

GeoSpatial Analysis



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1. Document History

The below table gives an overview of the most recent document changes.

Version	Date	Changes Description

2. Getting Started

This guide provides information about and instructions for using the Geospatial Analysis **plug in** for the BizViz Portal. The BizViz portal runs in a web browser.

Your administrator will grant access rights based on what privileges each user needs.

2.1 Audience

This document is intended for users who wish to do geospatial analysis within the BizViz platform.

2.2 Technical prerequisites

Users who access the BizViz platform must have an internet connection and a modern browser installed **and must have licensed the geospatial plug-in for BizViz.**

3. Introduction

Geospatial analysis is a technique to apply statistical analysis and other information procedures to data which has a geographical aspect. Geospatial uses Geographical Information Systems (GIS) to represent various types of geographical data. Geospatial can be used to solve problems in various industries including defense, science, disaster risk management, and public safety.

The Geospatial Analysis main screen is displayed below:

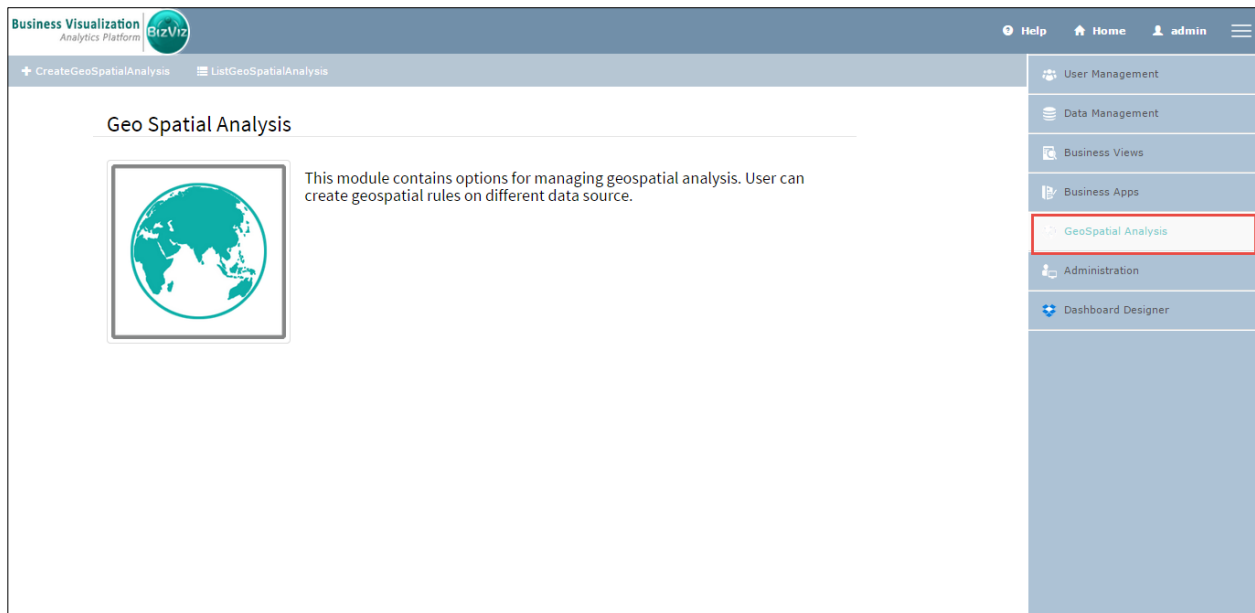


Figure 1

4. Accessing Administration

The Administration section is where the Geospatial settings are configured. These settings are used when creating a new Geospatial rule.

The Administration main screen is displayed below: (the image is wrong. Red box should be on 'Administration')

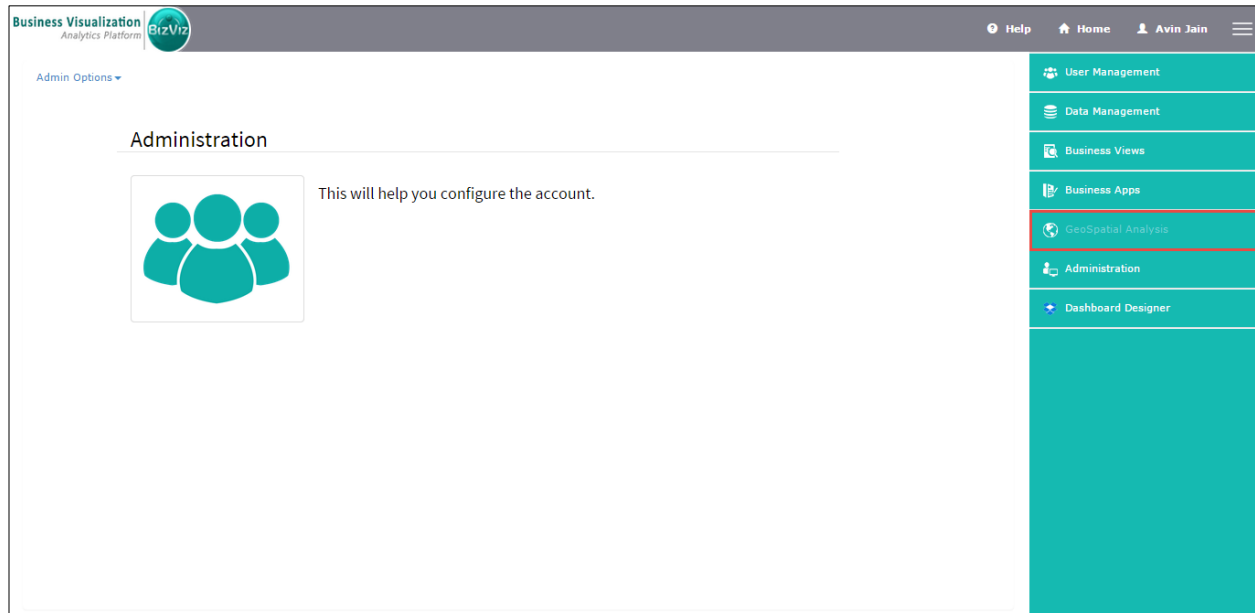


Figure 2

1. Click on 'Admin Options' and select **Geo Space Settings**.

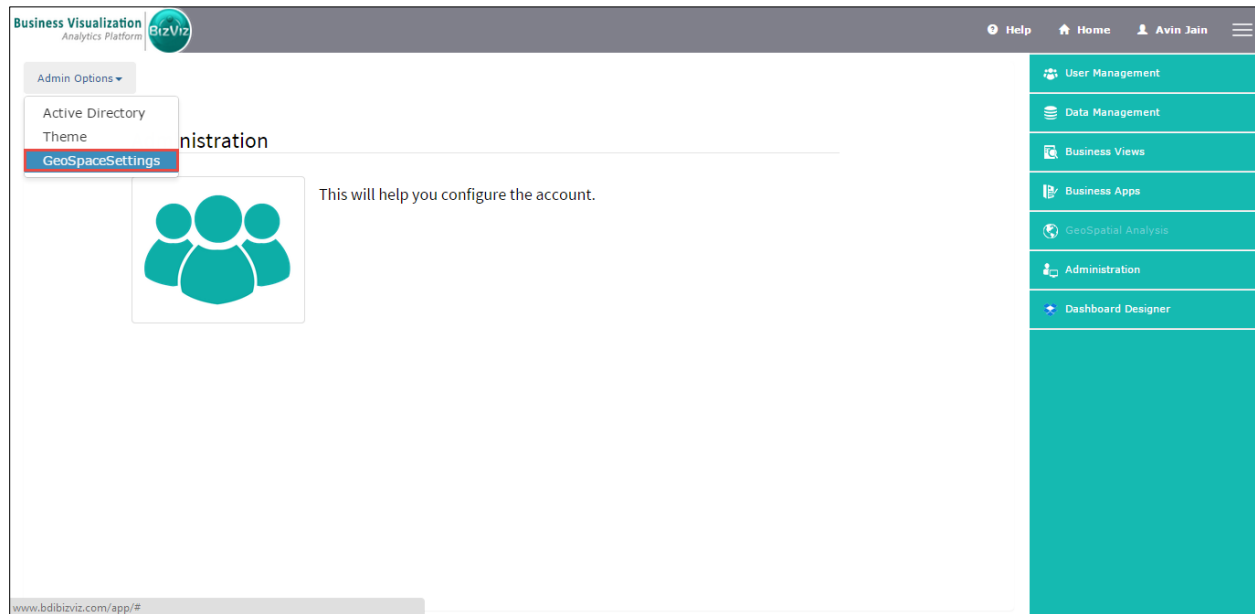


Figure 3

4.1 Uploading Geo shape file

You can upload a Geo Shape file to create map settings.

1. Click [Upload Geo Shape File](#)

www.bdibizviz.com

www.bdisys.com

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2. Provide a name for the Geo Shape file you want to give to upload.
3. Select geometry and area types.
 - a. *Polygon* geometry type allows you to create world and country maps.
 - b. *Line* geometry type displays a map in a series of coordinates, of any shape.
4. Upload the shape file (! Note: only files with .json extension can be used)
5. Click *Save Changes*

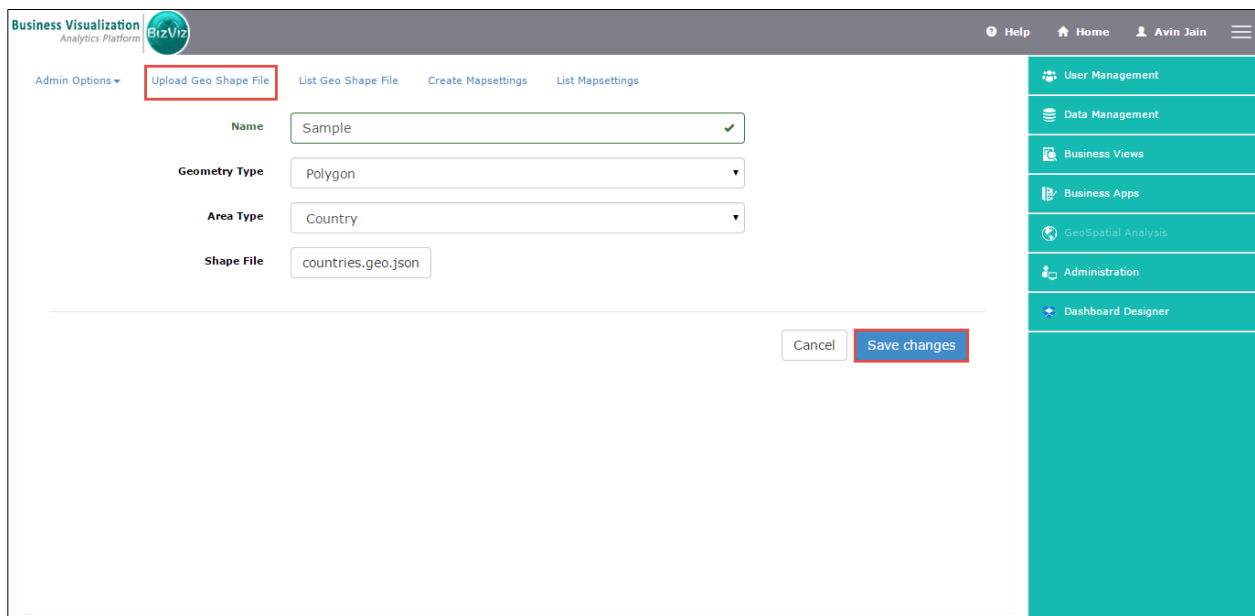



Figure 4

4.2 Viewing the list of Geo shape files

You can view a list of all Geo Shape files uploaded with respect to a geometry type.

1. Click *List Geo Shape File*
2. Select a geometry type from the pull down menu
3. A list of Geo Shape files are displayed.
4. Click the trashcan icon  next to any Geo Shape file to delete that Geo Shape file.
5. You can search for a Geo Shape file using the search box.

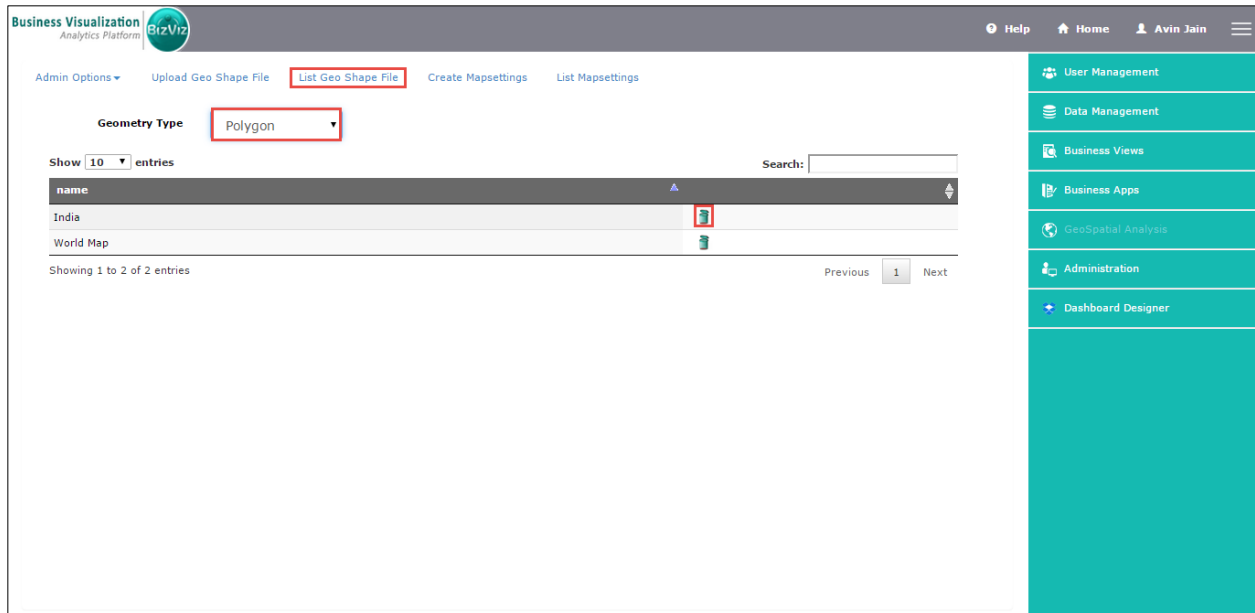


Figure 5

4.3 Creating Map settings

You can create map settings for Leaflet and Google map types.

1. Click [Create Map Settings](#)
2. Select a map type

Google Map: Google Map is a desktop and mobile web mapping service **application**.

Leaflet Map: Leaflet is a modern, open-source JavaScript library for mobile-friendly interactive maps.

3. Enter the Map URL
4. **Attribution**: This is a string that provides **optional** parameters to the URL
5. Click [Save changes](#)

! Note

If you select Map Type as 'Google Map', you need to register with Google and get a valid key.

For more information, please visit: https://developers.google.com/maps/documentation/javascript/tutorial#api_key

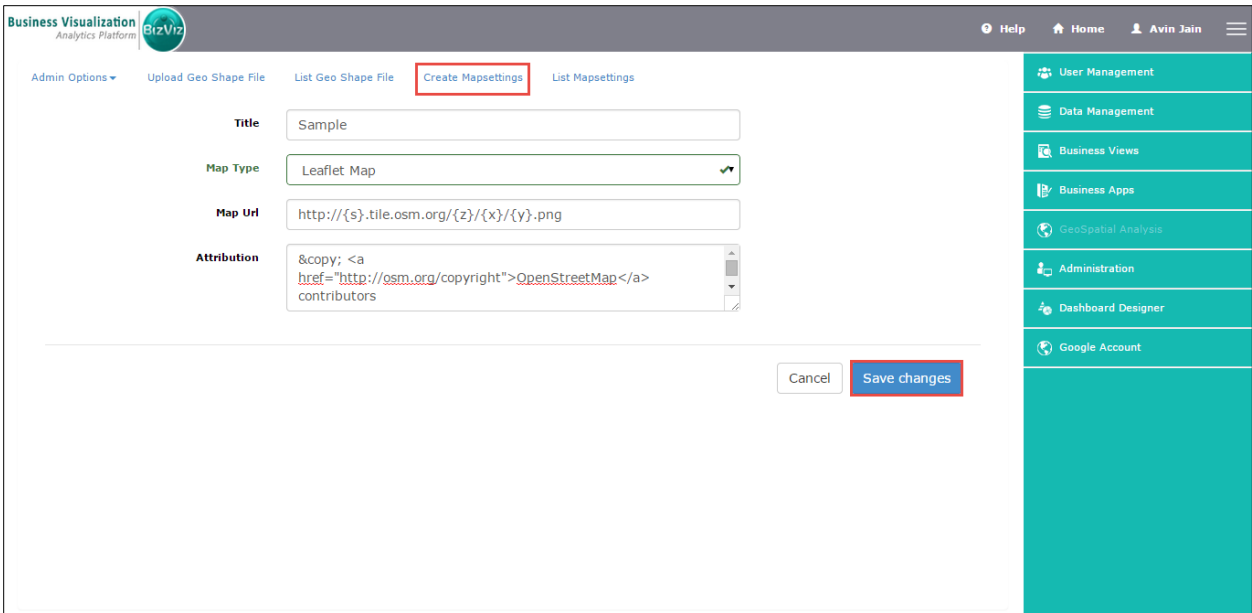



Figure 6

4.4 Viewing a list of all map settings

You can use this option to view all map settings details.

1. Click *List Map Settings*
2. A list of entries are displayed
3. Click the trash can icon  next to any entry to delete the entry
4. You can search for a particular entry using the search box

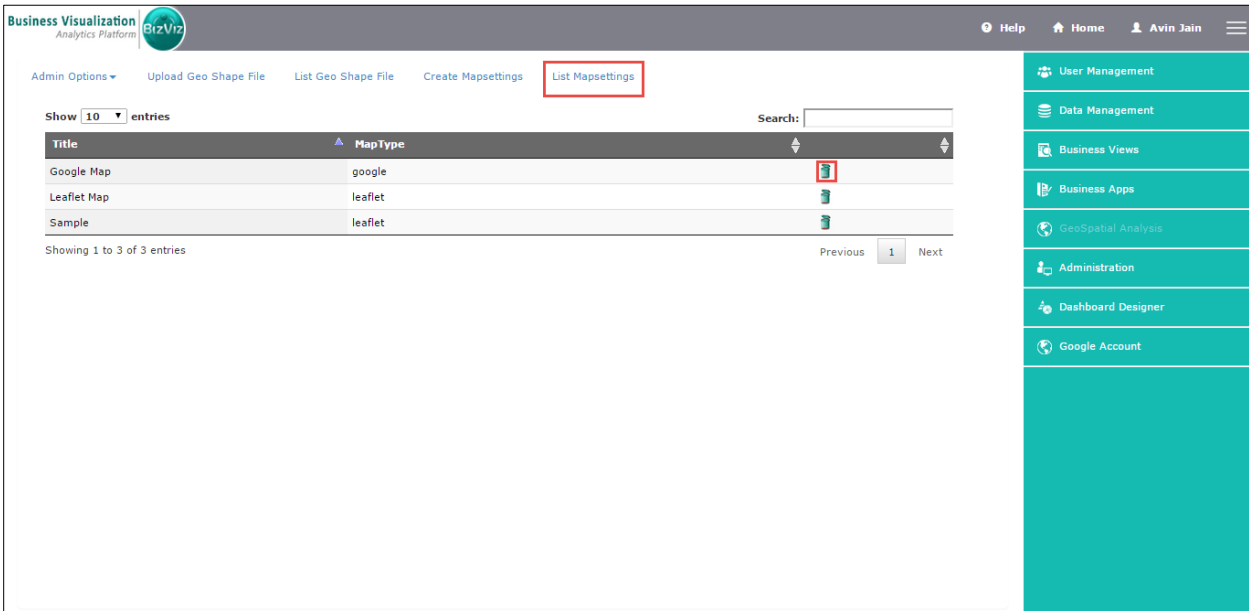


Figure 7

5. Accessing GeoSpatial Analysis

Click on the menu button next to your user name (at the top right part of the screen).

Select GeoSpatial Analysis from the menu.

5.1 Creating Geospatial Analysis Rules

You can create geospatial rules using either a CSV file or a Query Service. A Query service can be created using Data Management. Refer to the [Accessing Data Management](#) section.

1. Go to the [GeoSpatial Analysis](#) page of the portal. (Click on the menu button next to your user name at the top right part of the screen)
2. Click [Create GeoSpatial Analysis](#)
3. Enter a name, select a Map Type and Geometry Type. Then Click 'Configure'
4. Select a Data Source



-- If CSV file has been selected as the data source, browse to and select the CSV file.

-- If Query Service has been selected as the data source, select the Query Service from the pull-down menu.

! Note Fields highlighted in red color are required.

5. Select objects from the object list (the left side panel) and move them to the right side panel to apply a geospatial rule.

Tip:

Use  to move a single selected object or use  to move all the objects

6. You can define a rule on the selected object.
7. Click -> [Save changes](#)

GeoSpatial analysis has been successfully uploaded message appears.

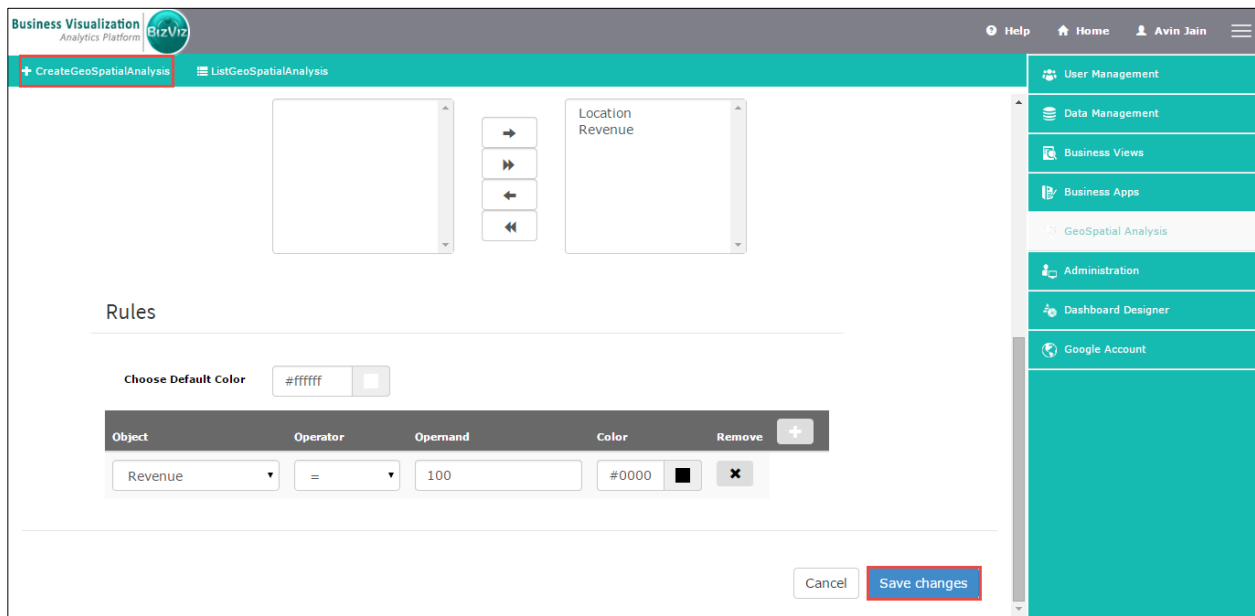


Figure 8

5.2 Viewing and Editing Geospatial analysis rules

You can use this feature to view the details of all geospatial analysis rules.

1. Go to the [GeoSpatial Analysis](#) page of the portal. (Click on the menu button next to your user name at the top right part of the screen)
2. Click [List GeoSpatial Analysis](#).
3. All geospatial analysis rules will be listed
4. For each rule, there are action buttons to edit or delete it
5. To edit a Geospatial Analysis rule, click the associated 'Edit Geo Spatial Analysis' button
6. Make the necessary changes and Click -> [Save changes](#).

A 'GeoSpatial analysis has been successfully uploaded' message will be displayed if all is well.

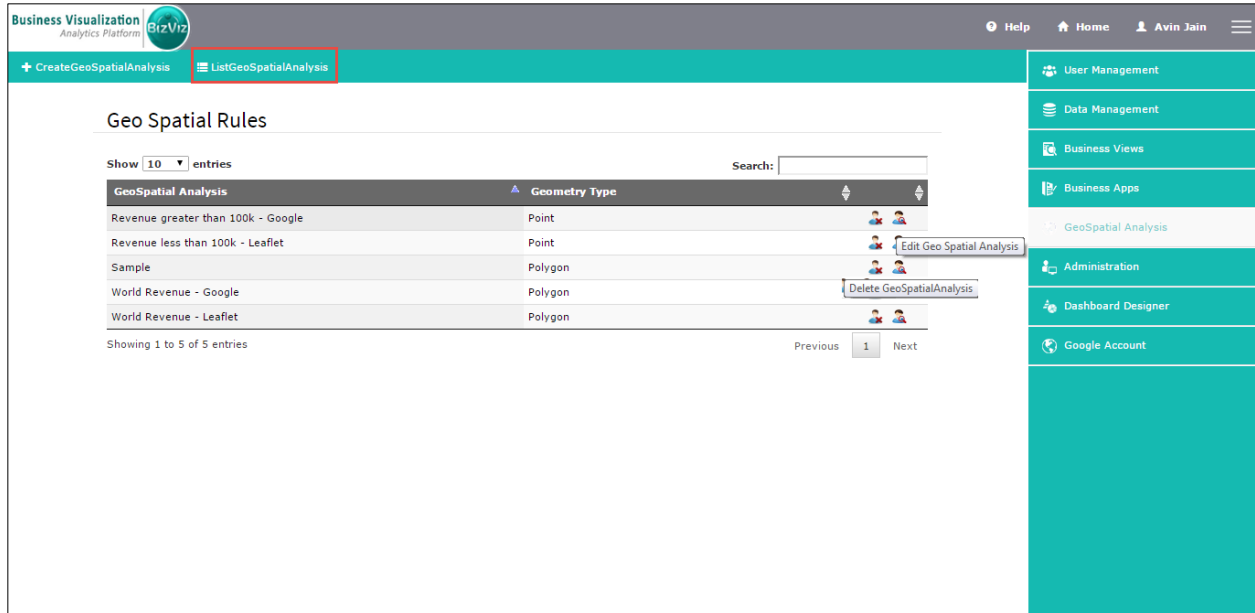


Figure 9

6. Accessing Data Management

The Data management area is where users can create or edit data source and query services. These data sources and query services can then be utilized in other modules of the portal.

The Data Management main screen is displayed below.

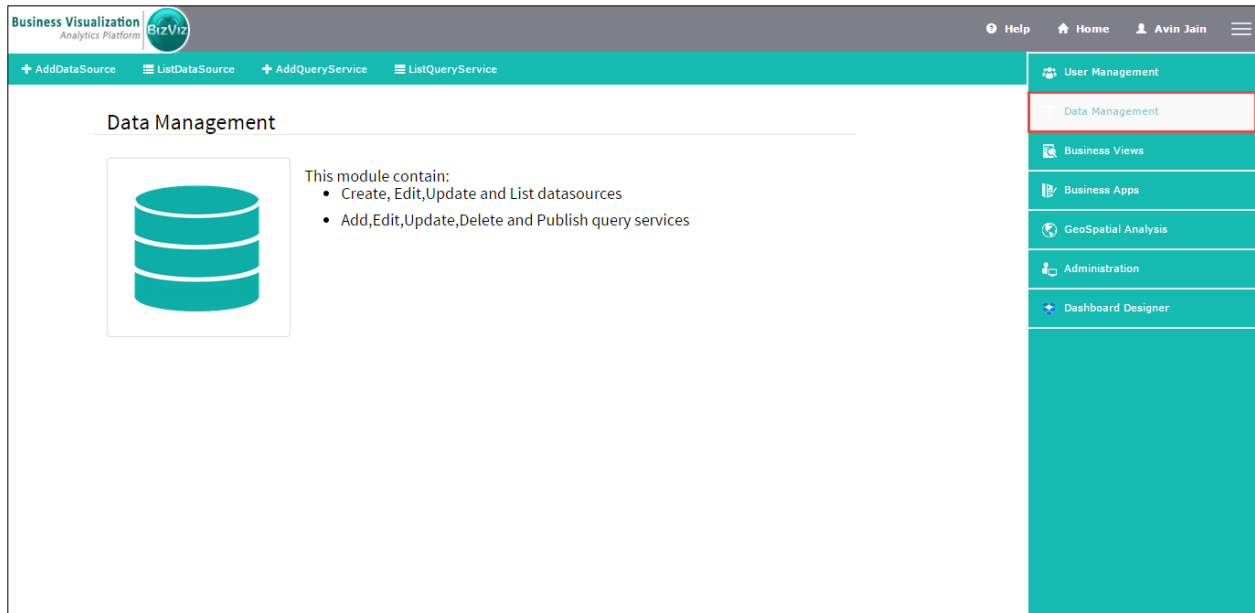


Figure 10

6.1 Creating a new Data Source

You can create a new data source (database connection) to store data specific to your organization's needs. Further, you can use data source to extend portal functionality or to build new service functionality.

1. Go to the [Data Management Menu](#) page of the portal. (Click on the menu button next to your user name at the top right part of the screen)
2. Click -> [Add Data Source](#).
3. Enter the details for the new data source.

! Note Fields highlighted in red color are required.

4. Click [Save changes](#)

A Successfully added data source message pop-up will be displayed.

The new data source has now been added to the portal. You can create query services, custom related lists and services for users to interact with the custom data source after data source creation.

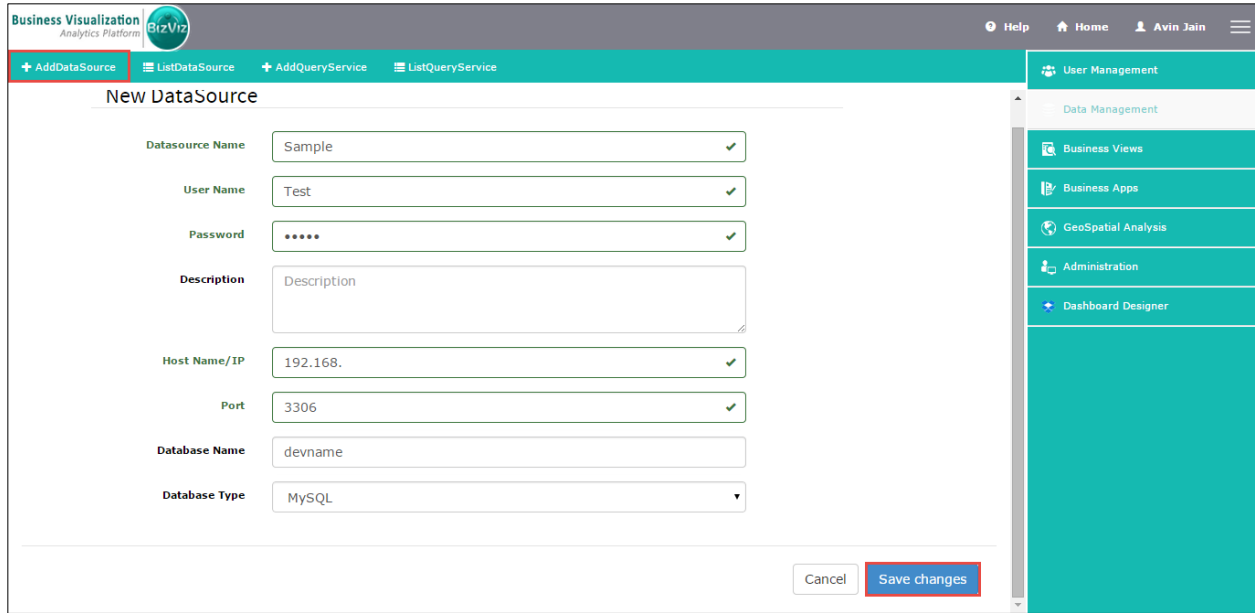


Figure 11

6.2 To view all data source details

You can use this feature to view the details for all data sources.

1. Go to the [Data Management Menu](#) page of the portal. (Click on the menu button next to your user name at the top right part of the screen)
2. Click -> [List Data Source](#)
3. Details for all Data Sources will be listed (such as Data Source name, Host name, data source type, Created Date)
4. Each Data source will also have several action buttons (Actions you perform on a data source are: [Query Builder](#) (to add an SQL Query) and [Edit Data Source](#)).
5. If you choose to add an SQL query or edit a data source, enter the fields for that action and click -> [Save changes](#)

A 'Data source updated successfully' message will appear.

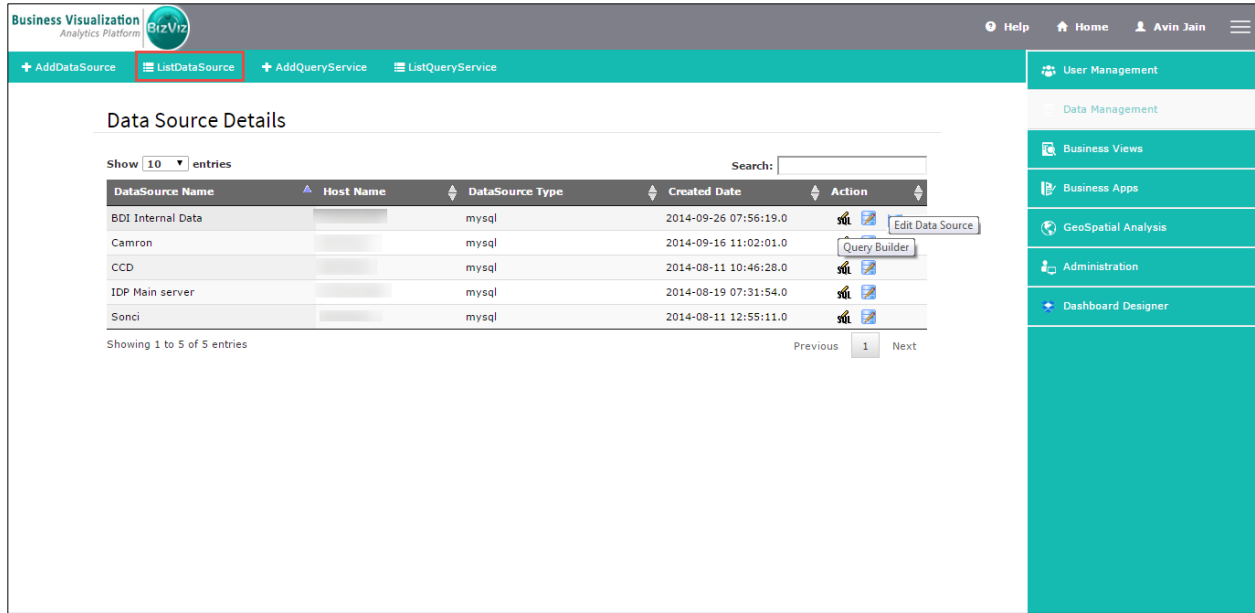


Figure 12

6.3 Query Service Syntax

BizViz portal allows users to create a new query service using the following syntax **only**:

Select * from *[Table Name]*

6.4 Creating a Query Service

You can create a new Query Service, also known as a Web Service, that allows you to communicate. However, you can use query service to extend portal functionality or to build new service functionality.

1. Go to the *Data Management Menu* page of the portal. (Click on the menu button next to your user name at the top right part of the screen)
2. Click -> *Add Query Service* and enter the fields.

! Note Fields highlighted in red color are required.

3. Select the data source and database names from their respective drop down menus.
4. Click *Save changes*.

A 'Query service created successfully' message will appear.

The new query service will be added to the portal. Query Services can be used in Dashboards to retrieve data from custom data sources.

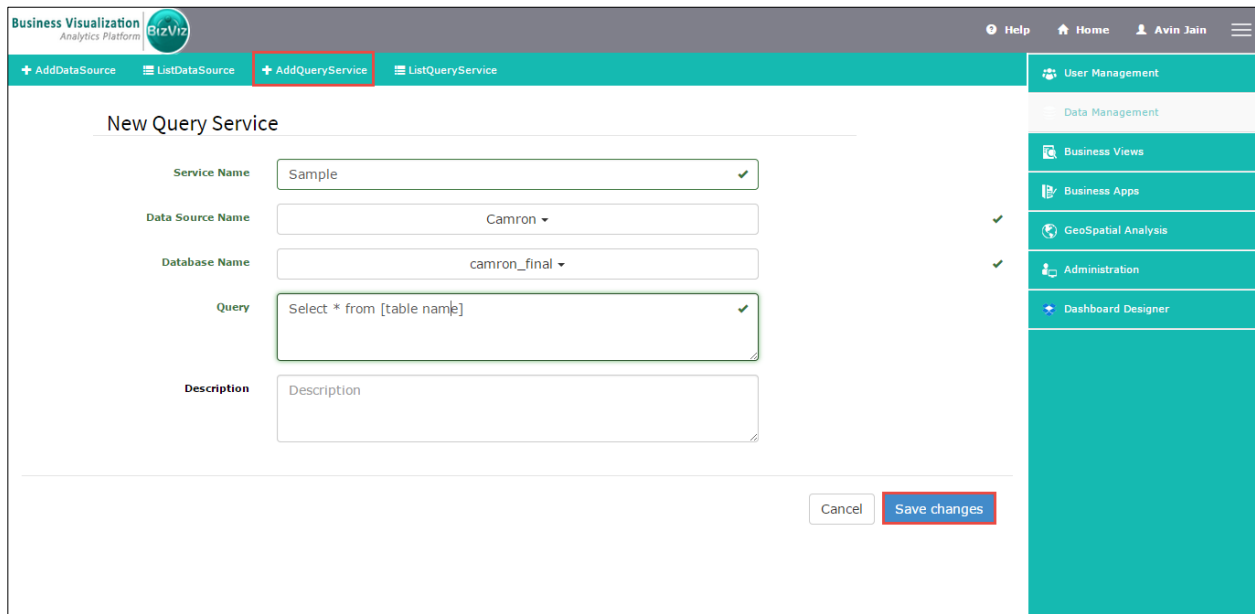


Figure 13

6.5 To view a list of Query Services

1. Go to the [Data Management Menu](#) page of the portal. (Click on the menu button next to your user name at the top right part of the screen)
2. Click -> [List Query Service](#)
3. All query services within the portal will be listed
4. To limit the list to a particular datasource, Select a datasource from Select Datasource dropdown menu.
5. Actions that can be performed on a query service are: [Update Query Details](#), [Delete Query Service](#), and [Publish Query Service](#).
6. -- If you choose to Update(edit) a SQL query, make the desired changes and click -> [Save changes](#)

An 'Updated service successfully' message will appear.

-- If you choose to publish the query, a 'Published Successfully' message will appears.

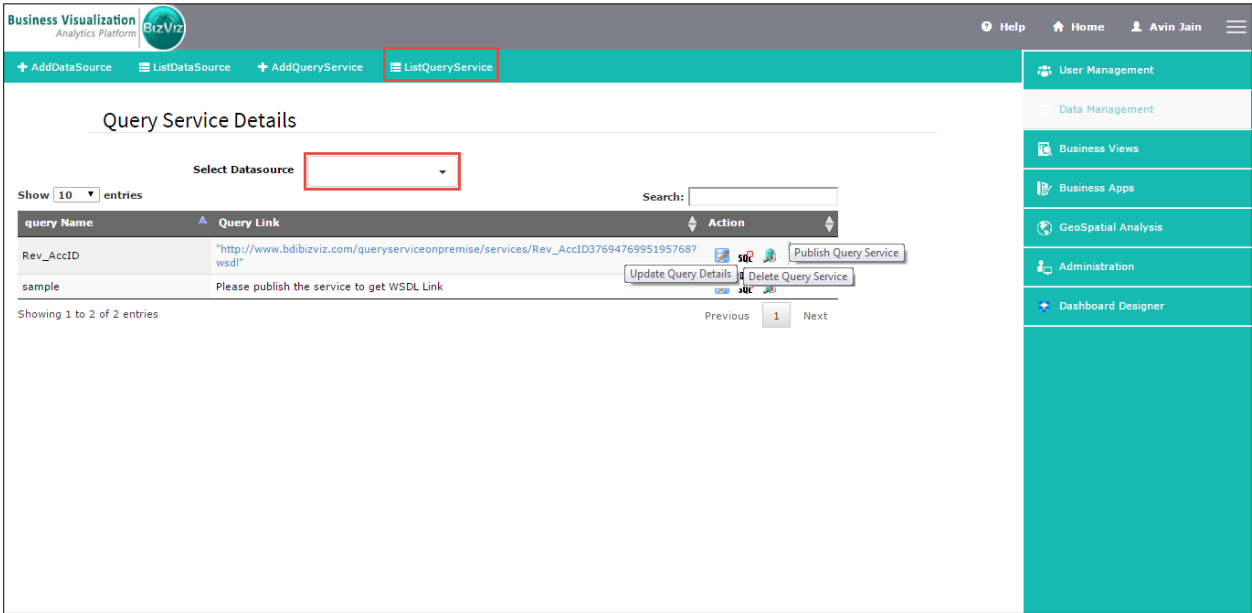


Figure 14

7. Creating a Geospatial rule in the Portal

You can create a geospatial rule in the portal.

1. Click → *My Documents* on the home screen of the portal.
2. Click-> **Supply Chain Industry** folder. (does it have to be only this folder)
3. Right-click on any blank area of the portal and select *Create Geospatial* from the menu.



Figure 15

The *Create Geospatial* pop-up screen will appear (as shown in the below image)

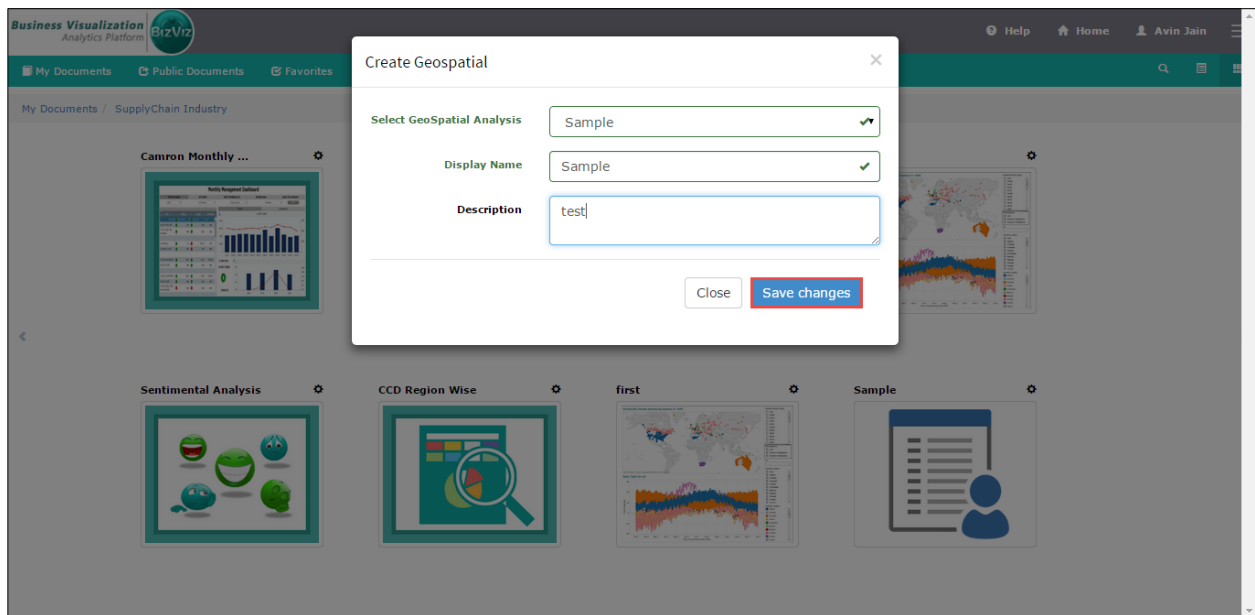



Figure 16

4. Select the geospatial analysis you wish to use from the pull-down menu and fill in the other fields.
5. Click -> *Save Changes*

A 'Data saved successfully' message will appear.

8. Accessing created geospatial in the portal

1. Click → *My Documents* on the home screen of the portal.
2. Click-> *Supply Chain Industry*
3. Click  (located on the right edge of the screen) to view next page

The Sample geospatial which was created in the portal is displayed below screen capture:

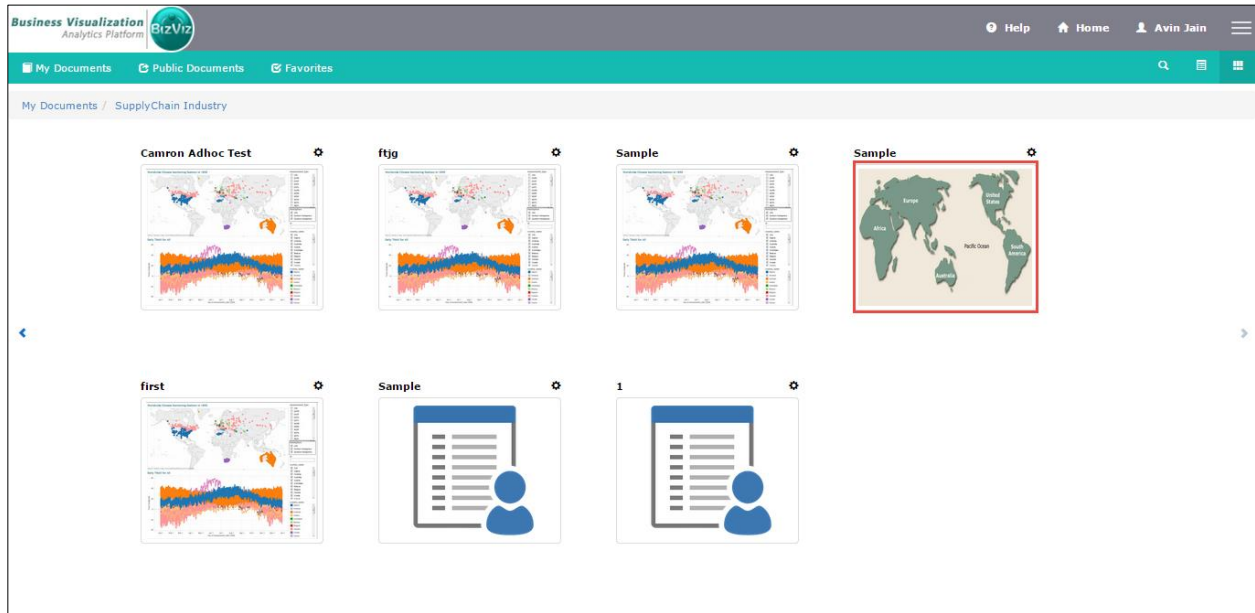


Figure 17

4. Click *Sample* to view enlarged view of the map

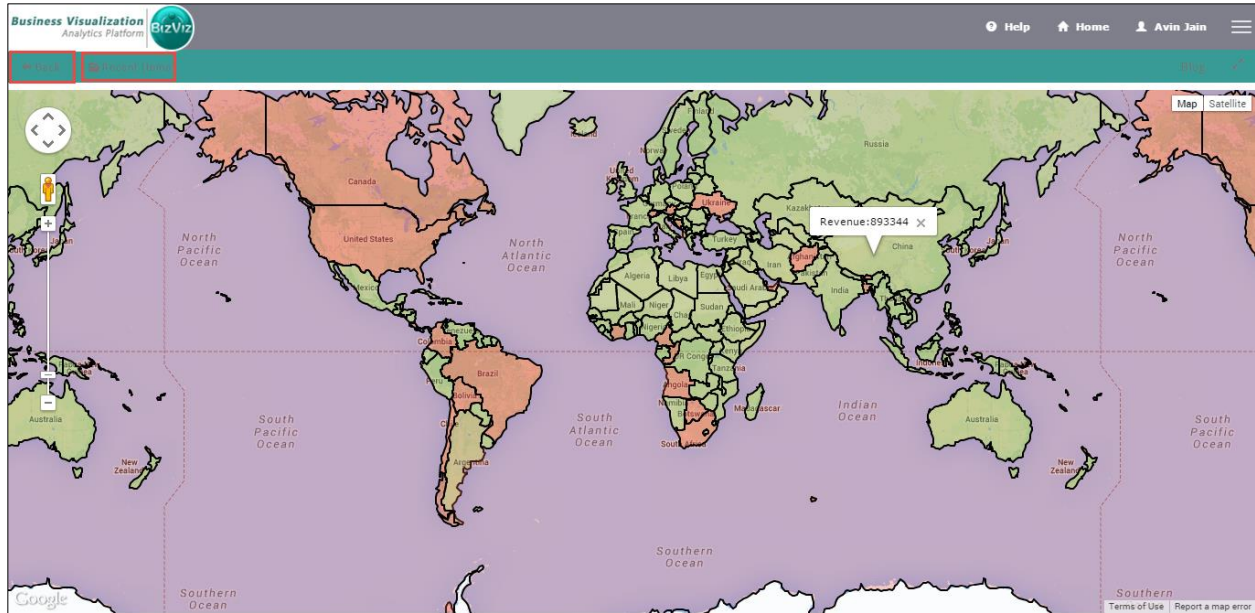


Figure 18

5. To return to the *My Documents* section of the portal, click *Back*
6. To view recent items, click *Recent Items*