EXP.NO: 3	CREATE CALCULATIONS AND MEASURES WITH DAX	Name:
DATE:		Roll no:

AIM:

To perform necessary DAX measures to the given amazon book sale data and to visualize the data set given using Power BI tool.

PROCEDURE:

STEP 1: Load the given excel workbook into the Power BI window.

STEP 2: Then perform the necessary transformation actions.

1) Find the total books published based on highest rating and author.

PROCEDURE:

STEP 1: In the ribbon click on the transform data.

STEP 2: Then under the home tab select group by.

STEP 3: After it, select basics and the author column in the group by.

STEP 4: Name the new column as new_author1 and the select the operation as the count distinct rows then click on OK.

STEP 5: In the report view drag on the Table chart.

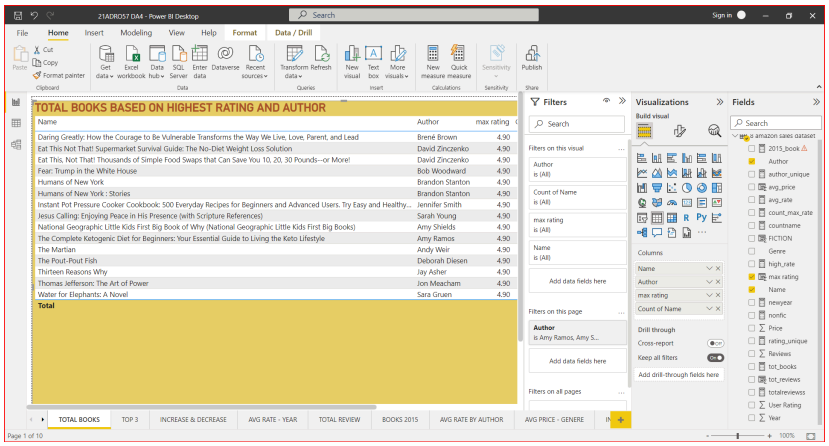
STEP 6: Y-axis as author and the X-axis as the new_author1.

STEP 7: Lastly find the maximum of ratings using DAX formula and add it in the tooltip.

DAX MEASURE:

Measure = MAX('8 amazon sales dataset (3)'[User Rating])

OUTPUT:



INFERENCE:

From the above visualization I infer those 24 books published on maximum rating.

2) Find the top three books based on rating.

PROCEDURE:

STEP 1: In the report view select a stacked column chart.

STEP 2: Then in the X-axis, drag the name.

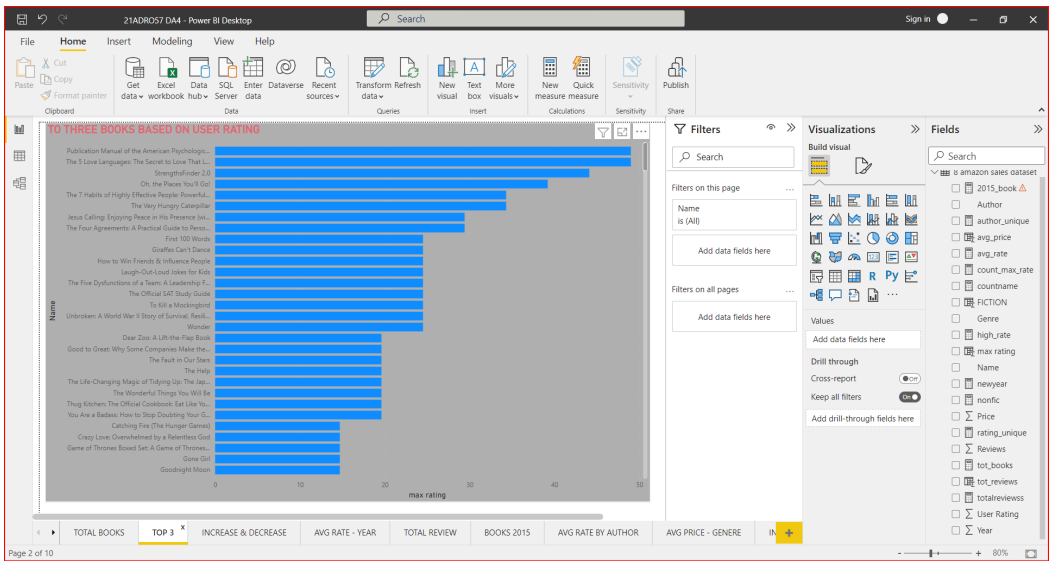
STEP 3: After it, drag user rating into the Y-axis.

STEP 4: Lastly create the measure with user rating and add it to the tooltips.

DAX MEASURE:

Measure = MAX('8 amazon sales dataset (3)'[User Rating])

OUTPUT:



INFERENCE:

From the above visualization I infer the top three books based on rating

1) The 5 Love Languages: The Secret to Love That Lasts
2) Publication Manual of the American Psychological Association, 6th Edition
3) Oh, the Places You'll Go!

3) Compare the increase/decrease in book price from 2009 to 2012 under each category.

PROCEDURE:

STEP 1: In the model view select a waterfall chart.

STEP 2: Then in the category drag genre.

STEP 3: Price to the Y-axis.

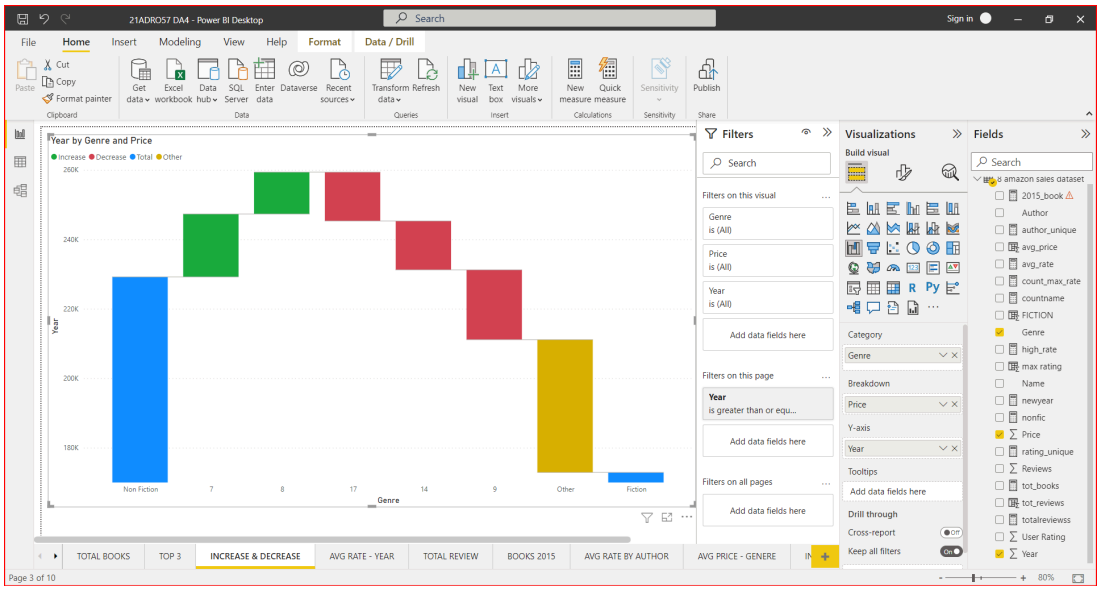
STEP 4: Then the DAX measure to breakdown

DAX MEASURE:

date for = DATE('8 amazon sales dataset (3)'[Year],12,12)

Measure 3 = DATESBETWEEN('8 amazon sales dataset (3)'[date_for],12-12-2009,12-12-2012)

OUTPUT:



INFERENCE:

From the above visualization the increase and decrease in the price of books from 2009 to 2012.

4) What is the average user rating in the year 2009 to 2013 for different genre category?

PROCEDURE:

STEP 1: In the report view select a clustered column chart.

STEP 2: Then in the X-axis, drag the genre.

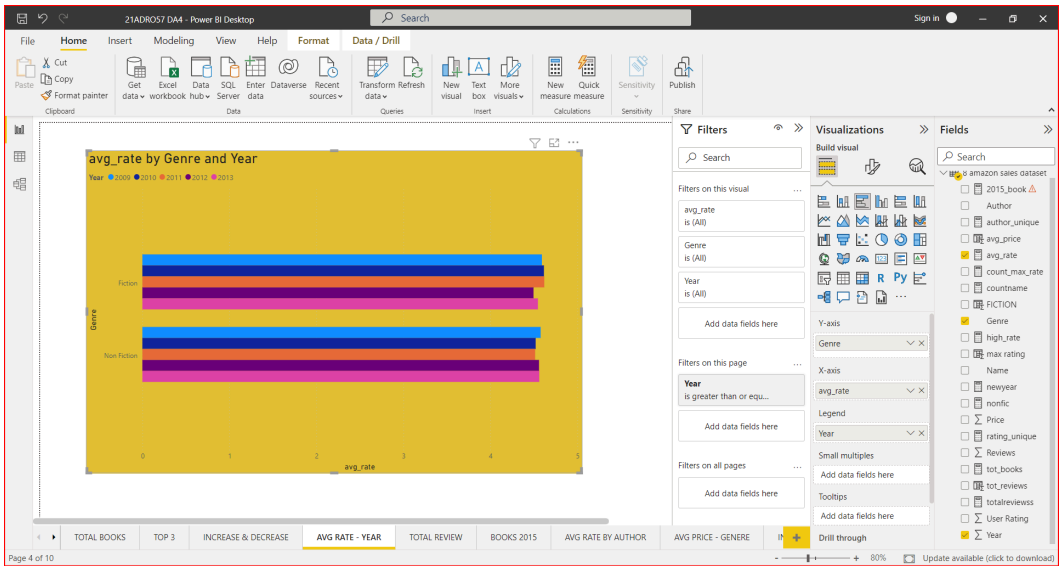
STEP 3: After it, drag user rating into the Y-axis and click on average.

STEP 4: Lastly drag the measure into the legend.

DAX MEASURE:

Measure 4 = DATESBETWEEN('8 amazon sales dataset (3)'[date_for],12-12-2009,12-12-2013)

OUTPUT:



INFERENCE:

Fiction books 2009 – 4.59, 2010 – 4.62, 2011 – 4.62, 2012 – 4.50, 2013 - 4.55

Non – fiction books 2009 – 4.58, 2010 – 4.52, 2011 – 4.51, 2012 – 4.51,2013 – 4.56

5) Compare the total reviews obtained by author for different genre category for the year 2011 to 2012.

PROCEDURE:

STEP 1: In the report view select a table chart.

STEP 2: Then in the Y-axis, drag the author.

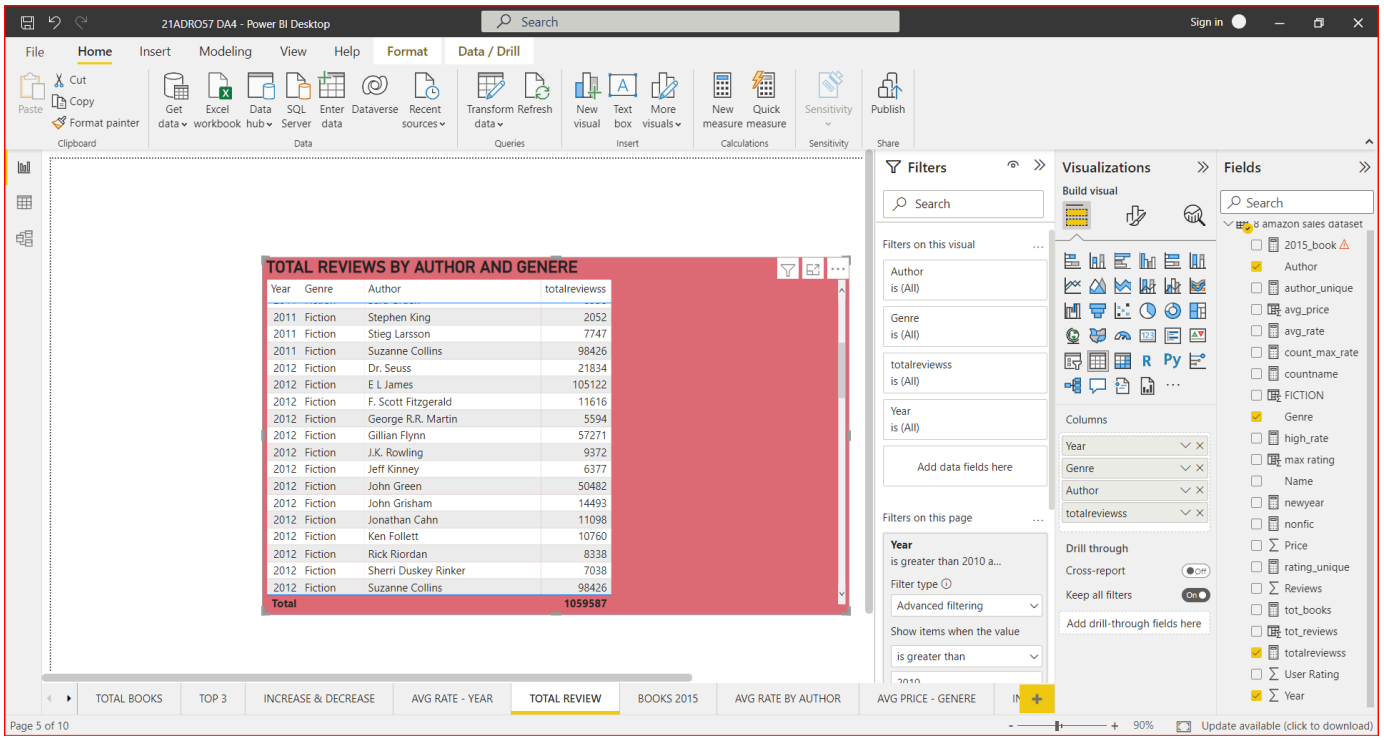
STEP 3: After it, drag reviews into the X-axis and measure to tooltips.

STEP 4: Lastly drag the genre into the legend.

DAX MEASURE:

Measure 5 = SUM('8 amazon sales dataset (3)'[Reviews])

OUTPUT:



INFERENCE:

Total reviews on different genre (fiction and non-fiction) = 1059587 (2011-2012)

6) How many books were published in the 2015 year that belongs to only Non-Fiction Category?

PROCEDURE:

STEP 1: In the report view select a table chart.

STEP 2: Then in name in value.

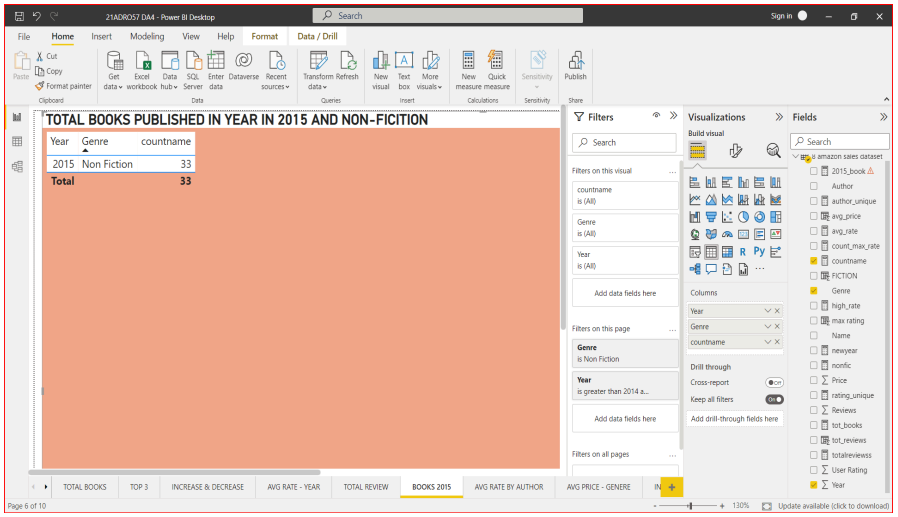
STEP 3: After it, drag genre in tooltips.

STEP 4: Add the measure

DAX MEASURE:

Measure 7 = FILTER('8 amazon sales dataset (3)',RELATED('8 amazon sales dataset (3)'[Year]="2015')))

OUTPUT:



INFERENCE:

Number of non-fiction book published in the year 2015 = 33.

7) Find the average user rating for top two authors in the year 2011 and visualize it using appropriate chart.

PROCEDURE:

STEP 1: In the report view select a column chart.

STEP 2: Then in author in legend.

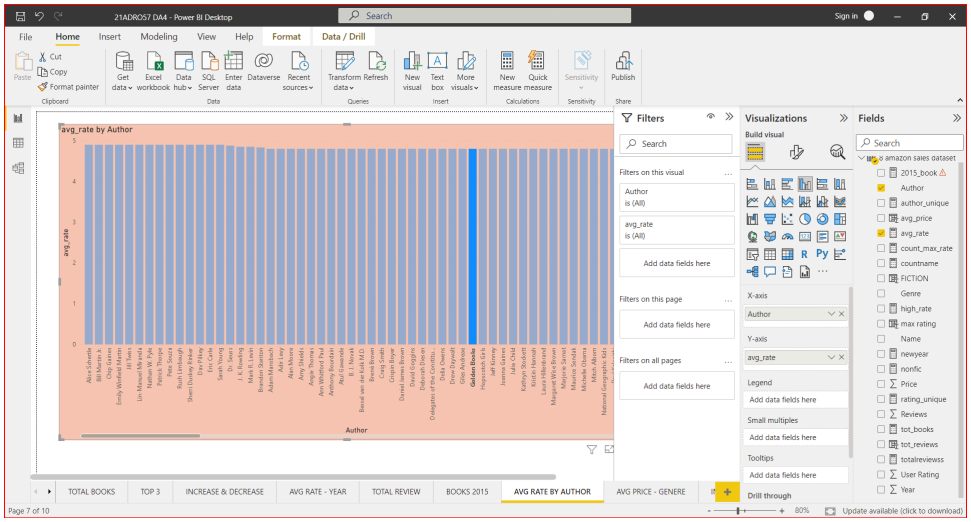
STEP 3: After it, drag measures in values.

STEP 4: Name in details

DAX MEASURE:

Measure 6 = AVERAGE('8 amazon sales dataset (3)'[Rating]

OUTPUT:



INFERENCE:

Thus, the average rating of each author is visualised using column chart.

8) Estimate the average price of the various book category

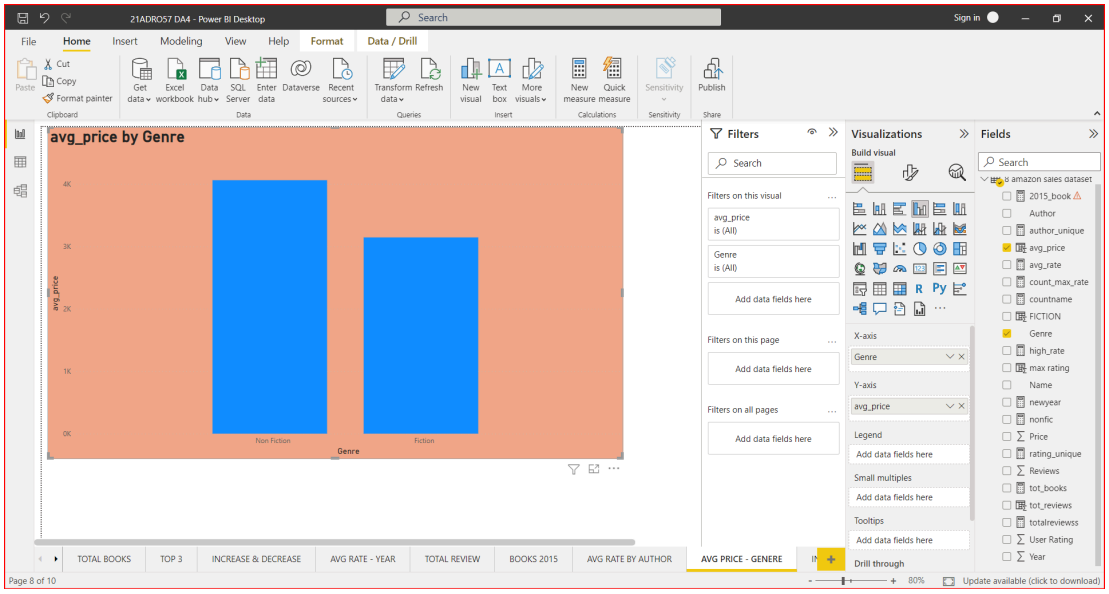
PROCEDURE:

STEP 1: In the report view select a column chart.
STEP 2: Then in author in legend.
STEP 3: After it, drag measures in values.
STEP 4: Name in details

DAX MEASURE:

```
Measure 6 = AVERAGE('8 amazon sales dataset (3)'[Price])
```

OUTPUT:



INFERENCE:

Thus, the average price of FICTION = 10.05

Thus, the average price of non-fiction = 14.84.

9) Compare the increase /decrease in user ratings from the top 5 authors of non-fiction books from the year 2010 to 2011.

PROCEDURE:

STEP 1: In the report view select a waterfall chart.

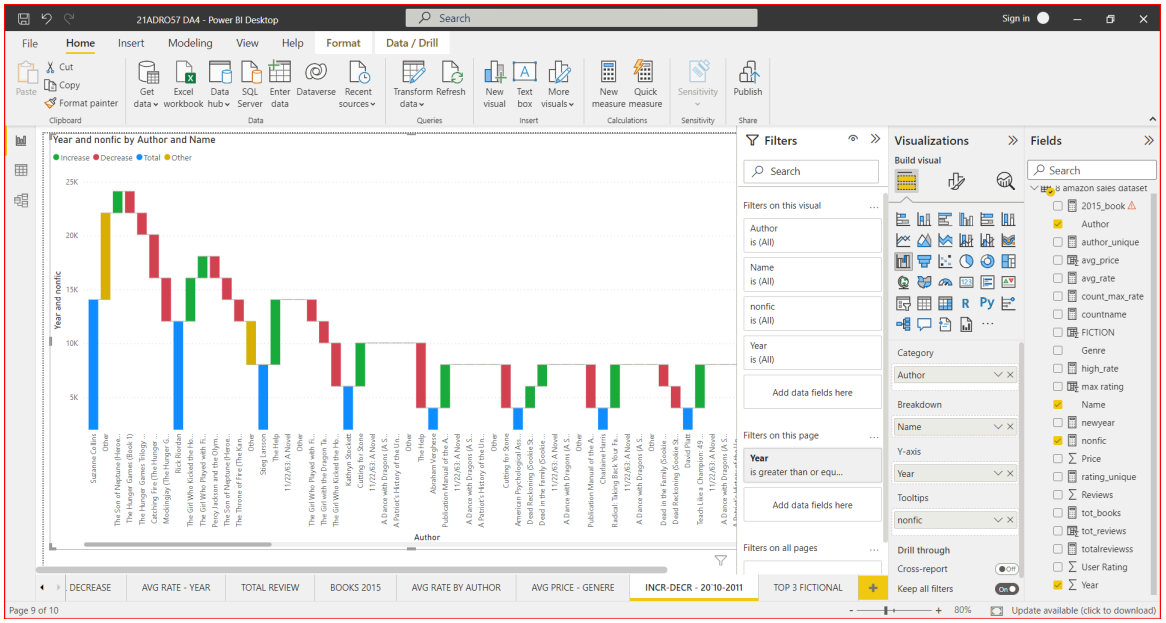
STEP 2: Then in the Y-axis, drag the name. Author in category

STEP 3: After it, drag measures.

DAX MEASURE:

Measure7 = DATESBETWEEN('8 amazon sales dataset (3)'[date_for],12-12-2010,12-12-2011)

OUTPUT:



10) Find the top three authors based on the price from their fiction books.

PROCEDURE:

STEP 1: In the report view select a stacked column chart.

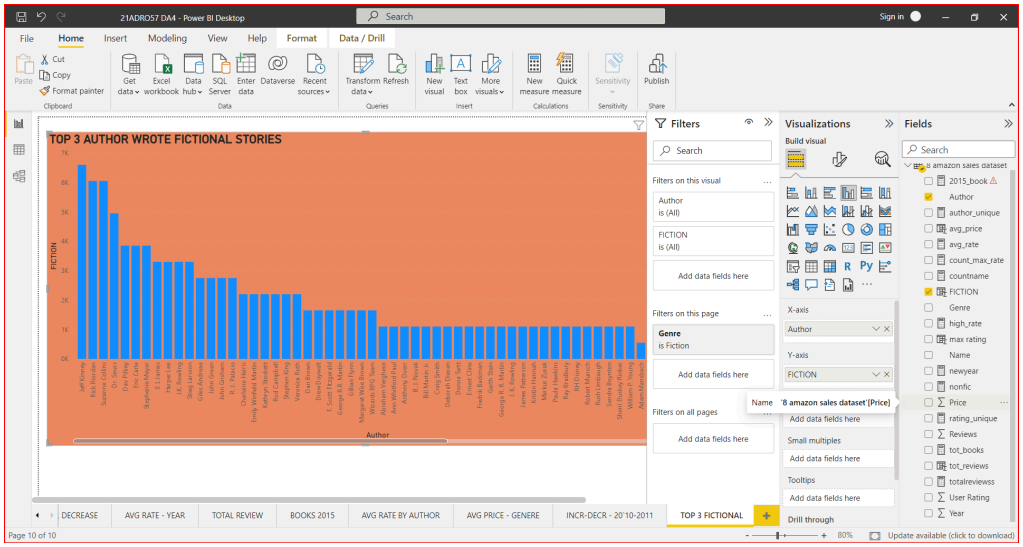
STEP 2: Then in the Y-axis, drag the author.

STEP 3: After it, drag genre into the X-axis and measure to tooltips.

DAX MEASURE:

measures = FILTERS('8 amazon sales dataset (3)'[Genre]="fiction")

OUTPUT:



INFERENCE:

Top three fiction authors

1)Jeff Kinney

2)Rick Riordan

3)Suzanne Collins

RESULT:

Hence the amazon data set is analysed using DAX measures and visualised using POWER BI successfully.

Marks given		**Marks obtained**
COE	**25**	
RECORD	**15**	
VIVA	**10**	
TOTAL	**50**	