





Data Synchronization Between Salesforce and Snowflake

Author Adrish Roy





Data Synchronization Between Salesforce and Snowflake

In this document, we are going to see how to Integrate between Salesforce and Snowflake through Boomi.

What is Salesforce?

Salesforce is a cloud computing service as a software (SaaS) company that specializes in customer relationship management (CRM)

What is Snowflake?

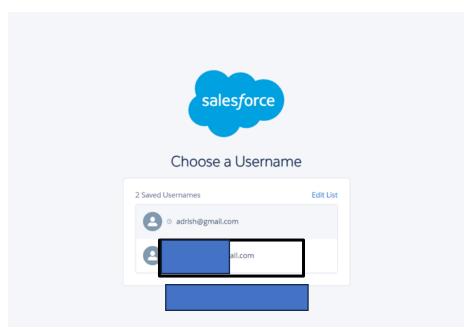
Snowflake is a cloud computing-based data cloud that provides a data warehouse-as-a-service designed for the cloud

Here we will see how to synchronize data from Salesforce to Snowflake by using Boomi

The steps to establish connectivity between Salesforce, Snowflake and Boomi are as follows:

Step 1:-

Navigate to the salesforce portal using the URL https://login.salesforce.com. If you already have Salesforce login details use those details for login otherwise you need to sign up for Salesforce.



©TGH Software Solutions Pvt. Ltd.





Step 2:-

Once we login into Salesforce we need to generate a security token which we will use as a password.

• If you have a regular Salesforce account go to setup>My personal Information > Reset

Security Token.

• If you have a salesforce developer account from the home page, go to Manage

Users> Click your name > Change Password > Reset Security Token.

• We will Receive security tokens in the mail.

Q Quick Find	
Setup Home	
Service Setup Assistant	
Multi-Factor Authentication Assistant	Check Your Email
Hyperforce Assistant	
Release Updates	We sent a new security token to the email address for your account.
···· • •• ••	

Step 3:-

Navigate to the Snowflake portal using the URL https://www.snowflake.com. If you already have Snowflake login details use those details for login otherwise you need to sign up for Snowflake.

Step 4:-

Start a free trial and fill in the required credentials.

START YOUR	Start your 30-day free Snowflake trial which includes \$400 worth of free usage
30-DAY FREE TRIAL	
Gain immediate access to the Data Cloud	
Enable your most critical data workloads	
 Scale instantly, elastically, and near-infinitely across public clouds 	
Snowflake is HIPAA, PCI DSS, SOC 1 and SOC 2 Type 2 compliant, and FedRAMP Authorized	IT / DBA ~
	India V clicking the button below you understand that Snowflake will process your personal information in accordance with its <u>Privacy kotica</u> . Imay withdraw my consent through <u>unsubscribe links</u> at any time.
	CONTINUE or sign in to an existing account

©TGH Software Solutions Pvt. Ltd.





Step 5:-

Select the Snowflake Editon as Enterprise and the cloud provider as AWS as per the below image.

30-DAY FREE TRIAL	
SU-DAT FREE I RIAL	
Gain immediate access to the Data Cloud	Choose your Snowflake edition* Standard A strong balance between features, level of
Enable your most critical data workloads	support, and cost. Centerprise Standard plus 90-day time travel, multi-cluster
Scale instantly, elastically, and near-infinitely across public clouds	warehouses, and materialized views. Business Critical Enterprise plus enhanced security, data protection, and database failover/failback.
Snowflake is HIPAA, PCI DSS, SOC 1 and SOC 2 Type 2 compliant, and FedRAMP Authorized	Choose your cloud provider*
	Microsoft Azure Amazon Web Google Cloud
	Services Platform Central India (Pune)
	Check here to indicate that you have read and agree to the terms of the <u>Snowflake Self Service On Demand</u> <u>Terms</u> .
	GET STARTED

Step 6:-

Activate link will be sent to your mail and activate the account by cling the link provided in the mail after that, you need to provide a password. and hit get started.

*
Welcome to Snowflake!
please choose a username and password to get started
Username
Username can contain only letters and numbers.
Password
Your password must be 8 - 256 characters and contain at least 1 number(s), 0 special character(s), 1 uppercase and 1 lowercase letter(s).
Confirm password
Passwords do not match.
Get started

©TGH Software Solutions Pvt. Ltd.





Step 7:-

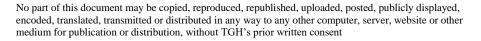
Create a Database by clicking on + Database and provide the name of the database and click Create.

•			Databases			+	Database
ß	Worksheets	> SNOWFLAKE_SAMPLE_DATA	2 Databases			Q Search Source	All
			NAME 🛧	SOURCE	OWNER	CREATED	
00	Dashboards		SNOWFLAKE	Share		5 minutes ago	
	Data		SNOWFLAKE_SAMPLE_DATA	Share	ACCOUNTADMIN	5 minutes ago	
	Databases				6		*
	Private Sharing						
	Provider Studio						
	Governance						
ଳ	Marketplace						
1	Activity						
۲	Admin						
0	Help & Support						
	Ŀ						
3	0 days left in trial						
	Upgrade						

Step 8:-

Now, create a schema by clicking on +Schema and providing the name of the schema and hitting create.

× 1	Q Search ····	B SAMPLE	+ so
ACCOUNTADMIN	✓		
	> C INFORMATION_SCHEMA	🖯 Database 😩 ACCOUNTADMIN 🕓 1 minute ago 🔮 Local	
Worksheets	> 🗟 PUBLIC	Database Details Schemas	
o Dashboards	> SNOWFLAKE		
> Data	> SNOWFLAKE_SAMPLE_DATA		
Databases		Duiville week	
Private Sharing		Privileges	Group by Role V + Privilege
Provider Studio		ACCOUNTADMIN (Current Role)	
Governance			
3 Marketplace			
Activity			
Admin			
Help & Support			
Ŀ			
30 days left in trial			
Upgrade			
YR49148 🗸 🗸			







in 🕒

Step 9:-

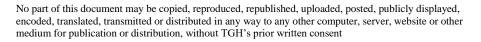
Create a Table.

		B SAMPLE / TRIAL		··· Create ~
Worksheets	> 등 INFORMATION_SCHEMA > 등 PUBLIC ~ 등 TRIAL	Schema () ACCOUNTADMIN () just now	Standard As Select External	> > >
🛆 Data	No Objects found			File Format
Databases Private Sharing Provider Studio	> 🖯 SNOWFLAKE_SAMPLE_DATA	Privileges (2) ACCOUNTADMIN (Current Role) Q_ OWNERSHIP	Group by Rc	Sequence Pipe Stream
Governance Marketplace 탄 Activity				Task Function Procedure
 Admin Help & Support 				Dynamic Table
L 30 days left in trial				
Upgrade				
YR49148 🗸	•			

Step 10:-

Write the syntax of creating a Table. Add the column name and type of Column (Number / Varchar /Boolean / Date &Time) and click Create Table

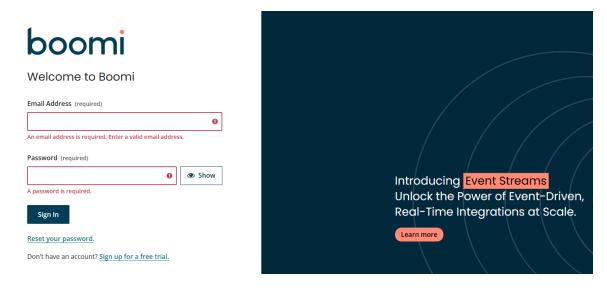
Cancel	Create Securable Object in: \ominus sample \rightarrow \eqsim trial	O	pen in Worksheets
Add syntax for a: Standard Table 🗸	ew Documentation	(È) ACCOUNTADMIN · COMPUTE_WH	Create Table
Pinned (0) No pinned objects Q All objects C All objects C SAMPLE S SINFORMATION_SCHEMA C S PUBLIC C ST RIAL NO Objects found C SNOWFLAKE_SAMPLE_DATA	<pre>1 create table Salesforce (2 Id Number, 3 Account Name Varchar (100), 4 City varchar (100), 5 Phone varchar (100), 6 Website varchar (100), 7 Active (100) 8); 9</pre>		٩





Step 11:-

Now, log onto the Boomi platform <u>https://platform.boomi.com</u> with the required credentials i.e. Email Address and Password.



Step 12:-

Once you have logged into the Boomi platform, you will be able to view the Home page.

Welcome back,						
Services			View More	Resources		
	Φ	6			-Ô.	[:
Integration Master Data Hu	b API Management	Flow	Event Streams	Boomiverse Community	Training & Certification	Docum
Discover						

Step 13:-

Now, click on Services followed by Integration. You will see the Build page. Click on New.

What apps do you want to connect	😋 Build an Integration	Start with an example
now Quick Start 🗸	Create a new Process $ ightarrow$	Explore Process Library $ ightarrow$

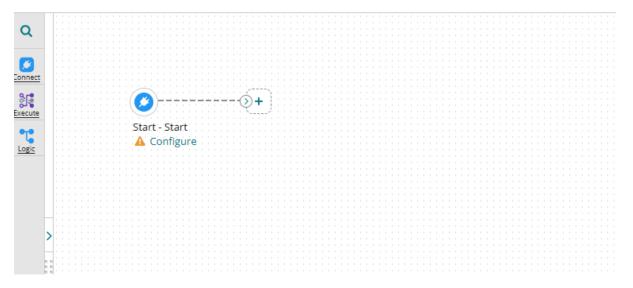
©TGH Software Solutions Pvt. Ltd.





Step 14:-

Once you clicked on New, you will be able to create a process. You see that the process gets created with a start shape with a connector type



Step 15:-

Click on the start shape and select no data in Type. Select save.

Option	Extensions	Add Note	Show Navigation	Arrange
۹				
Connect				
Bre Execute		()		
Logic		Start - No Dat	a	

©TGH Software Solutions Pvt. Ltd.



www.techygeekhub.com



Step 16:-

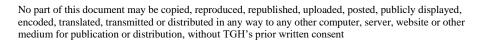
Drag and Drop Try to catch the shape from the shape pallet and add the stop shape to the catch branch.

Sync	ronizing Data Betwe	en Salesforce And	Process 🛈 🖿 Folder 💰	Add Description		
Option	s Extensions Add Note	Show Navigation Arran	nge			
Q			_			
Connect	5tart - No Data	• Try/Catch	Try +			
Execute	Jult No Data					
Logic						
			Catch			
>			End and continue			
<						

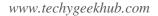
Step 17:-

Drag and drop the Salesforce connector and set the action as 'GET'

-	ronizing Data Between Salesforce And s Extensions Add Note Show Navigation Ar	Process 🛈 🖿 Folder 🥒 Add Description	Con	nector Shape 🖲
	Start - No Data Try/Catch	Try Salesforce	connector and	shapes to get data into and out of a process. Most processes have one "get" one or more "send" connectors. The Connector shape uses a combination of nnection and operation components to establish where and how to get or send
		Configure	General	Parameters
Logic			Display Name	
		Catch	Connector (Salesforce 🗸
>		End and continue		The Salesforce connector connects seamlessly to any native Salesforce application, including Sales Cloud and Service Cloud as well any Custom Cloud or Force.com. Learn more about this connector.
			Connection (Q Choose O
<			Action	Get 🗸
			Operation (Q. Choose O
Shaper	•			
Save	Save and Close Close Previous Save of	on 25 Iul 2023 at 03:45:03 PM UTC+5:30 Revert	ок	Cancel









Step 18:-

Configure the connection of Salesforce Connector

To set up a connection we need to follow the below steps.

• URL:-By default, we will see the salesforce URL in the connection.

• Username:- From Step 1 we will get the Username . We will use the same in place of the user name.

The user must have sufficient permissions to use the API and perform the necessary actions

required by your integration scenario.

• Password:- Password will be a combination of password and token which we received through the mail. We are going to append a password& Token.

• Steps to Generate Token:-

o Log into Salesforce via the browser to request your security token.

o Do one of the following:

If you have a regular Salesforce account, go to Setup > My Personal Information >

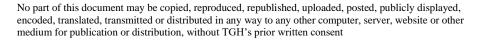
Reset Security Token.

If you have a Salesforce developer account, from the home page, go to Manage Users >

Users > click your name > Change password > Reset Security Token.

o This triggers an email that contains your security token.

Connection	
URL	https://login.salesforce.com/services/Soap/u/39.0
User Name	
Password	<encrypted></encrypted>
Version	Version 15.0 - Current 🗸
Maximum Concurrent Connections	10





Step 19:-

Configure Salesforce Operation

Click on the import button to import the required object.



Step 20:-

We need to choose the connection to import objects.

Salesforce Operation - Salesforce Operation ① 🖿 Folder 🕜 Add Description				
Options Advanced Archiving Tracking Caching				
Connector Action	Get 🗸			
Object Action	None	Salesforce Import Wizard Connection Q Salesforce Connection Z		
Response Profile	Q Choose			
		Cancel Back Next		

©TGH Software Solutions Pvt. Ltd.





Step 21:-

Choose the object, which you want to import. In this exercise, we are going to work on the accounts object and action will be created. Click on the next.

Connector Action	Get	~				
Object	None		Salesforce Import	Wizard		
Action	1		Object Type	AcceptedEventRelation	~	
Response Profile	Q Choose		Action	AcceptedEventRelation		
				Account	0	
			Skip import of	AccountCleanInfo	-	
			parent/child	AccountContactRole AccountFeed		
			hierarchy	AccountHistory		
				AccountPartner		
				AccountShare		
				Accounts_Share		
				Accountsc ActionLinkGroupTemplate		
				ActionLinkTemplate		
				AdditionalNumber		
				Address_Share		
				Address_c		
			Cancel	Announcement ApexClass	Next	
				ApexComponent		
				ApexEmailNotification		
				ApexLog	w.	

Step 22:-

Now you will see all the fields under that object. click on next.

Salesforce Operation - Salesforce Operation () 🖿 Folder 🖉 Add Description				
Options Advanced Archivin	ng Tracking Caching			
Connector Action	Get 🗸			
Object	None	Salesforce Import Wizard		
Action		😑 🐝 Account 🐵 🐝 Child Objects		
Response Profile	Q Choose	Grind Objects A Parent Objects		
		Cancel Back Next		
			,	

©TGH Software Solutions Pvt. Ltd.





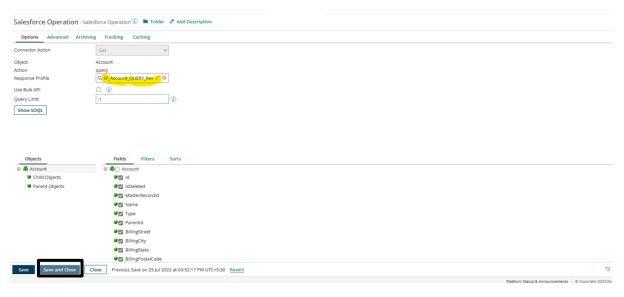
Step 23:-

With this our object is ready to import and then we need to click on finish.

nector C	Salesforce Import Wizard	ine (i) 🖿 Foldor 🧷 Add Description	
Archiving	Operation Loaded Object Type	Account	
	Object Action	query	
N	Response Profile	SF_Account_QUERY_Response	
C			
	Cancel Back	Finish	

Step 24:-

We can see the object name and request profile which we are going to use in map shape. Save and close



©TGH Software Solutions Pvt. Ltd.





Step 25:-

Drag and Drop Snowflake Connector and set the action as 'CREATE'

Option Q	cronizing Data Between Salesforce And Process () = Folder Add Description Try Try Try Try Cetting Records From Salesforce Cetting Records From Salesforce			Connector Shape () Use connector shapes to get data into and out of a process. Most processes have one "get" connector and one or more "send" connectors. The Connector shape uses a combination of predefined connection and operation components to establish where and how to get or send data.	
Execute		Account Salesforce Connection Salesforce Operation	General Pa	arameters	
		Catch	Connector (i)	Snowflake 🗸	
>		End and continue		The Snowflake connector allows you to leverage the capabilities of a Snowflake data warehouse i.e. speed. usability, and flexibility. Learn more about this connector.	
			Connection (i)	Q Choose O	
<	Snowflake		Action	CREATE	
	A Configure		Operation (i)	Q Choose O	
apes					
Save	Save and Close Pr	evious Save on 25 jul 2023 at 03:55:24 PM UTC+5:30 Revert	OK Can	cel	

Step 26:-

Configure the connection of Snowflake Connector

To set up a connection we need to follow the below steps.

• URL:-By default, we will see a snowflake URL in the connection. Just provide the cloud storage in the URL as shown in the image below

• Username:- From Step 4 We will get the Username. We will use the same in place of the user name.

• Password:- Password will be the password we provide during signup as shown in Step 6.

After configuring click save and close.

Snowflake Conr	nowflake Connection - Snowflake () 🖿 Folder 🖉 Add Description					
Connection						
Connection URL* (i)	dbcsnowflake//r/20442_central-india_azure_snowflakecomputing_					
User Name* (i)						
Password* (i)	<pre>«Encrypted»</pre>					
Private Key String 🛈	Click to Set					
Passphrase (i)	Click to Set					
Warehouse Name						
Database Name 🥡	AMPLE					
Schema Name 🥫	RIAL					
Role 🥡	JYSADMIN					
S3 Access Key ID 🕧						
S3 Secret Key 🚺	Click to Set					
Date Time Format 🤅	yyyMMdd HHmmssSSS 🗸					
Date Format (i)	MMddyyyy 🗸					
Time Format (1)	HHmmss555 v					
Option	Enable Connection Pooling 🕧					
Save Save and	lose Close Previous Save on 25 jul 2023 at 04:15:05 PM UTC+5:30 Revert 39	Revision History				

©TGH Software Solutions Pvt. Ltd.





Step 27:-

Configure Snowflake Operation

Click on the import button to import the required object.

Snowflake Operation - Snowflake Operation 🛈 🖿 Folder 🥔 Add Description

Options Archiving Tracki	ng Caching
Connector Action	CREATE
Object	
Tracking Direction (i)	Input Documents Output Documents
Error Behavior	Return Application Error Responses (i)
Option	 Truncate before loading (i)
Batch Size 🥡	1
Option	Return Results (i)
Input Options for Missing Fields (NULL for empty fields

Step 28:-

We need to choose the connection and choose the atom to import objects.

Snowflake Operation - Snowflake Operation () Folder & Add Description					
Options Archiving Tracking Caching					
Options Archiving Tracki Connector Action Object Tracking Direction (1) Error Behavior Option Batch Size (1) Option Input Options for Missing Fields (1)	CREATE Input Documents Output Documents Return Application Error Responses () Truncate before loading () Return Results ()	Snowflake Import Wizard *Review free Atom* Connection* Q Snowflake Connection Filter ()			
		Cancel			
Save Save and Close	Close Previous Save on 25 Jul 2023 at 04:16:54	PM UTC+530 Revert			

©TGH Software Solutions Pvt. Ltd.





Step 29:-

Select the object (Table Name) and click next

Snowflake Operation - Snowflake Operation 🕖 🖿 Folder 🖉 Add Description				
Options Archiving Tracki	ng Caching		Import	
Connector Action	CREATE	Snowflake Import Wizard		
Object Tracking Direction (1)	Input Documents Output Documents	Object Type SAMPLE.TRIAL.SALESFORCE (TABLE)		
Error Behavior	 Return Application Error Responses (i) 			
Option	Truncate before loading ()			
Batch Size (1)	1			
Option	🗌 Return Results 👔			
Input Options for Missing Fields (NULL for empty fields			
		Cancel Back Next		
Save Save and Close	Close Previous Save on 25 Jul 2023 at 04:18:12	PM UTC+530 Revert	3 Revision History	

Step 30:-

With this our object is ready to import and then we need to click on finish.

Snowflake Operation - Snowflake Operation 🛈 🗯 Folder 🥒 Add Description				
Options Archiving Trac	cking Caching		Import	
Connector Action	CREATE	Snowflake Import Wizard		
Object	SAMPLE.TRIAL	Operation Loaded		
Request Profile	Q Snowflake	Object Name SAMPLE.TRIAL.SALESFORCE (TABLE)		
Response Profile	Q Snowflake :	Request Profile Snowflake SAMPLE.TRIAL.SALESFORCE (TABLE) CREATE Request		
Tracking Direction (1)	Input Docu	Response Profile Snowflake SAMPLE.TRIAL.SALESFORCE (TABLE) CREATE Response		
Error Behavior	🗌 Return App			
Option	🗌 Truncate b			
Batch Size (i)	1			
Option	🗌 Return Res			
Input Options for Missing Fields	NULL for emp			
		Cancel		
Save Save and Close	Close Previou	us Save on 25 Jul 2023 at 04:45:21 PM UTC+5:30 Revert	D Revision History	

©TGH Software Solutions Pvt. Ltd.





Step 31:-

We can see the object name and request profile which we are going to use in map shape. Save and close

Snowflake Operation - Snowflake Operation (i) 🖿 Folder 🖉 Add Description

Options Archiving Trackin	ng Caching
Connector Action	CREATE
Object	SAMPLE.TRIAL.SALESFORCE (TABLE)
Request Profile	Q Snowflake SAMPLE.TRIAL.SALESFORCE (TABLE) CREATE R 🖉 🛞
Response Profile	Q. Snowflake SAMPLE.TRIAL.SALESFORCE (TABLE) CREATE R 🖌 🚳
Tracking Direction (i)	Input Documents Output Documents
Error Behavior	Return Application Error Responses (i)
Option	 Truncate before loading (i)
Batch Size (i)	1
Option	Return Results (i)
Input Options for Missing Fields (i)	NULL for empty fields



Save and Close Close Previous Save on 25 Jul 2023 at 04:45:21 PM UTC+5:30 Revert

©TGH Software Solutions Pvt. Ltd.





Step 32:-

Drag and Drop map Shape

		Use maps to transform data from one format to another, or more specifically, from one profile to another. The Map shape references a predefined Map component.				
ng Records From Salesfo Int	rceTransformation SFD Snowflake	Display Name				
orce Connection orce Operation	SFDC - SNOWFLAKE	Мар	Q Choose			
nd continue						
		ОК	Cancel			

©TGH Software Solutions Pvt. Ltd.





Step 33:-

Map the required fields according to the below image and click save and close.

Account OUERY Response	Choose	Functions	O.I₹ 1	Snowflake SAMPLE.TRIAL.SALESFORCE (TABLE) CREATE Rea ch
r Q. Search for field				Filter Q, Search for field
Account	A			SALESFORCE V
♥ ▼Id				Object 🔻 🗐
▼ IsDeleted				ACCOUNT_NAME 🔻 🖗
🛡 🔻 MasterRecordId				ACTIVE 🔻 🖗
🔋 🔻 Name				
🔋 🔻 Туре				ID 🔻 🖗
🔋 🔻 Parentid				
🔋 🔻 BillingStreet				-website 🔻 🗑
BillingCity				
🛡 🔻 BillingState				
♥ ▼ BillingPostalCode				
🔋 🔻 BillingCountry				
🛡 🔻 BillingLatitude				
🔋 🔻 BillingLongitude				
BillingGeocodeAccuracy				
BillingAddress				
👽 🔻 ShippingStreet				
ShippingCity				
▼ ShippingState				
ShippingPostalCode				
ShippingCountry				
♥ ▼ ShippingLatitude				

Step 34:-

Drag and drop the stop shape and rearrange the shape according to the below image

	een Salesforce And <u>Show Navigation</u> Arrang	Process 🛈 🖿 Folder 🖉 An ge	dd Description			Create Packaged Component
()	• •	Try	0.25	-0*	-00	
Start - No Data	Try/Catch			Snowflake Snowflake Connection Snowflake Operation	End and continue	
	l	Catch End and continue				

Step 35:-

Click on the Test tab to send data from Salesforce to Snowflake

()			-08	-0*	-00	
Start - No Data	Try/catch	Getting Records From Sa	esforceransformation SFDC To	Snowflake	End and continue	
		Account Salesforce Connection Salesforce Operation	Snowflake SFDC - SNOWFLAKE	Snowflake Connection Snowflake Operation		
		Catch				
	L	0				
		End and continue				

Data will be inserted successfully into the snowflake table

©TGH Software Solutions Pvt. Ltd.





✓ ⊖ SAMPLE		· · ·				
> 😪 INFORMATION_SCHEMA	D T	able 🛓 ACCOUNTADMIN 🕒 1	day ago 🚍 42 🗄 4.5KB			
> 🗟 PUBLIC						
∨ 등 TRIAL	Table	Details Columns Data Prev	view Copy History			
✓ Tables	• •	MPUTE_WH 42 Rows • Update	diust now			С
		42 Rows • Opdate	sujustnow			0
SNOWFLAKE		ID	ACCOUNT_NAME	CITY	PHONE	WEBSITE
SNOWFLAKE_SAMPLE_DATA	5	0012w00001aGrWkAAK	Techy Geek Hub	Noida	40071137	www.techygeekhub.com
	6	0012w00001blLloAAO	EY	Bangalore	23525423	www.ey.com
	7	0012w00001aGqoNAAS	Influx Online	Noida	41471425	www.influxonline.com
	8	0012w00001blLDDAA4	Persistence	Pune	23521423	www.persistence.com
	9	0012w00001blhFBAA0	Qspider	Bengalore	24746782	www.qs.com
			Eller	Kolkata	70447256	www.fiitzee.com
	10	0012w00001bK52JAAS	Fiitzee	Ronard		





TGH Software Solutions Pvt. Ltd.

www.techygeekhub.com

At TGH, we specialize in driving digital transformation through seamless Integration Technologies.

Operating as an INTEGRATION FACTORY, we serve as a one-stop shop for all your integration needs. Our expert team is well-versed in enterprise software and legacy system integration, along with leading iPaaS technologies like Boomi, MuleSoft, Workato, OIC, and more.

We're committed to enhancing business processes and solving problems through our integration expertise.