

# IBM Cognos Analytics Project

**Dataset Analysis (Title):** Fitness Tracker Products (E-commerce).

## About the Project:

We have learned the following key concepts and features in IBM Cognos during this project:

- **List Reports, Cross Tabs, and Summary Reports.**
- **Application of Filters, Grouping, Sorting, and Calculations (e.g., SUM, COUNT, AVG, MIN, MAX).**
- **Font, Colors, Padding, Header, and Footer customization.**

The **main objective** of this project is to demonstrate data-driven decision-making using Cognos features.

## Tools & Technologies Used:

- **IBM Cognos Analytics:** Main Analysis Tool.
- **Microsoft Excel:** Data Cleaning and Pre-processing.
- **Kaggle Dataset:** Fitness Trackers Products (E-commerce).

Submitted By:	Submitted To:
Group -06	Mr. Ayush Chand
Submission Date:14-10-25	(IBM Instructor)

## Group Members:

Member Name	Role
Kanchan Kapri	Team Lead (1240258215)
Jhigyasa	Member (1240258207)
Khushboo Yadav	Member (1240258226)
Chanda Yadav	Member (1240258154)
Jyoti	Member (1240258211)

# PROJECT

**Problem Statement 01 :** List all fitness trackers with a **rating above 4.0**.

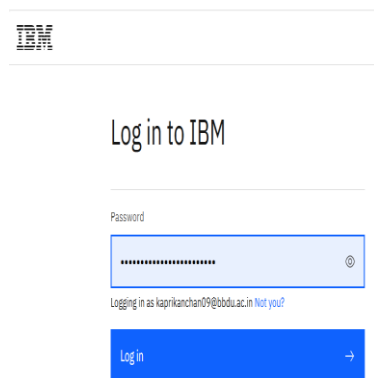
## SOLUTION:

**Columns Used:** Model Name, Brand Name, Selling Price, Rating(Out of 5).

**Cognos Feature:** List Report + Simple Filter (Rating > 4.0).

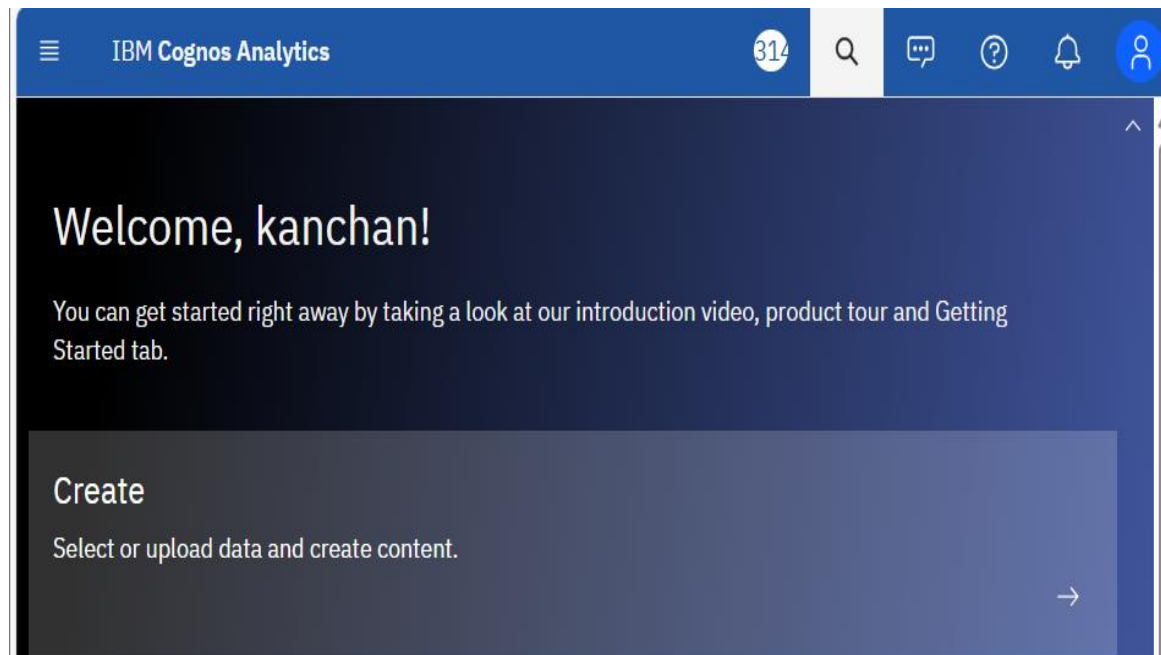
**Step 1:** Search IBM Cognos Analytics sing up or Open IBM Cognos Analytics and sign in to your account then come into the dashboard.


➔ **Sign-up or Log-in**

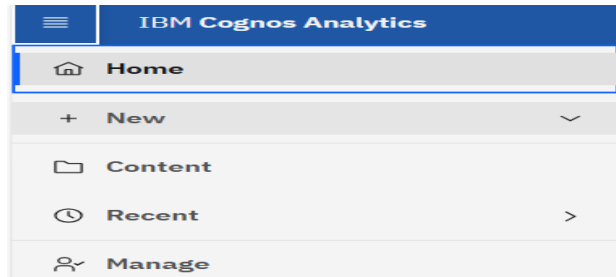


The screenshot shows the IBM Cognos Analytics login interface. At the top, the IBM logo is displayed. Below it, the text "Log in to IBM" is centered. A "Password" label is positioned above a password input field, which contains a series of dots and a toggle icon. Below the password field, a small link reads "Logging in as kaprikanchan09@bbdu.ac.in Not you?". At the bottom of the login section is a blue "Log in" button with a right-pointing arrow.

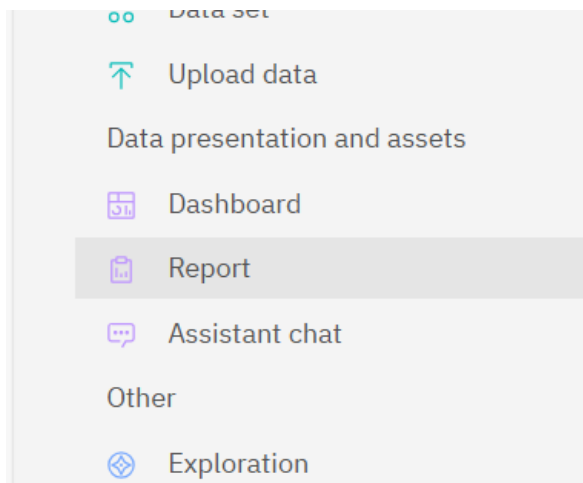
➔ Then You will be seeing **Your Dashboard**.



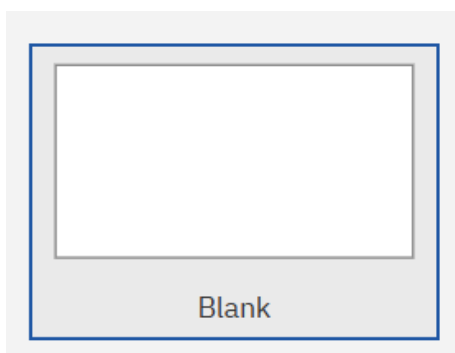
**Step 2:** From the top Hamburger menu  click '+ New' → .



**Step 3:** Chose from → **Menu** → **New** → choose '**Report**'. In the report template select list .



**Step 4:** select '**List**' (or Select '**Blank report**' then insert a List).



Select one of the following widget types to get started or drag and drop items from the left pane.

Select one of the following widget types to get started or drag and drop items from the left pane.



4



➔ Choose List.-->



**Step 5:** In the left -> Click on the (Select a Sources/Data).



Select a source

Select a data source to use with your report.

Select a source +

➔ Now Choose Your Data (**Fitness-Tracker-Dataset**).

## My content

## Team content

Name



Covid



Fitness-Tracker-Dataset-Merged



## New data module Practical

**Step 6:** Drag the following data items onto the list canvas in this order: **Model Name, Brand Name, Selling-Price, Rating**. Each item becomes a column.

IBM Cognos Analytics | \* New report


Report > Pages > Page1

Insertable objects

Find

- Fitness\_trackers\_updated.csv
  - Brand Name
  - Device Type
  - Model Name
  - Color
  - Selling Price

Model Name	Brand Name	Rating (Out of 5)	Selling Price
<Model Name>	<Brand Name>	<Rating (Out of 5)>	<Selling Price>
<Model Name>	<Brand Name>	<Rating (Out of 5)>	<Selling Price>
<Model Name>	<Brand Name>	<Rating (Out of 5)>	<Selling Price>

**Step 7:** Click the Filters (  ) icon in the report toolbar, or choose 'Data' → 'Filters' → 'Edit filters'.

Report > Pages > Page1

Filters - Query1

Detail Filters Summary Filters

Usage

☐ Required

☐ Optional

☐ Disabled

Application

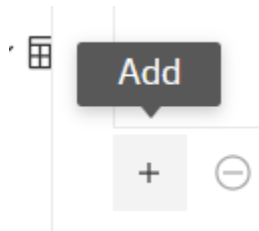
☐ Before auto aggregation

☐ After auto aggregation

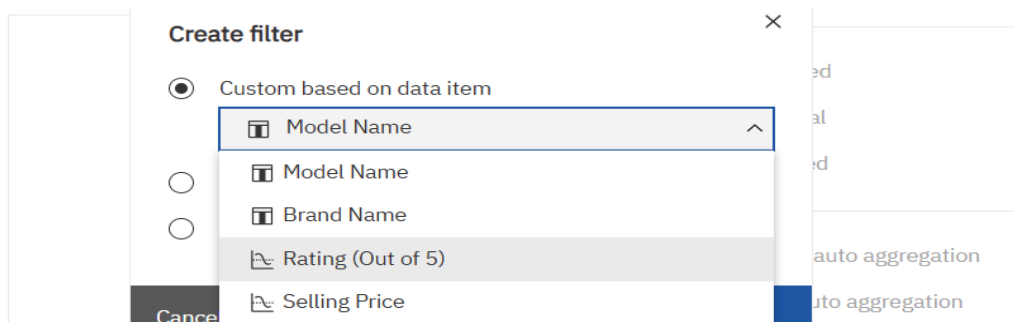
☒ Can be changed in the viewer

Cancel OK

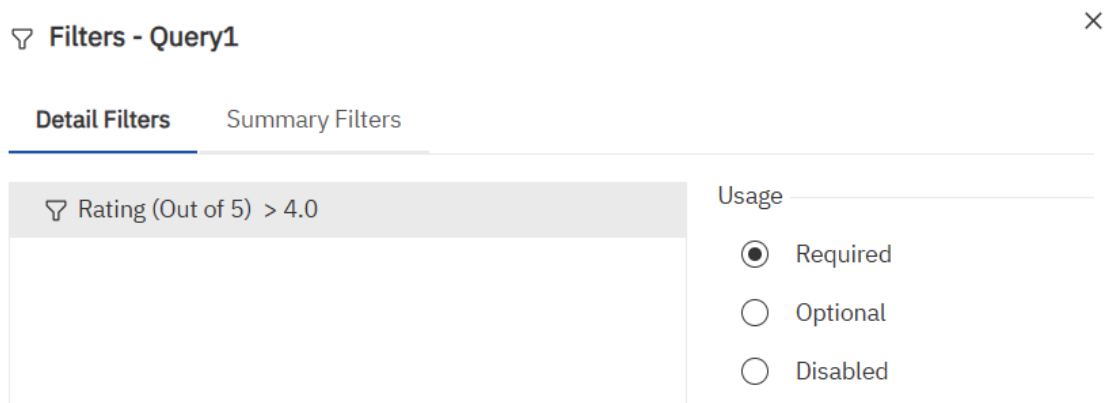
**Step 9:** In the Filters dialog select 'Detail Filters' → Click Add.



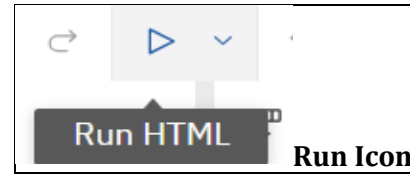
➔ Now in the expression area drag Select **Rating (Out of 5) Column**.



➔ Now, Select operator '>' and type '4.0' (expression: [Rating] > 4.0). Click OK.



**Step 10:** Click Save, then Run (Run with > HTML). The report will display only products with Rating > 4.0.



## Save as

Name

Solution of Problem-Statement - 01

Selected destination: My content

**Step 11:** See the results:

**Finally →** The report is displaying only products with Rating > 4.0.

Brand Name	Model Name	Rating (Out of 5)	Selling Price
Xiaomi	Band - HRX Edition	4.2	1,299
Xiaomi	Revolve	4.4	12,349
Xiaomi	RevolveActive	4.4	12,999
OnePlus	Steven Harrington Edition Band	4.3	3,299
OnePlus	Band	4.2	2,499
FitBit	Versa 2	4.3	25,498
FitBit	Sense	4.2	21,499
FitBit	Charge 4	4.2	20,998
FitBit	Charge 2	4.3375	91,491
FitBit	Alta	4.1	12,999
Huawei	Band 2 Pro Activity	4.1	2,199
realme	2S	4.2	3,499
realme	S Pro	4.1	9,999
Fastrack	Reflex Smart Band	4.05	2,790
boAt	O2	4.1	7,990
Honor	Magic Watch 2	4.4	13,999
huami	Amazfit GTR 42	4.3	18,998
huami	Amazfit Pace	4.2	9,999
huami	Bip Lite On	4.1	7,999
SAMSUNG	Galaxy Classic 4	4.6	142,957

[Top](#)
[Page up](#)
[Page down](#)
[Bottom](#)

# PROJECT

**Problem Statement 02:** Show products that are **either water-resistant OR have battery life > 7 days**, and have a **price below ₹5000**.

## SOLUTION:

**Columns Used:** Model Name, Strap Material, Average Battery Life (in days), Selling Price.

**Cognos Feature:** Advanced Filter combining OR and AND conditions.

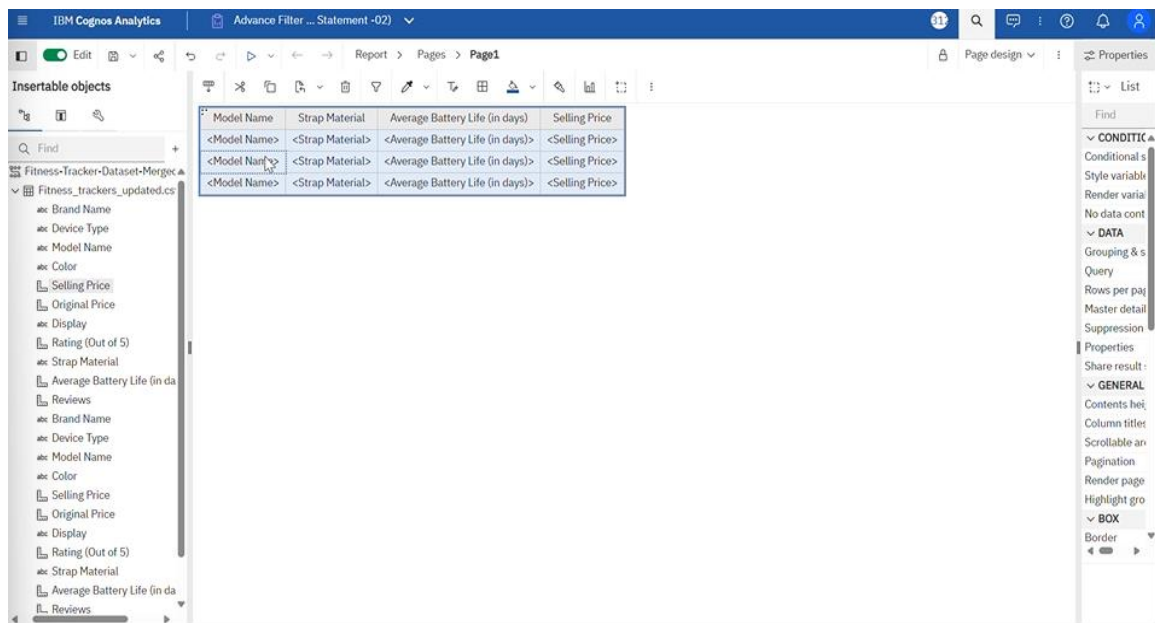
**Step 1:** Now same as Previously, we have done

- ➔ Come into Your HOME
- ➔ Click ➔ Hamburger Menu ➔ New ➔ Report ➔ Blank ➔ List ➔

Choose the data Source ➔ **Fitness-Trackers-Data-Module** .

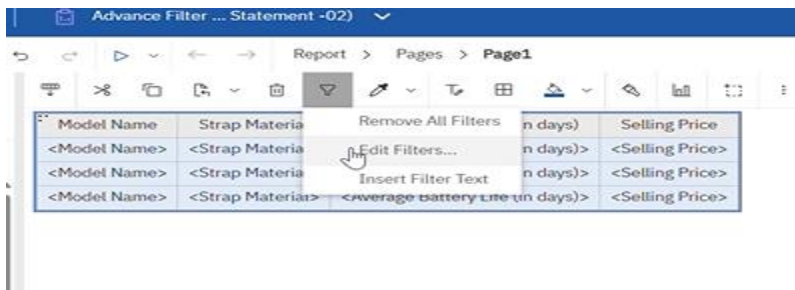
**Step 2:** Then We will drag These Listed Columns.

- ➔ **Model Name, Strap Material, Average Battery Life (in days), Selling Price.**

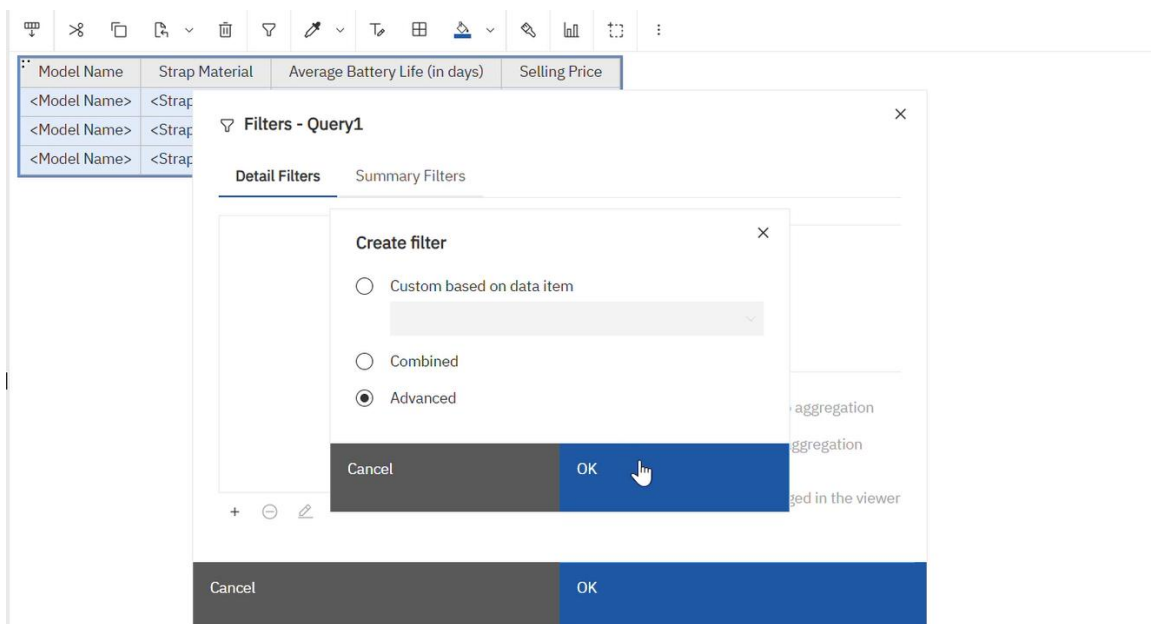




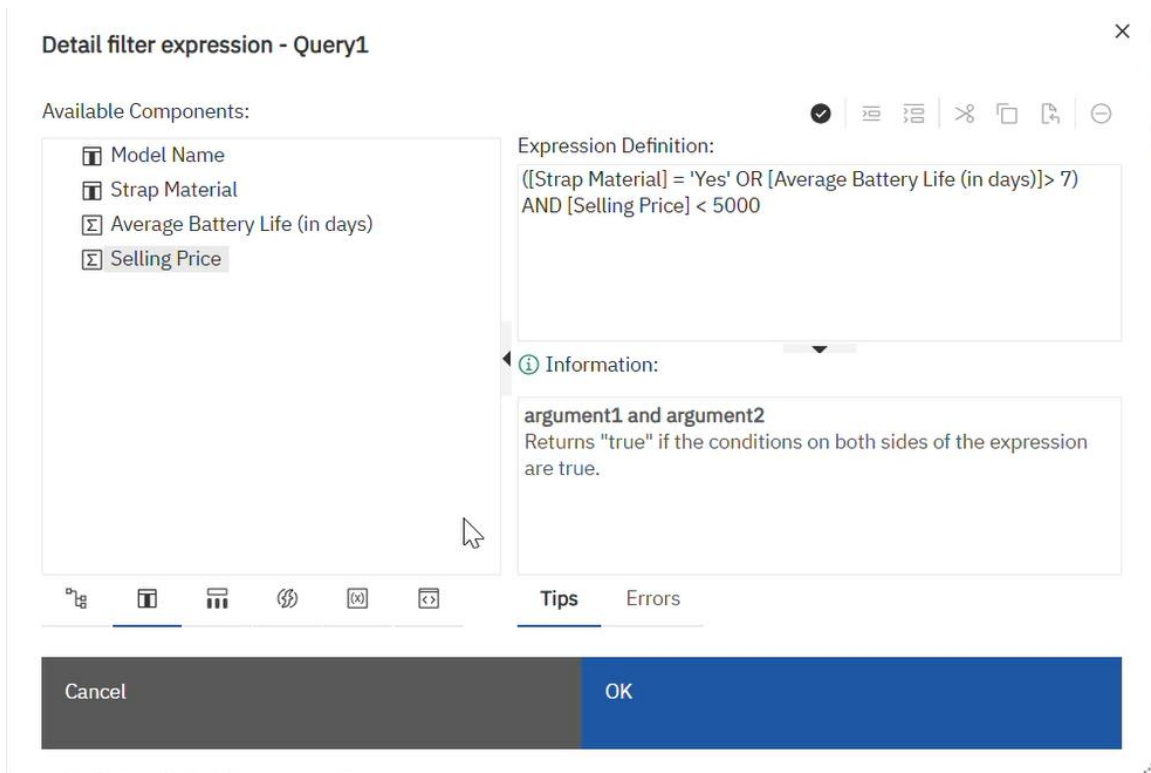
**Step 3:** Click the Filters (funnel) icon → Edit filters → Detail Filters → Add.




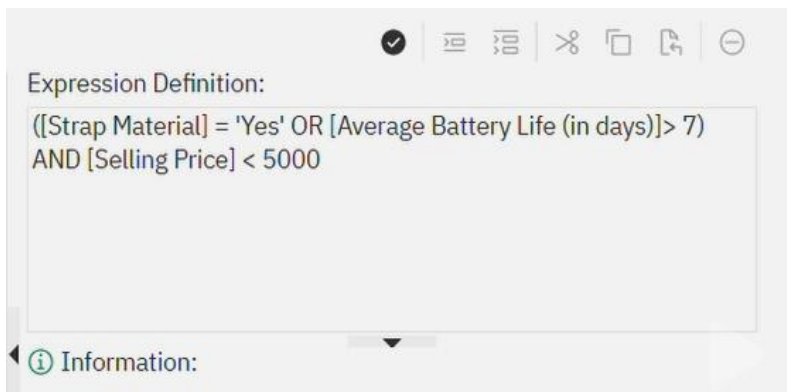
**Step 4:** Click 'Advanced' or open the Expression Editor to build a grouped expression.





**Step 5:** Construct the expression → by double clicking on to the data item we need.



**Step 6:** Validate the expression where the tick sign is  → OK → Close Filters dialog.



**Step 7:** Save  and Run  the report.

### Save as

Name

Solution of Problem-Statement - 02

Selected destination: My content

**Finally :** Result shows rows where (Strap materials = Yes OR Battery Life > 7) AND Price < 5000.

Model Name	Strap Material	Average Battery Life (in days)	Selling Price
Band 6	Plastic	14	2,999
2 Pro	Silicone	14	4,999
Watch ES	Silicone	10	4,999
Amazfit Bip U	Silicone	9	2,999
Amazfit Bip S Lite	Silicone	14	1,999
Smart Band 5	Thermoplastic polyurethane	28	4,968
Smart Band 4	Thermoplastic polyurethane	14	2,099
HMSH01GE	Leather	14	1,722
Band 5	Plastic	42	7,197
Xplorer	Thermoplastic polyurethane	10	3,499

# PROJECT

**Problem Statement 03:** Create a report that prompts the user to **select a brand** and shows all models of that brand sorted by descending price.

## SOLUTION:

**Columns Used:** Brand Name , Modal Name, Selling Price, Rating(Out of 5).

**Cognos Feature:** Value Prompt + List Report + Sort.

**Step 1:** Now same as Previously, we have done Click →Hamburger Menu → New → Report → Blank → List →

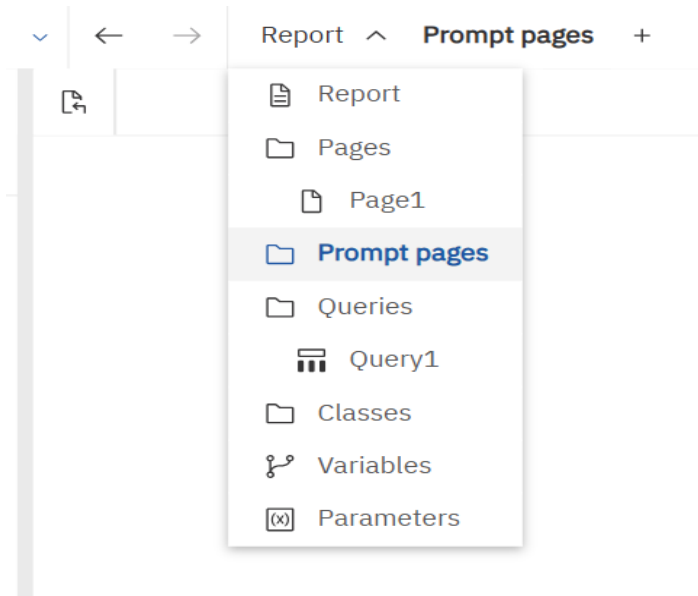
Choose the data Source → **Fitness-Trackers-Data-Module** .

**Step 2:** Then We will drag These Listed Columns.

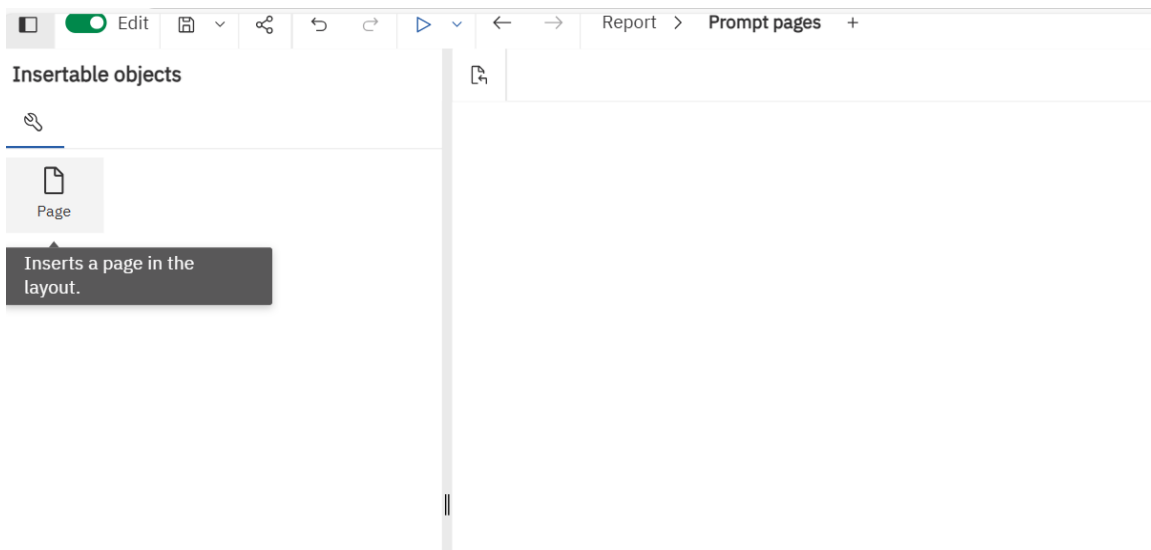
→ **Brand Name, Model Name, Selling Price, Rating (Out of 5).**

The screenshot displays the IBM Cognos Analytics interface. At the top, the header shows 'IBM Cognos Analytics' and a 'New report' button. Below the header, a maintenance message is visible. The main workspace is divided into two panels. On the left, the 'Insertable objects' panel lists various data fields from the 'Fitness\_trackers\_updated.csv - Join (1)' data source. The fields include 'Brand Name', 'Device Type', 'Model Name', 'Color', 'Selling Price', 'Original Price', 'Display', 'Rating (Out of 5)', 'Strap Material', 'Average Battery Life (in days)', 'Reviews', and a duplicate set of 'Brand Name', 'Device Type', 'Model Name', 'Color', and 'Selling Price'. The 'Rating (Out of 5)' field is highlighted. On the right, a preview of the report design is shown, featuring a table with four columns: 'Model Name', 'Brand Name', 'Selling Price', and 'Rating (Out of 5)'. The table contains four rows of data, each starting with a prompt '<Model Name>'. The interface also includes a toolbar with various icons for report design and a 'Report' button.

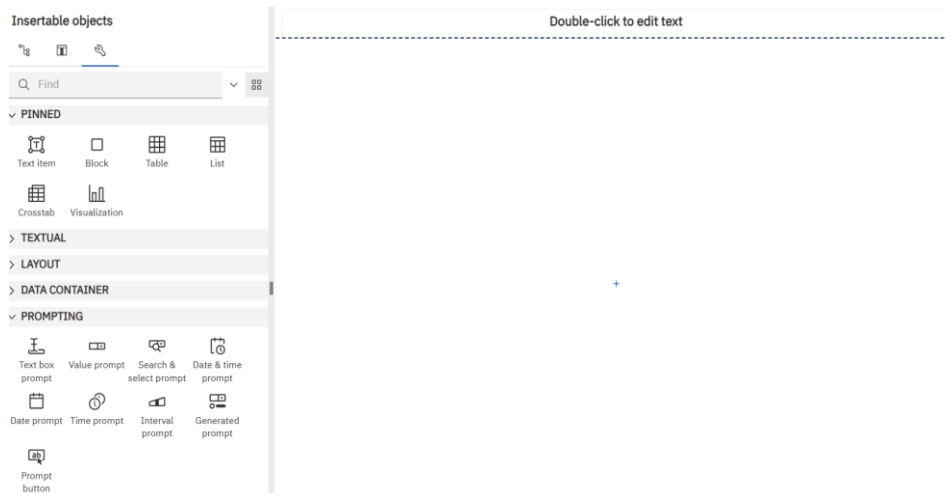
**Step 2:** Click on the Report toolbar, and choose **Prompt Pages**.



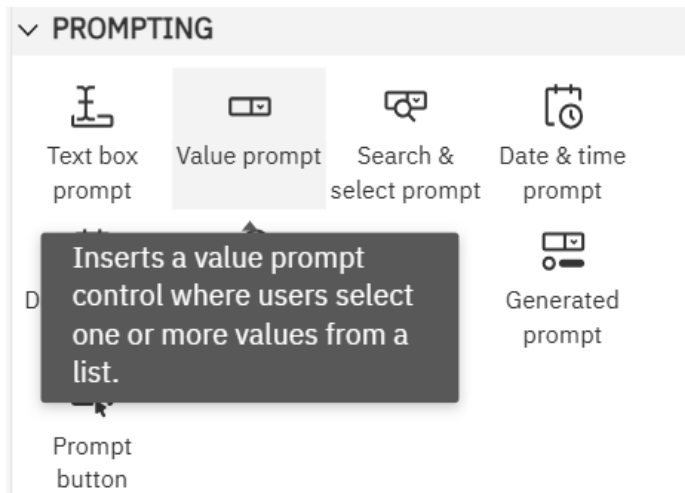
➔ Now Click Twice on to the **Page** or drag the Page on to the Layout.



➔ Now This is what you will be seeing.



➔ Now , from the right bar Tools icon , Select Value Prompt and Drag on to the Layout.



➔ Now This Prompt Wizard Window will come, Give Paramter Name,

**Prompt Wizard - Value prompt** ✕

**Choose Parameter**  
Create a new parameter or use an existing parameter from a previously authored expression.

☒ Create a new parameter  
Parameter1

☐ Use existing parameter  
▼

☐ Use global parameter  
▼

Cancel < Back Next > Finish

➔ Give this name .

☒ Create a new parameter

?BrandName?

➔ Click Next.

Next >

➔ Now fill this, Choose Package Item From the Three dots at the Right Ending .

**Prompt Wizard - Value prompt** ×

**Create Filter**  
Choose the package item that will be used to filter the report.

☒ Create a parameterized filter

Package item:  ⋮

Operator:  ▼

Parameter:

☐ Make the filter optional

Cancel

< Back

Next >

Finish

➔ In Package Item ➔ Choose Brand Name, From the 3 dots at right ending .

Package item:  ⋮

➔ Choose Brand Name.

**Choose package item**

▼ Fitness\_trackers\_updated.csv - Join (1)

abc

Brand Name

abc

Device Type

abc

Model Name

abc

Color

Selling Price

Original Price

abc

Display

Rating (Out of 5)

abc

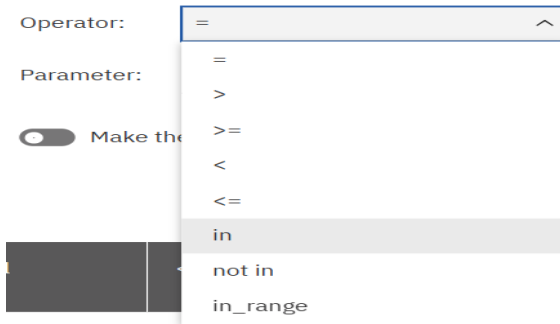
Strap Material

Average Battery Life (in days)

Reviews



➔ Choose The Operator ( IN ).



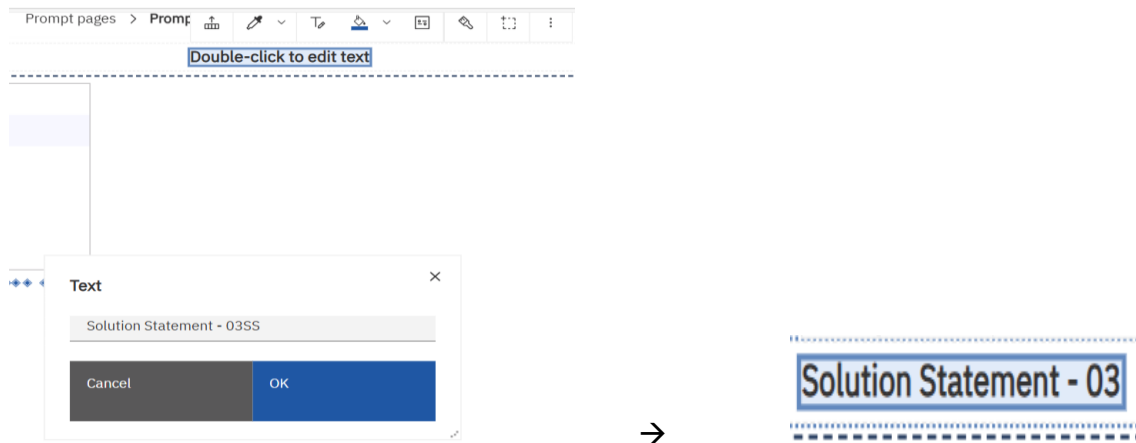
➔ Now Fill this Choose **Brand Name** to **Use** and to **Display** also , You can name this any.

A screenshot of a 'Prompt Wizard - Value prompt' dialog box. The dialog has a title bar with a close button. Below the title, it says 'Populate control' and provides instructions: 'What values do you want to pick from? Use values are the retrieved data, and Display values are the selectable values that the user sees.' There is a toggle switch labeled 'Create new query' which is turned on. Below this, there are three input fields: 'Name:' with the value 'QueryBrandName?', 'Values to use:' with the value '[C].[C\_Fitness\_Tracker\_Dataset\_Merged].[F]', and 'Values to display:' with the value '[C].[C\_Fitness\_Tracker\_Dataset\_Merged].[F]'. Each of the last two fields has a small icon to its right. At the bottom, there is a 'Cascading source:' dropdown menu. The dialog has four buttons at the bottom: 'Cancel', '< Back', 'Next >', and 'Finish'.

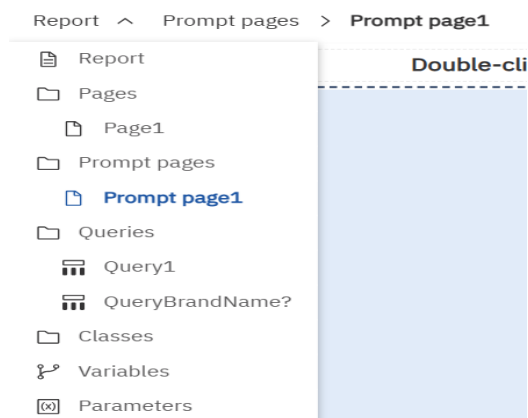
➔ Now , You will be seeing this. Now go to your Report.



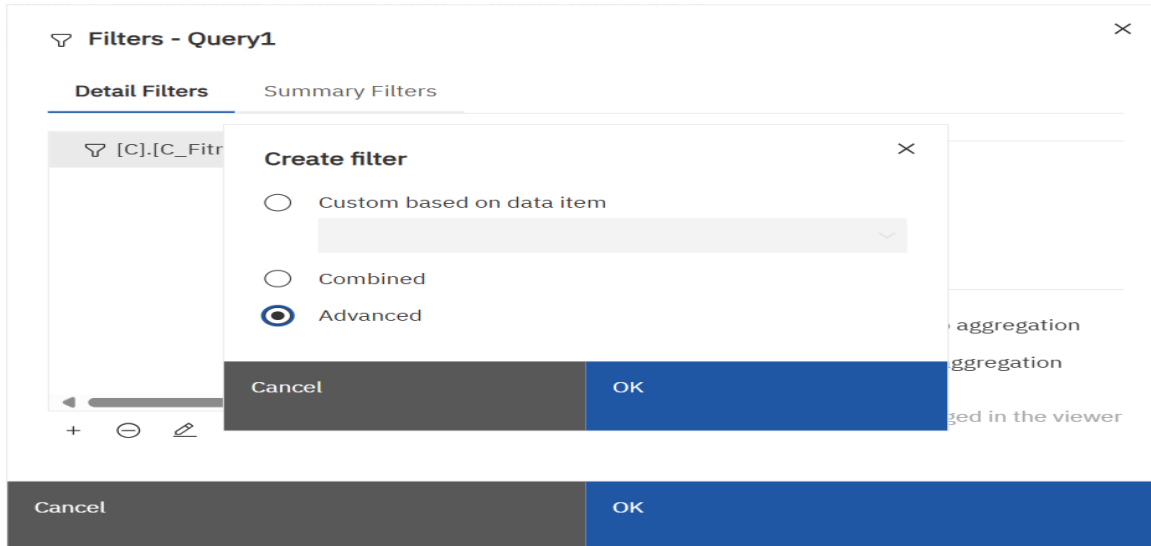
➔ You can edit the and name the Header Prompt as You want,



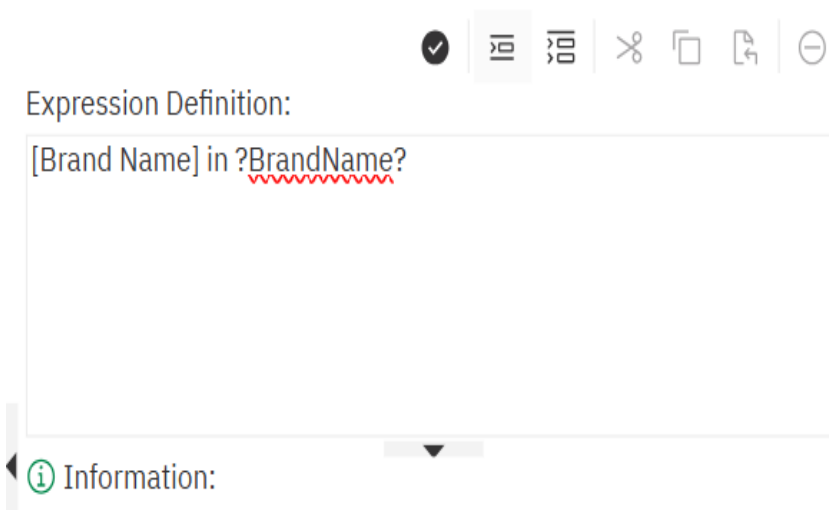
**Step 3:** Go to your **Report** , by changing the tab from report tab bar.



➔ Now in your Report Choose Filter ➔ Detailed Filter ➔ Advance.



➔ Now, Give this Expression in the Advance Filter , by choosing **brand name** from Data Items .



**Step : 4** Now Save the **Report** and **Run** .

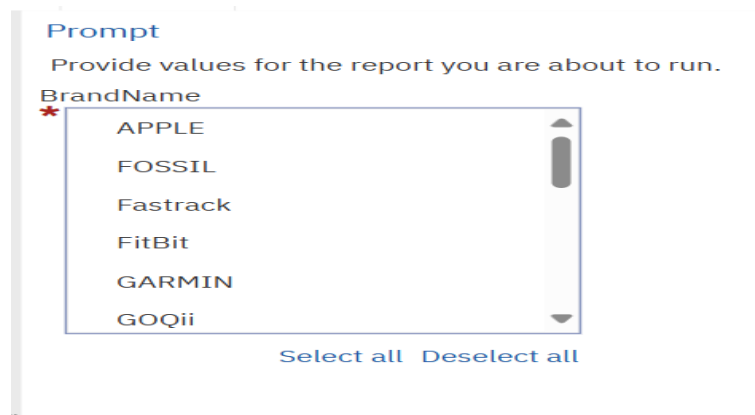
Save as

Name

Solution of Problem-Statement - 03

Selected destination: My content

➔ This Window will come now choose any of these I have Chosen the FOSSIL. Let 's see the results.



**Prompt**

Provide values for the report you are about to run.

BrandName

- APPLE
- FOSSIL
- Fastrack
- FitBit
- GARMIN
- GOQii

Select all Deselect all

➔ Every time You RUN this Report this Prompt will come You can choose the BrandName and see the Results,

➔ **Finally :** See the results, Same as You will run this report and You can choose any Brand Name, and Then See the Results.

Model Name	Brand Name	Selling Price	Rating (Out of 5)
Gen 5 Carlyle HR	FOSSIL	30,990	4.2
Gen 5 Julianna HR	FOSSIL	102,970	4.13333333
Sadie Hybrid	FOSSIL	8,995	4
Sport	FOSSIL	71,980	4.425
Carlie Hybrid	FOSSIL	29,485	4.6
Barstow Hybrid	FOSSIL	8,995	4.6
Gen 3 Q Explorist	FOSSIL	56,777	4.25
FTW6005	FOSSIL	19,995	3.8
Sport 41	FOSSIL	27,990	4
Sloan HR	FOSSIL	68,485	4.1
Neely	FOSSIL	8,995	4.7
Rose Gold Smart	FOSSIL	21,995	4.6
FTW20013 Q	FOSSIL	21,495	4.6
FTW5017 Hybrid	FOSSIL	14,495	4.6
FTW5003 Hybrid	FOSSIL	12,995	4.6
Commuter Hybrid	FOSSIL	8,995	4.6
Q GRANT	FOSSIL	13,990	4.6
FTW1134 Q Hybrid	FOSSIL	11,995	4.6
Q Machine	FOSSIL	10,796	4.6
FTW5011 Hybrid	FOSSIL	8,995	4.8

# PROJECT

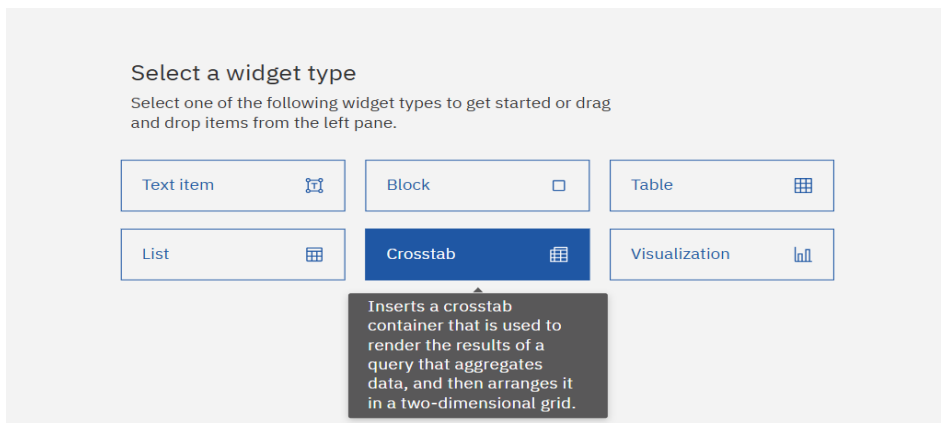
**Problem Statement 04 :** Display a **cross-tab report** showing the **average rating** per brand.

## SOLUTION:

**Columns Used:** Brand Name , Rating (Out of 5).

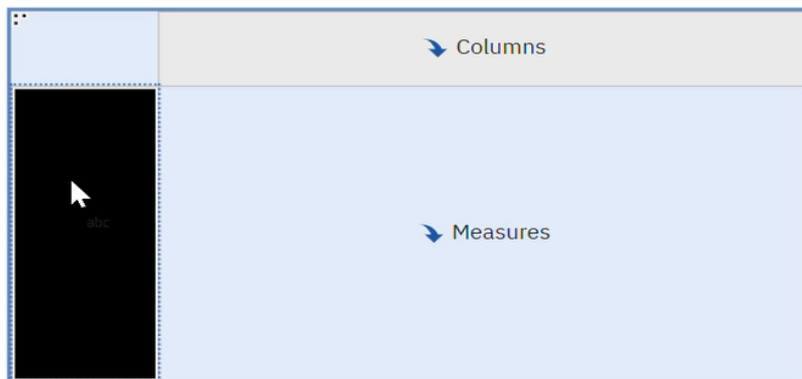
**Cognos Feature:** Crosstab Report + Aggregation Function (AVG).

**Step 1:** Now same as Previously, we have done Click →Hamburger Menu → New → Report → Blank → **Cross-Tab** →



Choose the data Source → **Fitness-Trackers-Data-Module** .

**Step 2:** Then We will drag the **Brand Name** Column into the **Rows** , we will drag it from data at left and we have to leave it exact to the rows when it's blinking black white leave it .



→ Now **drag** the **Rating (Out of 5 )** Column in the **Measures**.

Rating (Out of 5)	Columns
<#Brand Name#>	<#1234#>
<#Brand Name#>	<#1234#>

**Step 3:** Click the measure cell, open **Properties** or right-click → **Aggregate function** → choose **Average**.

Name	Rating (Out of 5)
Label	
Expression	[C].[C_Fitness_Tracker...
Detail aggregation	Average
Summary aggregation	Average
Solve order	
▼ MISCELLANEOUS	
Classes	
Summary aggregation	
Specifies the type of aggreg	
summarized values. These v	
higher levels of lists and cro	

**Step 5: Save and Run** the report.

### Save as

Name

Solution of Problem-Statement - 04

Selected destination: My content

**Finally :** You can Now See The Result Average Rating Per Brand.

Rating (Out of 5)	Columns
boAt	3.9
FitBit	4.18627451
realme	4.14166667
Honor	4.195
Oppo	3.9
huami	4.15277778
APPLE	4.54534884
OnePlus	4.3
Huawei	4.16153846
GOQii	3.35
LCARE	3.65
LAVA	3.6
Fastrack	4.01666667
GARMIN	4.086
Xiaomi	4.17
Infinix	3.8
Noise	4.02631579
SAMSUNG	4.22916667
FOSSIL	4.2443609



# PROJECT

**Problem Statement 5 :** Generate a list of all trackers **sorted by number of reviews (descending)** to identify the most popular models.

## SOLUTION:

**Columns Used:** Model Name, Brand Name, Reviews, Rating (Out of 5).

**Cognos Feature:** List Report + Sort.

**Step 1:** Now same as Previously, we have done

- ➔ Come into Your HOME
- ➔ Click ➔ Hamburger Menu ➔ New ➔ Report ➔ Blank ➔ List ➔

Choose the data Source ➔ **Fitness-Trackers-Data-Module** .

**Step 2:** Then We will drag These Listed Columns.

- ➔ **Model Name, Brand Name, Reviews, Rating (Out of 5).**

The screenshot displays the Cognos Analytics interface. On the left, the 'Insertable objects' pane shows a tree structure of data sources. Under 'Fitness-Tracker-Dataset-Merged', there are two CSV files: 'Fitness\_trackers\_updated.csv' and 'Fitness\_trackers.csv'. The 'Fitness\_trackers\_updated.csv' file is expanded, showing a list of columns: Brand Name, Device Type, Model Name, Color, Selling Price, Original Price, Display, Rating (Out of 5), Strap Material, Average Battery Life (in days), and Reviews. The 'Rating (Out of 5)' column is highlighted. On the right, a preview table is shown with the following columns: Brand Name, Model Name, Reviews, and Rating (Out of 5). The table contains four rows of data, each starting with a placeholder '<Brand Name>'.

Brand Name	Model Name	Reviews	Rating (Out of 5)
<Brand Name>	<Model Name>	<Reviews>	<Rating (Out of 5)>
<Brand Name>	<Model Name>	<Reviews>	<Rating (Out of 5)>
<Brand Name>	<Model Name>	<Reviews>	<Rating (Out of 5)>
<Brand Name>	<Model Name>	<Reviews>	<Rating (Out of 5)>

**Step 3:** To sort by Number of Reviews descending:

➔ click the column header '**Reviews**' → **Sort** → **Descending** .

Brand Name	Model Name	Reviews	Rating (Out of 5)
<Brand Name>	<Model Name>		
<Brand Name>	<Model Name>		
<Brand Name>	<Model Name>	<Reviews>	

Sort in Layout

↑

Ascending

↓

Descending

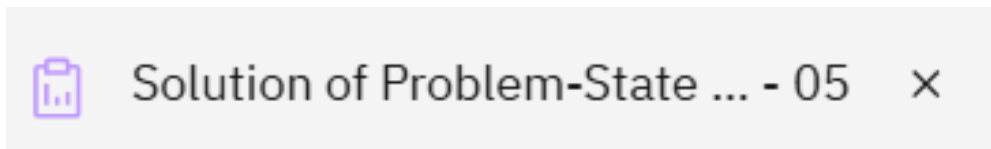
↕

Don't sort

Other Sort Options

Edit layout sorting...

**Step 3:** Save and Run the report. The list will show most-reviewed models at the top.



**Step 4:** Now Run .

**Finally:** The Results are here , Brand Name by Descending Sorting Order so , we can Identify the Most Popular Modal.

Brand Name	Model Name	Reviews	Rating (Out of 5)
Honor	Band 3	46,974	4.3
Honor	Band 4	35,618	4.4
boAt	Xplorer	23,069	3.8
boAt	O2	20,122	4.1
Honor	Band 5	13,884	4.4
Fire-Boltt	Mercury	9,882	4
Honor	Band 5i	9,256	4.2
huami	Amazfit GTS	7,628	4.3
Honor	Band 6	6,568	4.3
Fire-Boltt	Ninja touch to Wake	6,046	3.9
huami	Amazfit Bip	5,668	4.24
Honor	band 4 running	4,628	3.2
realme	S	4,142	4.3
Fire-Boltt	SpO2 Full Touch	2,525	4
huami	Amazfit Bip S	1,956	3.95
Honor	Magic Watch 2	1,663	4.4
huami	Amazfit Verge	1,643	4.125
Fire-Boltt	Ninja Pro	1,376	4
huami	Amazfit Bip U	1,334	4.2
boAt	Vertex	1,301	3.9

[⏮ Top](#)
[⬆ Page up](#)
[⬇ Page down](#)
[⏭ Bottom](#)

# PROJECT

**Problem Statement 06 :** Create a prompt where a user selects a **Device Type** (Smartwatch / FitnessBand). For the selected Device Type show:

- **COUNT** of models,
- **SUM** of Selling Price,
- **MIN** Selling Price,
- **MAX** Selling Price.

Also format the **COUNT** and **SUM** values to use a larger font and change their color (e.g., make COUNT red and SUM blue) so they stand out.

## SOLUTION:

**Columns used:** Device Type, Model Name, Selling Price

**Cognos Feature:** Data Module + Filter Definition.

**Step 1:** Now same as Previously, we have done Click → Hamburger Menu → New → Report → Blank → List →

Choose the data Source → **Fitness-Trackers-Data-Module** .

**Step 2:** Then We will drag These Listed Columns.

→ Device Type, Model Name, Selling Price

Device Type	Model Name	Selling Price
<Device Type>	<Model Name>	<Selling Price>
<Device Type>	<Model Name>	<Selling Price>
<Device Type>	<Model Name>	<Selling Price>

- ➔ Now, at the Top as we Previously done select Prompt Page , **Report** → **Prompt pages**. drag **Value prompt** onto the prompt page. The Promot Wizard will ask for Create a Parameter Name it -> **?DeviceType?** .

Prompt Wizard - Value prompt

Choose Parameter

Create a new parameter or use an existing parameter from a previously authored expression.

☒ Create a new parameter

Parameter1|

☐ Use existing parameter

☐ Use global parameter

Cancel

< Back

Next >

Finish

- ➔ Now in the Create a Parameterized Filter Write this , and Add Package item **Device Type**.

Prompt Wizard - Value prompt

Create Filter

Choose the package item that will be used to filter the report.

☒ Create a parameterized filter

Package item:

[C].[C\_Fitness\_Tracker\_Dataset\_Merged].[f]

Operator:

in

Parameter:

?DeviceType?

☐ Make the filter optional

Cancel

< Back

Next >

Finish

GROUP NUMBER - 06

➔ Now, in the Create a New Query Put this, and Choose **Display Type** for both same as in Value to use and Value to display, then Click **FINISH**.

### Prompt Wizard - Value prompt

#### Populate control

What values do you want to pick from? Use values are the retrieved data, and Display values are the selectable values that the user sees.

☒ Create new query

Name:

Values to use:  ⋮

Values to display:  ⋮

Cascading source:

**Step 3:** Now come in the Main Report, and Add **Detail Filter** then **Advance** then **give the Expression** .

Detail filter expression - Query1 ✕

Available Components: ✓ 🔍 📄 📊 ✂ 📋 🔗 ⊖

Fitness-Tracker-Dataset-Merged

- Fitness\_trackers\_updated.csv - Join (1)
- Fitness\_trackers\_updated.csv
- Fitness\_trackers.csv

Expression Definition:

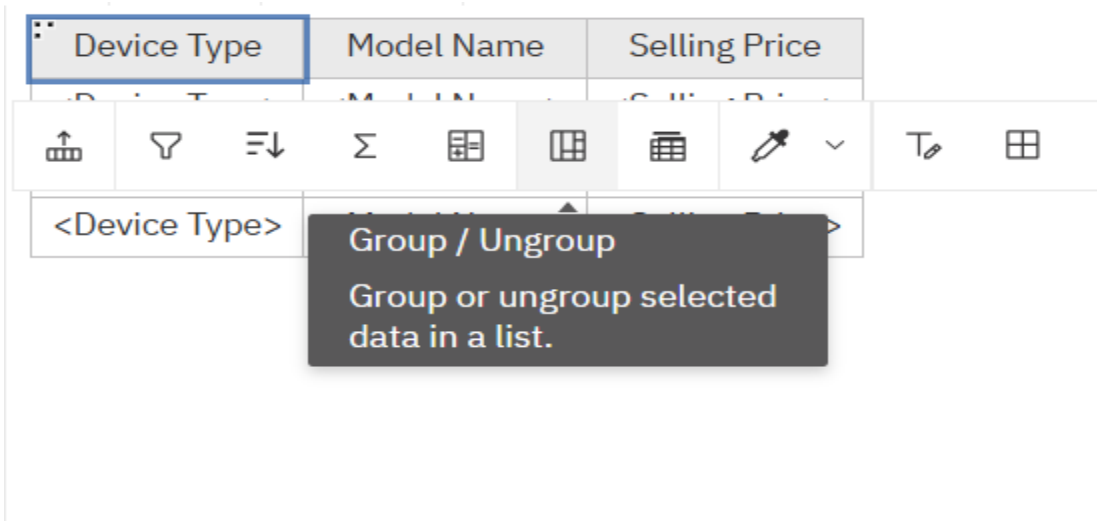
[Device Type] = ?DeviceType?

Information:

🔍 📄 📊 ✂ 📋 🔗 ⊖

**Tips** Errors

**Step 4.** Right-click Device Type column header → **Group**.



➔ Right-click Model Name column → **Insert summary** → choose **Count**.

➔ Right-click Selling Price column → **Insert summary** → choose **Sum**.

Device Type	Model Count	Selling Price
<Device Type>	<Model Name>	<Selling Price>
<Device Type> - Total		<Total(Selling Price)>
<Device Type>	<Model Name>	<Selling Price>
<Device Type> - Total		<Total(Selling Price)>
Overall - Total		<Total(Selling Price)>

- ➔ Right-click Selling Price column again → **Insert summary** → choose **Minimum** → Label Min Price.

Device Type	Model Count	Selling Price
<Device Type>	<Model Name>	<Selling Price>
<Device Type> - Total		<Total(Selling Price)>
<Device Type> - Minimum		<Minimum(Selling Price)>
<Device Type>	<Model Name>	<Selling Price>
<Device Type> - Total		<Total(Selling Price)>
<Device Type> - Minimum		<Minimum(Selling Price)>
Overall - Total		<Total(Selling Price)>
Overall - Minimum		<Minimum(Selling Price)>

- ➔ Choosing Minimum Maximum .

Device Type	Model Count	Selling Price
<Device Type>	<Model Name>	<Selling Price>
<Device Type> - Total		<Total(Selling Price)>
<Device Type> - Minimum		<Minimum(Selling Price)>
<Device Type> - Maximum		<Maximum(Selling Price)>
<Device Type> - Average		<Average(Selling Price)>
<Device Type> - Median		<Median(Selling Price)>
<Device Type> - Standard deviation		<Standard deviation(Selling Price)>
<Device Type> - Variance		<Variance(Selling Price)>
Overall - Total		<Total(Selling Price)>
Overall - Minimum		<Minimum(Selling Price)>
Overall - Maximum		<Maximum(Selling Price)>
Overall - Average		<Average(Selling Price)>
Overall - Median		<Median(Selling Price)>
Overall - Standard deviation		<Standard deviation(Selling Price)>
Overall - Variance		<Variance(Selling Price)>



**Step 6:** Format COUNT and SUM (font size & color).

- **Font Size** = 14 (or larger)
- **Font Weight** = Bold
- **Color** = click color picker → choose **red** (or enter hex like #FF0000)

Device Type		Model Count	Selling Price
<Device Type> - Minimum		<Minimum(Selling Price)>	
<Device Type> - Maximum		<Maximum(Selling Price)>	
<Device Type>	<Model Name>	<Selling Price>	
<Device Type> - Total		<Total(Selling Price)>	
<Device Type> - Minimum		<Minimum(Selling Price)>	
<Device Type> - Maximum		<Maximum(Selling Price)>	
Overall - Total		<Total(Selling Price)>	
Overall - Minimum		<Minimum(Selling Price)>	
Overall - Maximum		<Maximum(Selling Price)>	

**Step 7 :** Click the Total Selling Price summary cell:

- **Font Size** = 14
- **Font Weight** = Bold
- **Color** = blue (e.g., #0000FF)

<Selling Price>
<Total(Selling Price)>
<Minimum(Selling Price)>
<Maximum(Selling Price)>
<Selling Price>

➔ Now **SAVE** and **RUN**.

Save as

Name

Problem statment 6 -> Solution 06

➔ Now Choose The Device Type.

Prompt

Provide values for the report you are about to run.

DeviceType

\*

DeviceType



➔ Now One More Time Click **Run** → The Prompt page appears. Select a Device Type (e.g., **Smartwatch**) → Finish.

FitnessBand



DeviceType

-----

FitnessBand

Smartwatch

➔ These are the Results. Based on Your Selection.

Device Type	Model Count	Selling Price
FitnessBand	HMSH01GE	1,722
	Steven Harrington Edition Band	3,299
	Band	5,288
	Charge 4	20,998
	Inspire 2	6,999
	Inspire HR	17,096
	Charge 3 Special Edition	9,999
	band 4 running	1,649
	Beat	2,999
	ColorFit2	1,699
	ZEB-FIT450	1,699
	Band - HRX Edition	1,299
	Band 2	18,795
	Inspire	13,289
	Charge 2	91,491
	Band 4	7,198
	Band Z1	5,499
	Vital 3.0	3,999
	Mambo	1.699

➔ This is the end of Report Looks Like.

Device Type	Model Count	Selling Price
FitnessBand	Band 5i	4,268
	Band 5	8,696
	Reflex Smart Band	2,790
	Activity Tracker	13,201
FitnessBand - Total		413,923
FitnessBand - Minimum		1,270
FitnessBand - Maximum		91,491
Overall - Total		413,923
Overall - Minimum		1,270
Overall - Maximum		91,491

**Finally :** Report Looks Like This.

# PROJECT

**Problem Statement 07:** Allow the user to select a **Display type** (e.g., AMOLED, LCD) and display all **water-resistant** products of that Display with **Rating  $\geq 4.5$** .

**Columns Used:** Display, Rating (Out of 5), Model Name, Brand Name

## SOLUTION:

**Columns Used:** Model Name, Brand Name, Display, Rating (Out of 5)

**Cognos Feature:** Crosstab + Summary Filter.

**Step 1:** Now same as Previously, we have done

- ➔ Come into Your HOME
- ➔ Click ➔ Hamburger Menu ➔ New ➔ Report ➔ Blank ➔ List ➔

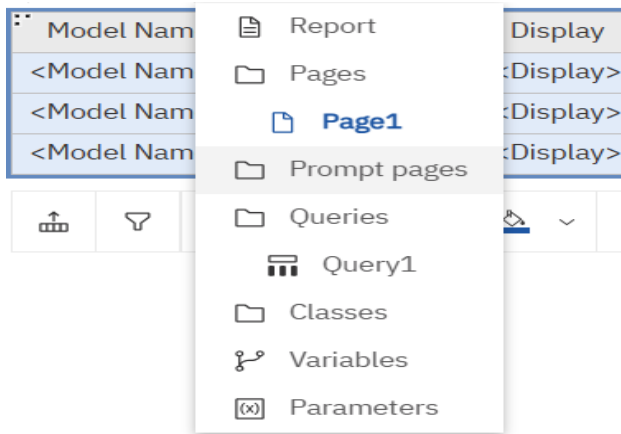
Choose the data Source ➔ **Fitness-Trackers-Data-Module** .

**Step 2:** Then We will drag These Listed Columns.

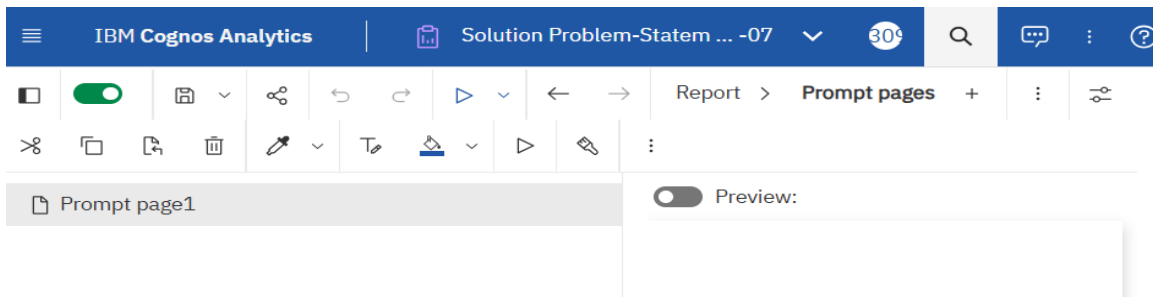
- ➔ **Drag: Model Name, Brand Name, Display, Rating (Out of 5) onto the list.**

Model Name	Brand Name	Display	Rating (Out of 5)
<Model Name>	<Brand Name>	<Display>	<Rating (Out of 5)>
<Model Name>	<Brand Name>	<Display>	<Rating (Out of 5)>
<Model Name>	<Brand Name>	<Display>	<Rating (Out of 5)>

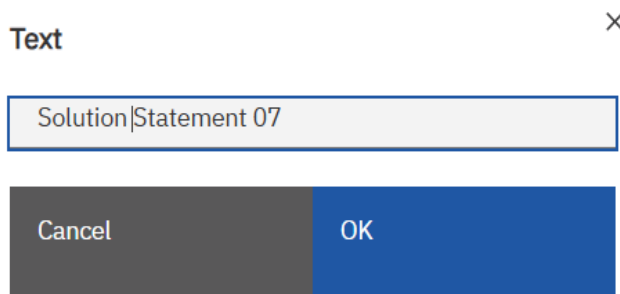
**Step 3: Create Prompt Pages** as Previously we have done, From top nav: **Report** → **Prompt pages**.



**Step 4:** Toolbox → drag **Page** into Prompt pages area, Double-click the prompt page to open it, edit the page.

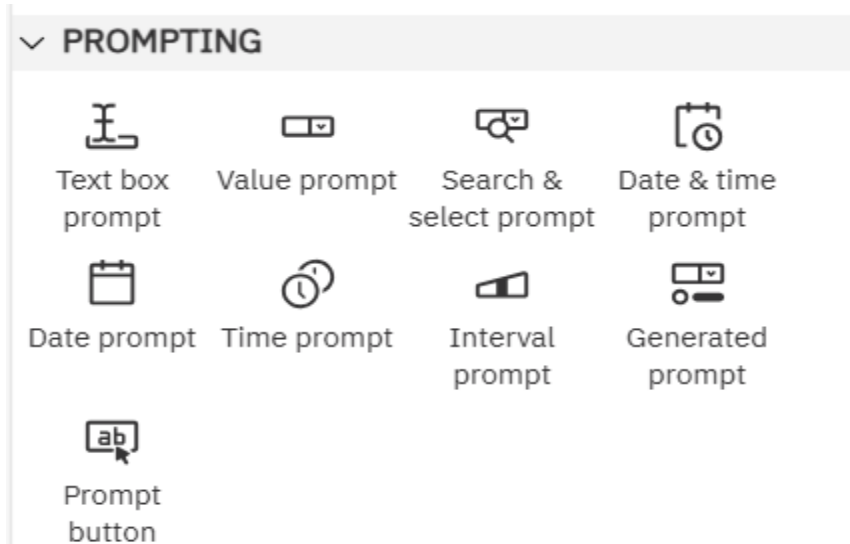


➔ You can **change** the **Header** for this **Prompt page** by Double clicking in the TEXT.



## ➔ Add Value Prompt

Toolbox → **Prompting** → **Value Prompt** → drag to prompt page.



## ➔ In Prompt Wizard set:

**Prompt Wizard - Value prompt** ×

**Choose Parameter**  
Create a new parameter or use an existing parameter from a previously authored expression.

☒ Create a new parameter

DisplayType   Display   Displays

☐ Use existing parameter

☐ Use global parameter

Cancel

< Back

Next >

Finish

➔ Now, Click **Next** Then Fill this on the Create filter and then **Next**.

**Prompt Wizard - Value prompt**

**Create Filter**  
Choose the package item that will be used to filter the report.

---

☒ Create a parameterized filter

Package item:  :

Operator:  ▼

Parameter:

☐ Make the filter optional

Cancel < Back Next > Finish

➔ Now this will appear, Fill this ➔ then Click **FINISH**.

**Prompt Wizard - Value prompt**

**Populate control**  
What values do you want to pick from? Use values are the retrieved data, and Display values are the selectable values that the user sees.

---

☒ Create new query

Name:

Values to use:  [

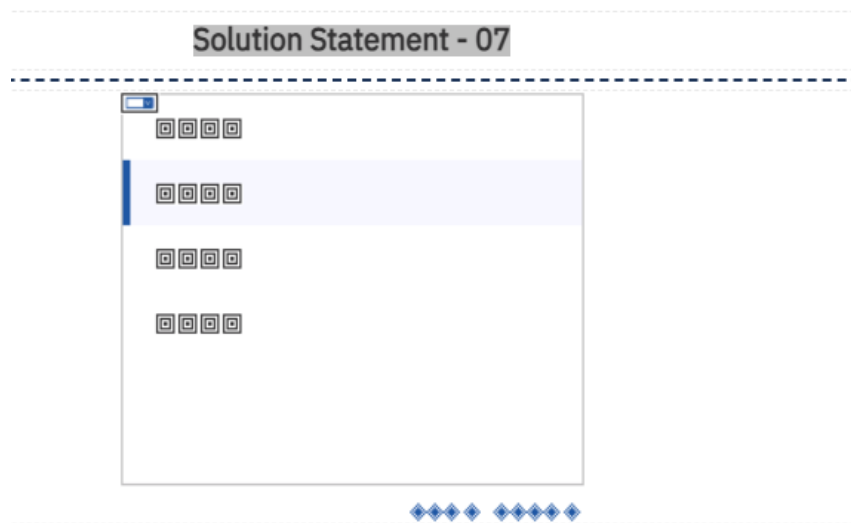
Values to display:  [

Cascading source:

Cancel < Back Next > Finish



- ➔ Now You Will be Seeing this . Now You done with Page Prompt . Now **come into the Report Page**. Click **Filters (funnel icon)** → **Edit Filters** → **Detail Filters** → **Add**.



- ➔ In your Report , Click **Filters (funnel icon)** → **Edit Filters** → **Detail Filters** → **Add** then give this as the Expression.

#### Detail filter expression - Query1

Available Components:

- Model Name
- Brand Name
- Display
- Rating (Out of 5)

Expression Definition:

[Display] = ?DisplayType? AND [Rating (Out of 5)] >= 4.5

Information:



Tips

Errors

Cancel

OK

➔ Now , **Save then Run.**

Save as

Name

Solution Statement 7

Selected destination: My content

**My content**

Team content

➔ Now this will be Appear Your Given Prompt .

**Solution Statement 07**

\* 

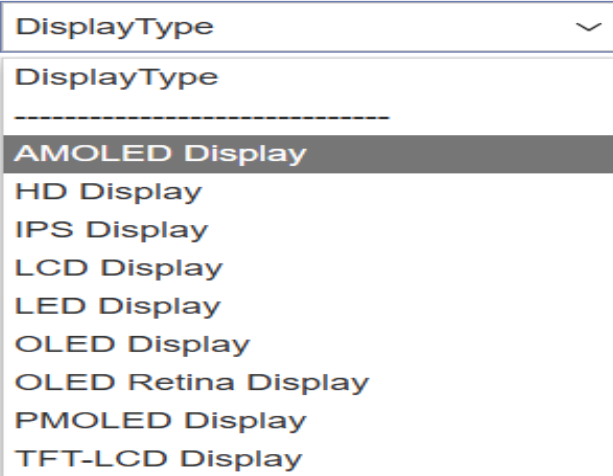
[Select all](#) [Deselect all](#)

➔ Now Select One “**AMOLED DISPLAY**” or any you like to Then Click Okay.-->

**Prompt**

Provide values for the report you are about to

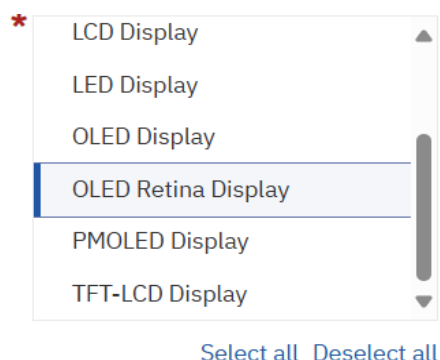
DisplayType

\* 

➔ Here are the Results.

Model Name	Brand Name	Display	Rating (Out of 5)
Neutra Hybrid	FOSSIL	AMOLED Display	5
Q Neely	FOSSIL	AMOLED Display	4.6
Gen 5E	FOSSIL	AMOLED Display	4.6
Cameron Hybrid	FOSSIL	AMOLED Display	4.6
Rose Gold Smart	FOSSIL	AMOLED Display	4.6
FTW1146 Q Hybrid	FOSSIL	AMOLED Display	4.6
FTW1141 Q Hybrid	FOSSIL	AMOLED Display	4.6
FTW1134 Q Hybrid	FOSSIL	AMOLED Display	4.6
5th Gen Julianna	FOSSIL	AMOLED Display	4.6
Q Machine	FOSSIL	AMOLED Display	4.6
FTW1145 Q Hybrid	FOSSIL	AMOLED Display	4.6
FTW2115 Q Watch	FOSSIL	AMOLED Display	4.6
Forerunner 935	GARMIN	AMOLED Display	4.7
vivoactive 4S 40mm	GARMIN	AMOLED Display	5
Galaxy Watch 4 LTE	SAMSUNG	AMOLED Display	4.6
Galaxy Watch 4 Classic LTE	SAMSUNG	AMOLED Display	4.6

➔ Now **RUN** one more time , NoW ,select **Oled Ratina Display** Click OK.



➔ Click **Run** , Now see the **Results** Based on **Oled Retina Display**.

Brand Name	Model Name	Display	Rating (Out of 5)
APPLE	SE GPS + Cellular 40 mm Space Grey Aluminium Case	OLED Retina Display	4.6
APPLE	Series 6 GPS 40 mm Silver Aluminium Case	OLED Retina Display	4.5
APPLE	Series 6 GPS + Cellular 40 mm Graphite Stainless Steel Case	OLED Retina Display	4.5
APPLE	SE GPS 44 mm Aluminium Case	OLED Retina Display	4.7
APPLE	Series 6 GPS + Cellular 40 mm Gold Stainless Steel Case	OLED Retina Display	4.5
APPLE	Series 5 GPS + Cellular 44 mm Gold Aluminium Case	OLED Retina Display	4.7
APPLE	Series 5 GPS + Cellular 40 mm Space Grey Aluminium Case	OLED Retina Display	4.5
APPLE	SE GPS + Cellular 44 mm Space Grey Aluminium Case	OLED Retina Display	4.6
APPLE	Series 7 GPS + Cellular, 45 mm Aluminium	OLED Retina Display	4.6
APPLE	Series 6 GPS 40 mm Gold Aluminium Case	OLED Retina Display	4.5
APPLE	Series 6 GPS 40 mm Space Grey Aluminium Case	OLED Retina Display	4.5
APPLE	Nike Series 5 GPS + Cellular 44 mm	OLED Retina Display	4.7
APPLE	SE GPS + Cellular 44 mm Gold Aluminium Case	OLED Retina Display	4.56666667
APPLE	Sport 42 mm Space Grey Aluminium Case	OLED Retina Display	4.6
APPLE	Series 1 - 38 mm Silver Aluminium Case	OLED Retina Display	4.6
APPLE	42 mm Stainless Steel Case	OLED Retina Display	4.5
APPLE	Series 3 GPS - 38 mm Space Grey Aluminium Case	OLED Retina Display	4.6
APPLE	SE 40 mm Space Grey Aluminium Case	OLED Retina Display	4.7
APPLE	SE GPS + Cellular 40 mm Gold Aluminium Case	OLED Retina Display	4.56666667
APPLE	Series 6 GPS 44 mm Red Aluminium Case	OLED Retina Display	4.5

# PROJECT

**Problem Statement 08:** Create a cross-tab showing **average price vs brand**, but only show brands whose **average rating  $\geq 4.2$** .

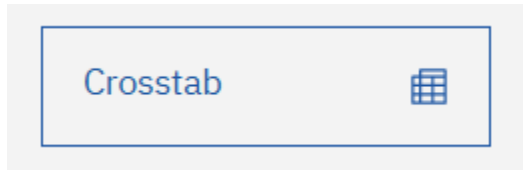
## SOLUTION:

**Columns Used:** Brand, Price, Rating.

**Cognos Feature:** Crosstab + Summary Filter.

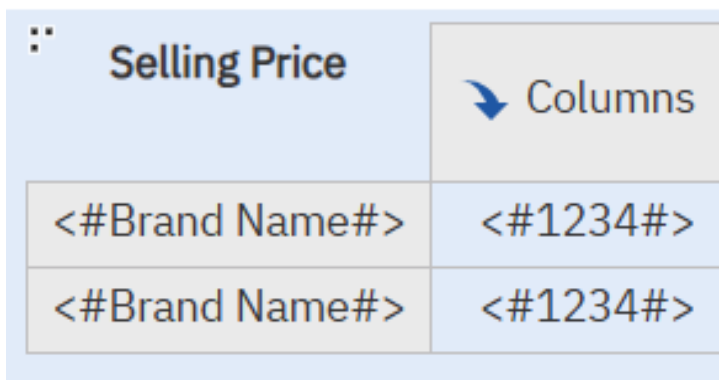
**Step 1:** Now same as Previously, we have done

- ➔ Come into Your HOME
- ➔ Click ➔ Hamburger Menu ➔ New ➔ Report ➔ Blank ➔ **Cross-Tab** ➔




Choose the data Source ➔ **Fitness-Trackers-Data-Module** .

**Step 2:** Drag **Brand Name** to Rows as Previously When its Starts Blinking while dragging leave it on rows , and same as **Selling Price to Measures**.


A screenshot of the Cognos report builder interface. It shows a table with two columns. The first column is labeled 'Selling Price' and the second column is labeled 'Columns'. The first row of data shows '<#Brand Name#>' in the first column and '<#1234#>' in the second column. The second row of data shows '<#Brand Name#>' in the first column and '<#1234#>' in the second column.


Selling Price	Columns
<#Brand Name#>	<#1234#>
<#Brand Name#>	<#1234#>

➔ Select the Selling Price and in Properties at Left said set Price aggregate to average.

 Average

 Minimum

 Maximum

 Count distinct

**Step 4 :** Open Filters → Summary Filters , add a Summary Filter with expression:

Summary Filters

---

Create filter

×

☐ Custom based on data item

☐ Combined

☒ Advanced

Cancel

OK

Filters - Query1

Detail Filters   **Summary Filters**

▽ [Rating (Out of 5)] >= 4.2

Usage

☒ Required

☐ Optional

☐ Disabled

Scope:  ⋮

+   -   ✎

Cancel   OK

**Step 5:** Validate → Save → Run.

▼

✂

↶

↷

boAt	16,987
FitBit	714,961
realme	52,833
Honor	110,200
Oppo	32,980
huami	271,715
APPLE	4,249,590
OnePlus	20,797
Huawei	412,740
GOQii	12,496
LCARE	4,694
LAVA	1,999
Fastrack	10,525
GARMIN	3,538,861
Xiaomi	41,004
Infinix	1,499
Noise	60,495
SAMSUNG	1,099,266
FOSSIL	1,838,719

GROUP NUMBER - 06

# PROJECT

**Problem Statement 09:** Compare the **total number of models per brand** and show only brands having **more than 5 models** listed.

**Columns Used:** Brand Name, Model Name.

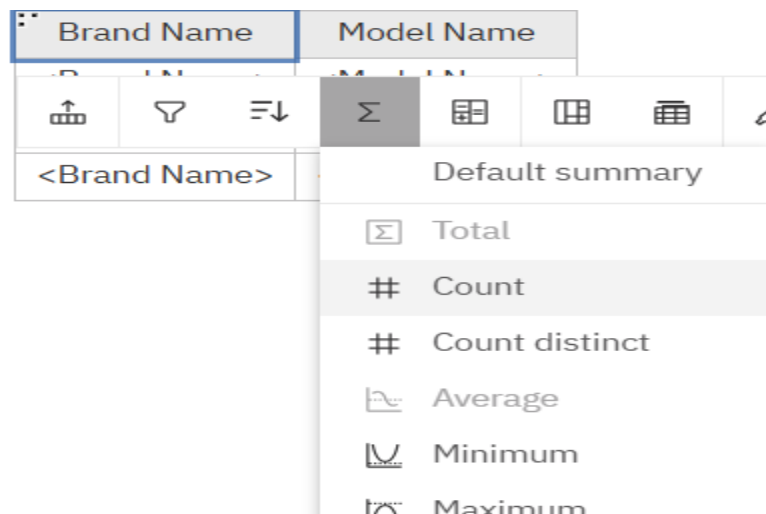
**Cognos Feature:** Summary Report + Filter (COUNT > 5).

## SOLUTION:

**Step 1:** Create a List report and drag Brand Name and Model Name to the canvas.

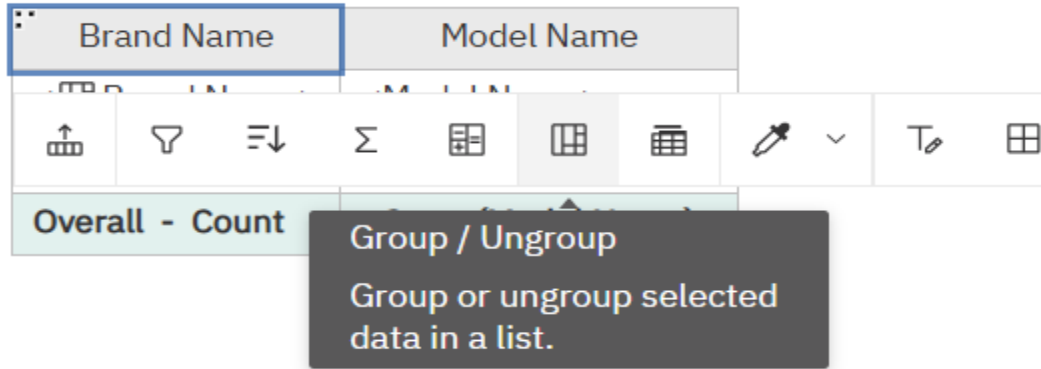
Brand Name	Model Name
<Brand Name>	<Model Name>
<Brand Name>	<Model Name>
<Brand Name>	<Model Name>

**Step 2:** Group the list by Brand: → right-click the **Brand column** header → Group (or Insert → Group).





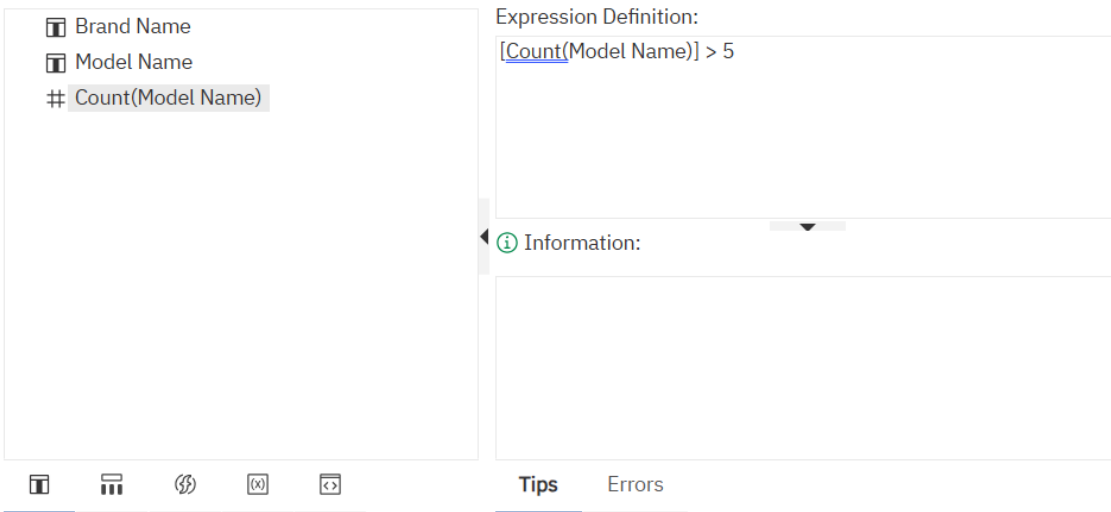
**Step 3:** Insert a summary (count) on Model Name: right-click Model Name → Insert summary → Count. This produces Count(Model Name) per Brand.



**Step 4:** Open Filters → Summary Filters → Add → expression: count([Model Name]) > 5, Validate and OK.

#### Summary filter expression - Query2

Available Components:



**Step 5: Save and Run.** The report shows only brands having more than 5 models and the respective counts.

Brand Name	Model Name
Huawei	GT Sport
	GT2 42mm
	GT2 46mm
	GT2 Pro
	GT2 eActive
	GT2 eSport
	Stainless Steel
	Watch 2
	Watch 2 Sport
	Watch 32564546
	Watch 36456
Infinix	Band 5
LAVA	BeFit
LCARE	Mambo
	Watch
Noise	ColorFit
	ColorFit Brio
	ColorFit Pro
	ColorFit Pro 2
	ColorFit Pro 2 Oxy

Brand Name	Model Name
huami	Amazfit Verge Lite
	Bip Lite On
realme	2 Pro
	2S
	Band
	Band 2
	Classic
	Fashion
	S
	S Master
	S Pro
	Smart band
Overall - Count	392

# PROJECT

**Problem Statement 10:** Create a **List** report that shows product details and also a **summary header and a Footer**.

- ➔ A SUMMURY report showing necessary Information about the Data.
- ➔ Add a **header** with title, and a **footer** that shows The Person who has made it , Group Number of Project.

## SOLUTION:

**Columns used:** Model Name, Brand Name, Selling Price, Original Price, Rating (Out of 5).

**Cognos Features Used:**

- List Report.
- Aggregation .
- Summary Rows.
- Header & Footer
- Formatting for Presentation.

**Step 1:** Now same as Previously, we have done

- ➔ Come into Your HOME
- ➔ Click ➔Hamburger Menu ➔ New ➔ Report ➔ Blank ➔ List ➔


Choose the data Source ➔ **Fitness-Trackers-Data-Module** .


**Step 2:** Then We will drag These Listed Columns.


➔ **Brand Name, Model Name, Selling Price, Original Price, Rating(Out of 5).**


Brand Name	Model Name	Selling Price	Original Price	Rating (Out of 5)
<Brand Name>	<Model Name>	<Selling Price>	<Original Price>	<Rating (Out of 5)>
<Brand Name>	<Model Name>	<Selling Price>	<Original Price>	<Rating (Out of 5)>
<Brand Name>	<Model Name>	<Selling Price>	<Original Price>	<Rating (Out of 5)>


**Step 3:** Select Brand Name and Select **Group /Ungroup Icon**.



























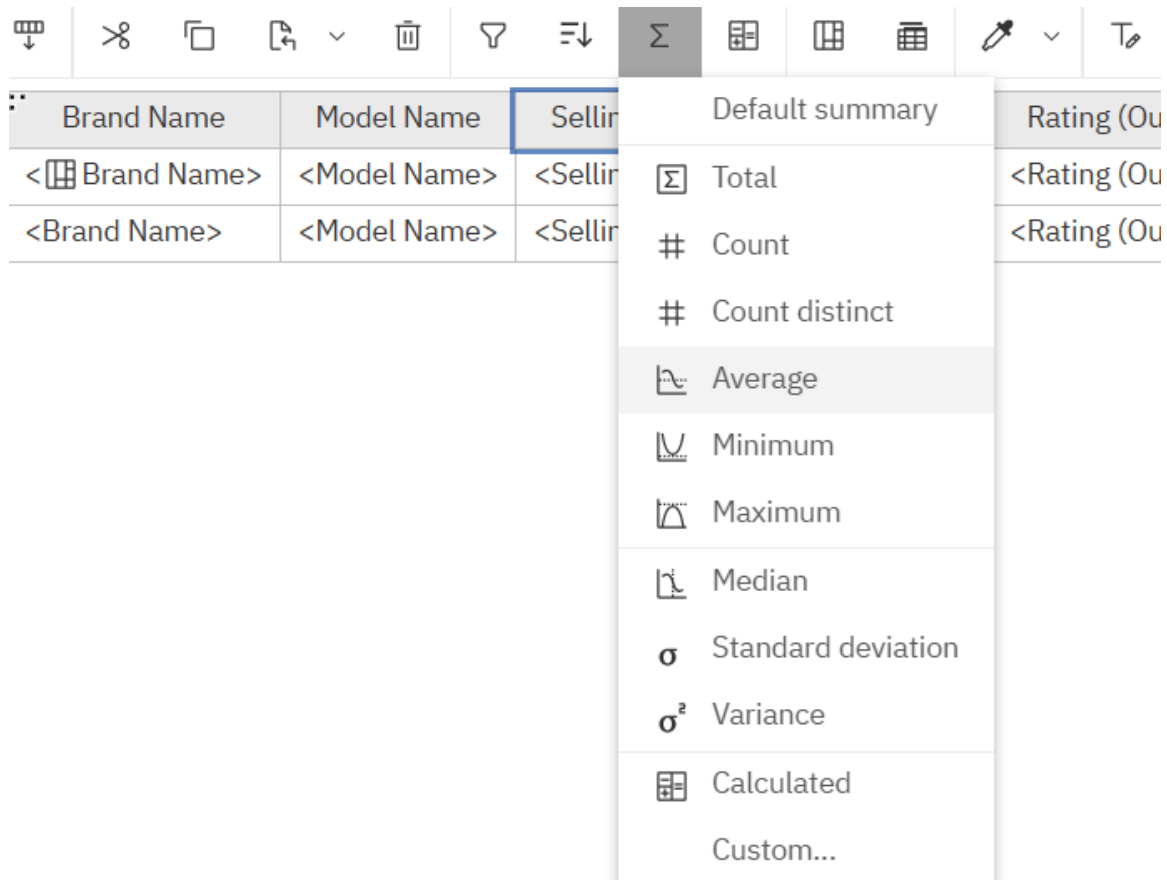


Brand Name	Model Name	Selling Price	Original Price	Rating (Out of 5)
<Brand Name>	<Model Name>	<Selling Price>	<Original Price>	<Rating (Out of 5)>
<Brand Name>	<Model Name>	<Selling Price>	<Original Price>	<Rating (Out of 5)>
<Brand Name>	<Model Name>	<Selling Price>	<Original Price>	<Rating (Out of 5)>

Group / Ungroup

Group or ungroup selected data in a list.

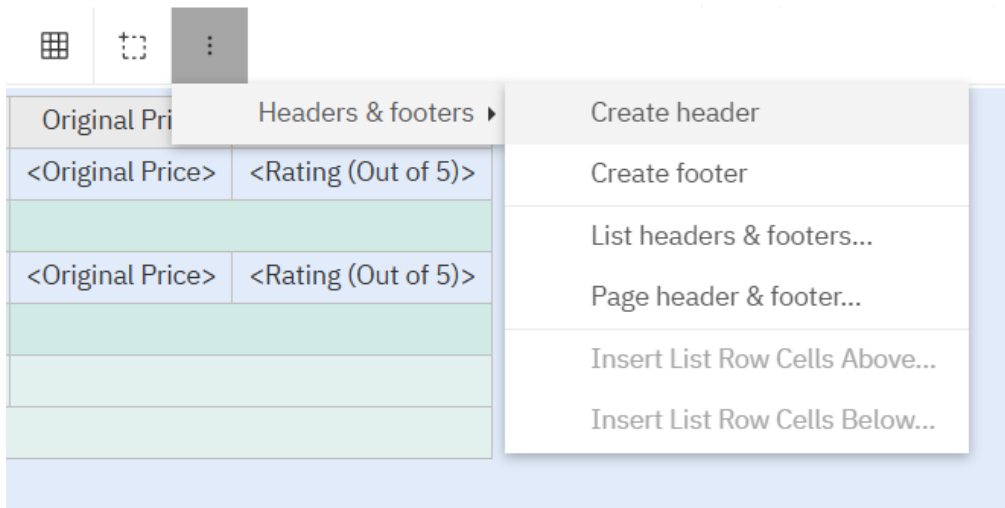
**Step 4: Choose Selling Price and then Click the Sum Icon and choose → Average.**



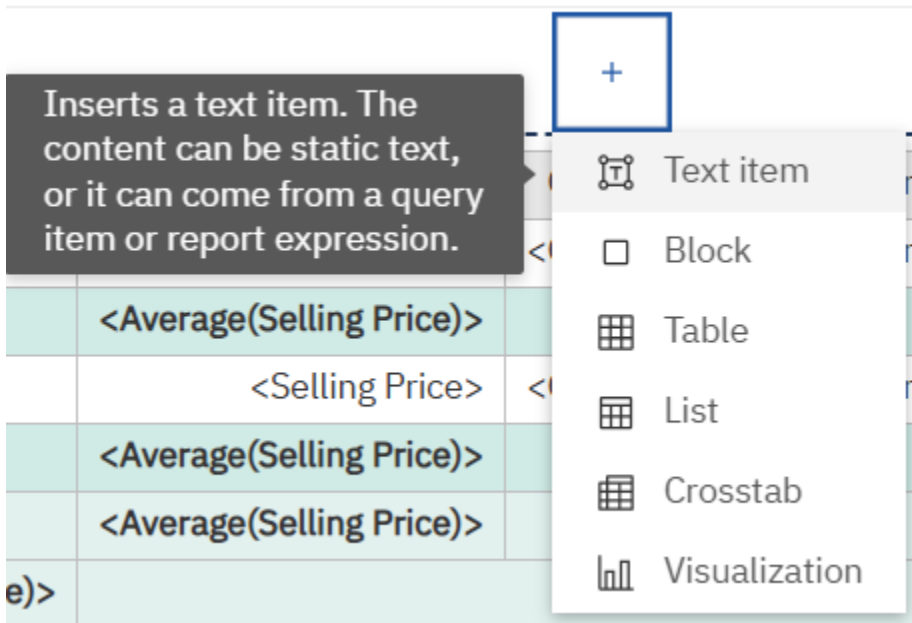
**Step 5: Add one more column for showing Average Brand Name or drag one column beside Brand Name.**

Brand Name	Model Name	Brand Name	Selling Price	Original Price	Rating (Out of 5)
<Brand Name>	<Model Name>	<Brand Name>	<Selling Price>	<Original Price>	<Rating (Out of 5)>
<Brand Name> - Average			<Average(Selling Price)>		
<Brand Name>	<Model Name>	<Brand Name>	<Selling Price>	<Original Price>	<Rating (Out of 5)>
<Brand Name> - Average			<Average(Selling Price)>		
Overall - Average			<Average(Selling Price)>		
Overall - Count		<Count(Brand Name)>			

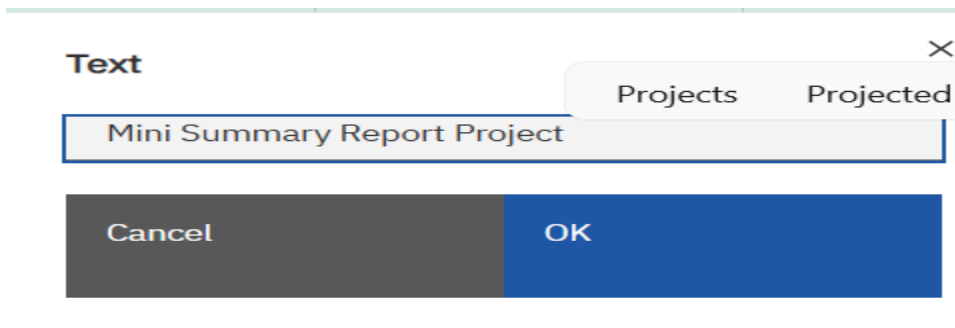
**Step 6 :** Right Click anywhere in the list then choose Header and Footer.



**Step 7 :** Now Insert into your header → insert text.



**Step 8:** Now give it a name.

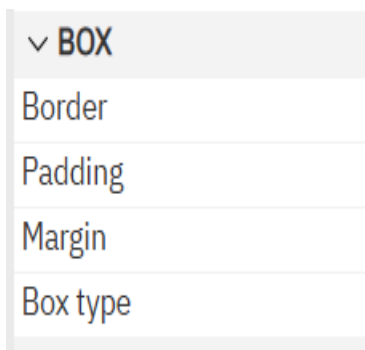


**Step 9 :** Now adjust the Header font size and coloring.

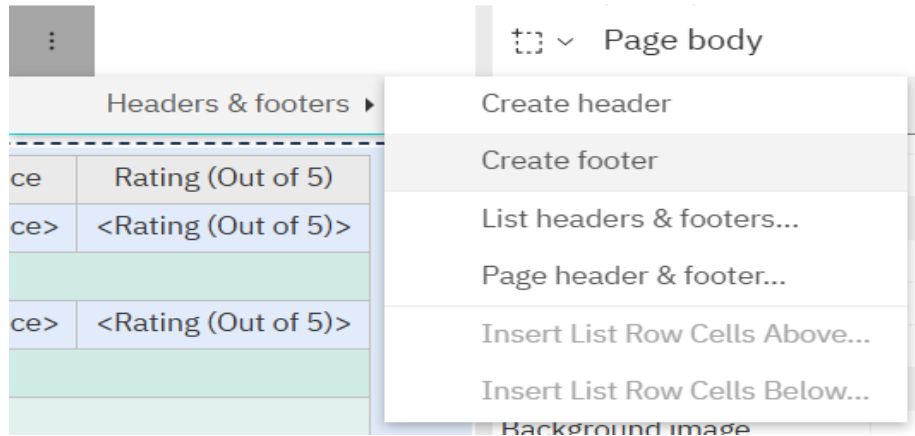
**Before :** 

**After :** 

**Step 10 :** You also can give **Margin and Padding** Right Pannel Properties.



**Step 11:** Now Create Footer ADD Your Name Or Project Group Name At the End Of the Report.



**Step 12 :** Now same as Apply Styling , **FONT, COLOR, Padding** , and adjust it .

**Before :** Kanchan Kapri (Group 06)

**After :** ***Kanchan Kapri (Group 06)***



**Step 13 : Now RUN the Report After Saving .**

<b>FOSSIL - Average</b>			<b>21,889.51190476</b>		
Fastrack	Reflex 2.0	Fastrack	1,395	1,995	4.1
	Reflex 3.0	Fastrack	4,695	2,995	3.95
	Reflex Beat	Fastrack	1,645	2,195	4
	Reflex Smart Band	Fastrack	2,790	1,995	4.05
<b>Fastrack - Average</b>			<b>2,631.25</b>		
Fire-Boltt	AI-BT Calling	Fire-Boltt	4,499	9,999	3.7
	Almighty	Fire-Boltt	4,999	14,999	4.1
	BSW004	Fire-Boltt	4,800	9,999	
	Max	Fire-Boltt	4,499	12,999	4
	Mercury	Fire-Boltt	5,498	7,999	4
	Ninja Pro	Fire-Boltt	3,998	4,999	4
	Ninja touch to Wake	Fire-Boltt	1,899	4,999	3.9
	SpO2 Full Touch	Fire-Boltt	2,999	5,999	4
	Spin	Fire-Boltt	11,692	5,999	2.4
	Talk Bluetooth	Fire-Boltt	3,499	9,999	4.1
	Ultron	Fire-Boltt	3,999	10,999	4.1
<b>Fire-Boltt - Average</b>			<b>4,761.90909091</b>		
FitBit	Alta	FitBit	12,999	12,999	4.1
	Alta HR	FitBit	31,998	15,999	4.3

***Kanchan Kapri (Group 06)***

## Mini Summary Report Project

Brand Name	Model Name	Brand Name	Selling Price	Original Price	Rating (Out of 5)
huami	Amazfit Verge	huami	42,996	11,999	4.125
	Amazfit Verge Lite	huami	5,999	8,999	4.2
	Bip Lite On	huami	7,999	14,999	4.1
huami - Average			12,938.80952381		
realme	2 Pro	realme	4,999	5,999	4.4
	2S	realme	3,499	3,999	4.2
	Band	realme	2,789	2,999	4
	Band 2	realme	2,999	3,499	4.1
	Classic	realme	3,921	6,999	4
	Fashion	realme	5,400	6,999	4
	S	realme	11,778	7,999	4.3
	S Master	realme	5,999	8,999	4.3
	S Pro	realme	9,999	12,999	4.1
	Smart band	realme	1,450	2,999	4
realme - Average			5,283.3		
Overall - Average			29,171.3256351		
Overall - Count		433			

***Kanchan Kapri (Group 06)***