

Milestone 1: Empathy map creation

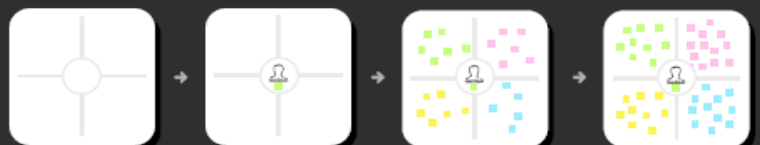
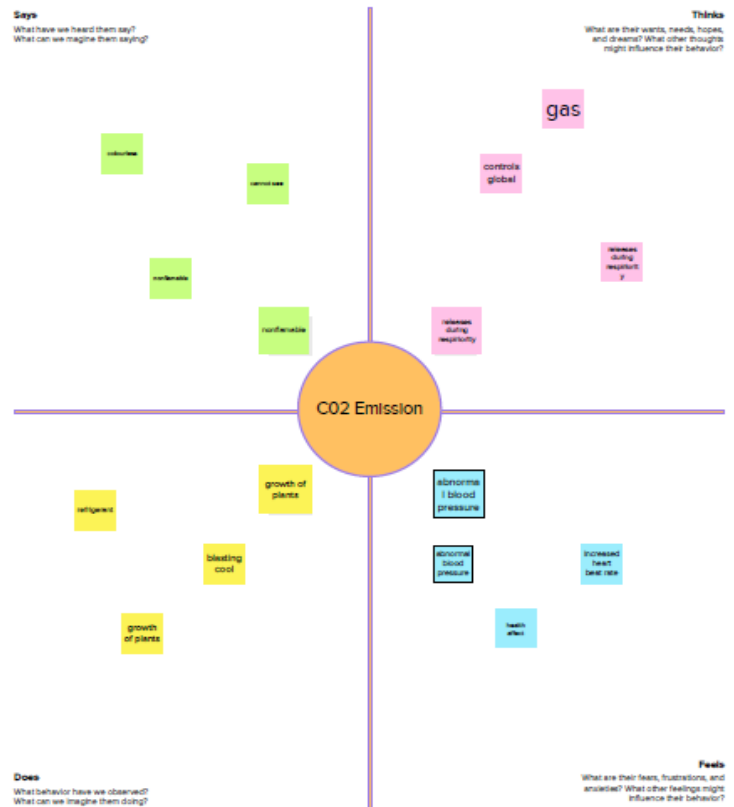
Use this framework to develop a deep, shared understanding and empathy for other people. An empathy map helps describe the aspects of a user's experience, needs and pain points, to quickly understand your users' experience and mindset.

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See a finished version of this template to kickstart your work.

[Open example](#) →

The information you add here should be representative of the observations and research you've done about your users.



Milestone 2:
Data Collection & Extraction
from Database

Milestone 2: Data Collection & Extraction from Database

Data collection is the process of gathering and measuring information on variables of interest, in

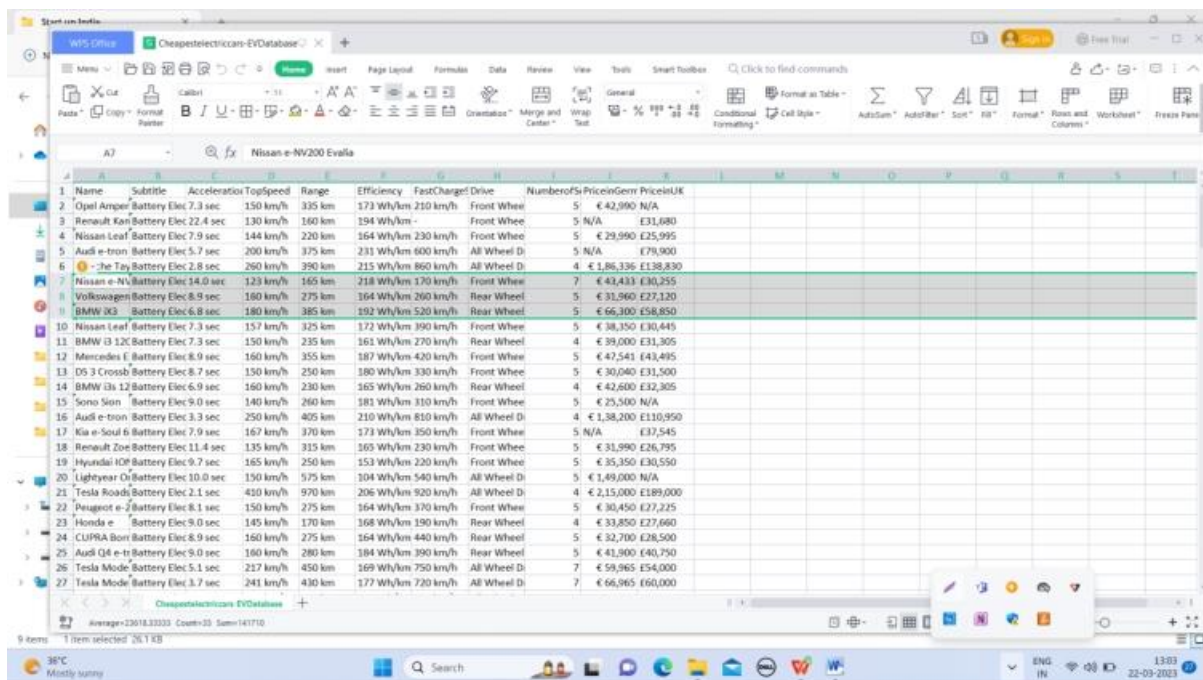
an established systematic fashion that enables one to answer stated research questions, test hypotheses, evaluate outcomes and generate insights from the data.

Activity 1: Downloading the dataset

Please use the link to download the dataset: [Link](#)

Solution:

We download the data set for startup India project



	Name	Subtitle	Acceleration	TopSpeed	Range	Efficiency	FastCharge	Drive	Number of Seats	Price in Germany	Price in UK
1	Opel Ampera	Battery Elec	7.3 sec	150 km/h	335 km	173 Wh/km	210 km/h	Front Wheel	5	€ 42,990	N/A
2	Renault Kangoo	Battery Elec	22.4 sec	130 km/h	160 km	194 Wh/km	-	Front Wheel	5	N/A	€31,680
3	Nissan Leaf	Battery Elec	7.9 sec	144 km/h	220 km	164 Wh/km	230 km/h	Front Wheel	5	€ 29,990	€25,995
4	Audi e-tron	Battery Elec	5.7 sec	200 km/h	375 km	231 Wh/km	600 km/h	All Wheel Dr	5	N/A	€79,900
5	Volvo Taycan	Battery Elec	2.8 sec	260 km/h	350 km	215 Wh/km	860 km/h	All Wheel Dr	4	€ 1,86,336	€136,830
6	Nissan e-NV	Battery Elec	14.0 sec	123 km/h	165 km	218 Wh/km	170 km/h	Front Wheel	7	€ 43,433	€30,355
7	Volkswagen Golf	Battery Elec	8.9 sec	180 km/h	275 km	164 Wh/km	260 km/h	Rear Wheel	5	€ 31,960	€27,120
8	BMW iX3	Battery Elec	6.8 sec	180 km/h	385 km	192 Wh/km	520 km/h	Rear Wheel	5	€ 66,300	€58,850
9	Nissan Leaf	Battery Elec	7.3 sec	157 km/h	325 km	172 Wh/km	390 km/h	Front Wheel	5	€ 38,350	€30,445
10	BMW i3	Battery Elec	7.3 sec	150 km/h	335 km	161 Wh/km	270 km/h	Rear Wheel	4	€ 39,000	€31,305
11	Mercedes EQ	Battery Elec	8.9 sec	160 km/h	355 km	187 Wh/km	420 km/h	Front Wheel	5	€ 47,541	€43,485
12	DS 3 Crossback	Battery Elec	8.7 sec	150 km/h	250 km	180 Wh/km	330 km/h	Front Wheel	5	€ 30,040	€31,500
13	BMW i3s	Battery Elec	6.9 sec	160 km/h	330 km	165 Wh/km	260 km/h	Rear Wheel	4	€ 42,600	€32,305
14	Sony Sion	Battery Elec	9.0 sec	140 km/h	260 km	181 Wh/km	310 km/h	Front Wheel	5	€ 25,500	N/A
15	Audi e-tron	Battery Elec	3.3 sec	250 km/h	405 km	210 Wh/km	810 km/h	All Wheel Dr	4	€ 1,38,200	€110,950
16	Kia e-Soul	Battery Elec	7.9 sec	167 km/h	370 km	173 Wh/km	350 km/h	Front Wheel	5	N/A	€37,545
17	Renault Zoe	Battery Elec	11.4 sec	135 km/h	315 km	165 Wh/km	230 km/h	Front Wheel	5	€ 31,990	€26,795
18	Hyundai iON	Battery Elec	9.7 sec	165 km/h	250 km	153 Wh/km	220 km/h	Front Wheel	5	€ 35,350	€30,550
19	Lightyear 0	Battery Elec	10.0 sec	150 km/h	575 km	104 Wh/km	540 km/h	All Wheel Dr	5	€ 1,49,000	N/A
20	Tesla Roadster	Battery Elec	2.1 sec	410 km/h	970 km	206 Wh/km	920 km/h	All Wheel Dr	4	€ 2,15,000	€189,000
21	Peugeot e-208	Battery Elec	8.1 sec	150 km/h	275 km	164 Wh/km	370 km/h	Front Wheel	5	€ 30,450	€27,225
22	Honda e	Battery Elec	9.0 sec	145 km/h	170 km	168 Wh/km	190 km/h	Rear Wheel	4	€ 33,850	€27,660
23	CUPRA Born	Battery Elec	8.9 sec	160 km/h	275 km	164 Wh/km	440 km/h	Rear Wheel	5	€ 32,700	€28,500
24	Audi Q4 e-tron	Battery Elec	9.0 sec	160 km/h	280 km	184 Wh/km	390 km/h	Rear Wheel	5	€ 41,900	€40,750
25	Tesla Model S	Battery Elec	5.1 sec	217 km/h	450 km	169 Wh/km	750 km/h	All Wheel Dr	7	€ 59,965	€54,000
26	Tesla Model S	Battery Elec	3.7 sec	241 km/h	410 km	177 Wh/km	720 km/h	All Wheel Dr	7	€ 66,965	€60,000

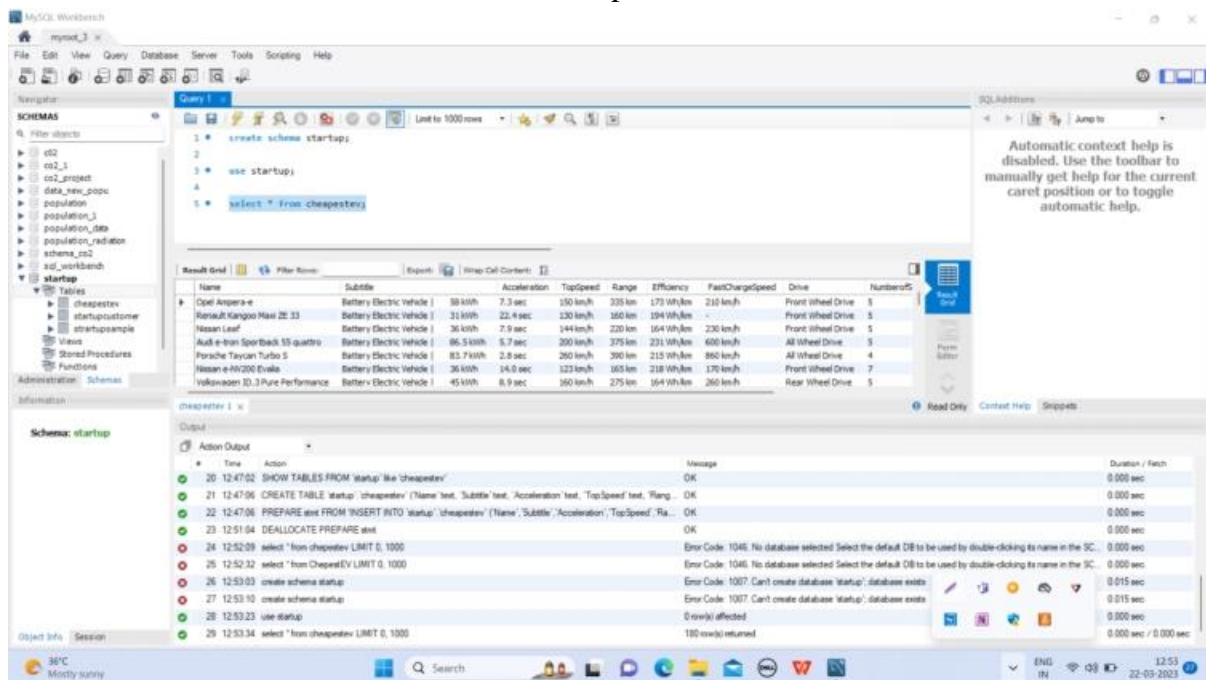
Activity 2: Storing Data in DB & Perform SQL Operations

Explanation video link:

<https://drive.google.com/file/d/1uUaPt7PE3t-jPk4txwyGsbVDkcXzDwOl/view?usp=sharing>

Solution:

We stored the data base and the csv file imported



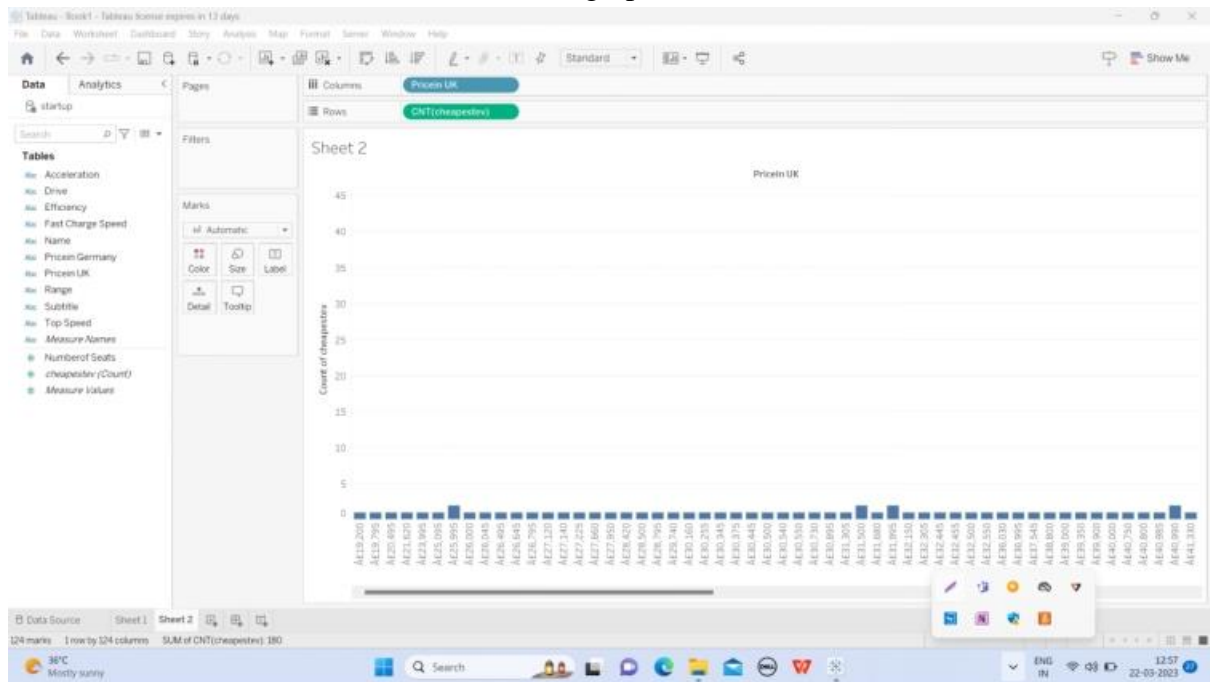
Activity 3: Connect DB with Tableau

Explanation video link:

<https://drive.google.com/file/d/1SRA3ZmvxodiJSLgAFZaOIDdXSHxxyId4/view?usp=sharing>

Solution:

Connected it with tableau and draw a new graph



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Milestone 3:

Data Preparation

Milestone 3: Data Preparation

Activity: Prepare the Data for Visualization

Solution:

We collected the data set. The followings are in the set as

1.csv file is noted.

2. The data consists of various electronic vehicle companies such as Opel Ampera-e, Renault, Nissan Leaf, Audi etc.

3. The acceleration speed had been given as from 7 to 20 seconds.

4. The top speed of them in the range of 100 to 500 km/h approximately.

5. The machine efficiency is given in the range of 100 to 250 Wh/km.

Milestone 4:

Data Visualization

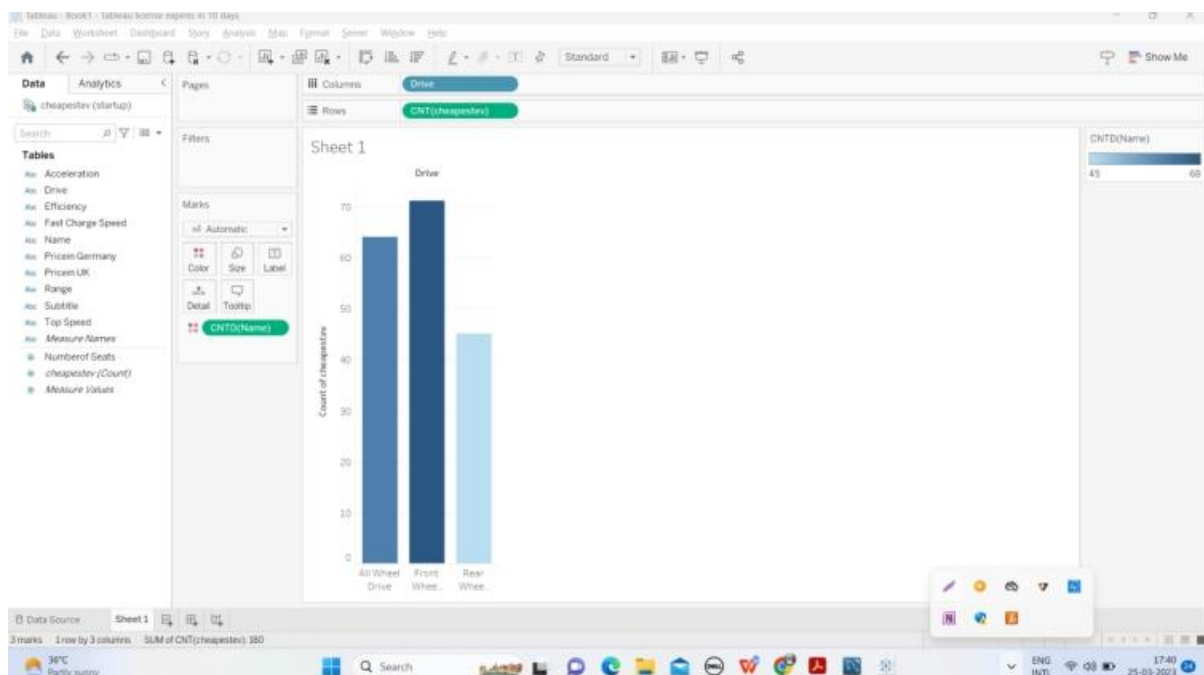
Milestone 4: Data Preparation

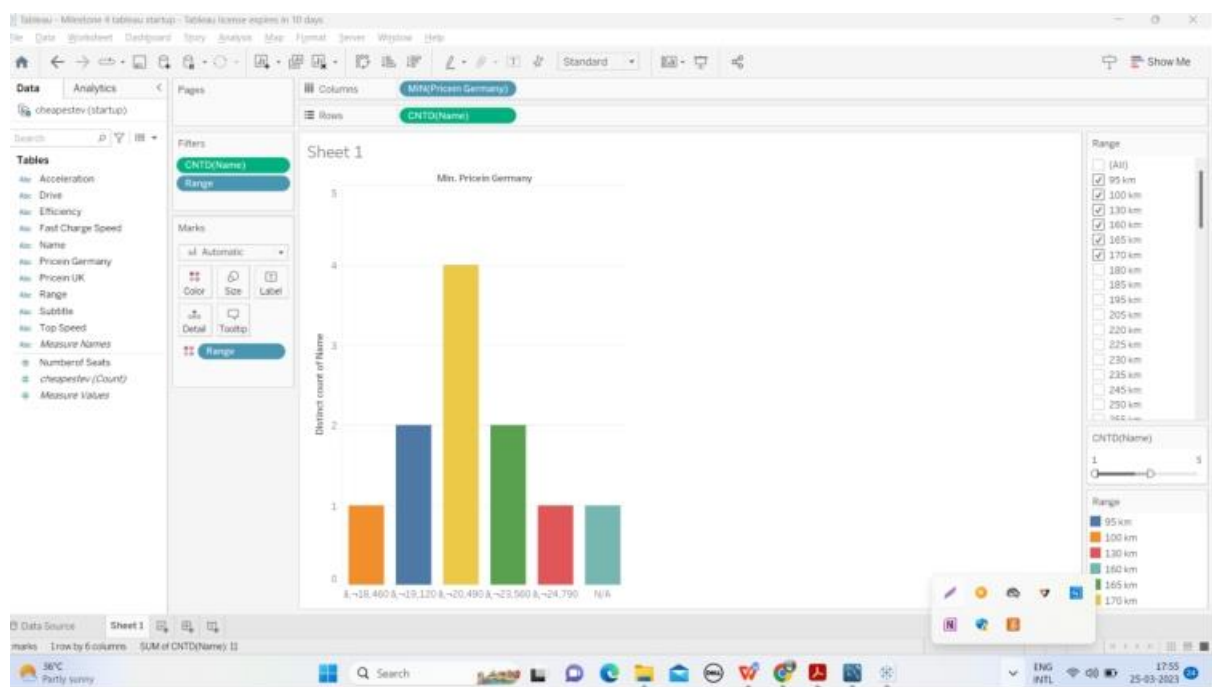
Milestone 4: Data Visualization

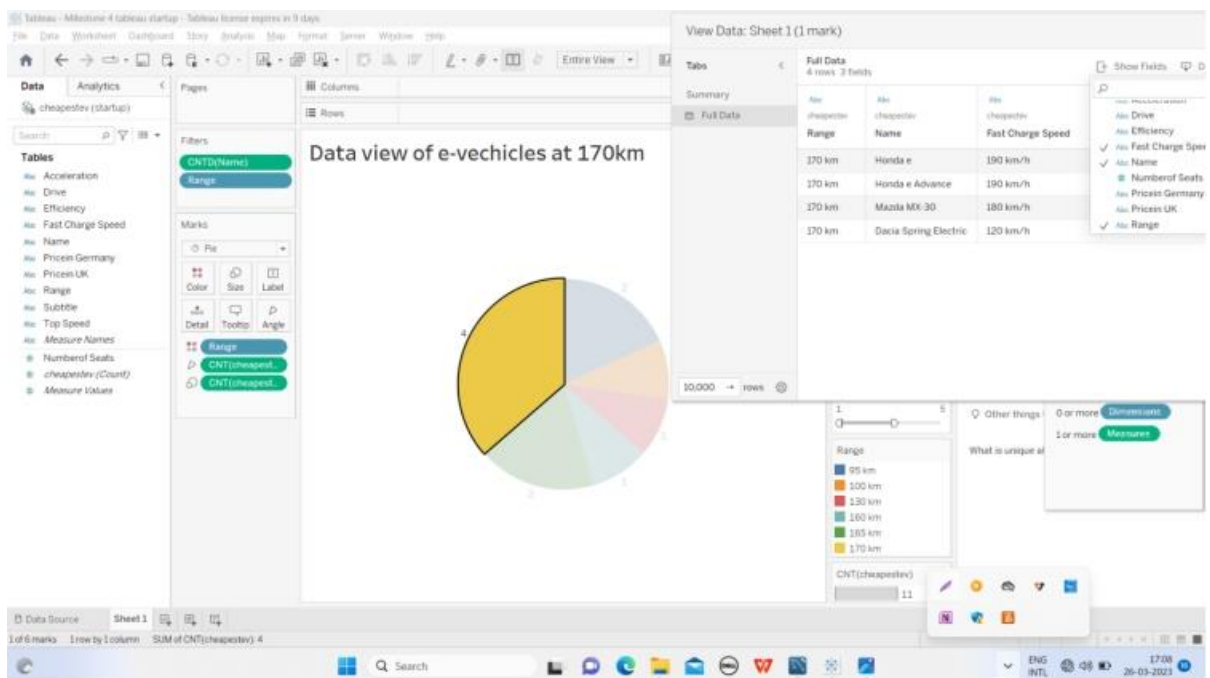
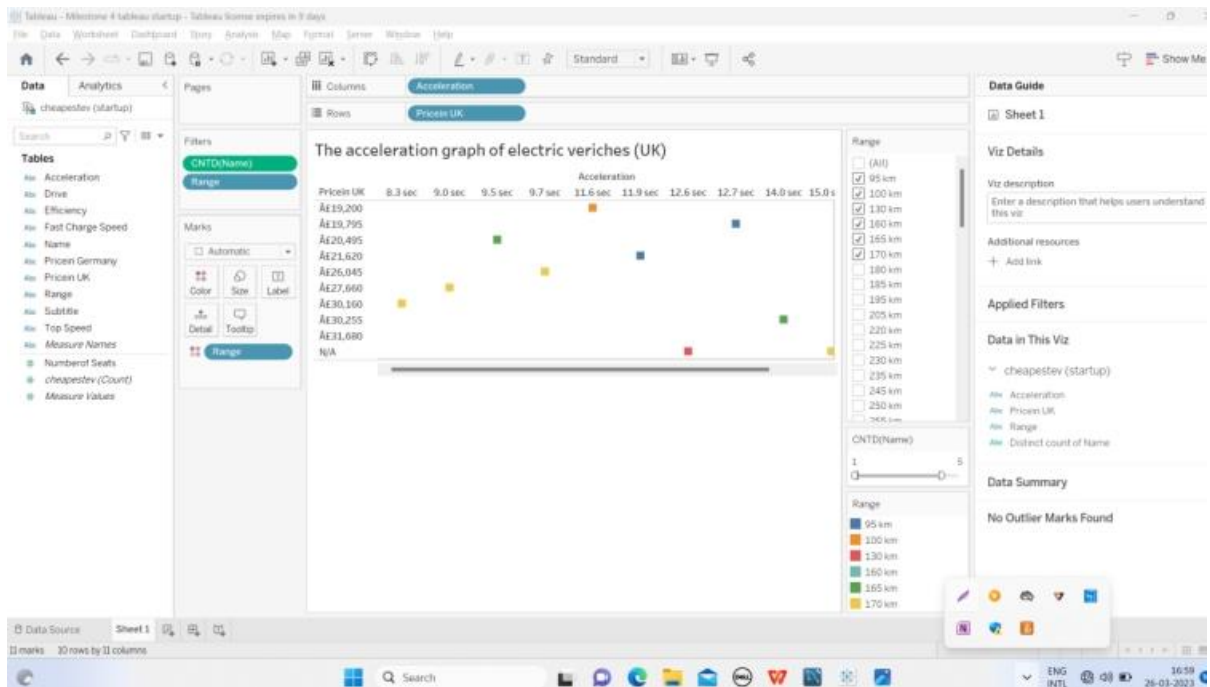
Data visualization is the process of creating graphical representations of data in order to help people understand and explore the information. The goal of data visualization is to make complex data sets more accessible, intuitive, and easier to interpret. By using visual elements such as charts, graphs, and maps, data visualizations can help people quickly identify patterns, trends, and outliers in the data.

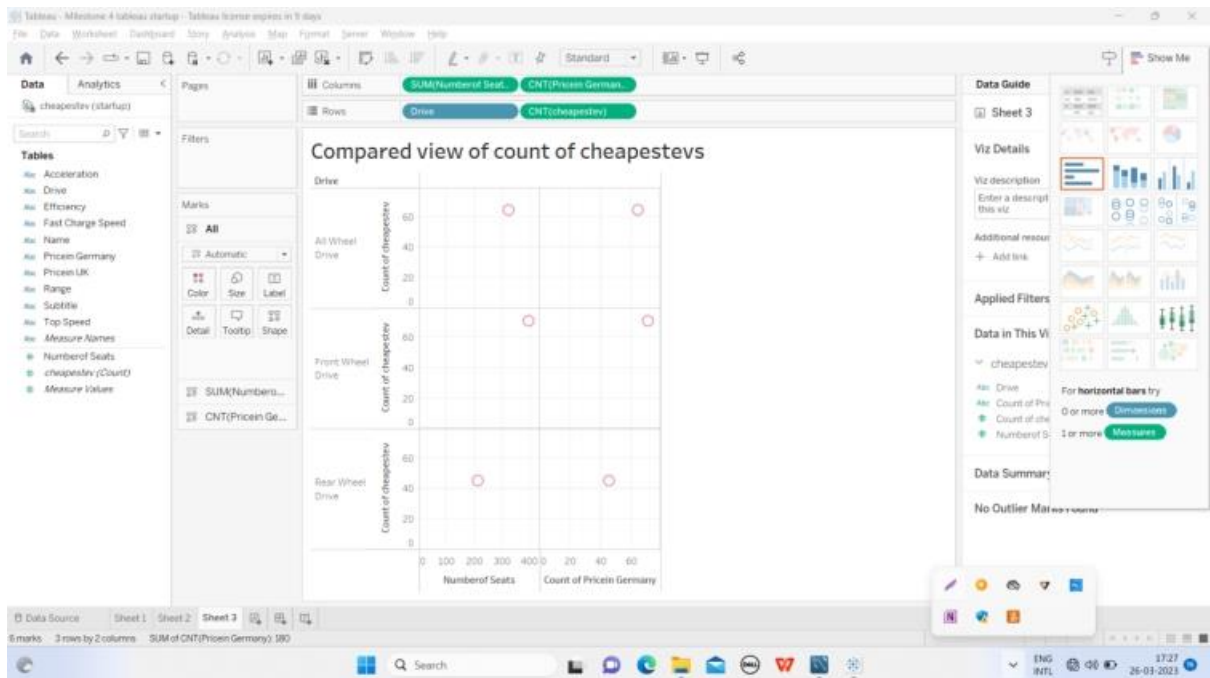
Activity 1: No of Unique Visualizations:

Various types of graphs, charts are created based on scales, prices (in UK and German), range, efficiency, number of seats and so on. They are given in the following nine pictures.







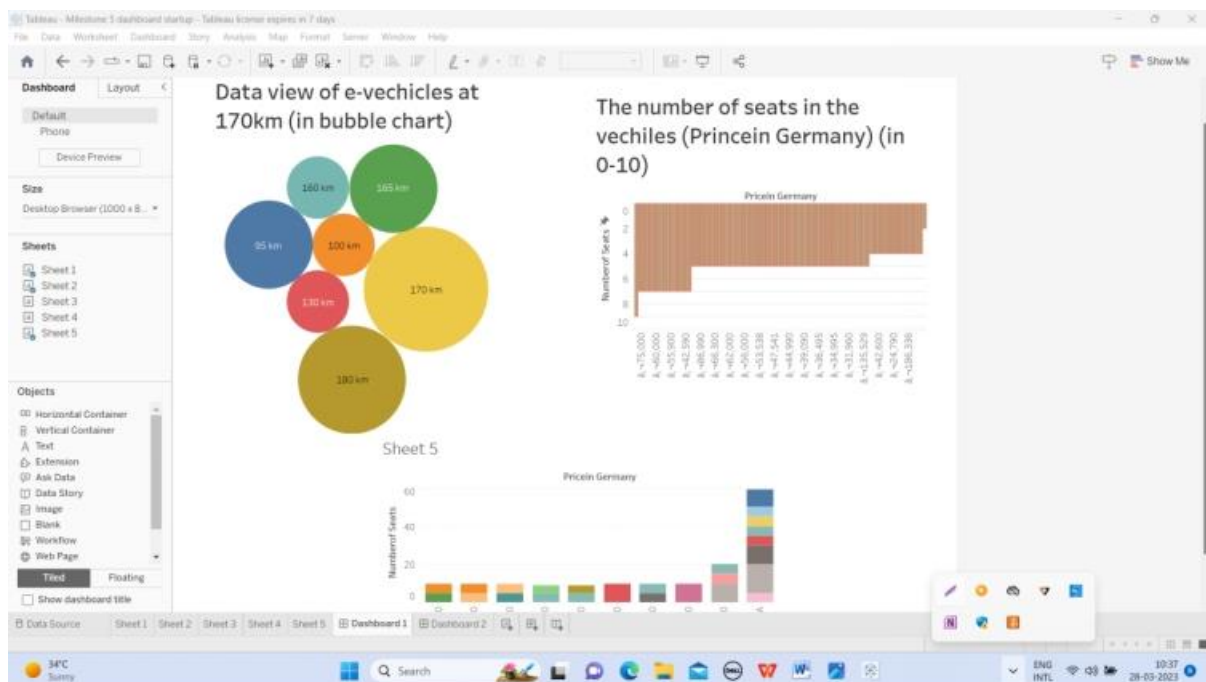


Milestone 5:

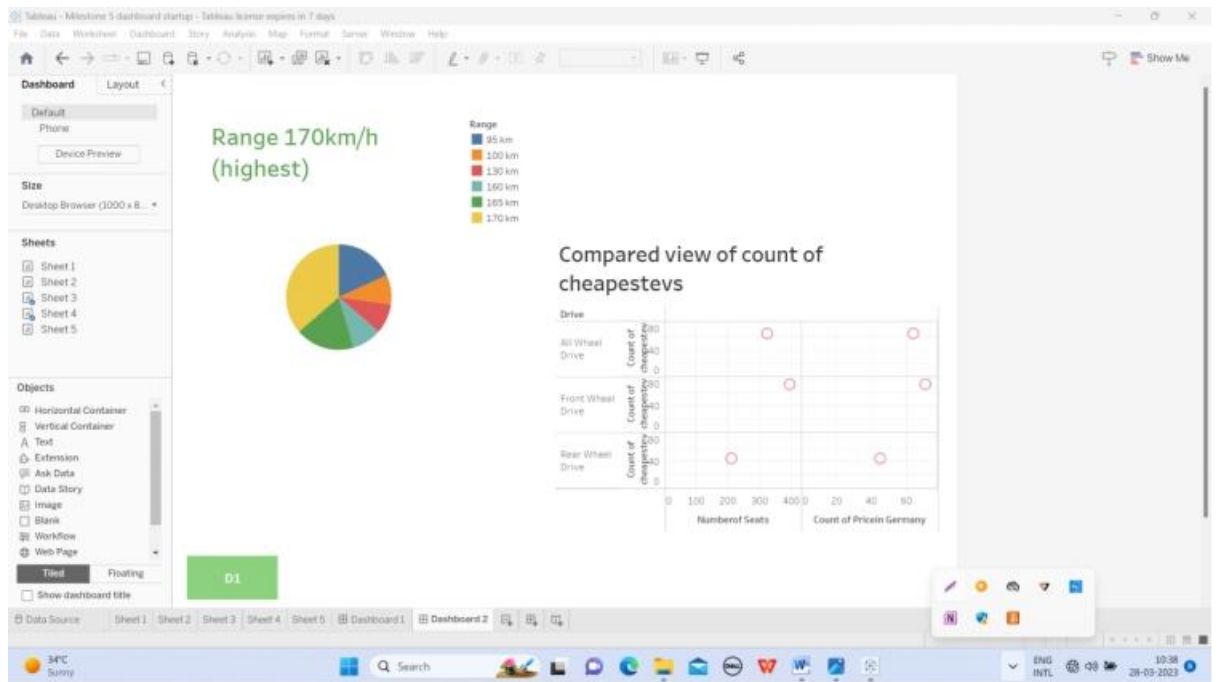
Creation of Dashboards

Milestone 5: Creation of Dashboards for startup vehicles

1. The summarized Dashboard for startup electric vehicles is created.



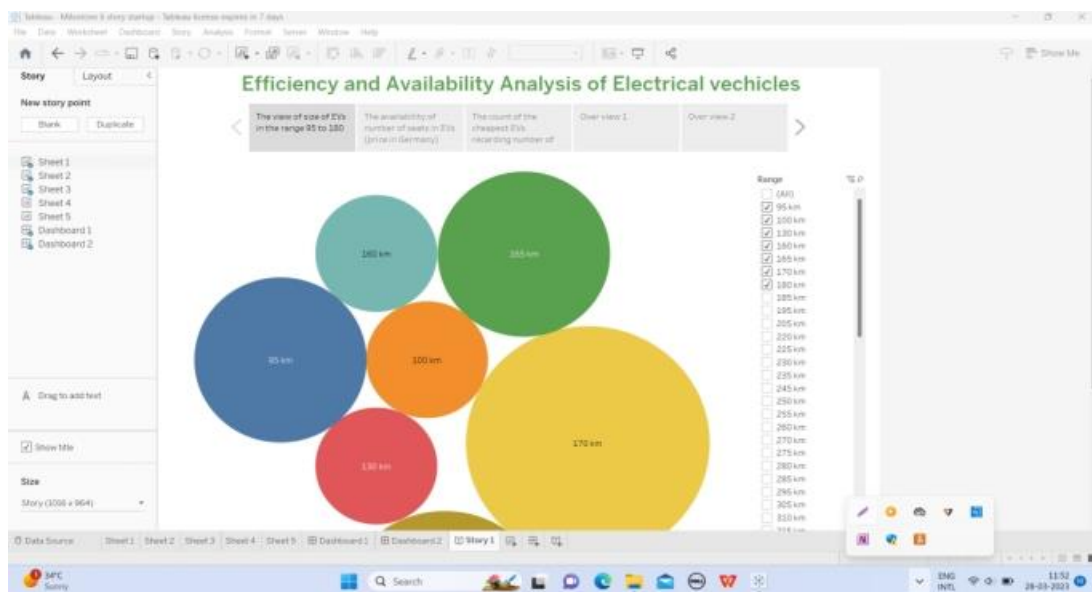
2. Compared view of count of cheapest EVs and pie-chart of speed of EVs between 95 to 170 is created with navigation key D1.



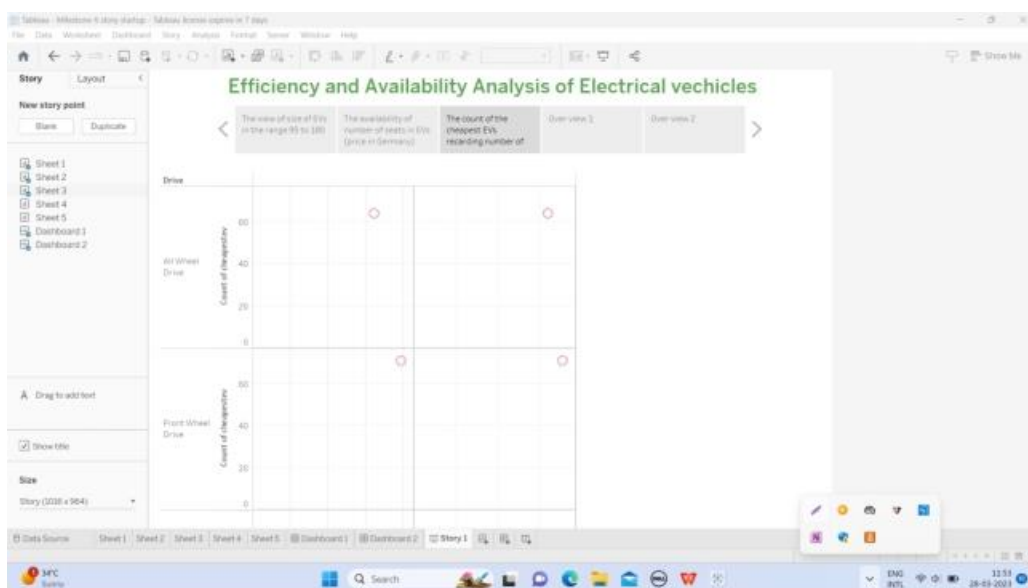
Milestone 6:
Creating story for World
Population

Milestone 6: Creating the story board of startup EV(Electrical vehicle)s

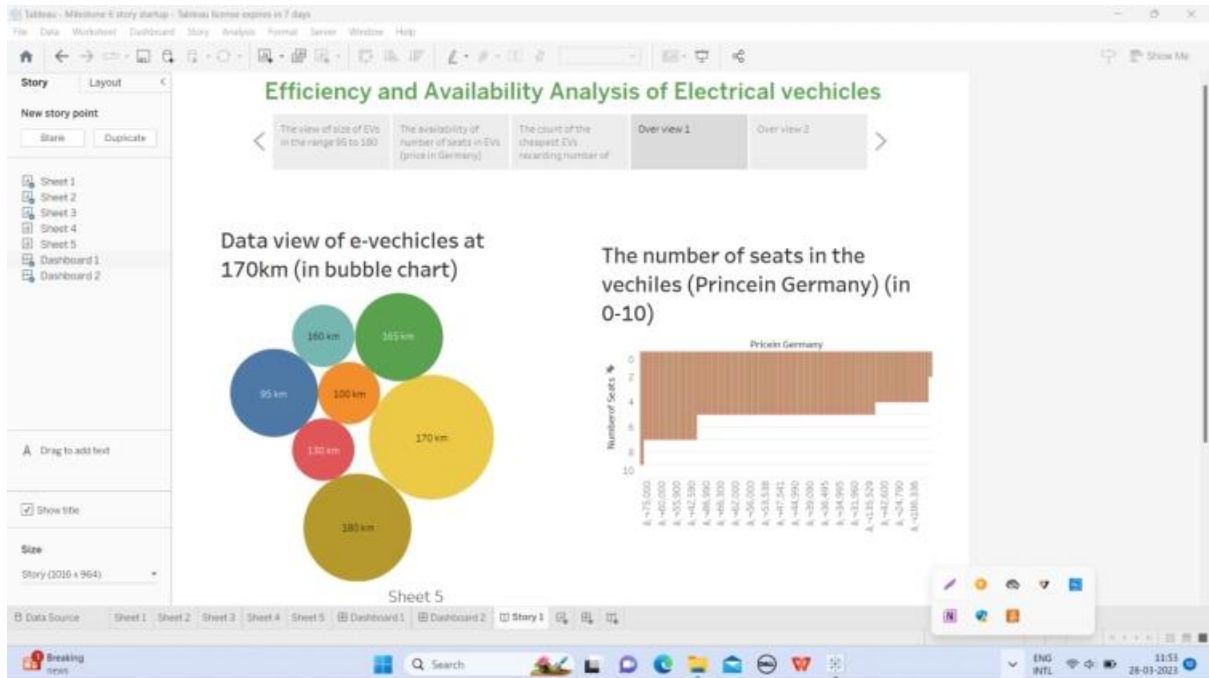
1.The chart of sizes of EVs in the range 95 to 180 is created.



2.The compared view of number of sheets of cheapest EVs on three types of drives.



3. Over view of analysis of EVs in Germany and UK.



Milestone 7:
Performance Testing for
population

Milestone 7: Performance Testing for Startup of Electrical vehicles

Activity 1: Amount of Data Rendered to DB

Solution 1: The database schema for startup of EVs with columns and indexes are stored.

The screenshot displays the MySQL Workbench interface. The left sidebar shows the 'SCHEMAS' tree with a search filter. The 'startup' schema is expanded, showing the 'cheapestev' table. The main pane shows the 'Table Details' for 'myroot_3.startup.cheapestev'. The table is InnoDB, Dynamic, with 11 columns and 180 rows. The data length is 64.0 KiB. The bottom pane shows the 'Columns' list for the 'cheapestev' table.

Table Details

Engine:	InnoDB
Row format:	Dynamic
Column count:	11
Table rows:	180
AVG row length:	364
Data length:	64.0 KiB
Index length:	0.0 bytes
Max data length:	0.0 bytes
Data free:	0.0 bytes
Table size (estimate):	64.0 KiB

Information on this page may be outdated. Click [Analyze Table](#) to update it.

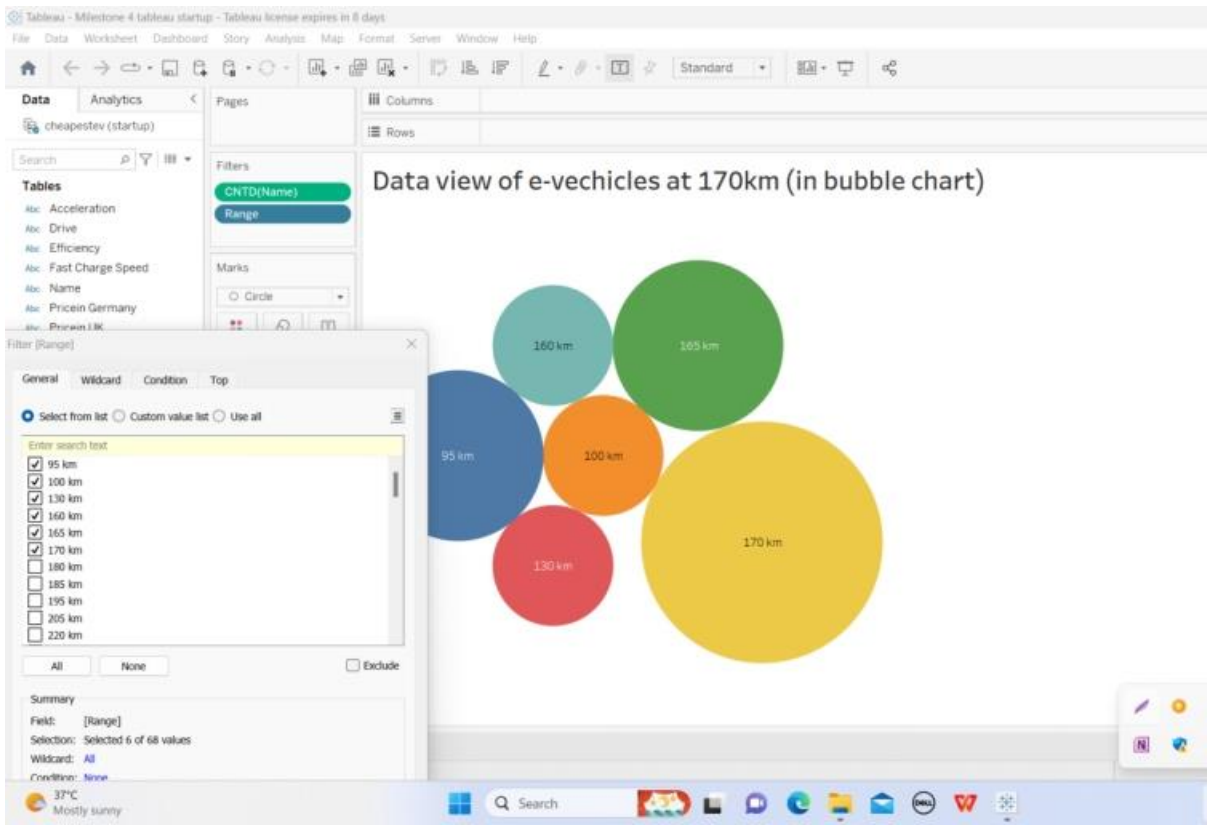
Table: cheapestev

Columns:

Name	text
Subtitle	text
Acceleration	text
TopSpeed	text
Range	text
Efficiency	text
FastChargeSpeed	text
Drive	text
NumberOfSeats	int
PriceinGermany	text
PriceinUK	text

Solution 2:

The usage of filters in Startup of EVs data is given in the following picture. Here we used the filters option to select the range 95 to 170 km/h.



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