



USR PROGRAM PRE-POST REPORTING DASHBOARD DEVELOPMENT MANUAL

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DESCRIPTION OF GOOGLE DATA STUDIO

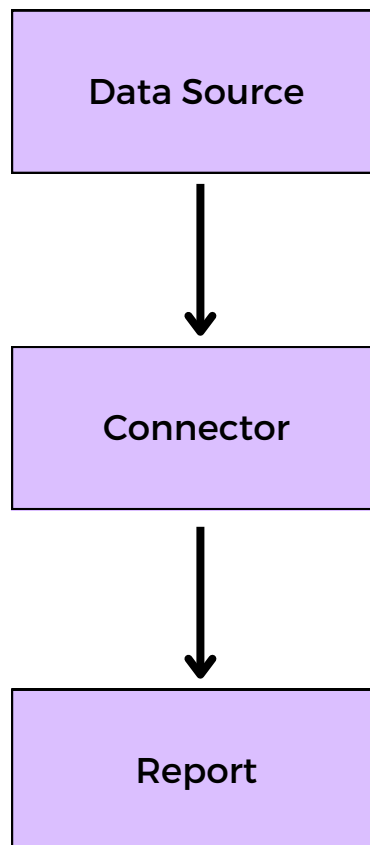
WHAT IS GOOGLE DATA STUDIO ?

A reporting tool that turns data into informative and easy-to-read dashboards.

BENEFITS OF GOOGLE DATA STUDIO

- Making reports easier to create and understand.
- Has many different data visualization options
- Reports that are easy to share without needing access to specific data sources.
- Connection to Multiple Data Sources. Such as (Google Ads, Google Analytics, Google Search Console, Sheets, etc.)

How GDS works ?



Dashboard Analogy

As you know, the dashboard on the car identifies and provides feedback on the status of the vehicle: speed, needs, service, tire pressure, fuel level, and so on. Meanwhile, the dashboard on Google Data Studio identifies and gives feedback on connected data.

What is Dashboard

- A modern visualization tool that displays specific analysis metrics on a single display (screen).
- Examples of metrics include key performance indicators (KPIs) that are important for an organization, department, unit.
- Through the analytics dashboard, all analysis results can be displayed through the construction of easy-to-understand visualizations and can share information with others.

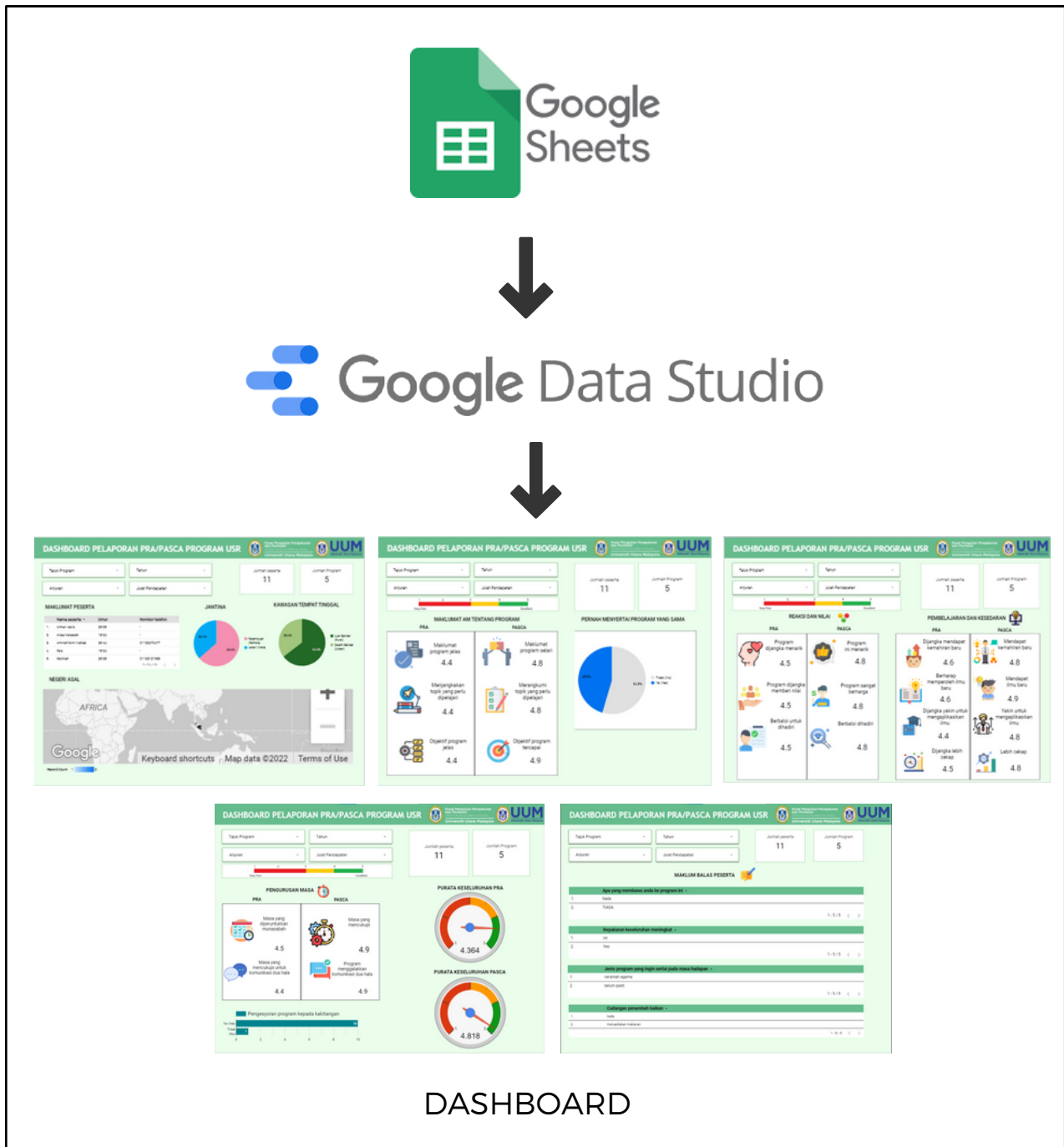
Quality dashboard features

- Have specific goals
- Using the correct chart/graph or element.
- Update automatically
- Shows the relationship between elements

DASHBOARD DEVELOPMENT : PROGRAM FEEDBACK

Dashboard development guidelines- Hands-On

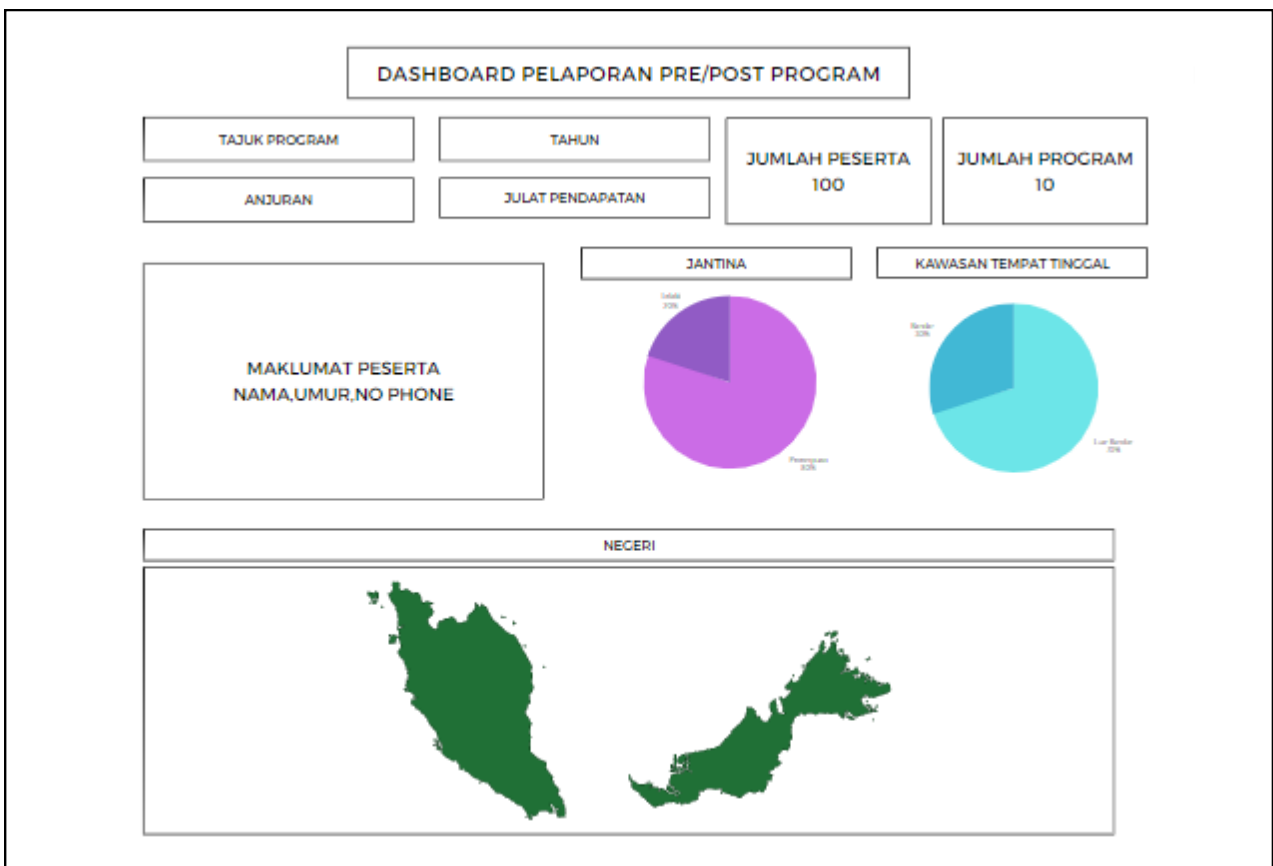
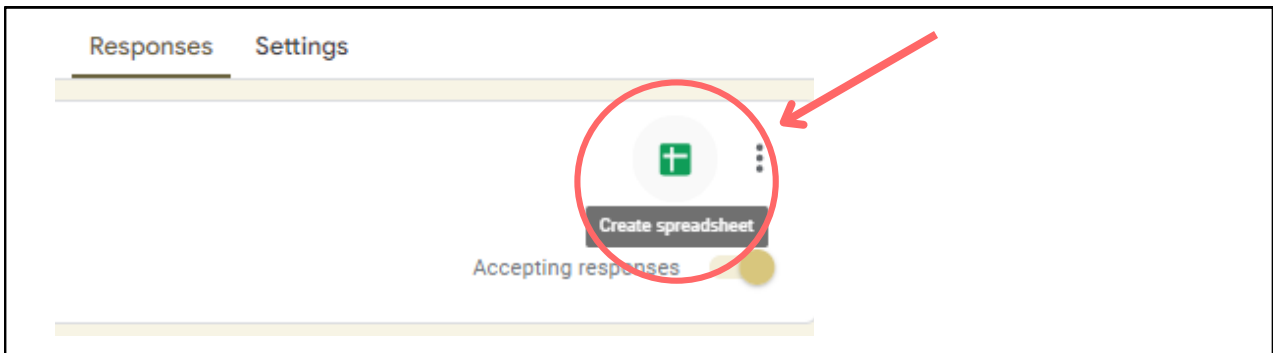
Here are some guidelines or steps that need to be taken to develop the USR Pre-Post Program Reporting Dashboard. For this dashboard we need data from Google Sheet. Google Sheet will be used as a Google Data Studio connector.



PAGE 1 : MAIN DASHBOARD

Step 1: Make a data set (questionnaire) as a Google Sheets & dashboard mock up

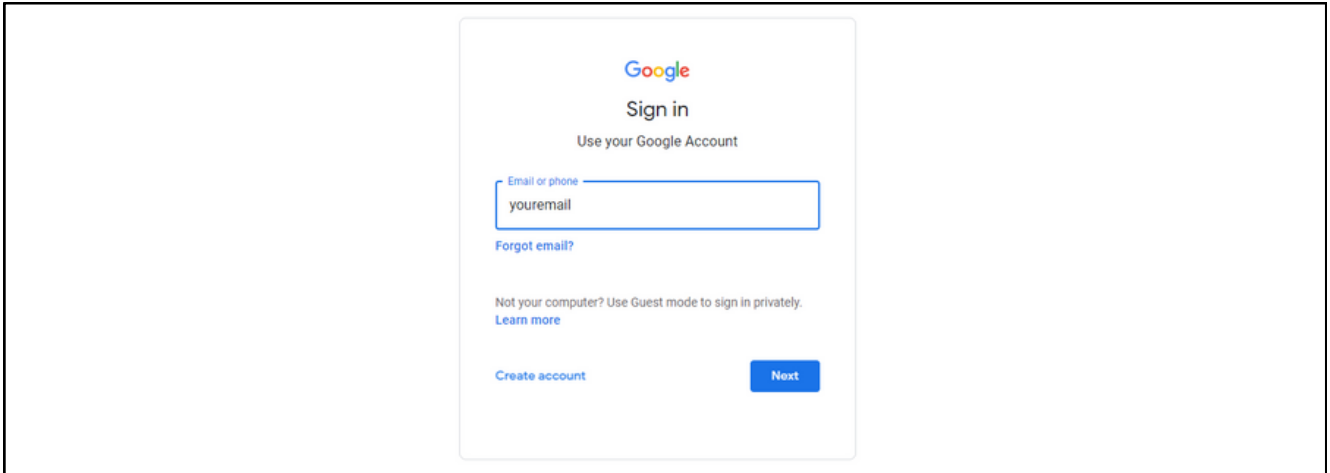
Before developing a dashboard in Google Data Studio, make sure the set of data and dashboard mock up are available. Open your questionnaire and go to the responses section and press "create spreadsheet"



Step 2: Sign in/Login Google Data studio and create a blank report

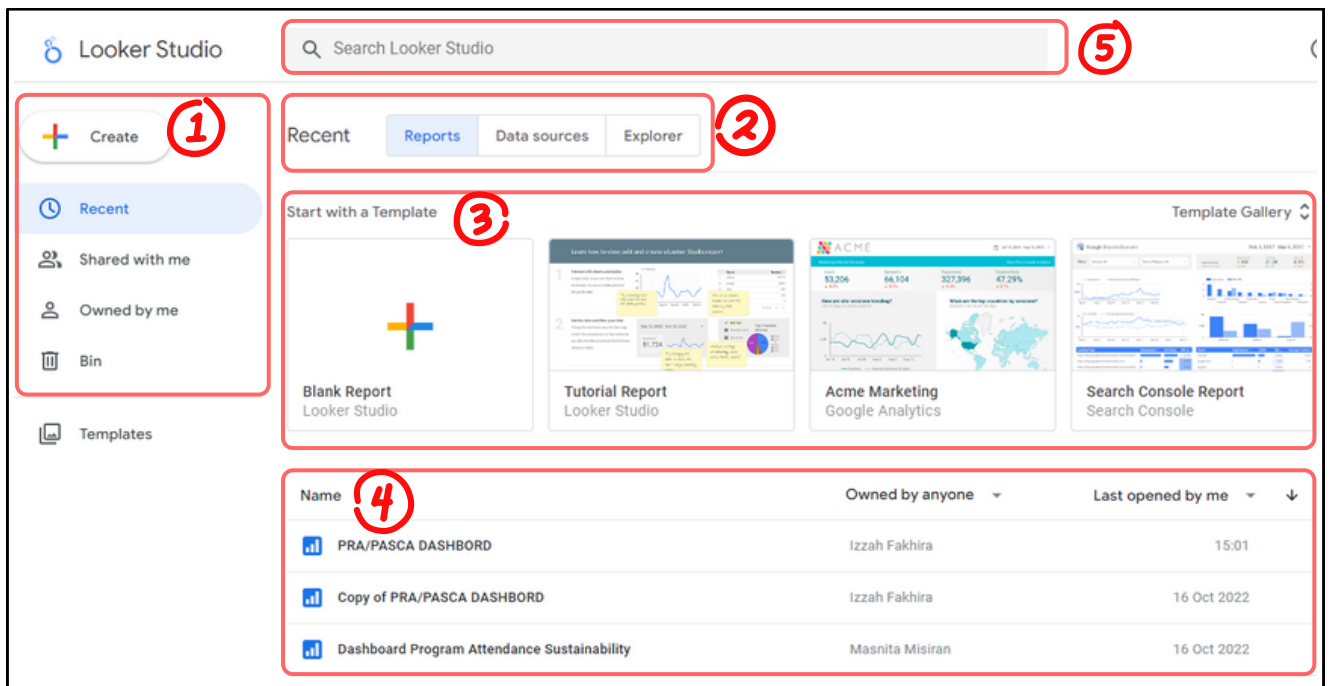
Sign in

Visit datastudio.google.com and log in to Data Studio. To log in to Data Studio you need a Google account.



Create blank report

After successfully registering or logging in you will see the main screen of Google Data Studio as follows.

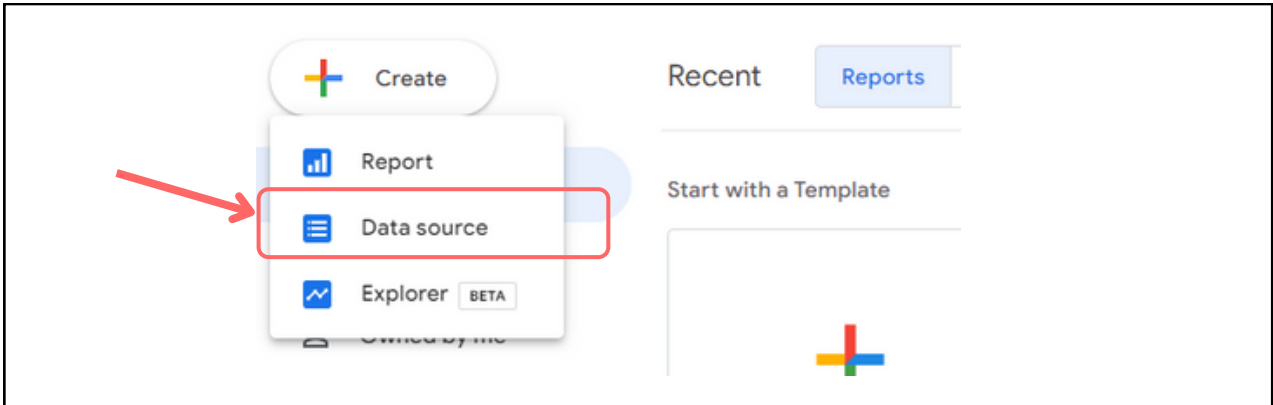


Main Page Google Data Studio

On the main page of Data Studio, there is:

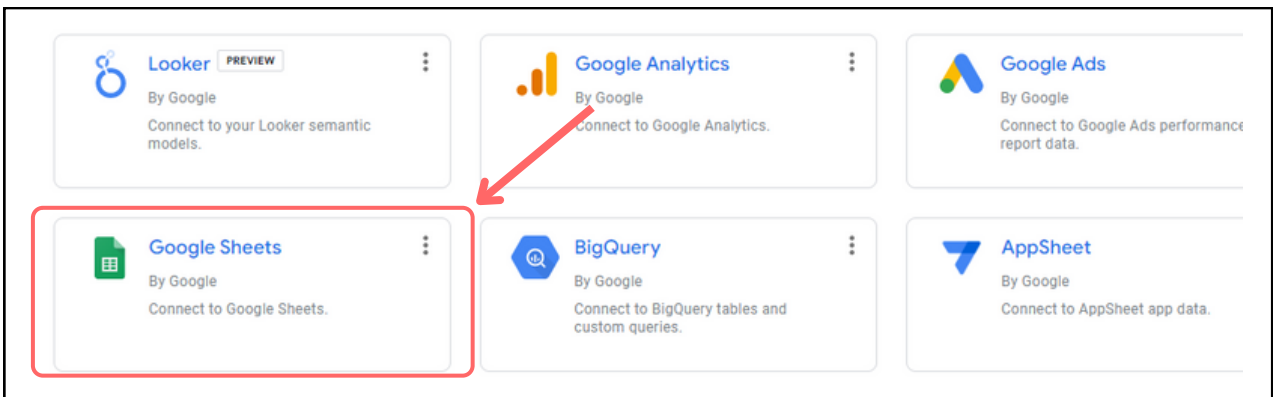
1 (Create a new report and filter the report list to show the latest report, which you own, which is shared with you and the report in the trash.) 2 (Toolbar menu) 3 (Report sample and template) 4 (Report list) 5 (Search. Find reports quickly)

Click on the "Create" button then select "Data Source" for the blank report template.

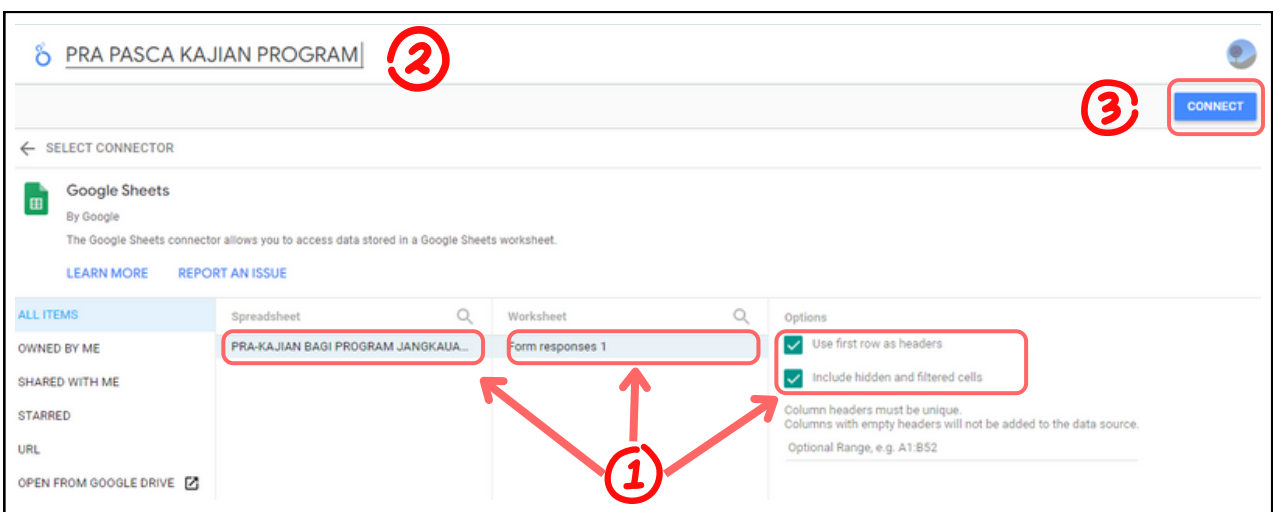


Step 3 : Connect your data to Data Studio via Google Sheets

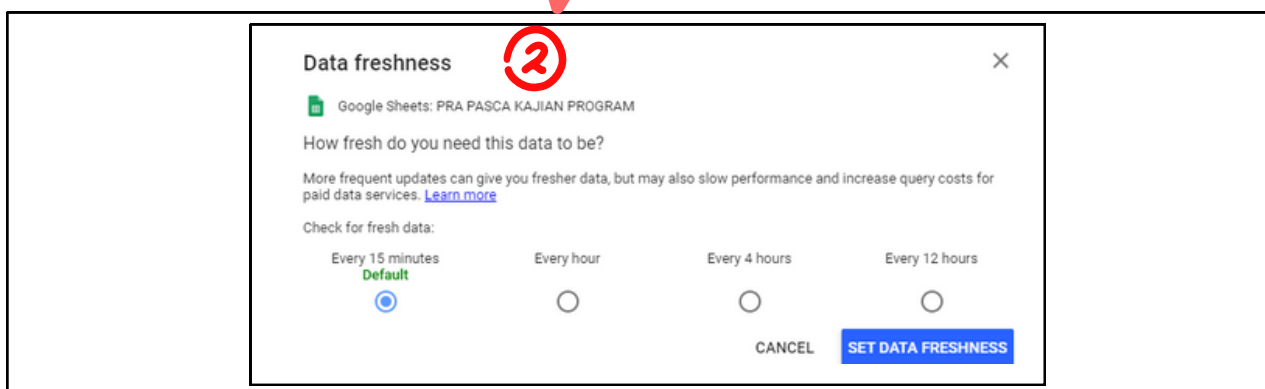
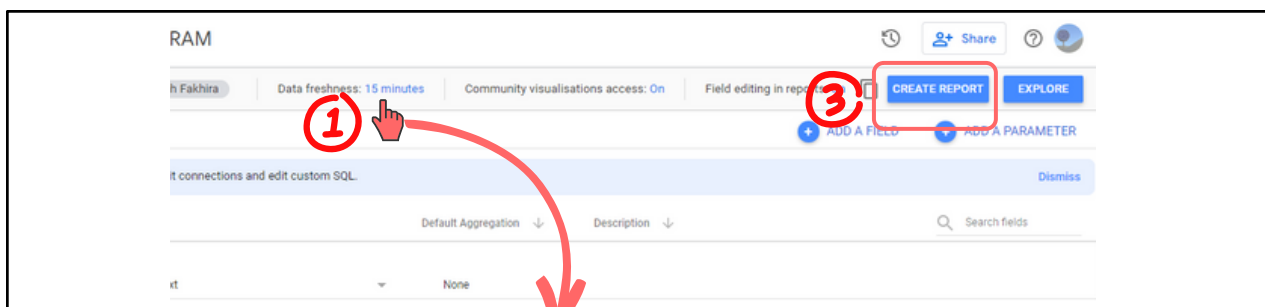
Here you will see various connectors to be connected and become a Data Studio report. For this dashboard we will use the Google Sheets connector only. So search for Google Sheets and click on Google Sheets.



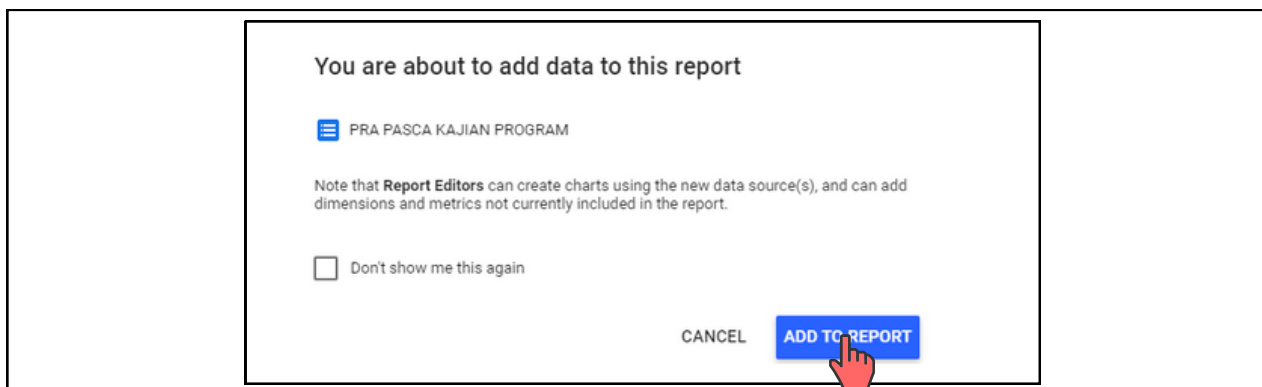
After selecting Google Sheets, select your data in 'Spreadsheet', 'worksheet', 'options' that you want to use to make a report. Name the dashboard "PRA POST PROGRAM STUDY" . When finished, click the "CONNECT" button on the top right.



When the connection is successful, the 'fields' in the 'data source' section will be visible. There is a 'Data freshness' section, you need to select a time range for the data to update automatically on our dashboard if there are any changes or additions to our data in Google Sheets. Next, click 'CREATE REPORT'.

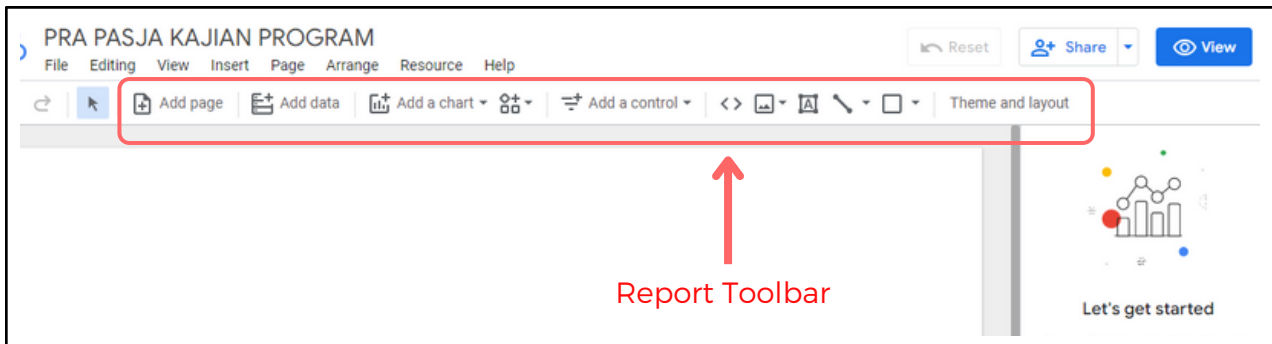
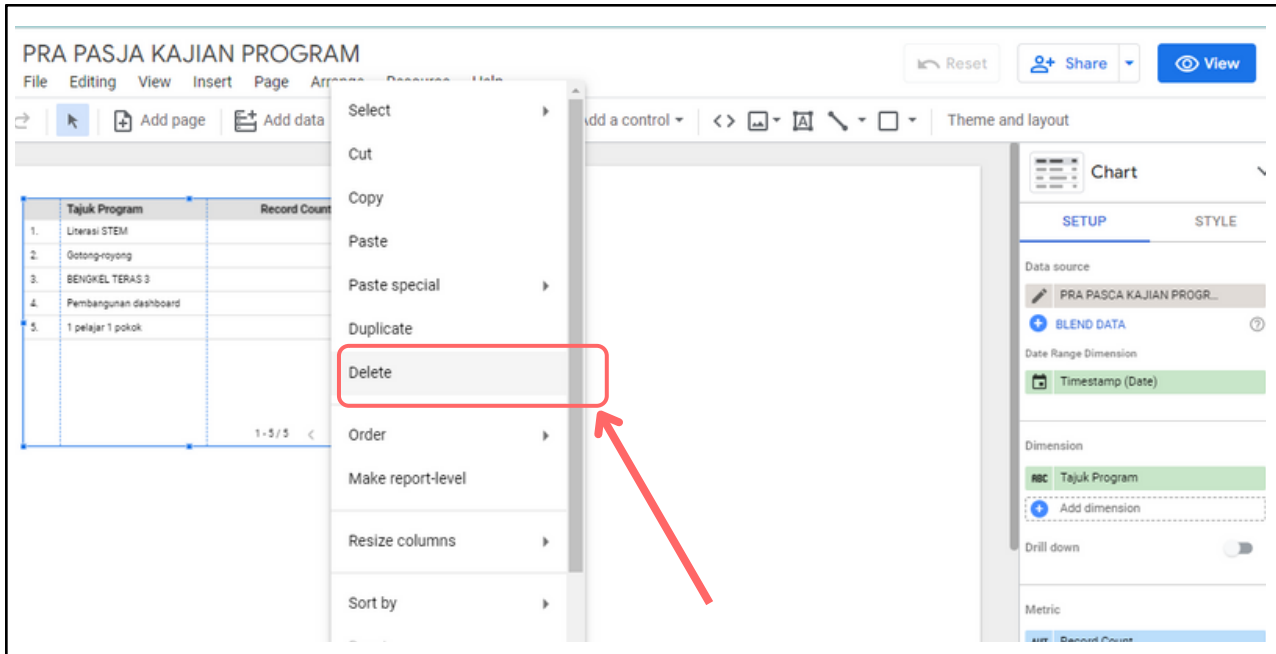


After you click the 'CREATE REPORT' button, Data Studio will ask as below to confirm your action. Confirm by clicking on the 'ADD TO REPORT' button.

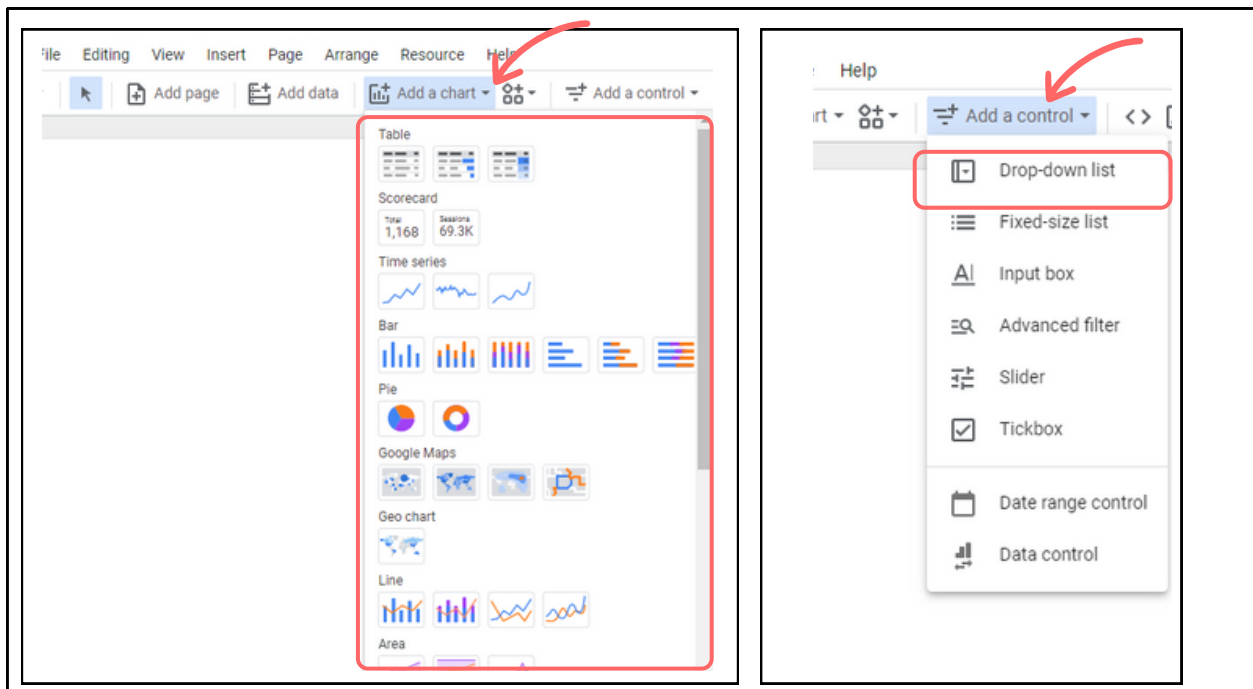


Step 4 : Add Elements to the Dashboard

After completing the data source setup, we will add elements to our dashboard. The table that comes out is automatic. You can delete the 'table' by right-clicking on the 'table' and selecting 'Delete' on the menu or more quickly press the 'Delete' button on your keyboard.

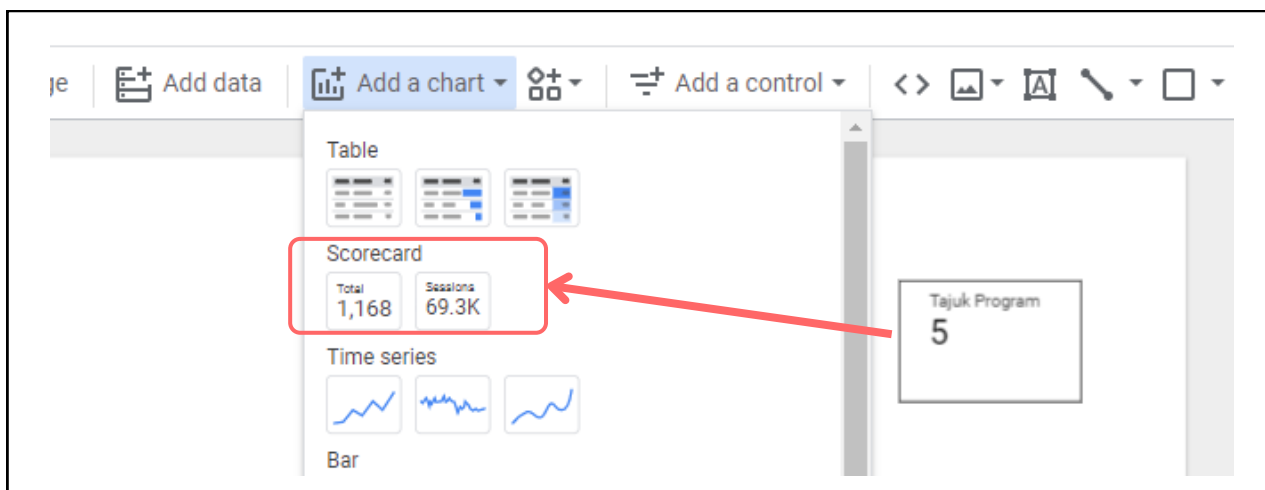


PRE-POST PROGRAM STUDY Dashboard using six elements namely 'Pie Chart', 'Table', 'Scorecard', 'Geo Maps', 'Filled Maps' and 'Gauge'. For the 'Add a control' function, only use the Drop-down list.

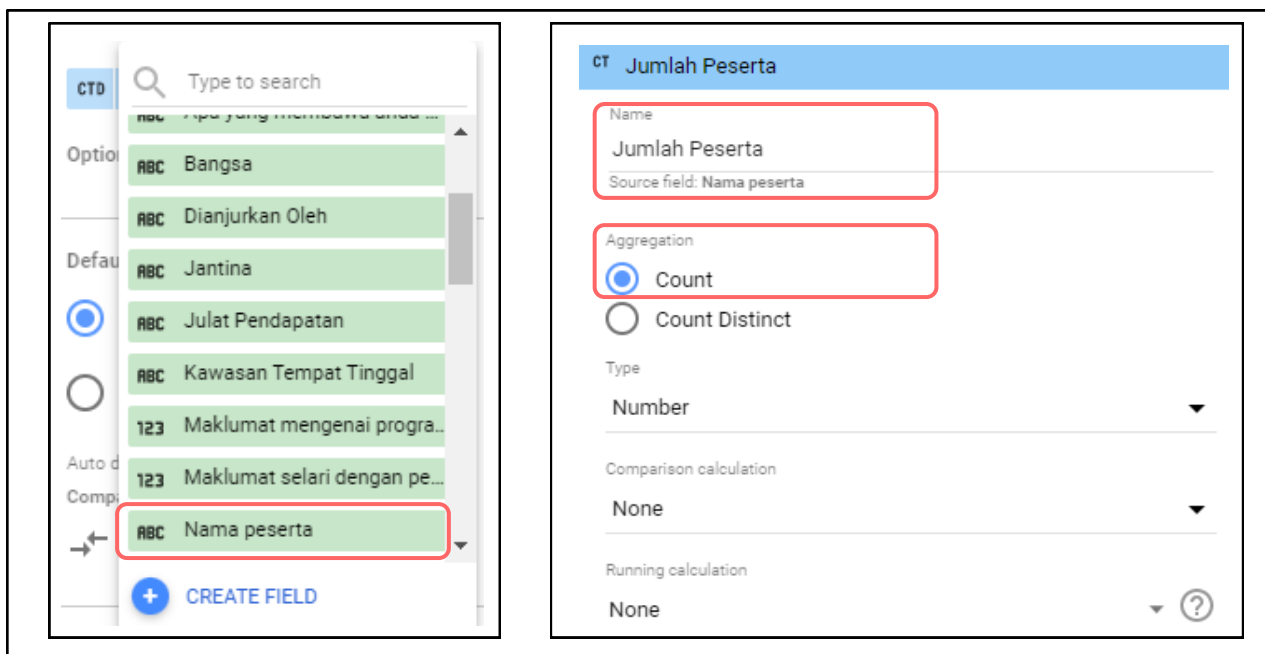
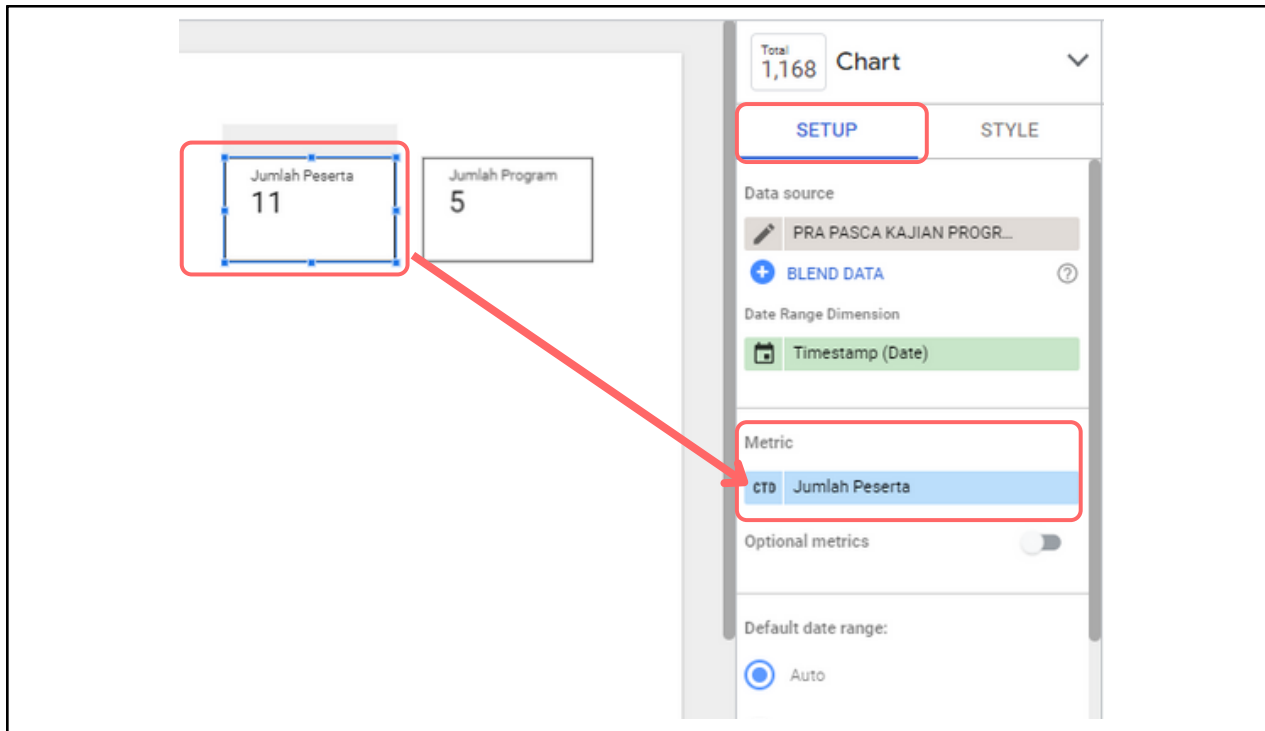


(i) Scorecard

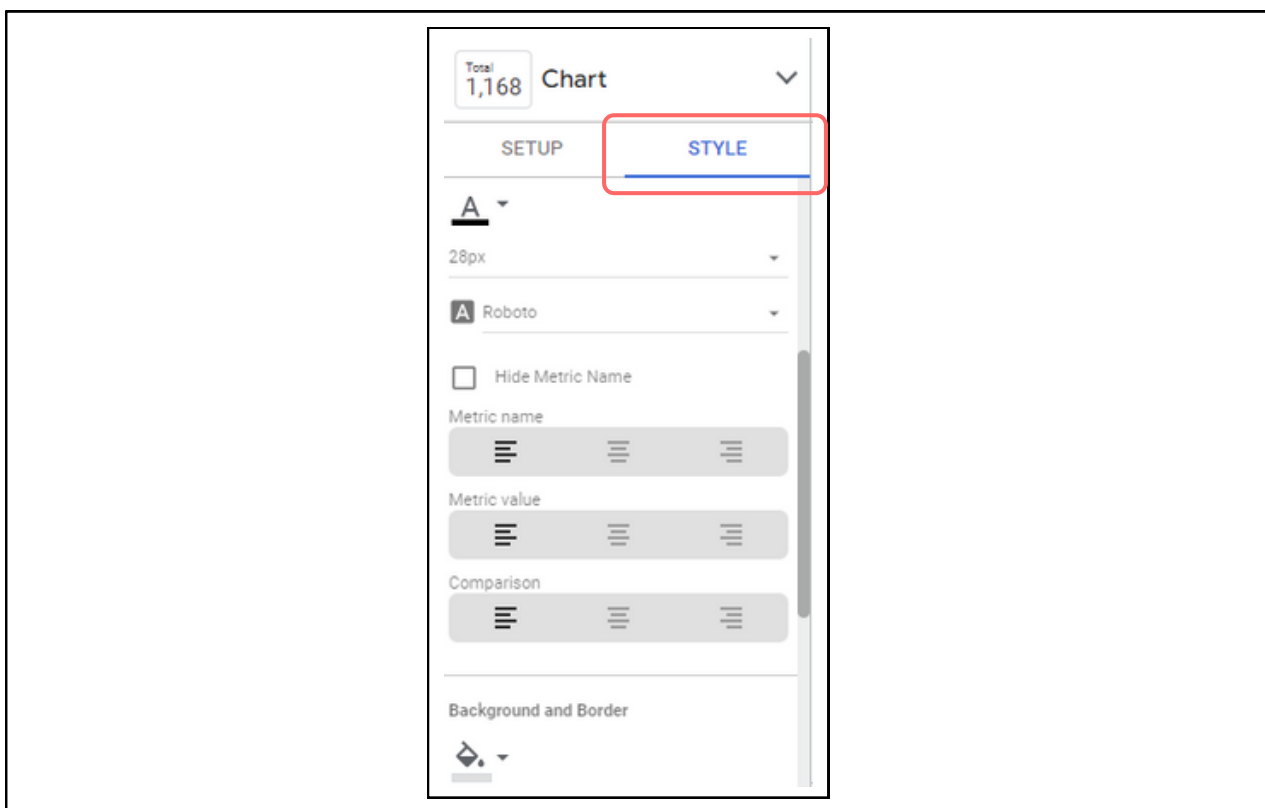
The first element that will be included in the dashboard is the scorecard. The scorecard is used to see the 'Number of participants' and the 'Number of Programs' involved.



On the right of the screen, there are two tabs - 'SETUP' and 'STYLE'. On the Data tab, you will see where this element gets its data source. In the 'Metric' section, select Variable (Name) to find out the number of participants. Then, click on the text 'CTD' to change 'Nama Peserta' to 'Jumlah Peserta'. Repeat the same steps for the scorecard 'Tajuk Program' to 'Jumlah Program' as below.

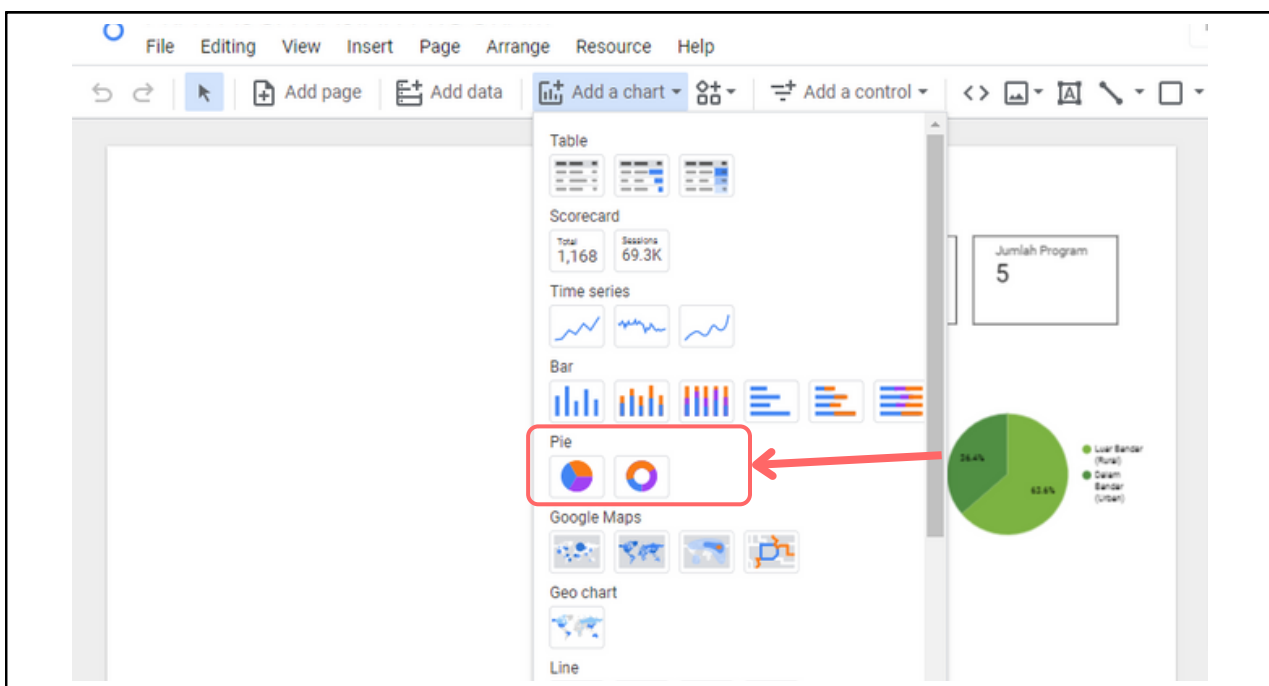


On the style tab below, you can make a choice for your preferred format. You can change the color, text, size, background, border and so on according to your wishes.

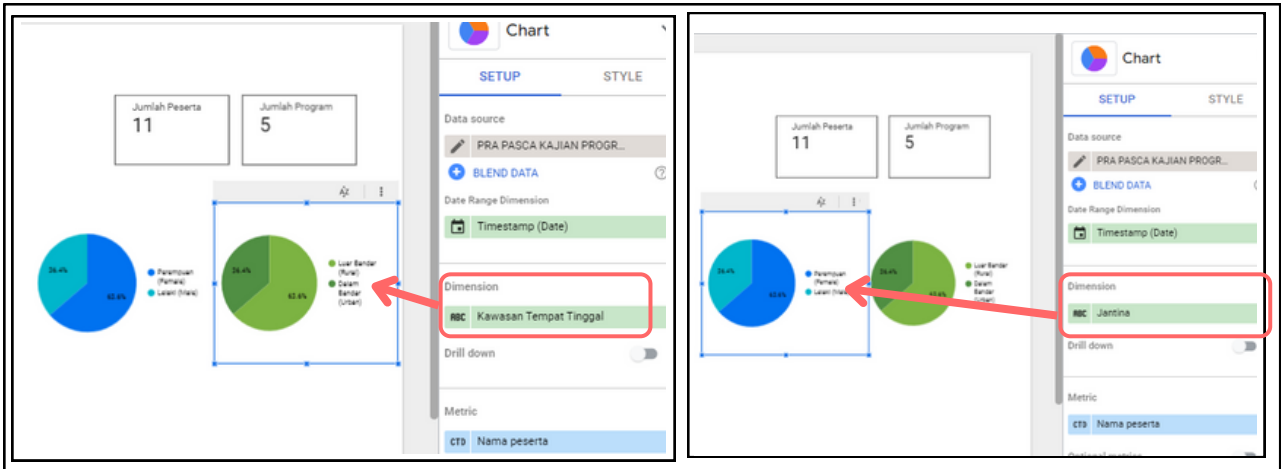


(ii) Pie Charts

Insert a pie chart to see the demographics of respondents in relation to 'Jantina' and 'Kawasan Tempat Tinggal'. Select the pie chart element from the menu, then place it in the free area below the scorecard element.

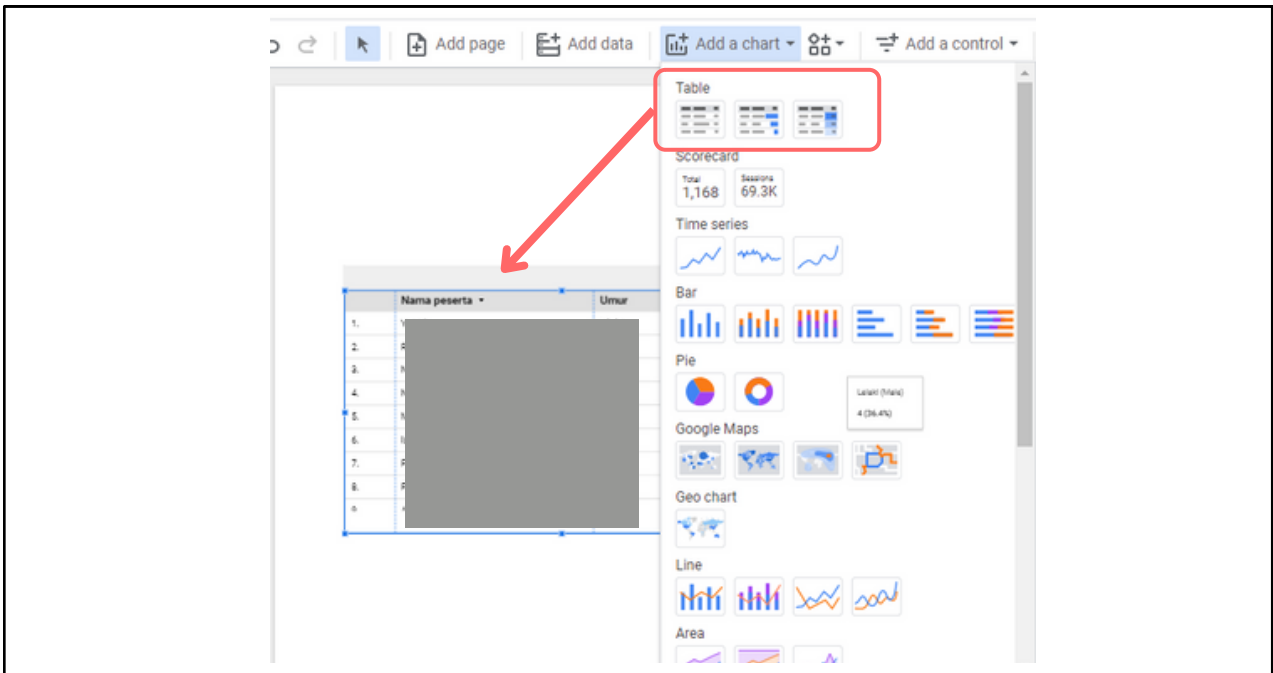


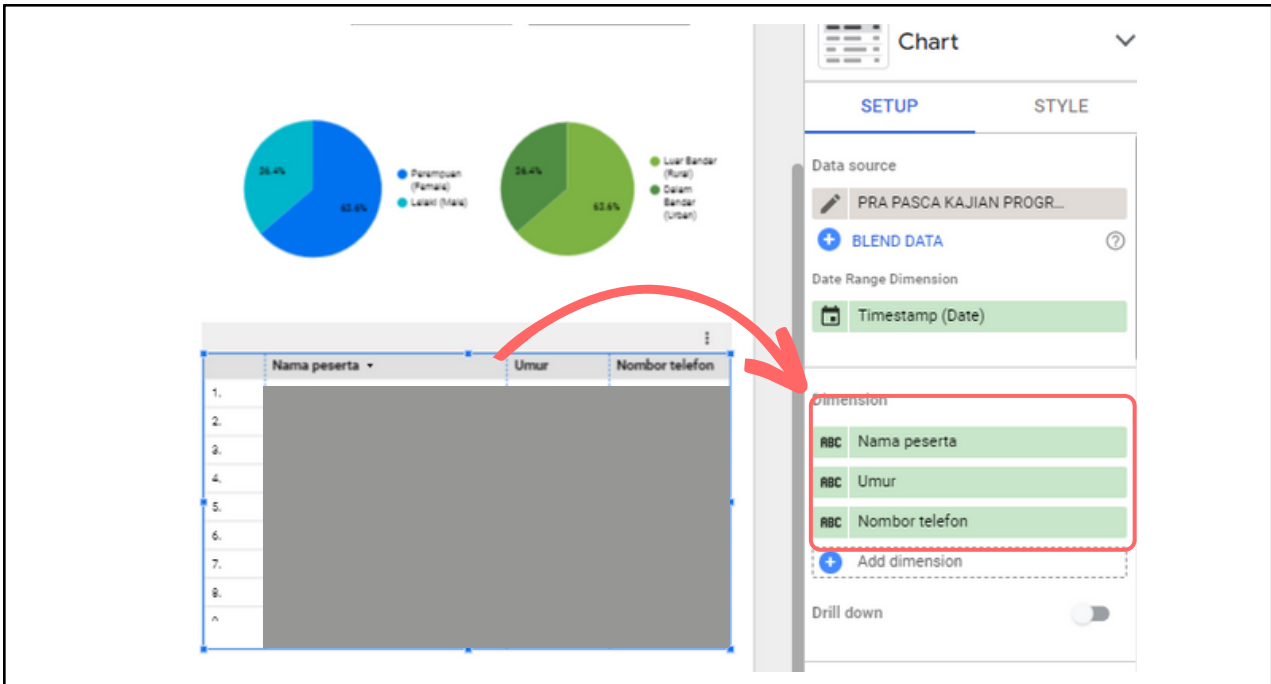
Insert a pie chart to see the demographics of respondents in relation to 'Jantina' and 'Kawasan Tempat Tinggal'. Select the pie chart element from the menu, then place it in the free area below the scorecard element.



(iii) Table

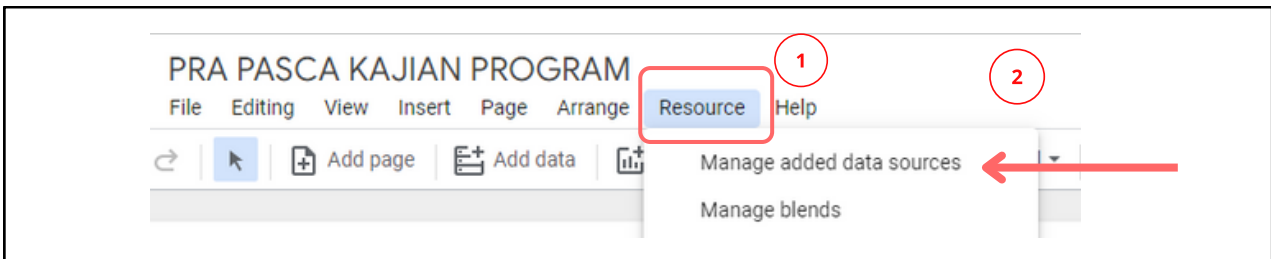
Select the table on the menu then select the variable that you want to show in the form of the table as below. To add a variable, click on 'Add dimension' then enter the variables 'Nama Peserta', 'Umur', 'Nombor Telefon'.





(iv) Geo Maps

Set the variable to 'Geo' first. The variable that will be used as geo maps is 'State of origin'. For map settings you can follow the steps below or refer to the youtube link: <https://youtu.be/y1usHXR0D50>



Data sources							CLOSE	
Name	Connector type	Type	Used in report	Status	3	Actions	Alias	
PRA PASCA KAJIAN PROGRAM	Google Sheets	Reusable	5 charts	Working	EDIT	DUPLICATE	REMOVE	ds0
+ ADD A DATA SOURCE								

PRA PASCA KAJIAN PROGRAM

File Editing View Insert Page Arrange Resource Help

← PRA PASCA KAJIAN PROGRAM Data credentials: Izzah Fakhira Data freshness: 15 minutes Community visualisations access: On Field editing in reports: On FINISHED

← EDIT CONNECTION | FILTER BY EMAIL + ADD A FIELD + ADD A PARAMETER

Data source editors can now refresh fields, edit connections and edit custom SQL. Dismiss

Field	Type	Default Aggregation	Description
Maklumat mengenai prog...	123 Number		
Maklumat selari dengan p...	123 Number		
Nama peserta	RBC Text		
Nama peserta 2			
Negeri Asal	123 Numeric		Continent
Nombor telefon	RBC Text		Subcontinent
Objektif program ditakrif...	Date and Time		Country
Pernahkah anda menyert...	Boolean		Country subdivision (1st level)
Saya harap saya akan me...	Geo		Country subdivision (2nd level)
Saya menjangkakan kand...	123 Currency		Designated market area
	URL		City
			Postcode
			Address
			Latitude, Longitude

REFRESH FIELDS 32 / 32 Fields

i You're changing Negeri Asal from Text to City. **6**

If you're sure that you want to make this change, click CONTINUE.

CANCEL CONTINUE

cess: On | Field editing in reports: On FINISHED **7**

+ ADD A FIELD + ADD A PARAMETER

Dismiss

PRA PASCA KAJIAN PROGRAM

File Editing View Insert Page Arrange Resource Help

Reset Share View

Add page Add data Add a chart Add a control Theme and layout

Table

Scorecard

Time series

Bar

Pie

Google Maps

Geo chart

Line

Chart

SETUP STYLE

Data source

PRA PASCA KAJIAN PROGR...

Date Range Dimension

Timestamp (Date)

Fields

Location

Negeri Asal

Tooltip

Add dimension

Colour metric

Data

PRA PASCA KAJIAN PROGRAM

Apa yang membawa anda ke progr...

Bangsa

Dianjurkan Oleh

Jantina

Julat Pendapatan

Kawasan Tempat Tinggal

Maklumat mengenai program ini di...

Maklumat selari dengan penyamp...

Nama peserta

Nama peserta 2

Negeri Asal

Nombor telefon

Objektif program ditakrifkan deng...

Pematahah anda menyertai progra...

Nama peserta • Umur Nombor telefon

1.

2.

3.

4.

5.

6.

7.

8.

9.

10.

Chart

SETUP STYLE

Timestamp (Date)

Fields

Location

Negeri Asal

Tooltip

Add dimension

Colour metric

AUT Record Count

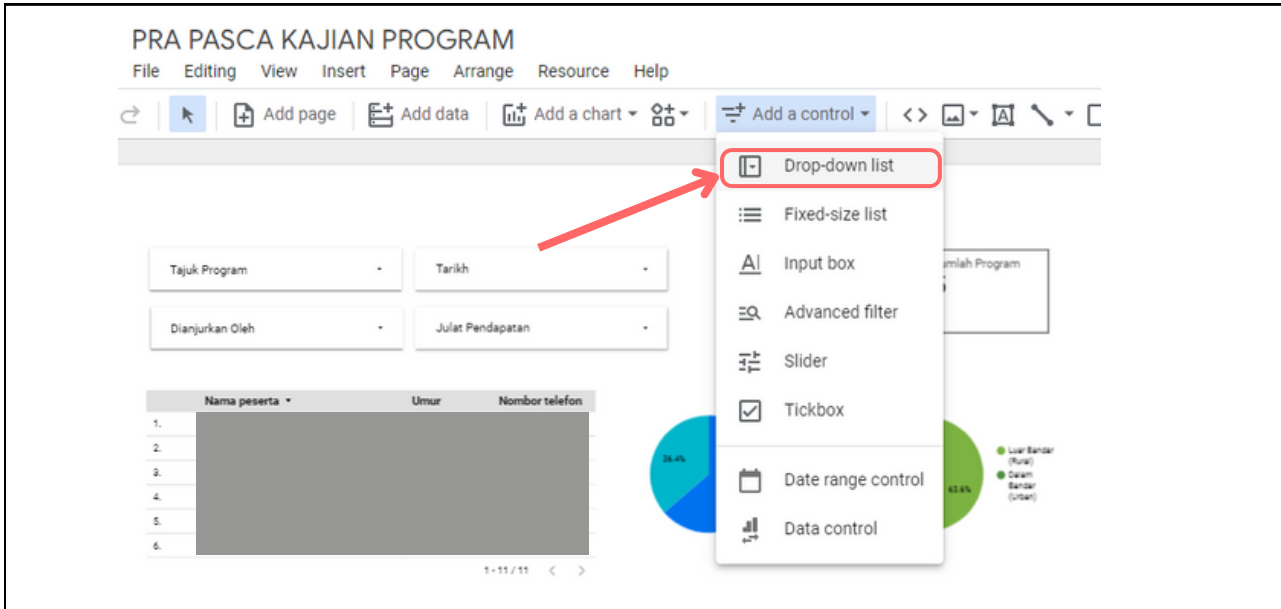
Default date range:

Auto

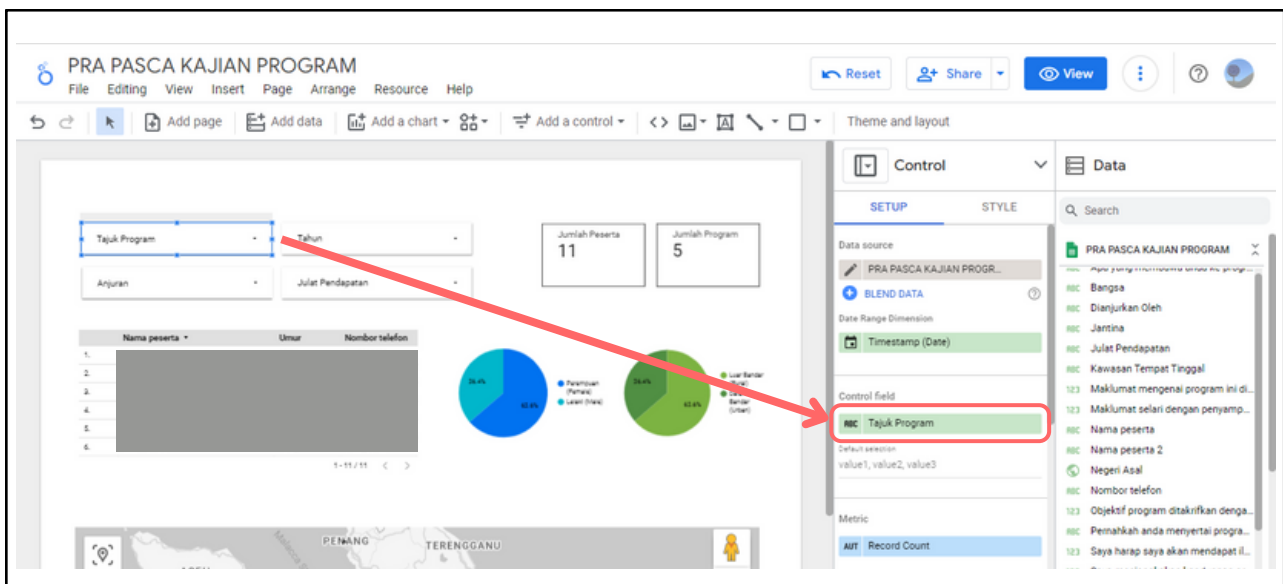
Custom

(vi) Drop-down list

Select the drop-down list in the 'Add a control' menu to enter the following variables: Program Title, Year, Organization and Income Range.



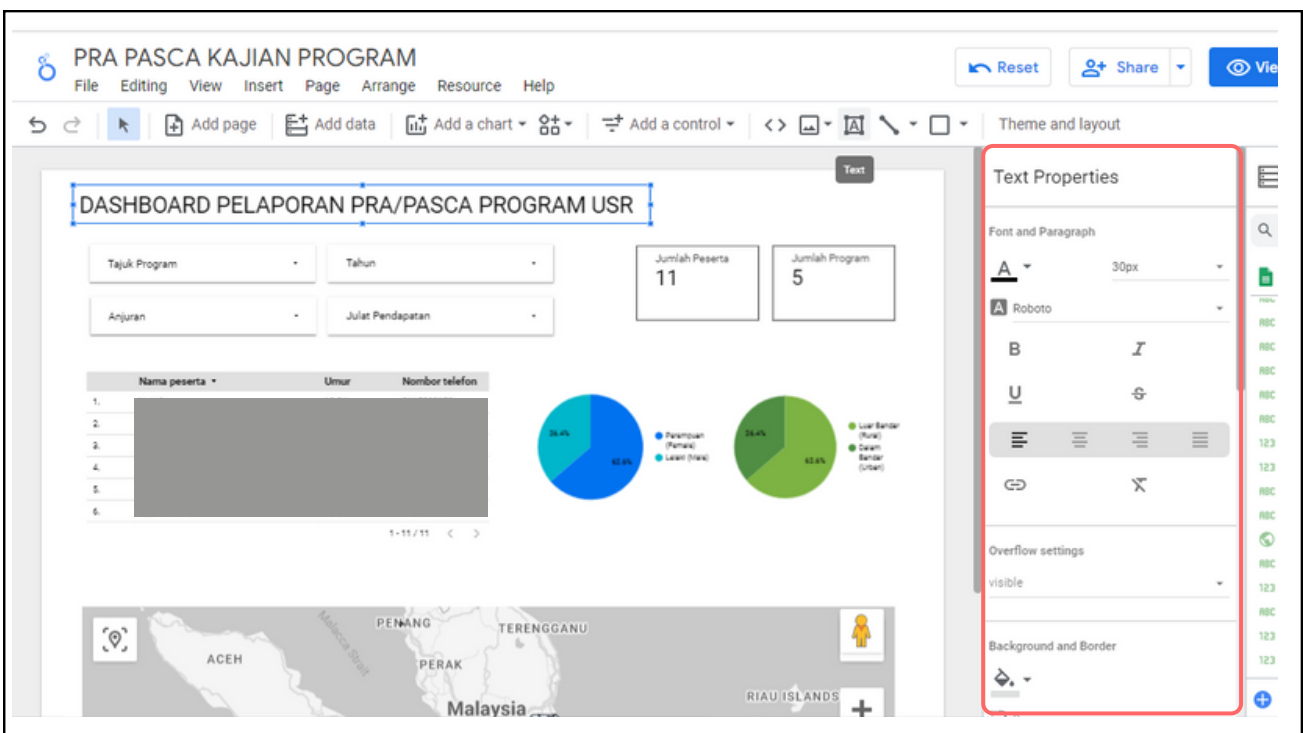
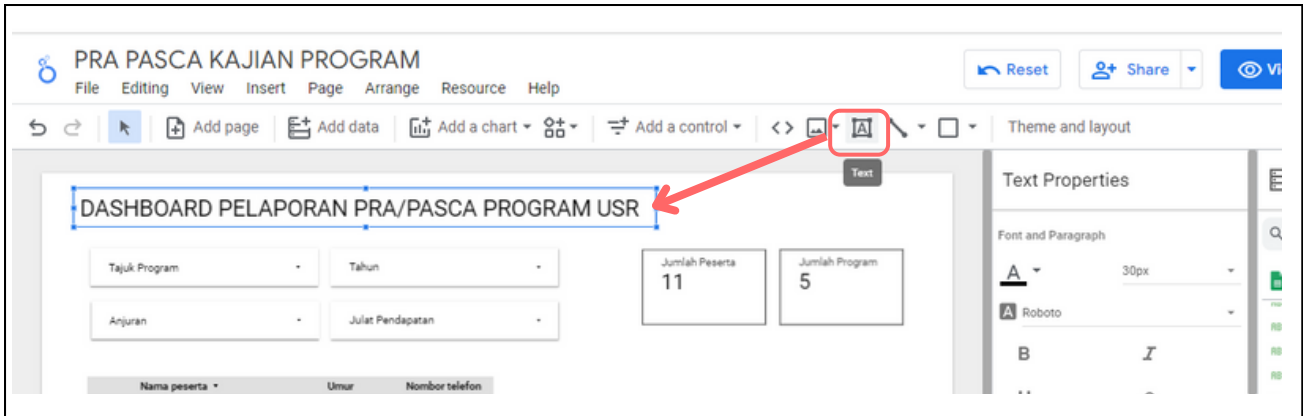
Make sure you select the correct variable for each drop-down list element in the 'control field' section.



Step 5 : Add text and pictures

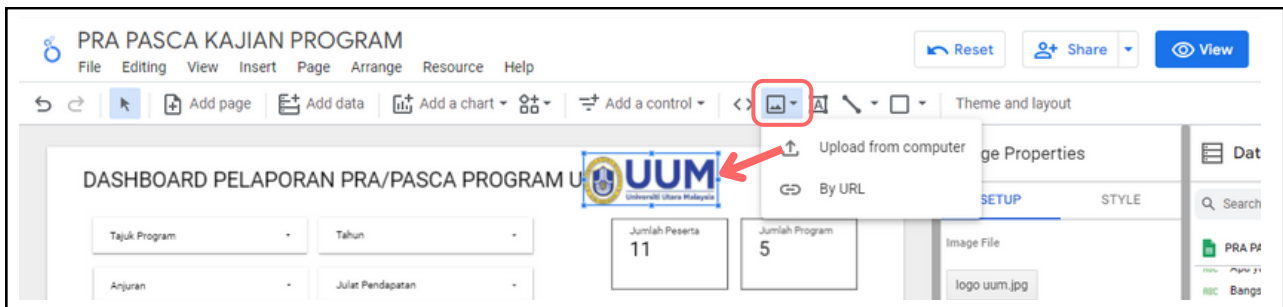
(i) Text

Select the drop-down list in the 'Add a control' menu to enter the following variables: Program Title, Year, Organization and Income Range.

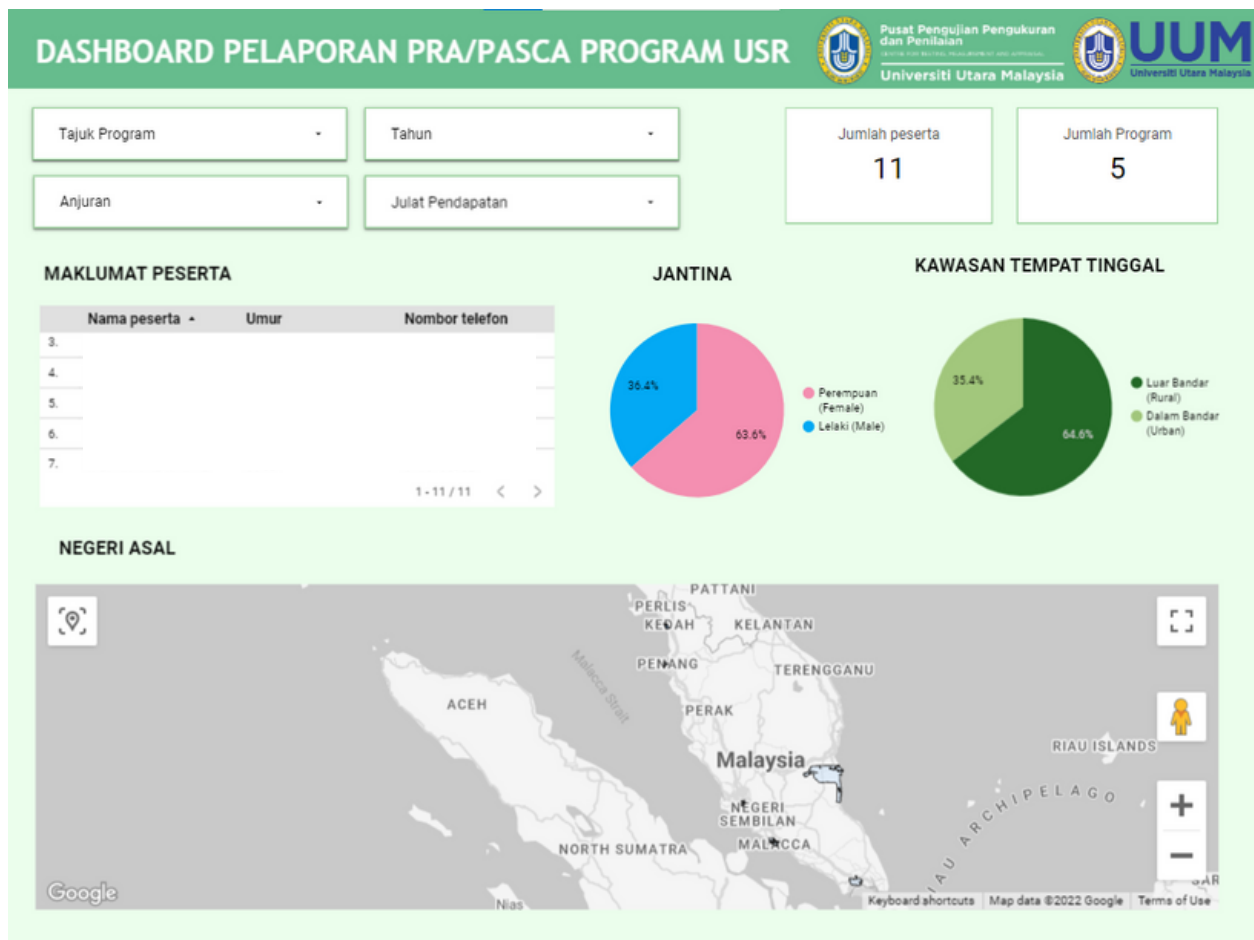


(i) Picture

To insert a picture, just click on the menu with the photo logo and select 'upload from computer'.



The main dashboard has been designed.

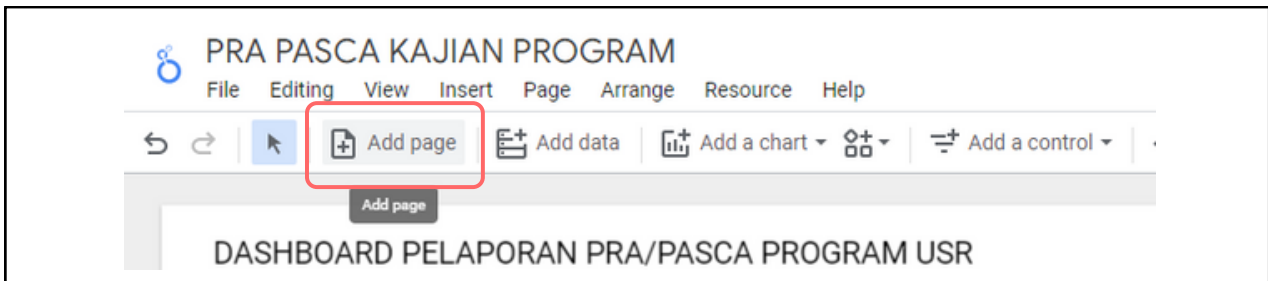


PAGE 1 : MAIN DASHBOARD

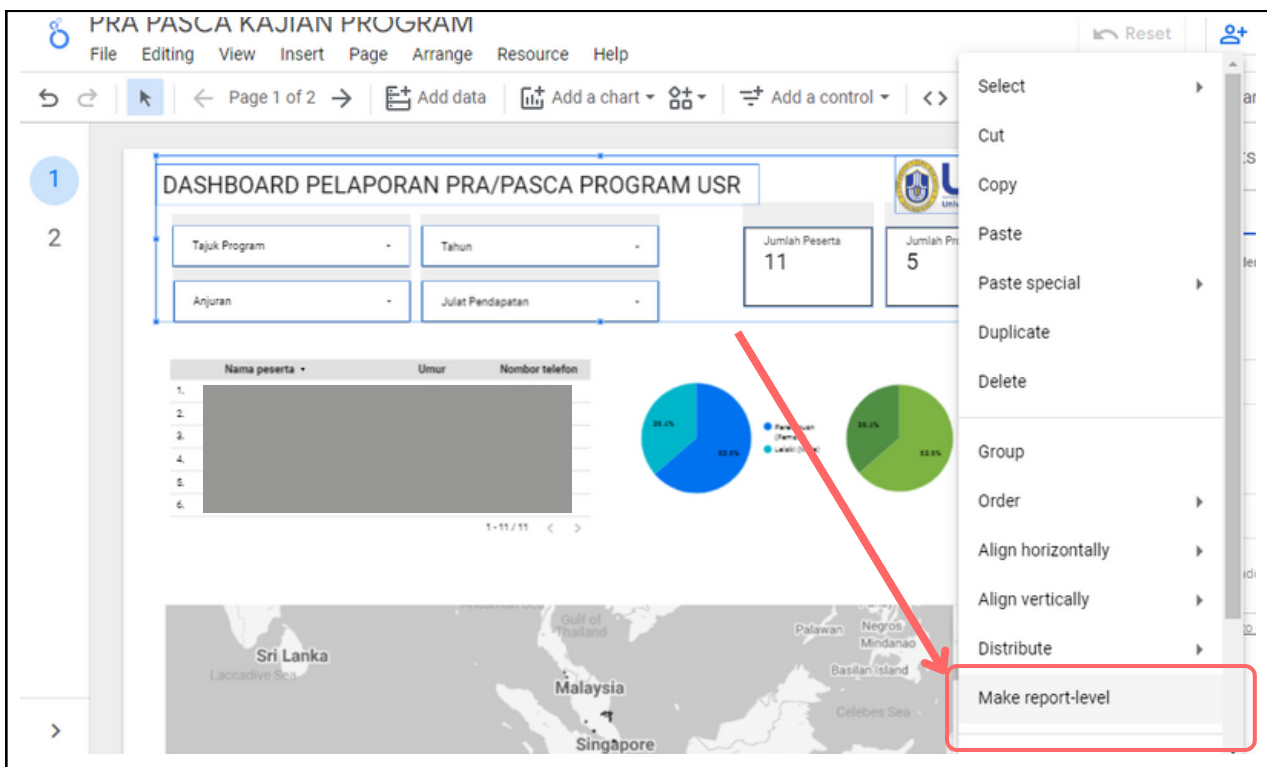
PAGE 2 : SECOND DASHBOARD

For the construction of the 'Page 2: Second Dashboard' dashboard, among the elements used are scorecards, drop-down lists, gauge, charts, and pie charts.

Step 6 : Add page



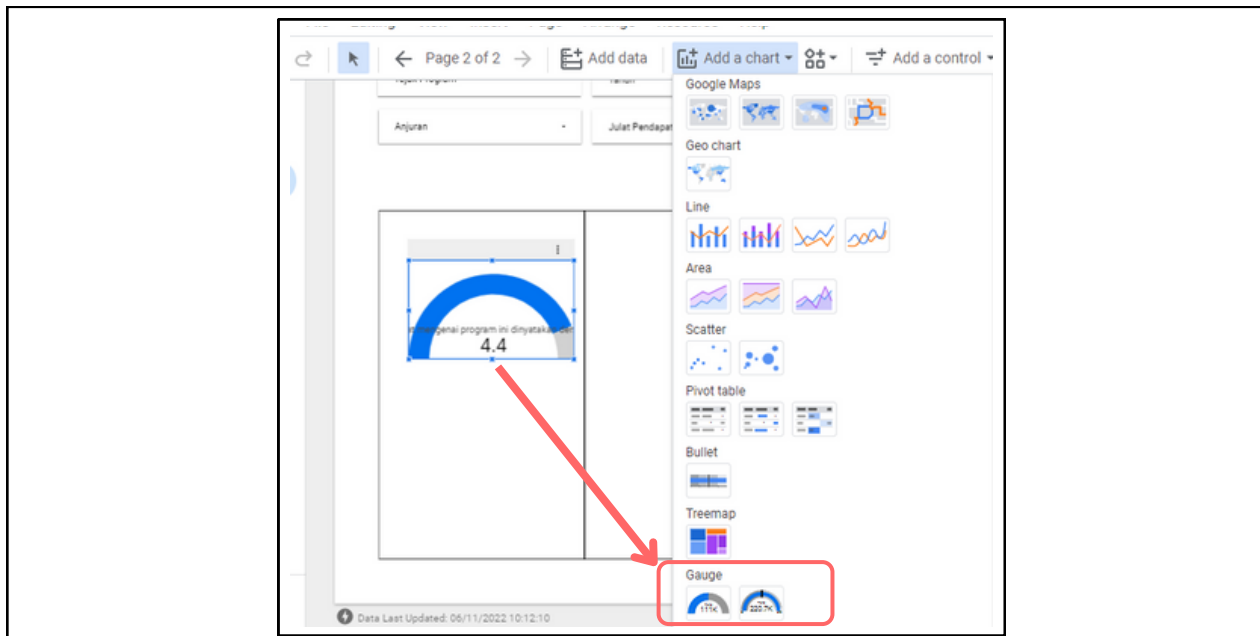
To make the title, logo, program title, year and so on on every page you should select all and right click select 'Make report level'. Then it will appear on every dashboard page.



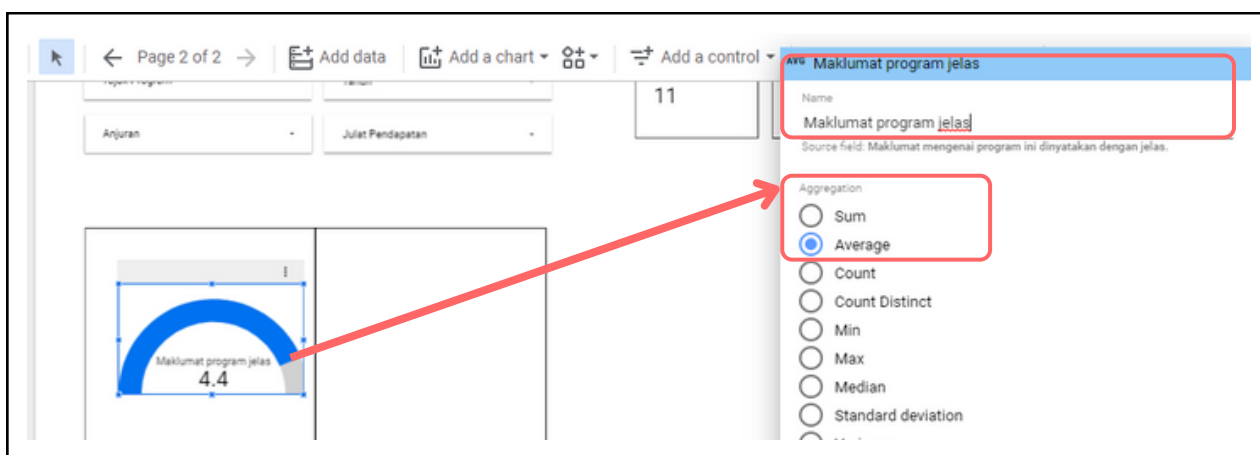
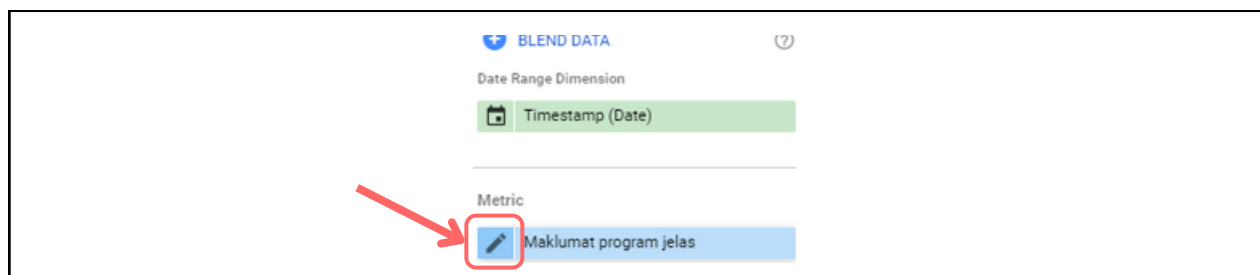
Step 7 : Add elements

i) Gauge

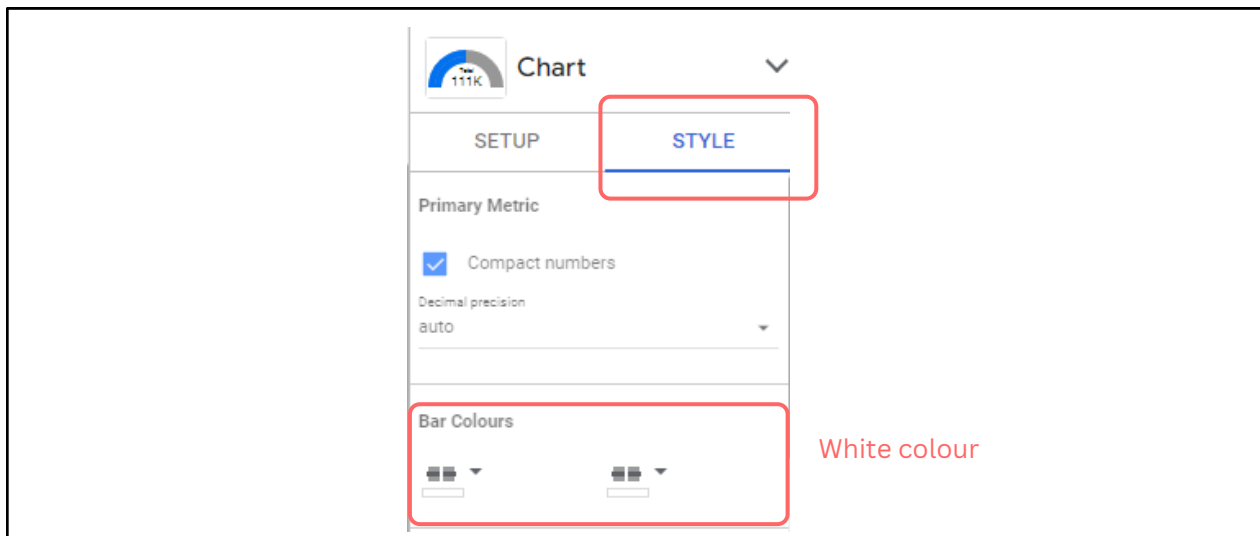
To insert gauge, just click on the menu with the 'Add a chart' logo and select 'Gauges'.



Change name and aggregation.

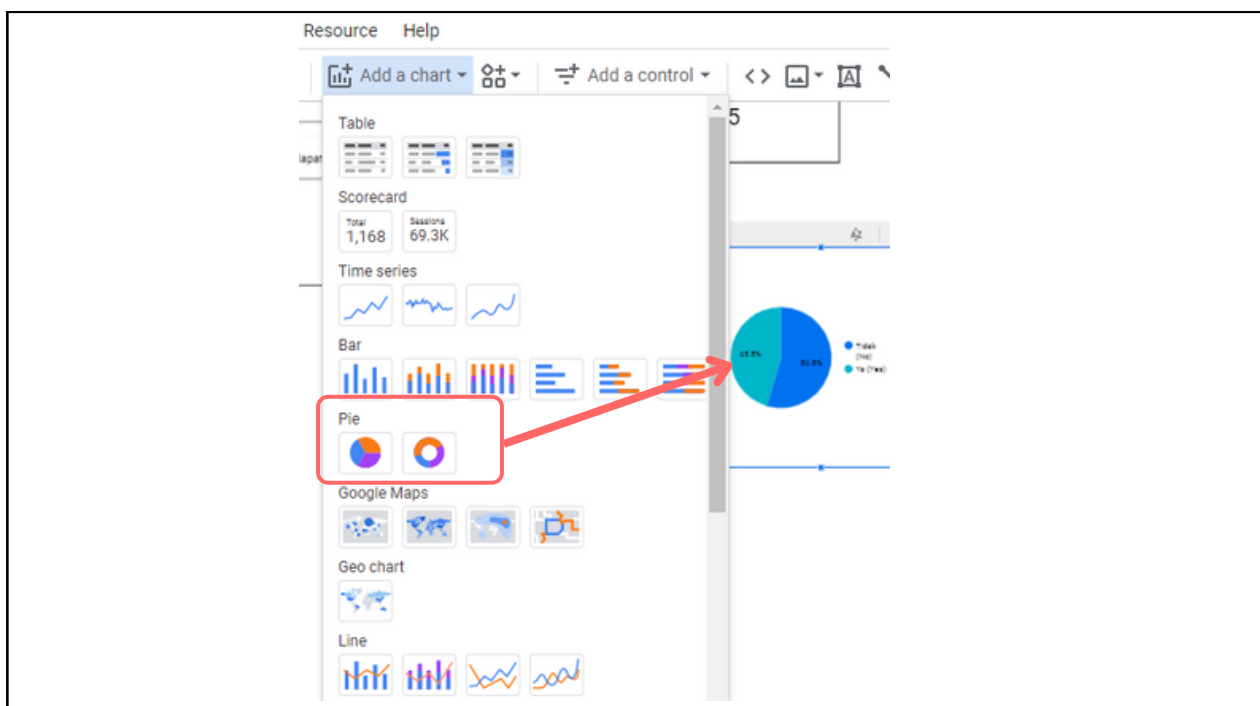


Change gauge's colour to white. Repeat the same for each data.

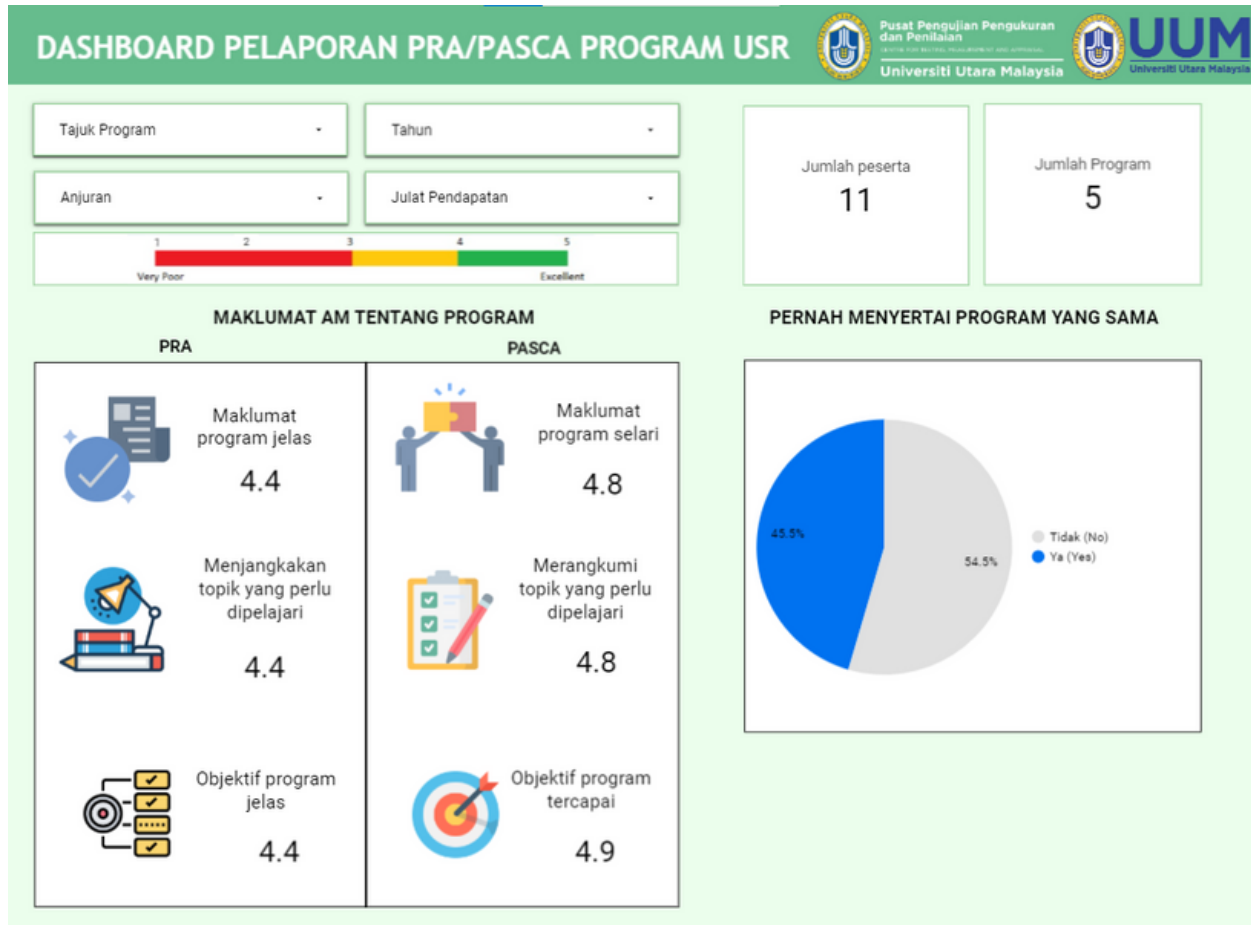


(ii) Pie Charts

Insert a pie chart to see data related to 'ever participated in the same program'.



The second dashboard is ready to be designed.



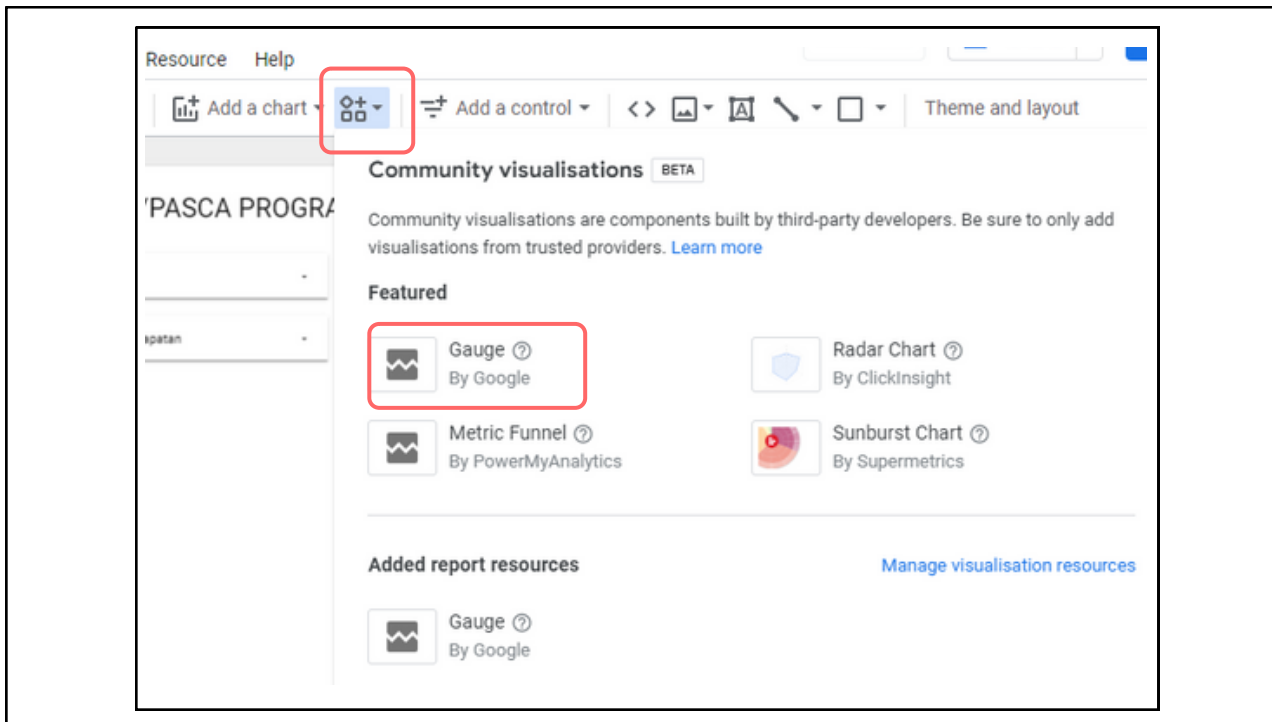
PAGE 2 : SECOND DASHBOARD

*The third and fourth dashboards are the same as the first and second dashboards.

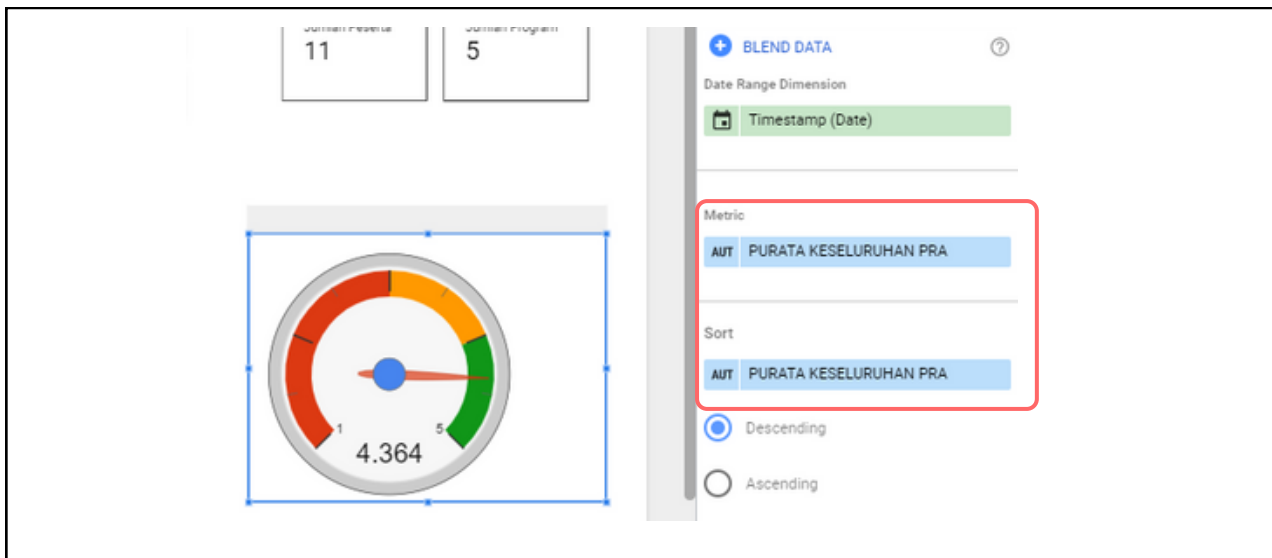
PAGE 3 & 4 : THIRD & FOURTH DASHBOARD

For the construction of the 'Page 4: Fourth Dashboard', among the elements used are scorecards, drop-down lists, bar charts and average gauges.

(i) Gauge

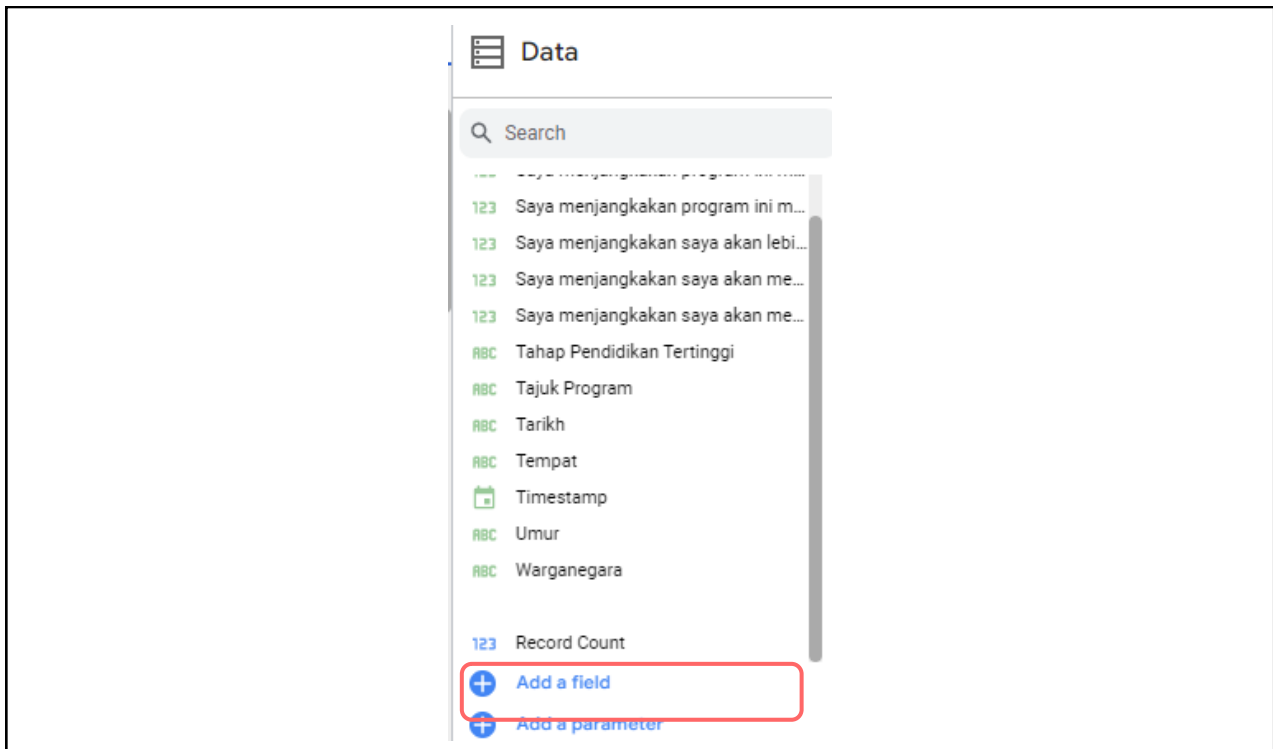


Next, make sure the metric and sort are 'Pre Overall Average'.

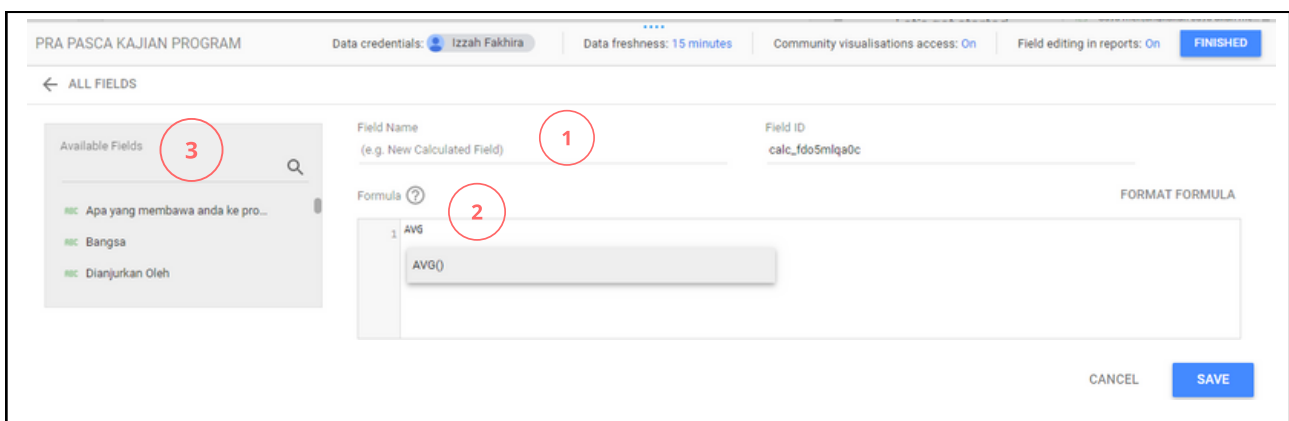


Step 8 : Add a field

To add 'Pre Overall Average' data you need to Click 'Add a field'.



1. Put the name of the data. 2. Write on the formula AVG(). 3. Select the information in the available fields to make it an average. 4. Press 'save' and 'Finished'.



Data credentials: Izzah Fakhira | Data freshness: 15 minutes | Community visualisations access: On | Field editing in reports: On **FINISHED**

PURATA KESELURUHAN PRA calc_apli20ma0c

Formula FORMAT FORMULA

1 eru... , Saya menjangkakan pengisian progra... , Saya menjangkakan program ini akan ... , Saya menjangkakan program ini meny... , Saya menjangkakan program

CANCEL **SAVE**

4

(i) Bar chart

← Page 4 of 4 → Add data Add a chart Add a control

regenerasi program

Anjuran

Julat Pendapan

Table

Scorecard

Total 1,168 Sessions 69.3K

Time series

Bar

Pie

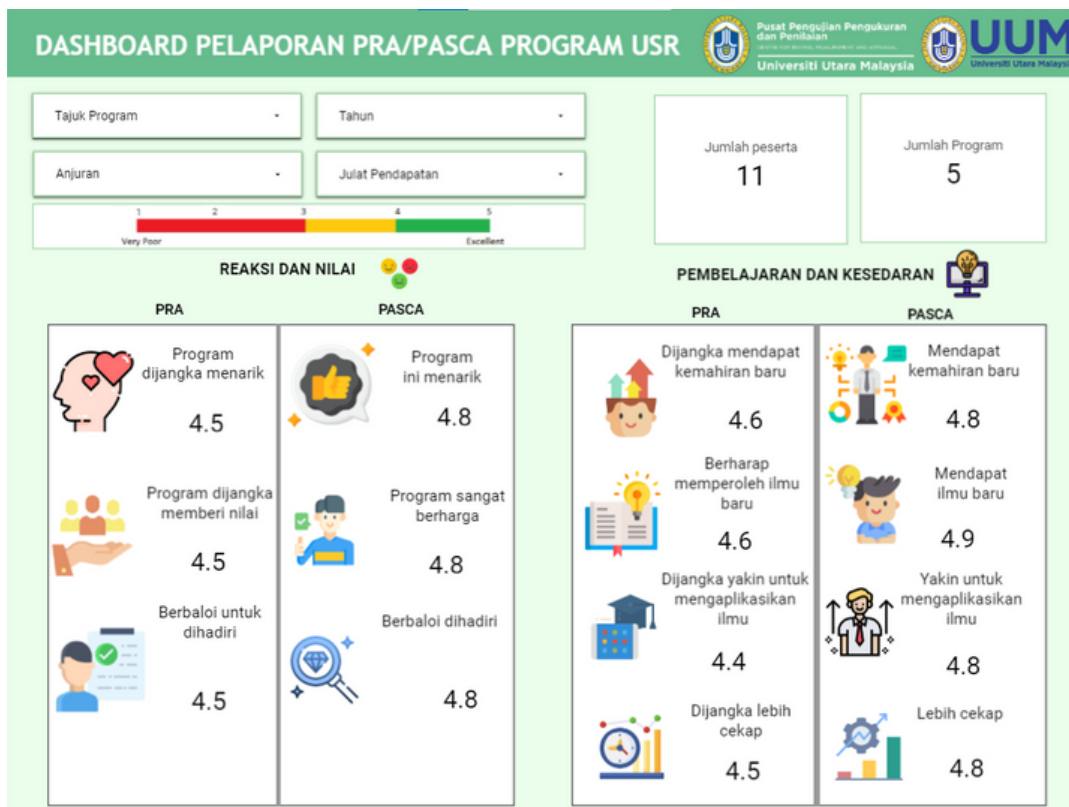
Google Maps

Geo chart

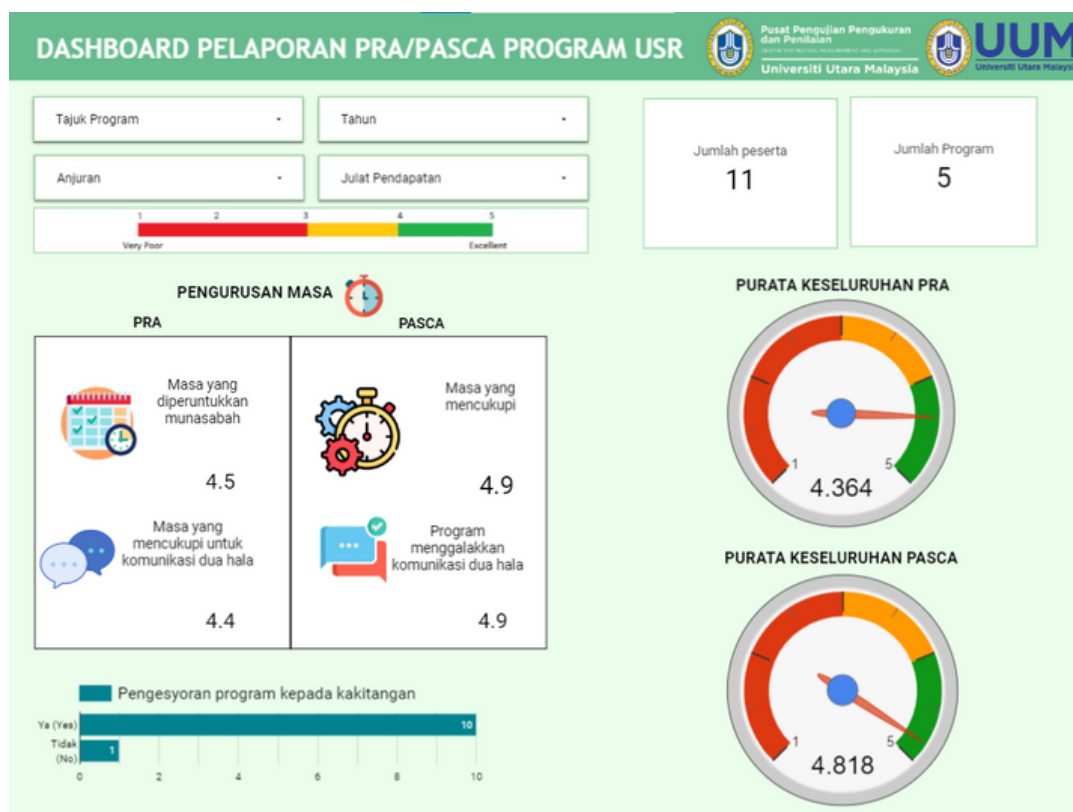
Line

Area

The third and fourth dashboard is ready to be designed.



PAGE 3: THIRD DASHBOARD



PAGE 4: FOURTH DASHBOARD

PAGE 5 : FIFTH DASHBOARD

For the construction of the 'Page 5: Fifth Dashboard', among the elements used are scorecards, drop-down lists, table chart.

(i) Chart table

PRA PASCA KAJIAN PROGRAM

File Editing View Insert Page Arrange Resource Help

Reset Share

Page 5 of 5 Add data Add a chart Add a control Theme and layout

DASHBOARD PELAPORAN PRA/PASCA PROGRAM

Tajuk Program Tahun

Anjuran Julat Pendapatan

Apa yang membawa anda ke program ini? Dalam erti	
1.	tiada
2.	TIADA
3.	Harap memperoleh ilmu baru

Scorecard

Total 1,168 Sessions 69.3K

Time series

Bar

Pie

Google Maps

Geo chart

Line

Chart

SETUP STYLE

Data source

PRA PASCA KAJIAN PROGR...

BLEND DATA

Date Range Dimension

Add dimension

Dimension

RBC Apa yang membawa anda ke pro...

Add dimension

Drill down

Metric

Add metric

Make sure the data in the setup is correct.

Page 5 of 5 Add data Add a chart Add a control Theme and layout

DASHBOARD PELAPORAN PRA/PASCA PROGRAM USR

Tajuk Program Tahun

Anjuran Julat Pendapatan

Jumlah Peserta 11 Jumlah Program 5

Apa yang membawa anda ke program ini? Dalam erti kata lain, apakah yang anda harap dapat ketahui lebih lanjut?	
1.	tiada
2.	TIADA
3.	Harap memperoleh ilmu baru

Chart

SETUP STYLE

Data source

PRA PASCA KAJIAN PROGR...

BLEND DATA

Date Range Dimension

Add dimension

Dimension

RBC Apa yang membawa anda ke pro...

Add dimension

Drill down

Metric

Add metric

The fifth dashboard is ready to be designed.

DASHBOARD PELAPORAN PRA/PASCA PROGRAM USR

Pusat Pengujian Pengukuran dan Penilaian
Universiti Utara Malaysia

UUM
Universiti Utara Malaysia

Tajuk Program - Tahun -
Anjuran - Julat Pendapatan -

Jumlah peserta: 11
Jumlah Program: 5

MAKLUM BALAS PESERTA

Apa yang membawa anda ke program ini -

1.	tiada
2.	TIADA

1 - 5 / 5 < >

Kepakaran keseluruhan meningkat -

1.	ya
2.	Yes

1 - 5 / 5 < >

Jenis program yang ingin sertai pada masa hadapan -

1.	ceramah agama
2.	belum pasti

1 - 9 / 9 < >

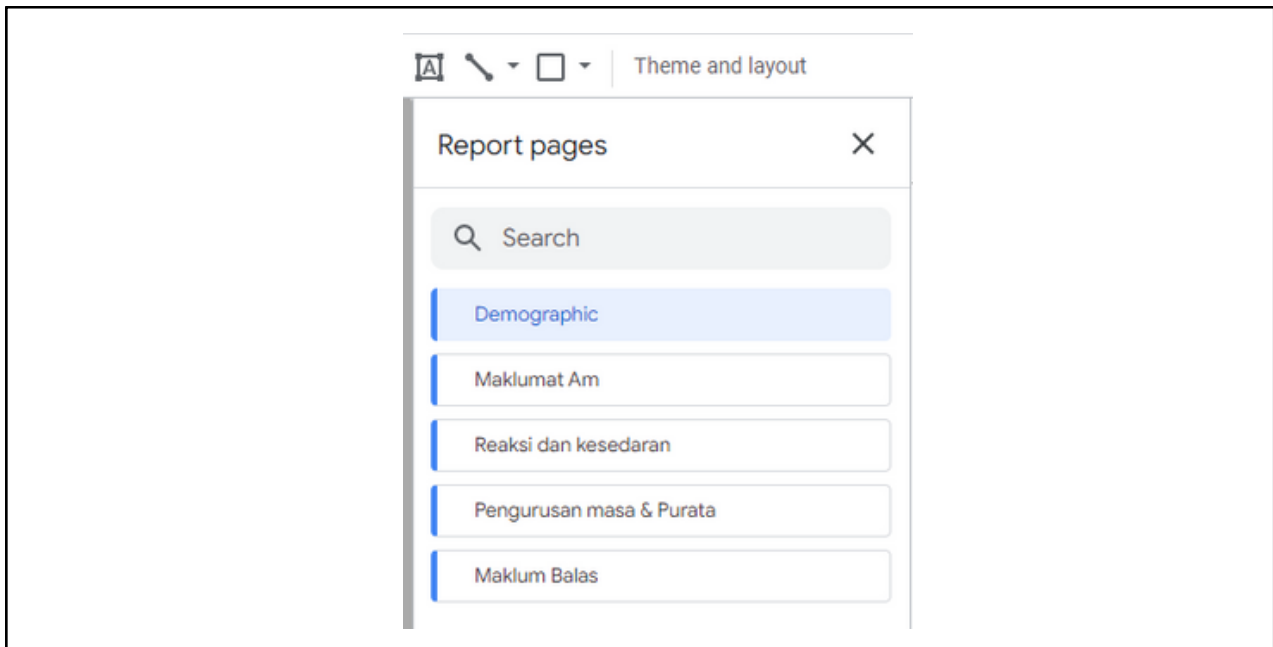
Cadangan penambahbaikan -

1.	tiada
2.	menyediakan makanan

1 - 5 / 5 < >

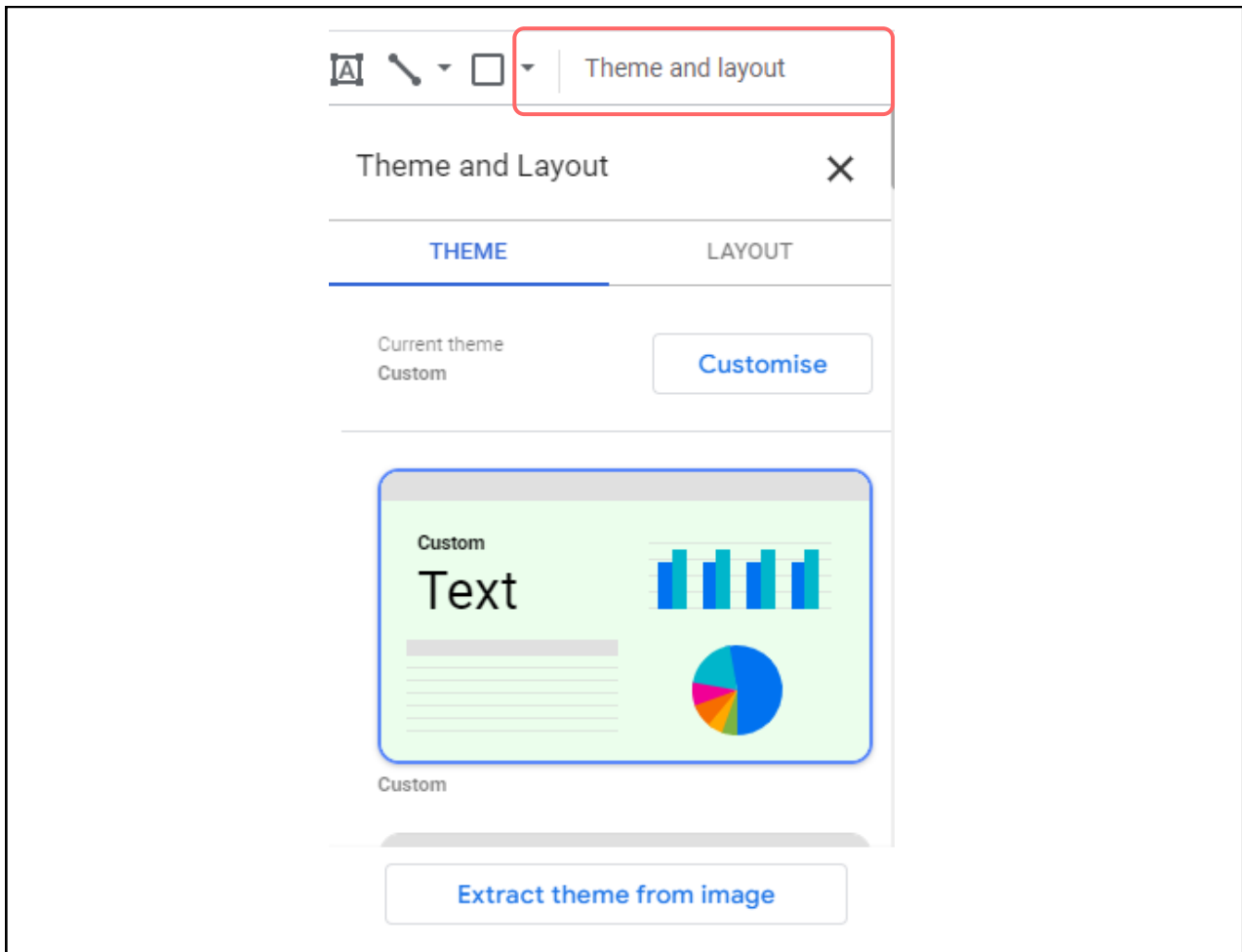
PAGE 5 : FIFTH DASHBOARD

Finally, name each page with an appropriate name.



Step 9 : Styling

Once all elements are entered and the design of all dashboards is complete, you can change the layout, color and size of each element according to your creativity.



References

<https://blog.coupler.io/google-data-studio-tutorial-for-beginners/>

<https://www.searchenginejournal.com/google-data-studio-beginners-guide/377558/>

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