Append Sub Query

Overview

In this tutorial, we will walk through setting up an append sub query in order to compare two years worth of figures.

A good way to think about **Appends** is - use them if you need to add a column to a report that requires filters different to the rest of the report.

In this scenario our main report will look at invoice figures by country in 2014. The column we want to add is the invoiced figures in 2013. The filters **Year = 2014** and **Year = 2013** conflict, so the additional column will have to be added through the append.

Master Query

The Master Query is going to include:

1. Athlete Country
2. Sum Invoiced Amount
3. Filter: Year = 2014

This will mean that we have Country as a common field for 2014 and 2013 so this will form our join when we add the Append.

Note: sometimes you will have a case where you don't wish to filter the Country list by 2014, this may be because some countries have no results for 2014 yet. In this case you would have Country in the Master Query, and an Append Query for each Invoiced Amount.

Append Query

The Append Query will include:

1. Join: Athlete Country
2. Sum Invoiced Amount
3. Filter: Year = 2013

This will be joined to the Master Query using the Athlete Country field. The query will be filtered by Year = 2013, and will include a copy of the Sum Invoiced Amount field to be filtered.
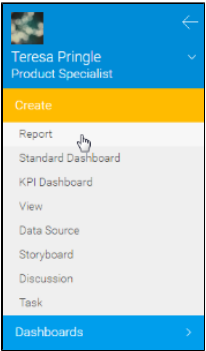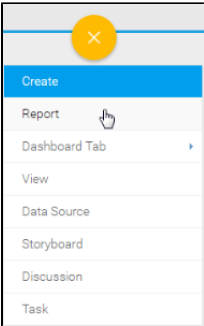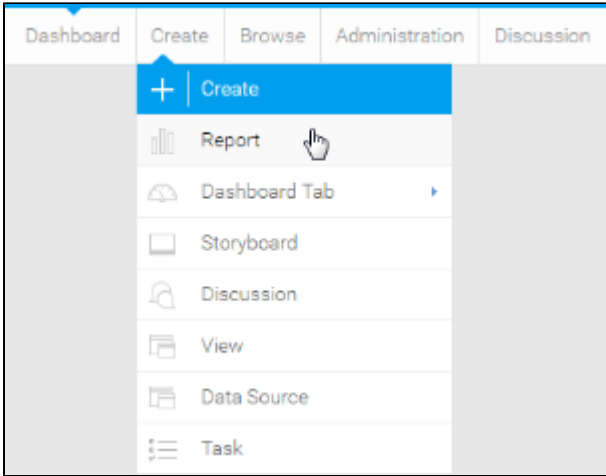
Create

**1.** Start the **Report** creation process by using one of these methods:

- **Left Side Nav** - open the left side navigation panel, click on Create, select the Report option

- **Top Right Button** - click on the create button, select the Report option.

- **Toolbar** - click on the Create link in the toolbar, select the Report option.

You will now see the **New Report** lightbox.

Left Side Nav	Top Right (with Left Side Navigation enabled)	Toolbar

2. Click on the **Ski Team** view in order to use the fields defined within it for creating the report.

3. You will now be taken to the **Data** step of the **Report Builder**.
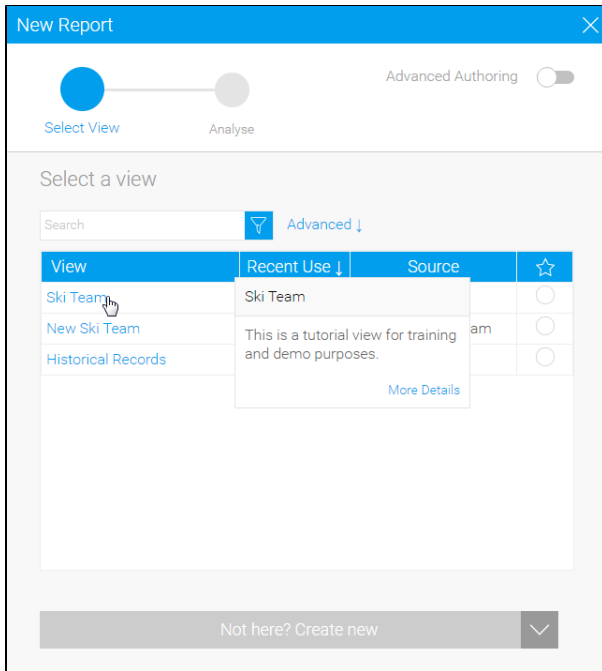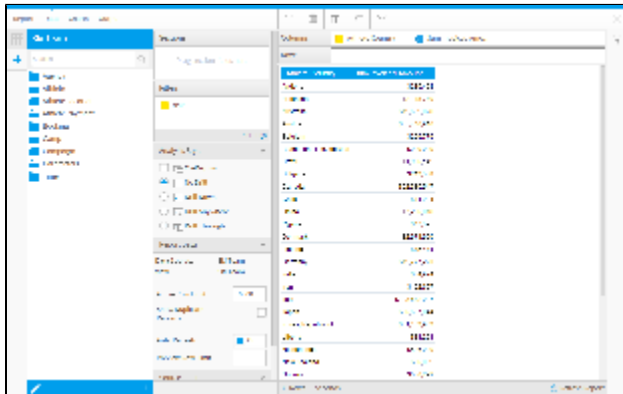
Master Query

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4. Drag and drop the ▇ **Athelte Country** dimension and ● **Invoiced Amount** metric into the **Columns** list.

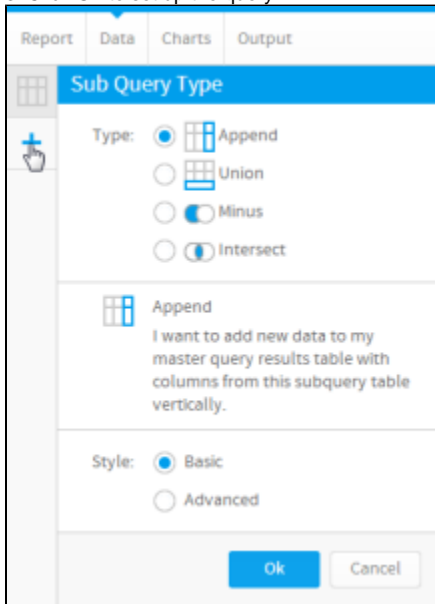**5.** Drag and drop the ▇ **Year** dimension into the **Filters** list.

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Create Append

6. Click on the **+** button in the Sub Query panel to the left of the Data step to add a Sub Query.

7. Set the Type to **Append** and Style to **Basic**.

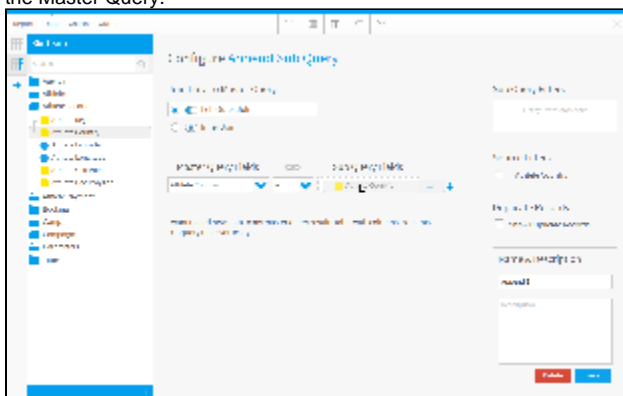**8.** Click **Ok** to set up the query.

Join Append

The first thing you will need to define, when setting up a sub query, is the join type, and join fields.

9. Ensure the join type is **Left Outer Join**.

10. Select the **Athlete Country** field in the **Master Query Fields** drop down list. This is the field you wish to join the Sub Query to.

11. Drag the **Athlete Country field in to the *Sub Query Fields** box in order to join it to the Master Query.
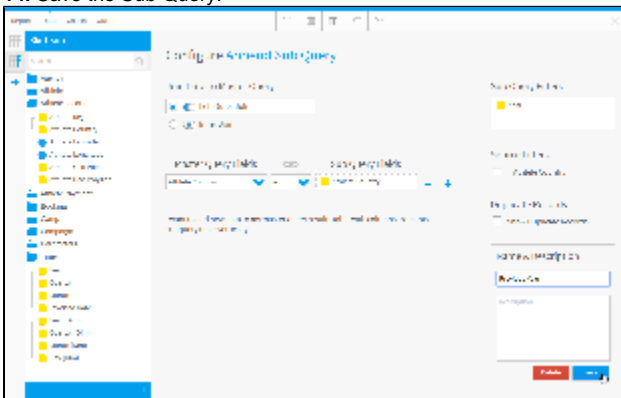

Filters

12. Add the **Year** field to the **Sub Query Filters** box. This filter will be used to restrict results of the sub query only.
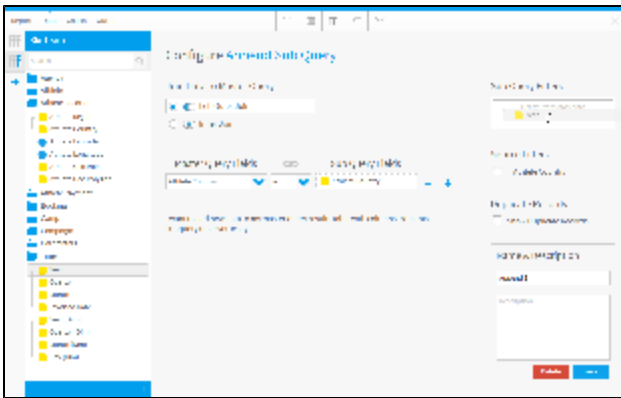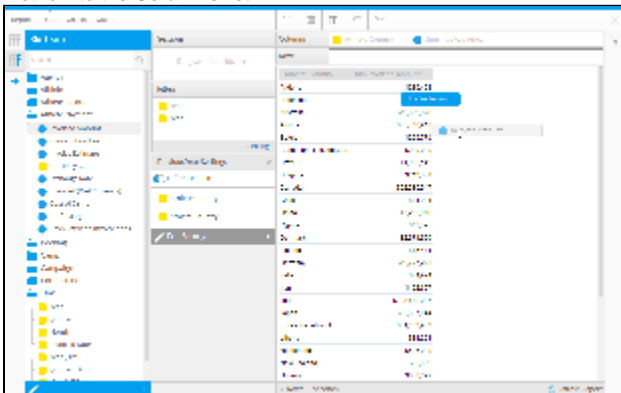
Name & Save

13. Change the name of the Sub Query to **Pre vious Year**. This will later help identify the sub query, especially useful if you have multiple sub queries.
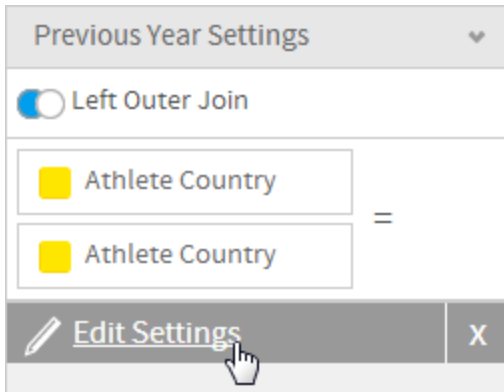
14. Save the Sub Query.

Add Column

15. Drag and drop the ⬤ **Invoiced Amount** metric into the **Columns** list.
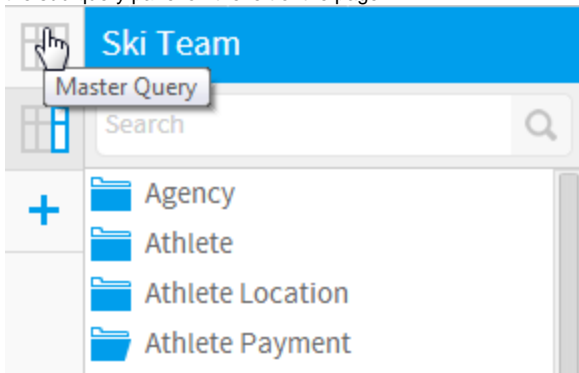

Edit Settings

16. If you need to make changes to your sub query setup at all, click the **Edit Settings** link.
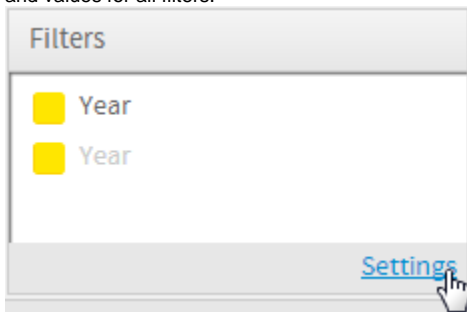
Apply Filters

17. Once your sub query is ready, navigate back to the **Master Query** by clicking on it in the sub query panel on the left of the page.
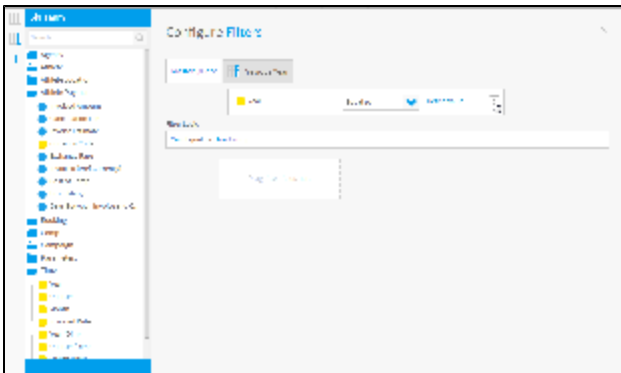

18. Click on the **Settings** link in the **Filters** panel. This will allow you to configure logic and values for all filters.
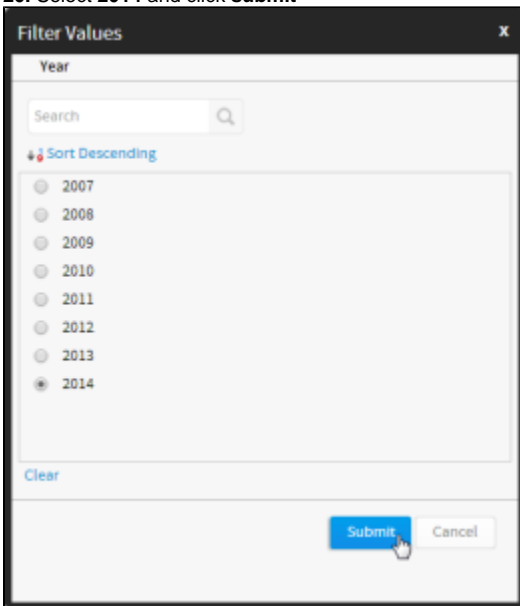

Master Filter

19. Set the **Master Query** filter to be **Year Equal to 2014** by clicking on the funnel icon.
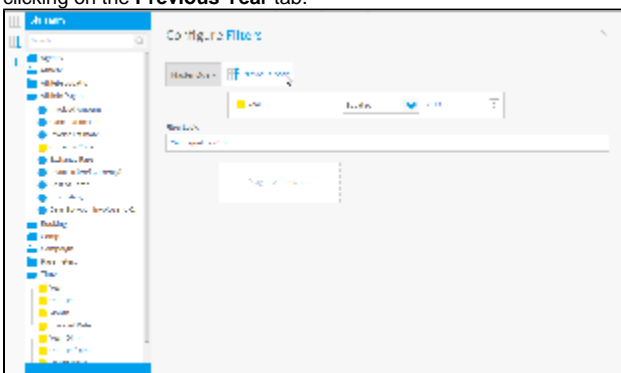
20. Select **2014** and click **submit**

Sub Query Filter

21. Navigate to the sub query filters by
clicking on the **Previous Year** tab.

22. Click on the **x** on the filter panel to close
it. Be sure not to click on the **X** to close the
report builder.

Formatting

23. Click on the first **Sum Invoiced Amount** field's drop down list and select **Format**.

24. Change the **Display** name to **Invoiced 2014**. It's important to do this to provide the user with some context to help differentiate between the queries.
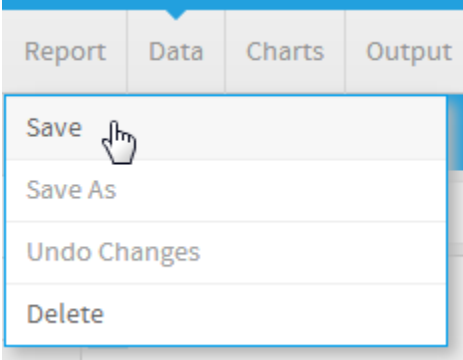

25. While still in the **Column Formatting** menu, select the **Sum Invoiced Amount** field from the list on the left.

26. Set the name to **Invoiced 2013** and close the menu.

Save

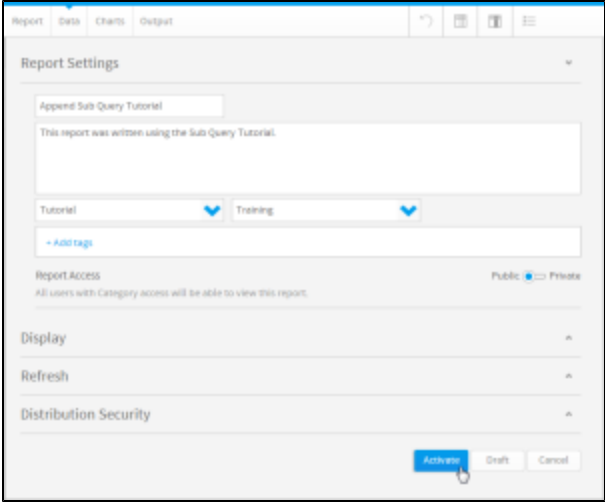**27.** Click **Report** > **Save** to activate your report.

28. Set the **Name** of your report to **Append Sub Query Tutorial**.

29. Set the **Description** to **This report was written using the Sub Query Tutorial**.

30. Select **Tutorial** as the **Category**.

31. Select **Training** as the **Sub Category**.

32. Click **Activate** to finish.

33. You now have an active Append Sub Query report.

Append Sub Query Tutorial

This report was written using the Sub Query Tutorial.

Athlete Country	Invoiced 2014	Invoiced 2013
Austria	$85,702	$1,728,832
Canada	$3,540,047	$6,280,807
Italy	$8,753,660	$6,470,020
Japan	$9,144	$1,498,443
Norway	$9,378	$5,569
Spain	$9,378	$104,206
United States	$115,297	$7,120,015

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