

# Introduction

**Data sets:**

a collection of related sets of information that is composed of separate elements but can be manipulated as a unit by a computer.

**Data Visualization:**

Data visualization is the graphical representation of information and data. By using visual elements like charts, graphs, and maps, data visualization tools provide an accessible way to see and understand trends, outliers, and patterns in data.

**BI Tool:**

Business intelligence software is a type of application software designed to retrieve, analyze, transform and report data for business intelligence.

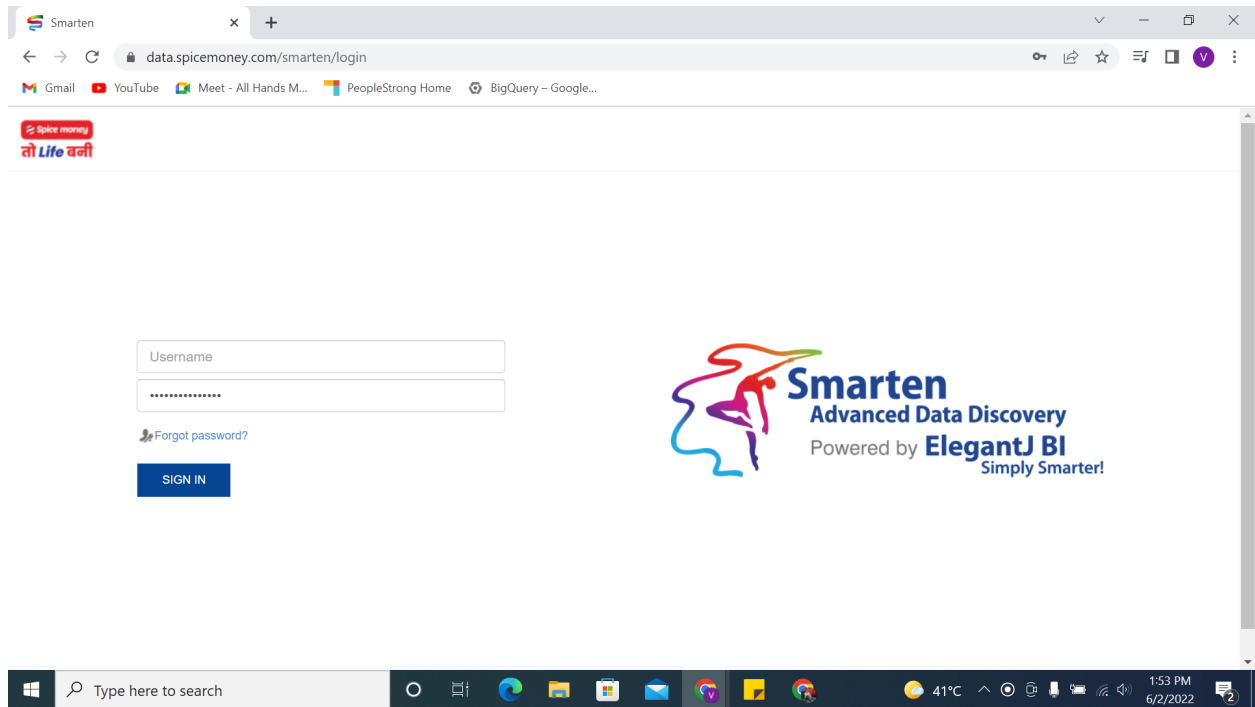
The objective is to show the complex datasets in a layman form so that a person who is not in the same domain of work can also understand these datasets.

Smarten is a BI tool.

# Process of Creating a report:

## Step1:

Log in to the Smarten login portal.



## Step2:

You will receive this type of UI after login.

The screenshot displays the Spicemoney Smarten web application interface. The browser address bar shows the URL `data.spicemoney.com/smarten/repository`. The user is logged in as Milan Kulshrestha, as indicated by the 'Welcome Milan Kulshrestha' message in the top right corner. The main content area is titled 'Repository' and shows a list of reconciliation reports. The left sidebar contains a navigation menu with 'My favourites', 'My Folders', and 'Repository'. Under 'Repository', there is a 'Reconciliation Reports' section with a list of folders including AEPS, AEPS 123, AEPS IBL, AEPS ICICI, AEPS RBL, AEPS YBL, DMT FINO, DMT IBL, DMT RBL, DMT YBL, H2H NSDL, H2H OVERALL, H2H RBL, H2H YBL, MATM, MATM EQUITAS, and PAYSWIFF. The main table displays the following data:

OBJECT NAME	DATA	CREATED	UPDATED
sample_dashboard		Milan Kulshrestha 31-May-2022 10:40:36	Milan Kulshrestha 31-May-2022 10:40:36
ts_nsd_log_transform	ts_nsd_log_transform	Milan Kulshrestha 31-May-2022 10:37:14	Milan Kulshrestha 31-May-2022 10:37:14

The bottom of the image shows the Windows taskbar with the search bar and various application icons.

### Step3:

Now, we have to create the data set first. For this,:

Select the dropdown menu on the top right corner and then select the data option.

The screenshot shows the Spicemoney Smarten Repository page. The browser address bar displays `data.spicemoney.com/smarten/repository`. The left sidebar contains a navigation menu with 'My favourites', 'My Folders', 'Repository', and 'Reconciliation Reports'. The main content area shows a table with columns: OBJECT NAME, DATA, CREATED, and UPDATED. The table lists two datasets: 'sample\_dashboard' and 'ts\_nsdl\_log\_transform'. A dropdown menu is open in the top right corner, showing options: 'My favourites', 'My folders', 'Repository', 'Data' (selected), 'Open', 'New', 'Publishing agent', 'Edit profile', 'Logout', 'About us', and 'Network speed (491.52 kBps)'.

### Step4:

Now select the plus or the add icon under the datasets option to add the dataset.

The screenshot shows the Spicemoney Smarten Datasets page. The browser address bar displays `data.spicemoney.com/smarten/datasets`. The left sidebar contains a navigation menu with 'Datasets', 'Data sources' (selected), and 'Cubes'. The main content area shows a table with columns: NAME, CREATED, UPDATED, and LAST DATA PUBLISHED. The table lists several datasets, including 'aeps\_summary\_reco', 'booking\_refund\_summary', 'booking\_vs\_IRCTC', 'booking\_vs\_wallet\_exceptions\_only', 'cancel\_vs\_IRCTC\_refund', 'detail\_vs\_redbus\_booking', and 'detail\_vs\_redbus\_refund'. A search bar and pagination controls are visible at the top of the table.

## Step5:

First write the name of the dataset.

Description if needed.

Select the datasource. We can search the datasource from search option.

After this, select the step-by-step wizard to manually select the schema and dataset or else select the paste ready to use query to type in the query.

**New Dataset**

**Create Dataset**

Name  
test\_dataset

Description (Optional)

Select Datasource  
DS

	DATASOURCE NAME	DATASOURCE TYPE	CREATED	UPDATED	
<input type="radio"/>	DS	Dataset	Milan Kulshrestha 11-Apr-2022 11:13:24	Milan Kulshrestha 11-Apr-2022 11:15:12	...
<input checked="" type="radio"/>	DS_BigQuery	Database / Google BigQuery	admin 10-Mar-2021 10:25:03	Ritu Gupta 30-Sep-2021 14:01:07	...
<input type="radio"/>	DS_details	File / XLS / XLSX	admin 03-Mar-2021 05:31:03	admin 03-Mar-2021 05:31:03	...

☐ Step-by-step wizard ☒ Paste ready to use query

**NEXT** **CANCEL**

## Step6:

\*tip: Instead of directly typing the query go to the GCP BigQuery and write the query there. It gives us the suggestions to select the database and tables.

Google Cloud Platform console showing the BigQuery interface. The query editor displays the query: `select * from `spicemoney-dwh.analytics_dwh.aeps_reco_summary``. The left sidebar shows the 'Resources' section with 'spicemoney-dwh' expanded, showing 'analytics\_dwh' and 'aeps\_reco\_summary'. The bottom section shows the 'aeps\_reco\_summary' table schema with columns: Date, Type, Mode, Policy tags, and Description.

## Step7:

Type the same query to the Query section and select the preview option to preview the selected data. And press OK to proceed.

Starten application 'New Dataset' screen. The 'Dataset name' is 'test\_dataset' and the 'Datasource' is 'DS\_BigQuery - Database/Google BigQuery'. The query 'select \* from `spicemoney-dwh.analytics\_dwh.aeps\_reco\_summary`' is entered in the 'Query' field. Below the query field, there are buttons for 'PREVIEW', 'COPY', and 'OK'. The 'PREVIEW' button is highlighted. Below the preview buttons, there's a table showing the first row of data:

#	Date	aggregator	Transaction_Count	Total SDL_Payout	SDL_Share	SDL_Share_With_GST	AEPS_Alliance_Commission	AEPS_Transaction_Count
1	01-May-2021	YBL	266456	3996840.0	3677092.8000000003	4338969.504	1123.320804476738	1136229.0

At the bottom, there are buttons for 'OK', 'BACK', and 'CANCEL'.

## Step8:

Now select the publish option right to the save option to publish the dataset to use it for creating the report later.

The screenshot shows the Spicemoney Smarten web application. The browser address bar displays the URL: `data.spicemoney.com/smarten/datasets/1812387ec82.dtst?isNewDataset=true&isFromEdit=false`. The page title is "test\_dataset". Below the title, there is a "Result set" dropdown menu. A table of data is displayed with the following columns: #, Date, aggregator, Transaction\_Count, Total SDL\_Payout, SDL\_Share, SDL\_Share\_With\_GST, AEPS\_Alliance\_Commission, and AEPS\_Transaction. The first row of data is: 1, 01-May-2021, YBL, 266456, 3996840.0, 3677092.8000000003, 4338969.504, 1123.320804476738, and 1136229.0. The page footer indicates "Powered by ElegantUI BI Version 5.2.13".

#	Date	aggregator	Transaction_Count	Total SDL_Payout	SDL_Share	SDL_Share_With_GST	AEPS_Alliance_Commission	AEPS_Transaction
1	01-May-2021	YBL	266456	3996840.0	3677092.8000000003	4338969.504	1123.320804476738	1136229.0

## Step9:

Now, select yes to load the extracted data. This will reload and extract the data again.

The screenshot shows the same Spicemoney Smarten web application as in Step 8, but with a modal dialog box open. The dialog box has a title "Info" and a message "Data extraction completed. Do you want to load extracted data?". There are two buttons: "YES" and "NO". Below the message, there are sections for "Scheduler settings", "Rebuild method", and "Rebuild below dependent dataset(s)". The "Rebuild below dependent dataset(s)" section has a dropdown menu "Show dependent datasets" and two columns: "Available dataset(s)" and "Selected dataset(s)". The "Available dataset(s)" column is empty, and the "Selected dataset(s)" column is also empty. At the bottom of the dialog box, there are "PUBLISH" and "CANCEL" buttons. The background shows the same dataset table as in Step 8.

## Step10:

In the following menu, we have the option to publish as the smarten dataset or to publish the dataset to some other data source.

Select the cache.

Now select the frequency of the Scheduler. This will reload the data according to the frequency selected. Ex, after a daily, weekly or monthly, so on.

We can get the notification for the publish process whether it is successful or not.

Also, data refresh scheduler can be active or inactive if no refreshment is needed.

The screenshot displays the 'Publish Dataset' modal in the Smarten application. The modal is configured with the following settings:

- As Smarten Dataset** (selected radio button)
- Cache** (selected radio button)
- Scheduler settings** (expanded section)
  - Frequency**: One time
  - Start time**: 0
- Email notification for Dataset publish process**: None
- Data Refresh Scheduler**: Inactive
- Rebuild method**: (collapsed)
- Rebuild below dependent dataset(s)**: (collapsed)

The background interface shows a dataset named 'test\_dataset' with a table view. The table has columns: Date, aggregator, Transaction\_Count. A single row is visible with the date '01-May-2021', aggregator 'YBL', and transaction count '266456'. The application footer indicates it is 'Powered by ElegantUI BI Version 5.2.1'.



## Step11:

Give the permissions now. We can select specific people to have access to the report or select the different departments like the Reconciliation if the report is created for them. Generally we give view and export options so that the person can view as well as export to the comfortable format ex, excel to view.

The screenshot displays the 'Permissions' dialog box in the Smarten application. The dialog is titled 'Permissions' and has two tabs: 'Roles' and 'Users'. The 'Roles' tab is active, showing a table of roles and their permissions. The table has columns for 'ROLES', 'VIEW', 'WRITE', 'DELETE', and 'EXPORT'. The 'Reconciliation' role has 'VIEW' and 'EXPORT' permissions checked. The background shows a dataset view for 'test\_dataset' with columns like 'Date', 'aggregator', and 'Transaction'.

ROLES	VIEW	WRITE	DELETE	EXPORT
SpiceMoney	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SmartenDeveloper	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Travel Union	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Inflow Outflow	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
OperationalReports	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Reconciliation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Audit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## Step12:

Save the report by selecting the save option.

data.spicemoney.com/smarten/datasets/1812387ec82.dtst?isNewDataset=true&isFromEdit=false

Welcome Milan Kulshrestha

test\_dataset

Last refresh from source on 02-Jun-2022 08:28:44

Result set

#	Date	aggregator	Transaction_Count	Total_SDL_Payout	SDL_Share	SDL_Share_With_GST	AEPS_Alliance_Commission	AEPS_Transaction
1	01-May-2021	YBL	266456	3996840.0	3677092.8000000003	4338969.504	1123.320804476738	1136229.0

data.spicemoney.com/smarten/datasets/1812387ec82.dtst?isNewDataset=true&isFromEdit=false

Welcome Milan Kulshrestha

test\_dataset

Last refresh from source on 02-Jun-2022 08:28:44

Result set

#	Date	aggregator	Transaction_Count	Total_SDL_Payout	SDL_Share	SDL_Share_With_GST	AEPS_Alliance_Commission	AEPS_Transaction
1	01-May-2021	YBL	266456	3996840.0	3677092.8000000003	4338969.504	1123.320804476738	1136229.0

data.spicemoney.com/smarten/datasets/1812387ec82.dtst?isNewDataset=true&isFromEdit=false

Welcome Milan Kulshrestha

test\_dataset

Last refresh from source on 02-Jun-2022 08:28:44

Result set

#	Date	aggregator	Transaction_Count	Total_SDL_Payout	SDL_Share	SDL_Share_With_GST	AEPS_Alliance_Commission	AEPS_Transaction
1	01-May-2021	YBL	266456	3996840.0	3677092.8000000003	4338969.504	1123.320804476738	1136229.0

Info

Dataset: test\_dataset saved successfully

### Step13:

Convert the report to a proper format to view the data. Ex, tabular format by selecting the dropdown menu, New, and then tabular format.

The screenshot shows the Smarten web application interface. The main report is titled "test\_dataset" and is displayed in a tabular format. The report includes a header row with columns: #, Date, aggregator, Transaction\_Count, Total SDL\_Payout, SDL\_Share, and SDL\_Share\_With\_GS. The data row shows values for "01-May-2021" and "YBL". A dropdown menu is open, showing various report formats and options. The "New" option is selected, and a sub-menu is visible with options like Open, New, Publishing agent, Edit profile, Logout, About us, and Network speed.

#	Date	aggregator	Transaction_Count	Total SDL_Payout	SDL_Share	SDL_Share_With_GS
1	01-May-2021	YBL	266456	3906840.0	3677092.8000000003	4338969.504

### Step14:

Search and select the dataset we created to convert into the selected format. We can also see the publisher and last person who updated the dataset.

The screenshot shows the Smarten web application interface with a "New tabular - select data" dialog box open. The dialog box displays a list of datasets with columns: NAME, CREATED, and UPDATED. The dataset "test\_dataset" is selected. The dialog box also shows the publisher and last person who updated the dataset.

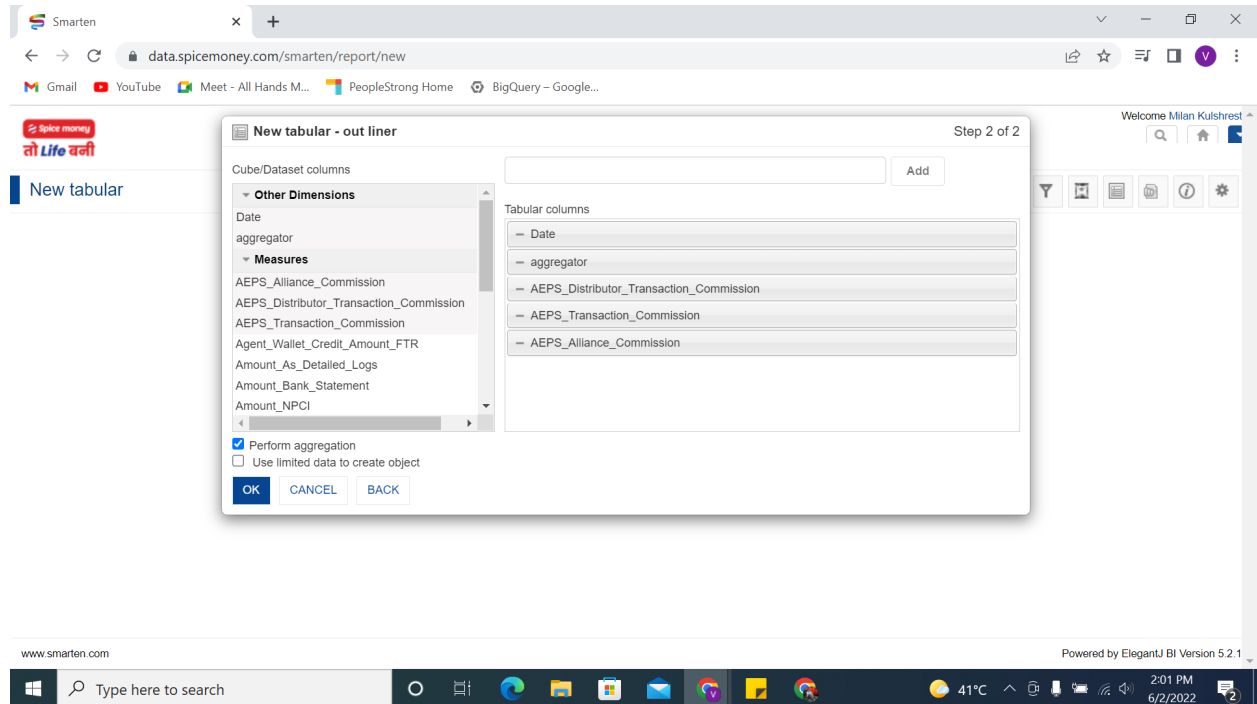
NAME	CREATED	UPDATED
DT_inflow_outflow_first_test	admin 17-Mar-2021 13:08:58	admin 17-Mar-2021 13:14:55
DT_inflow_outflow_second_test	admin 17-Mar-2021 13:16:26	admin 17-Mar-2021 13:20:26
Reconciliation_Test	Ritu Gupta 07-Apr-2022 09:37:15	Ritu Gupta 07-Apr-2022 09:41:45
test_dataset	Milan Kulshrestha 02-Jun-2022 08:28:39	Milan Kulshrestha 02-Jun-2022 08:30:32

### Step15:

After selecting the Next option, we have to select the dimensions and measure here.

Note: Select the Measures in order of which we need our columns to be. In the given example, we have selected AEPS\_Alliance\_Commission at last as we needed it to be the last column.

Next, we need to select the 'Perform aggregation' option to provide the group by option.



### Dimensions:

Dimensions contain qualitative values (such as names, dates, or geographical data). You can use dimensions to categorize, segment, and reveal the details in your data. Dimensions affect the level of detail in the view.

### Measures:

Measures contain numeric, quantitative values that you can measure.

A measure is a field that can be aggregated in some way, such as a sum or an average. Think of it as something that can be collected, counted, or combined in some way to return a single value.

## Step16:

Select the Ok option and save the final created report.

data.spicemoney.com/smarten/report/new

Welcome Milan Kulshrestha

New tabular

Showing 1 to 2 of 2 records | Data updated on 02-Jun-2022 08:29:51

Date	Aggregator	AEPS_Distributor_Tr	AEPS_Transaction_C	AEPS_Alliance_Com
01-May-2021	YBL	84098.97	1136229.00	1123.32
Summary		84098.97	1136229.00	1123.32

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Type here to search

41°C

2:02 PM 6/2/2022

## Step17:

In the save menu, we will mention the name of the report, title of the table if needed and then the folder where we need to save the report.

data.spicemoney.com/smarten/report/new

Welcome Milan Kulshrestha

New tabular

Showing 1 to 2 of 2 records | Data updated on 02-Jun-2022 08:29:51

Date	Aggregator	AEPS_Distributor_Tr	AEPS_Transaction_C	AEPS_Alliance_Com
01-May-2021	YBL	84098.97	1136229.00	1123.32
Summary		84098.97	1136229.00	1123.32

Save

Name: test\_dataset\_table

Title: Tabular Title

Select folder

- My Folders
- Repository
  - Reconciliation Reports
  - AEPS
  - AEPS 123
  - AEPS IBL
  - AEPS ICICI
  - AEPS RBL
  - AEPS YBL
  - DMT FINO
  - DMT IBL

OK CANCEL

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Type here to search

41°C

2:03 PM 6/2/2022

