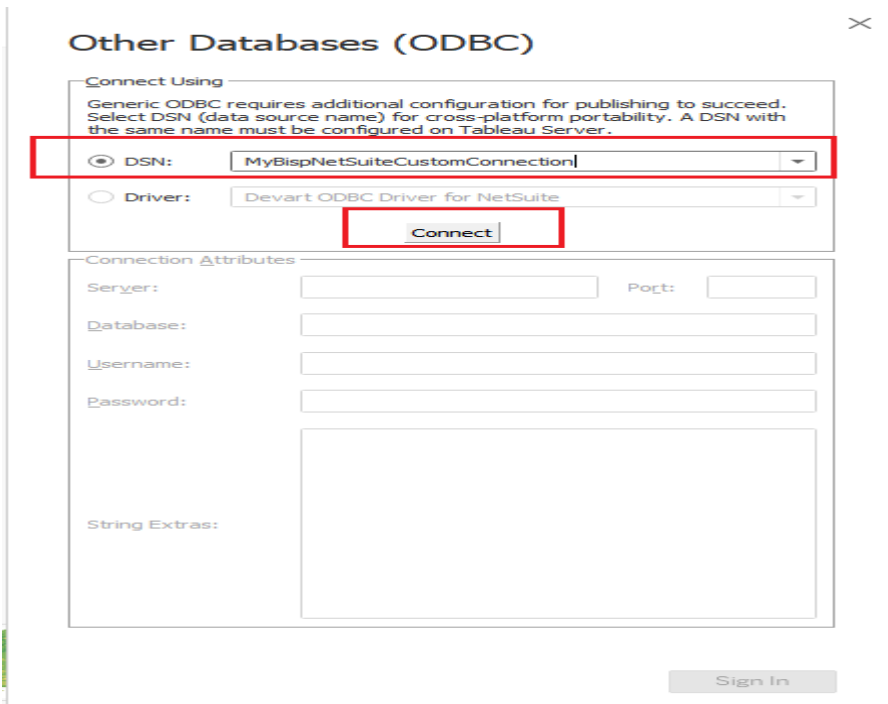


9.4 Steps to connect tableau with NetSuite using ODBC Driver

Open Tableau Desktop and click on other database (ODBC) option.



9.5 Select DSN created in previous step and click on connect



9.6 Provide user and password and click on signing

Other Databases (ODBC)



Connect Using

Generic ODBC requires additional configuration for publishing to succeed. Select DSN (data source name) for cross-platform portability. A DSN with the same name must be configured on Tableau Server.

DSN:

Driver:

Connection Attributes

Server: Port:

Database:

Username:

Password:

String Extras:

```
Authentication Type=TokenBased;Account
Id=TSTDRV2072950;Consumer
Key=7ea174e2f86c5e0e8a0c0b5
557ceaf72e0cc92ebae2e9d4f07;Consumer
Secret=786d46aadd5c2bae3a1931d2a45e2ba4de8
d3c7cfe7a346773d213e8fc427cb1;Token
Id=60085f5a-60e2-426b-8000-7256
cc4c2d9f5fb95822595333a5f;Token
Secret=0f99cd933139e5015f3f4a644c1125976389
7f4a7d2783ecec950cb40cf88600
```

9.7 Once connected successfully select object name and drag it on query section. It will list all field from object. We can remove fields which are not required in visualization.

The screenshot shows the Tableau interface with the 'Opportunity' table selected in the Connections pane. The 'Table' pane shows 'Opportunity' selected. The 'Field Name' list is displayed in the query section, showing various fields from the 'Opportunity' table.

Field Name	Table	Remote Field Name
# Internal Id	Opportunity	internalId
Abc Action Item	Opportunity	actionItem
# Alt Sales Range High	Opportunity	altSalesRangeHigh
# Alt Sales Range Low	Opportunity	altSalesRangeLow
# billAddressList internalId	Opportunity	billAddressList_internalId
Abc billAddressList name	Opportunity	billAddressList_name
# billingAddress internalId	Opportunity	billingAddress_internalId
Abc billingAddress addr1	Opportunity	billingAddress_addr1
Abc billingAddress addr2	Opportunity	billingAddress_addr2
Abc billingAddress addr3	Opportunity	billingAddress_addr3

9.8 Once done click on sheet 1

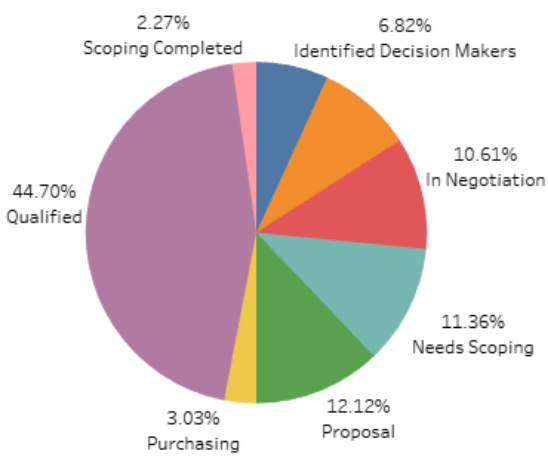
9.9 Sheet1 Look like this

The screenshot shows the Tableau interface. On the left, there are panels for 'Dimensions' (Client, Date, Document Number, Expected Close, Forecast Type, Opportunity Status, Sales Rep, Title, Measure Names) and 'Measures' (Probability, Projected Total, Number of Records, Measure Values). The central area is a blank worksheet titled 'Sheet 1' with 'Drop field here' prompts. On the right, there is a visualization gallery with various chart types and a 'Select or drag data' instruction.

9.9 Now we are ready for visualization. For reference adding sample sheet

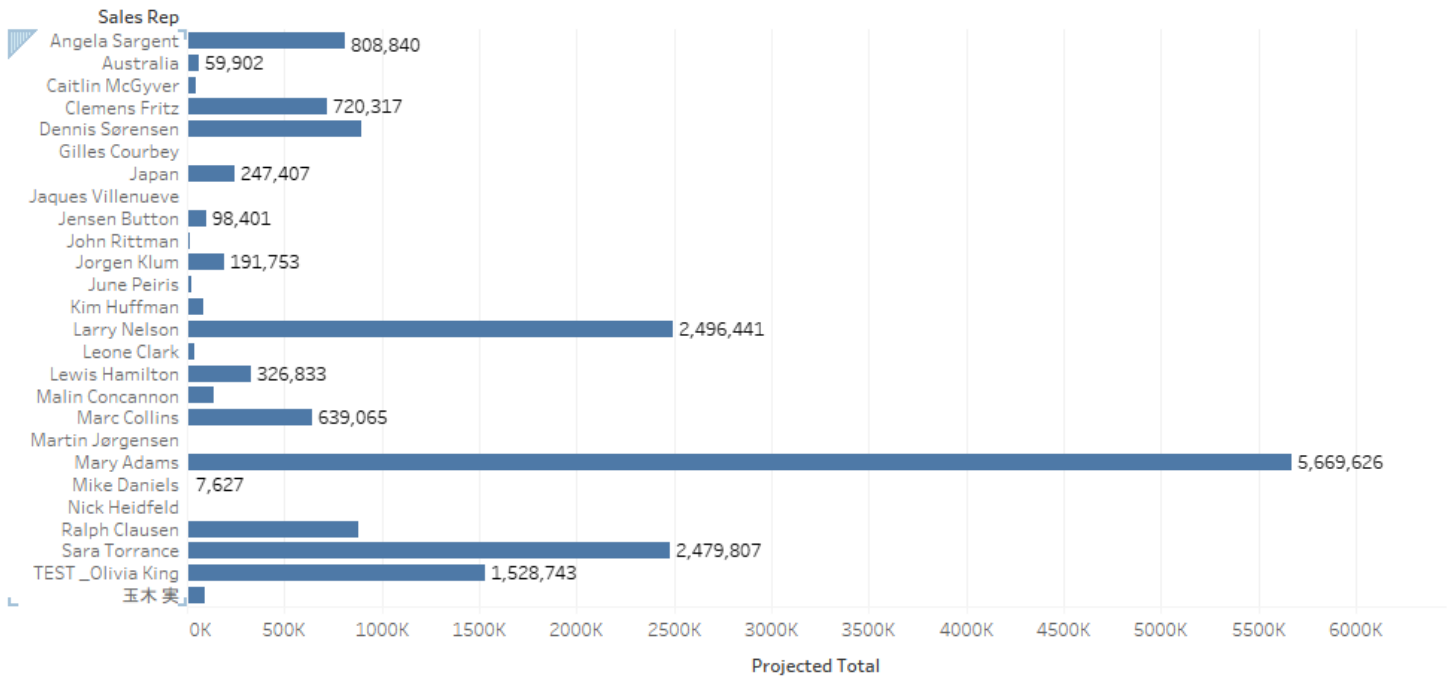
9.9.1) Report 1

Opportunity Record Percentage



9.9.2) Report 2

Projected Total By Sales Rep



9.7.3) Report 3

Projected Total, Cumulative Total and %of Total Projected Total

Year of Date	Quarter of Date	Projected Total	Cumulative Projected Total	% of Total Projected Total
2018	Q1	82,965	82,965	0.47%
	Q2	134,251	217,216	0.77%
	Q4	7,496,678	7,713,894	42.84%
2019	Q1	9,697,452	17,411,346	55.42%
	Q2	41,134	17,452,480	0.24%
	Q3	45,906	17,498,386	0.26%