

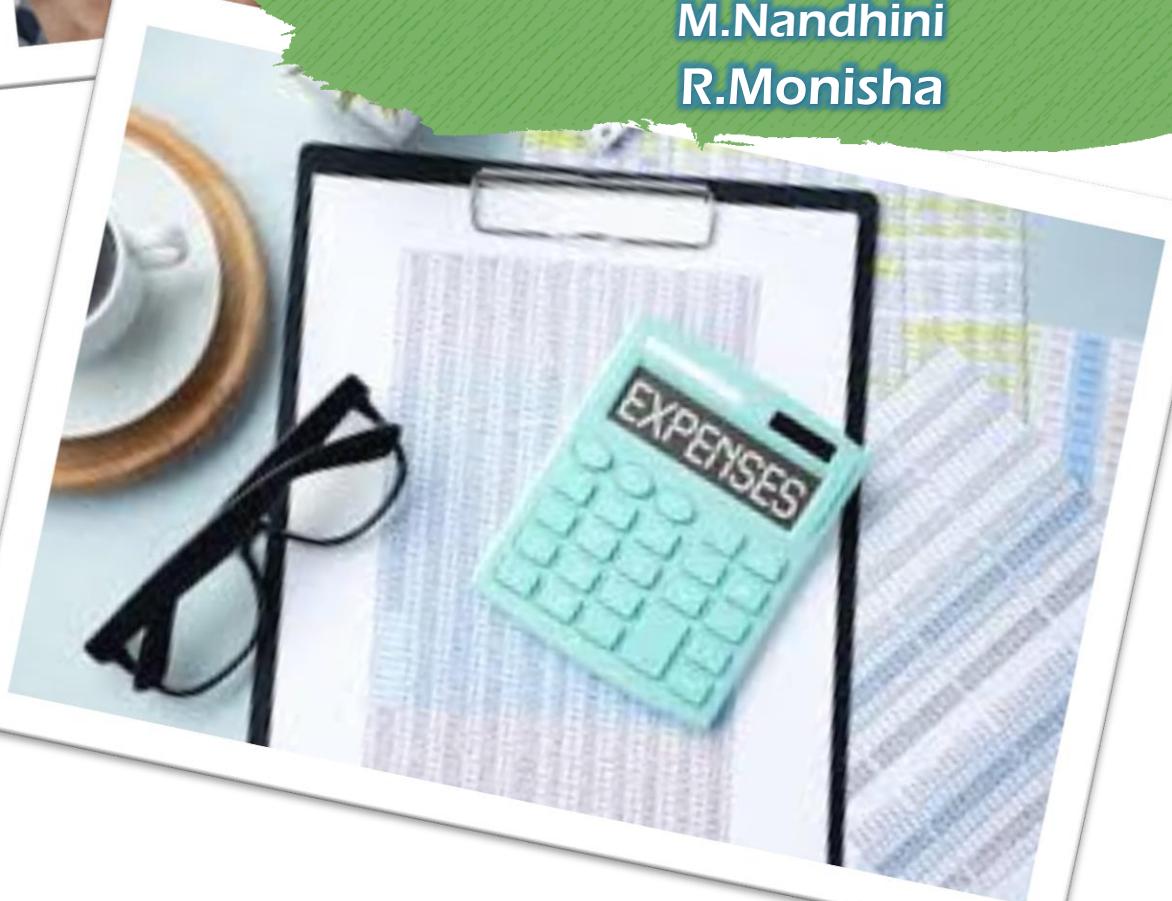


ESTIMATION OF BUSINESS EXPENSES



Project by

S.Navina
A.Nandhini
M.Nandhini
R.Monisha



Introduction:

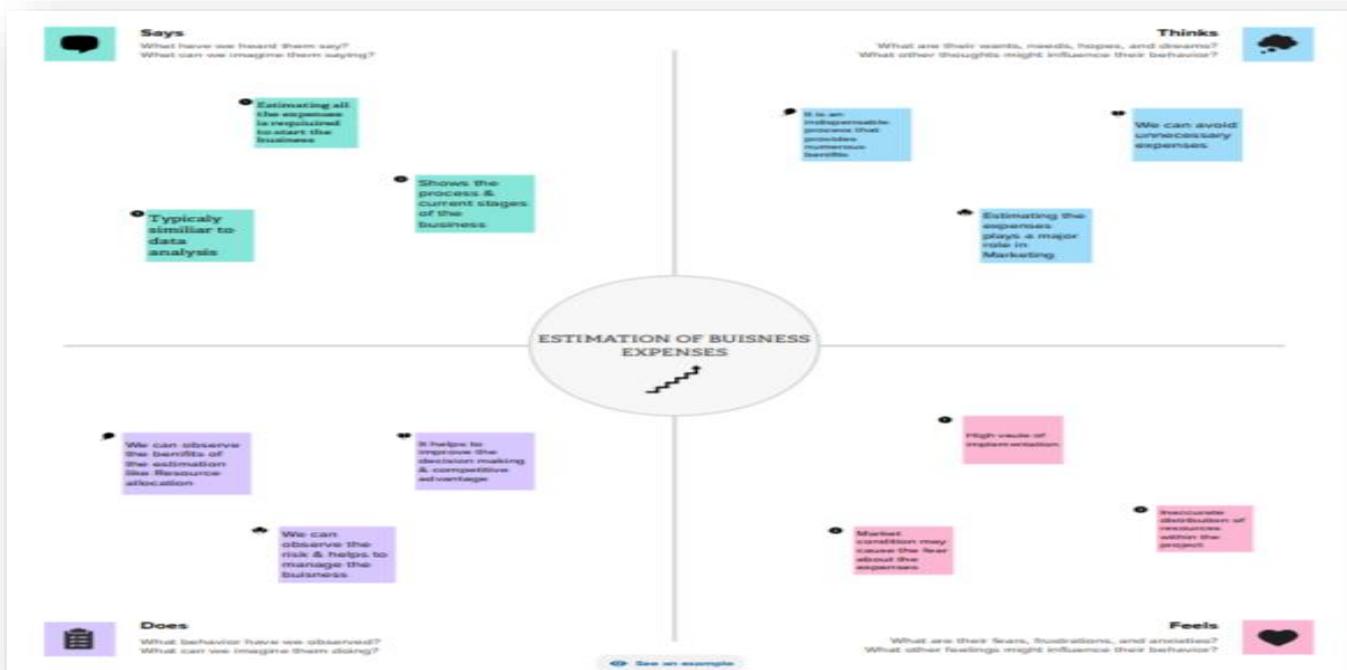
- ❖ Every business has different requirements, depending on the type of products or services it sells, the size of the company, and the stage of growth of the business.
- ❖ Even so, most business expenses are either one-time costs or ongoing expenses required to keep operations going.
- ❖ Forming a business means estimating business expenses is an important step in determining how much money you need to start and keep your business running without encountering cash flow problems.
- ❖ In official, legal business means estimating the one-time expense of obtaining your business license.
- ❖ If you want to incorporate your business, allow for the expense of hiring an attorney to do it for you or the cost of filing if you handle the details yourself.
- ❖ A business estimate is a document detailing how much you plan on charging a customer for a good or service. This involves estimating all the expenses required to start and operate the business, such as equipment, rent, inventory, and marketing.
- ❖ By calculating these costs upfront, business owners can better plan their budget and avoid unexpected expenses

MILESTONE 1:

Define Problem / Problem Understanding

- Specify the business problem
- Business requirements
- Literature Survey
- Social or Business Impact

Empathy Map :



Brainstorm :



MILESTONE 2:

Data Collection & Extraction

Activity 1: Downloading the dataset

cleaned_business : cleaned_business														
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
1	naics_code	Business_types	operating_expsr	annual_payroll	employer_cost	employer_costs	employer_costs	employer_costs	employer_costs	contract	labor_c	expensed_equip	packaging_mate	parts_and_suppl
2	4445	Retail Trade	916307	394957	82714	32138	5899	3250	41427	6211	3181	5802	15964	
3	4411	Motor vehicle an	130153	65382	11700	4312	548	110	6729	571	768	150	2475	
4	4411	Automobile dealt	92263	46947	8107	3008	362	61	4676	305	564	90	1537	
5	4413	Auto parts and ti	27870	13857	2772	1015	145	48	1564	737.1	147	39	727	
6	442	Furniture stores	34721	12898	2481	917	130	19	1416	495	100	154	528	
7	443	Electronics and i	26027	11044	1986	666	123	7	1190	208	73	46	453	
8	444	Building mat. ani	74261	35414	7625	3572	588	98	3367	474	392	150	1480	
9	4441	Building mat. ani	64850	31353	6864	3313	541	74	2936	426	326	94	1149	
10	445	Food and bevera	147801	65074	17639	7688	1136	1281	7534	466	414	2224	2570	
11	4451	Grocery stores	133425	59408	16601	7356	1091	1241	6913	409	323	2016	2329	
12	4453	Beer, wine, and l	8357	3163	690	201	30	32	326	11	48	46	104	
13	446	Health and pers	72689	34156	717	3462.9	592	366.1	6158.9	737.1	469	803.2	2262.3	
14	44611	Pharmacies and	53280	26522	717	3492.9	592	366.1	5158.9	737.1	469	803.2	2262.3	
15	447	Gas stations	48418	17508	3188	988	255	53	1892	140	238	138	1031	
16	448	Clothing and acc	90188	33397	6006	2157	426	130	3292	595	216	747	1344	
17	4481	Clothing stores	65589	24477	4360	1553	330	66	2411	498	163	636	1032	
18	44811	Men's clothing st	3474	1335	283	86	9	1	188	8	12	27	42	
19	44812	Women's clothin	18546	6606	1034	343	76	15	600	83	41	175	285	
20	44814	Family clothing s	29823	11678	2167	844	189	43	1091	328	79	293	518	
21	4482	Shoe stores	12400	4288	717	234	38	12	432	20	21	49	113	
22	451	Sporting, book, e	27424	11008	1907	701	99	44	1063	165	119	169	392	
23	452	General merchai	132672	61898	13820	5396	689	1237	6598	269	150	424	2503	
24	4521	Department stor	48579	23100	5140	1571	430	453	2886	737.1	469	229	886	
25	452111	Department stor	20683	10210	2236	640	592	366.1	1196	737.1	469	141	306	
26	452112	Discount dept. st	27896	12890	2905	932	592	366.1	1490	737.1	469	88	580	
27	4529	Other general m	84093	38798	8779	3825	259	784	3912	43	117	195	1616	
28	45291	Warehouse clubs	68433	32668	7688	3449	215	768	3263	4	84	87	1467	
29	45299	All other general	15660	8130	1094	376	44	16	658	39	32	108	150	
30	453	Miscellaneous st	38256	15325	2873	922	129	31	1791	318	135	242	793	
31	454	Nonstore retailer	93697	31855	7067	2672	1011	122	3262	1717	310	790	1489	
32	4541	Electronic shopp	74505	24175	5258	1954	872	92	2341	1539	216	747	849	
33	72	Accommodation	46119	187694	3592	9472	1048	447	24425	2649	2666	4802	13841	
34	721	Accommodation	138357	44919	11305	4276	392	179	6458	1103	518	95	4676	
35	722	Food service an	322762	142775	24088	5196	656	269	17967	1546	2147	4708	9165	

Activity 1.1: Understand the data

Data consists of 35 rows which correspond to 33 different business types and 29 columns that correspond to different operating expenses.

Column Description of the Dataset:

Costs	Business types
Operating expenses	Total Operating expenses
Annual payroll	Total yearly payment

Employer cost	Amount spent on employees
Employer costs health insurance	Amount spent on health insurance
Employer costs pension plans	Amount spent on pension plans for employees
Packaging materials and containers	Amount spent on packaging
Repairs and maintenance of equipment	Amount spent on repairs and maintenance

Activity 2: Connect Dataset with Tableau

Tableau - story tableau [Recovered] - Tableau license expires in 9 days

File Data Server Window Help

Connections Add

datasheet tab...ness expenses PDF file

Tables Cleaned with Data Interpreter [Review the results.](#) (To undo changes, clear the check box.)

Page 1 Table 1

Need more data?
Drag tables here to relate them. [Learn more](#)

New Union New Table Extension

Page 1 Table 1 13 fields 34 rows 34 rows

#	Page 1 Table 1	Abc Page 1 Table 1	#	Page 1 Table 1	#	Page 1 Table 1	#	Page 1 Table 1
1	Business_types	C rating_expen	2	D annual_payroll	3	E employer_cost	4	5
2	4445 Retail Trade	916.307	394.957	82.2				
3	441 Motor vehicle an	130.153	65.382	11.7				
4	4411 Automobile deale	92.263	46.947	8.1				
5	4413 Auto parts and ti	27.870	13.857	2.2				
6	442 Furniture stores	34.721	12.868	2.4				

Data Source Sheet 1 Sheet 2 Sheet 3 Sheet 4 Sheet 5 Sheet 6 Sheet 7 Dashboard 1 Story 1

29°C Partly cloudy 12:00 PM 10-10-2023

Type here to search

MILESTONE 3: DATA PREPARATION

Activity 1: Prepare the Data for Visualization

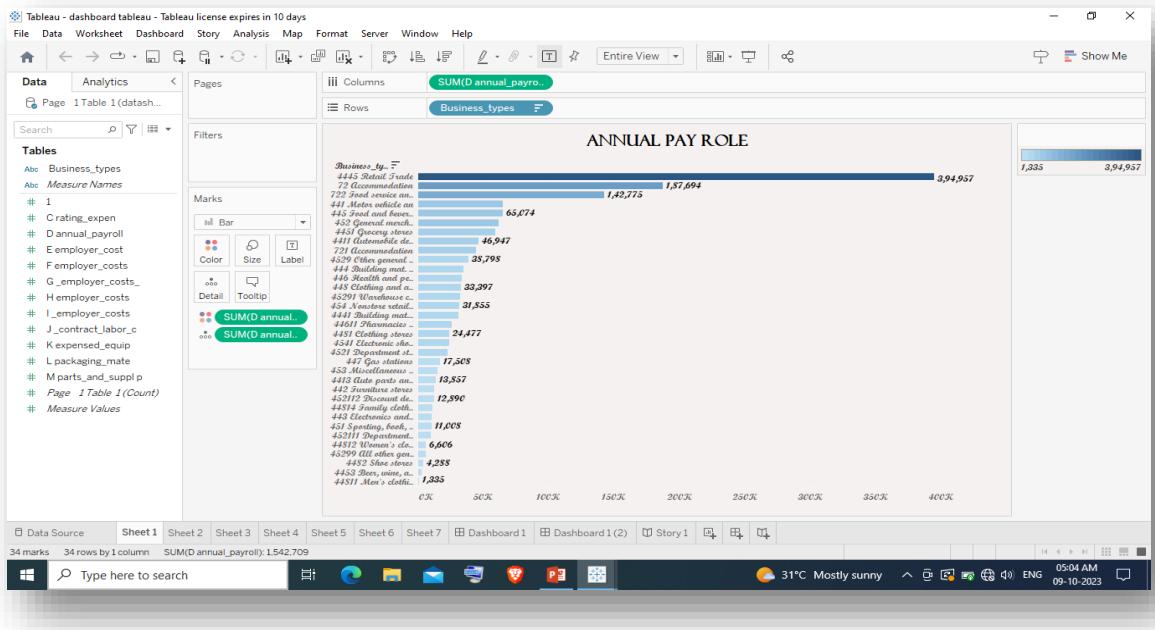
MILESTONE 4: DATA VISUALIZATION

Activity 1: No of Unique Visualization

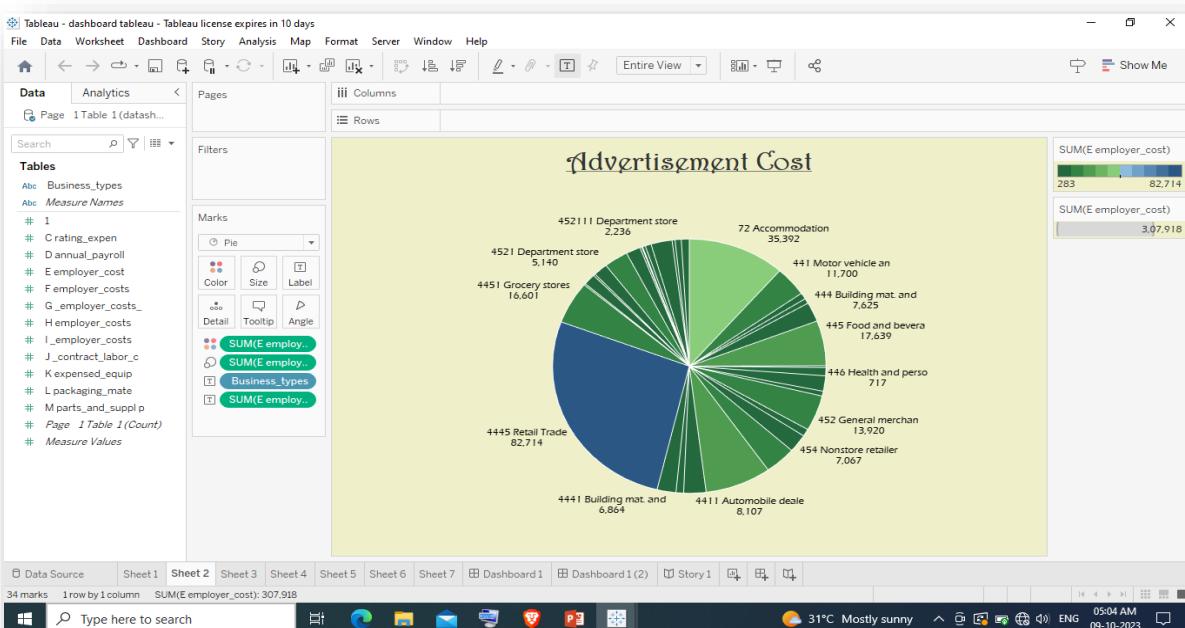
The number of unique Visualization that can

be created with a given dataset.

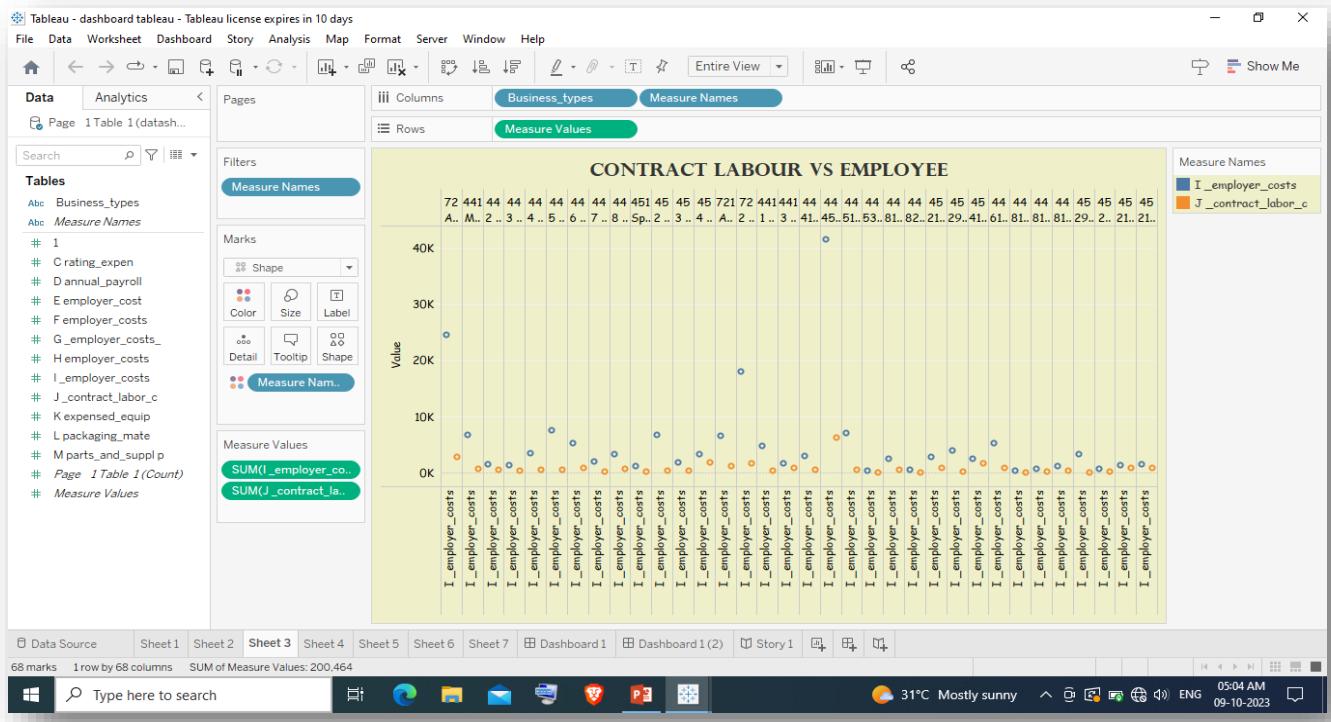
Activity 1.1: Annual Pay Roll



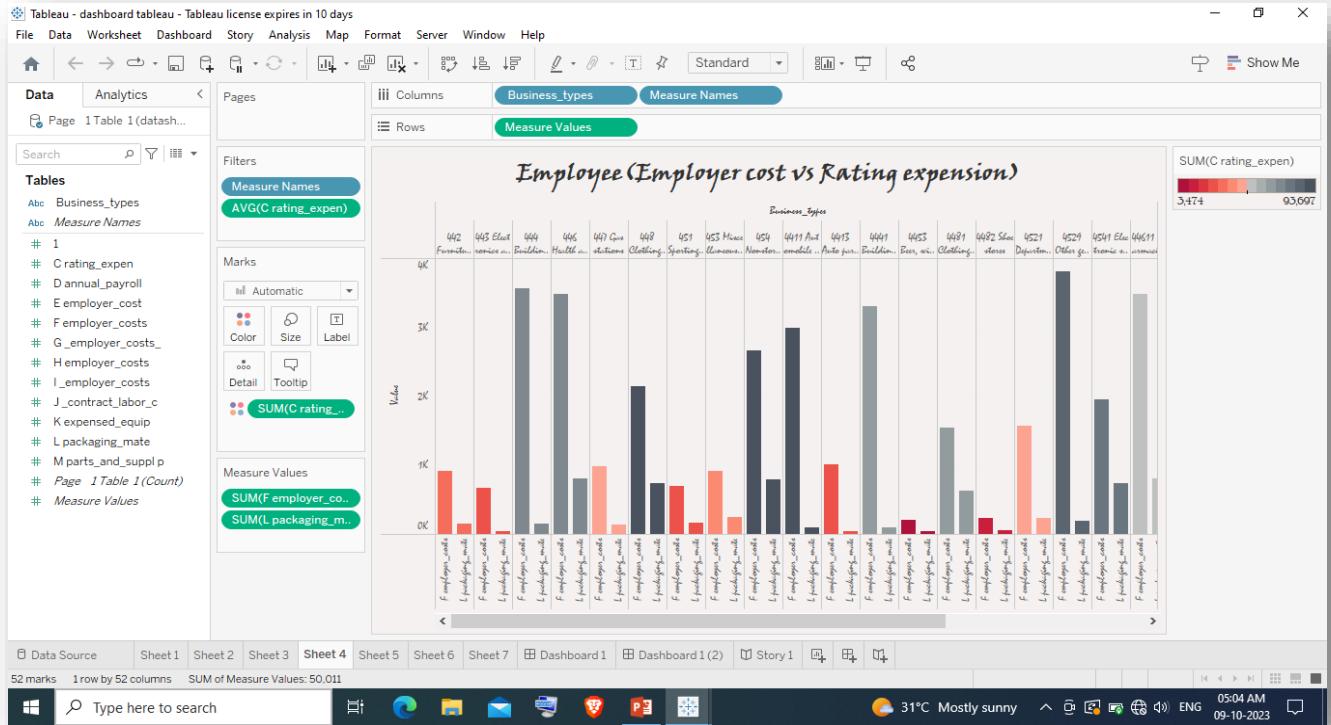
Activity 1.2: Advertisement Cost



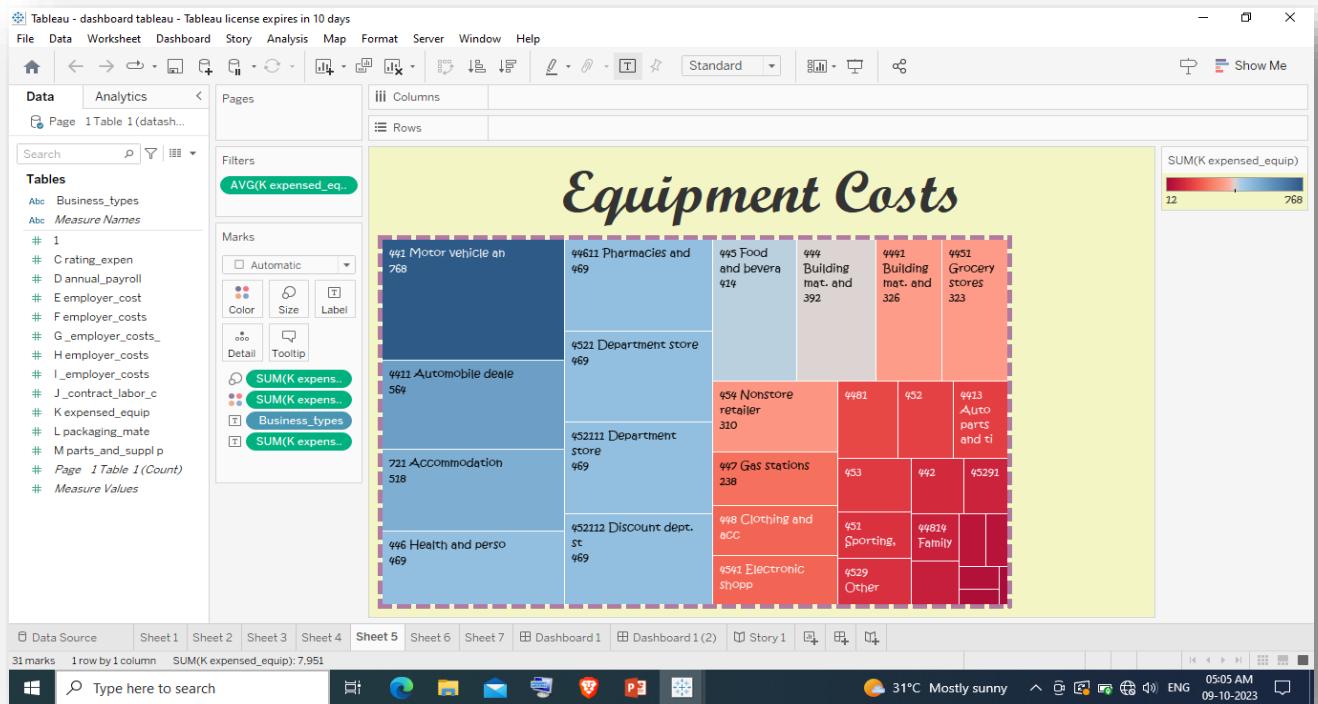
Activity 1.3: Contract Labor vs Employee



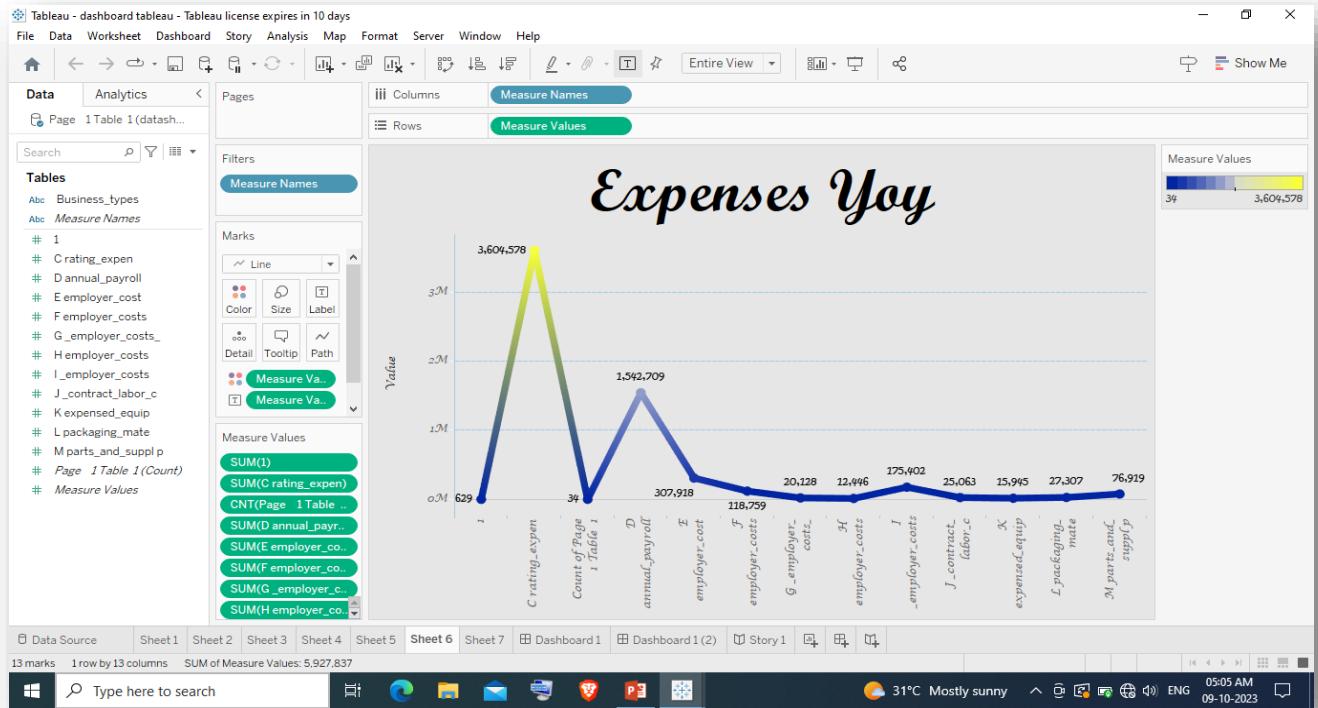
Activity 1.4: Employee



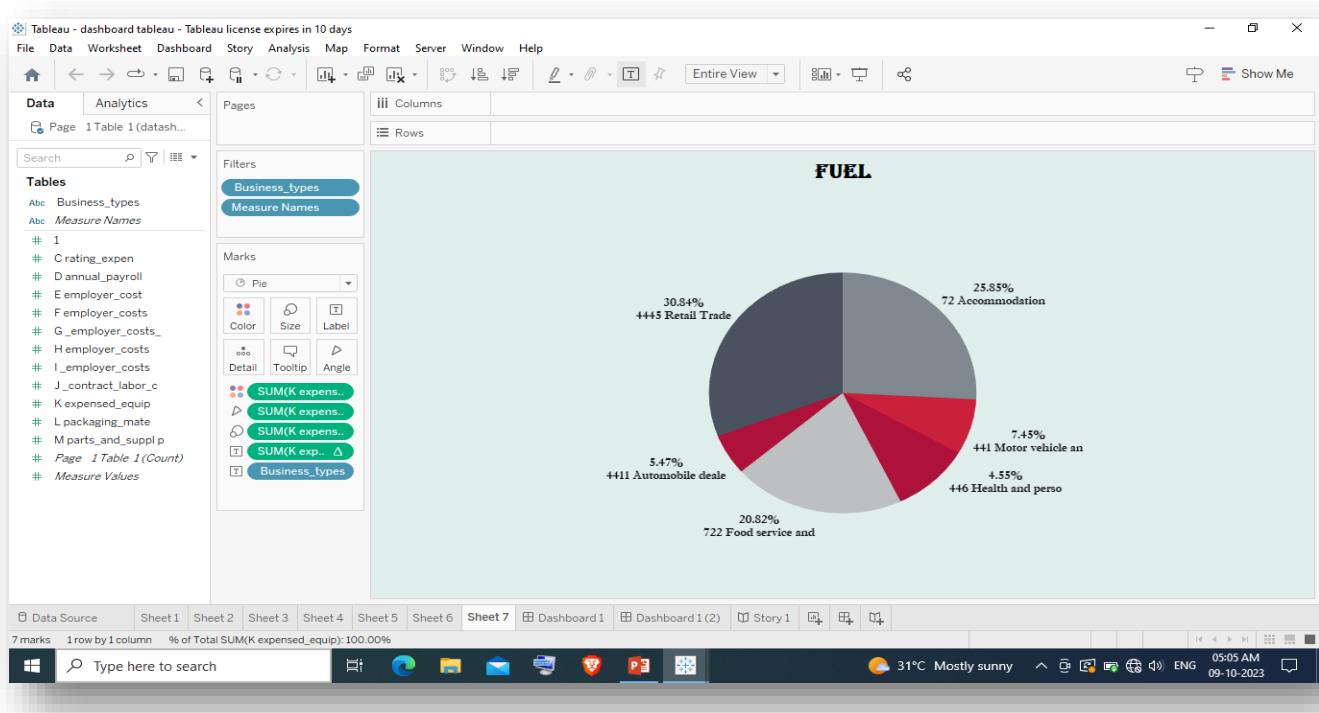
Activity 1.5: Equipment Costs



Activity 1.6: Expenses YoY



Activity 1.7: Fuel

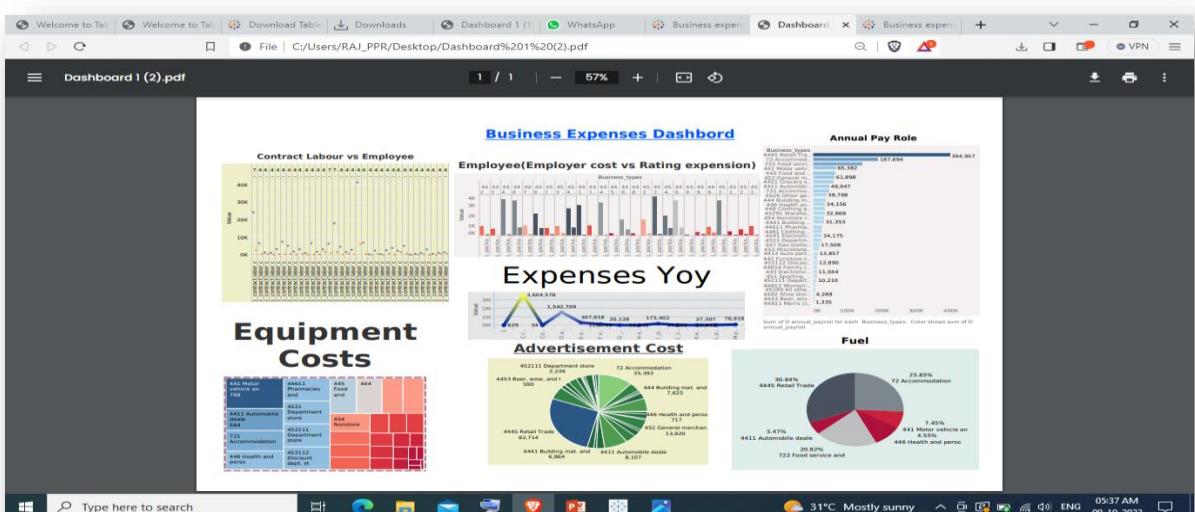


MILESTONE 5: DASHBOARD

Activity 1: Responsive and Design of dashboard

Once you have created views on different sheets in Tableau, you can pull them into a dashboard.

Activity 1.1: Dashboard

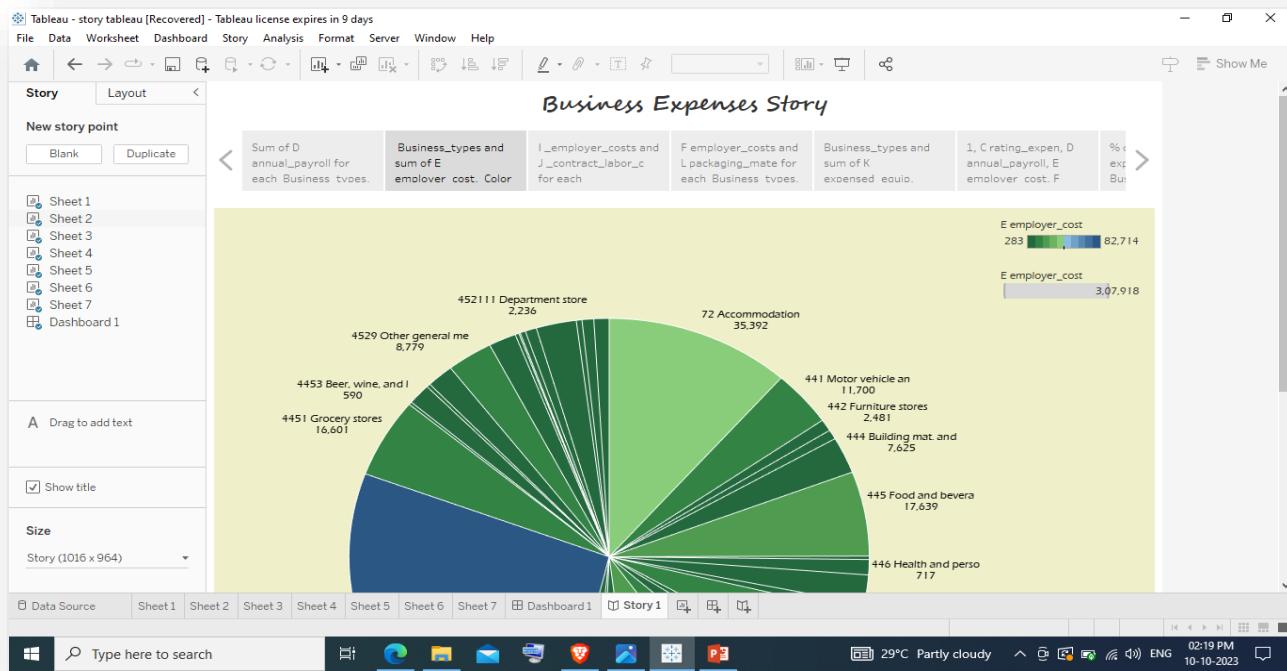
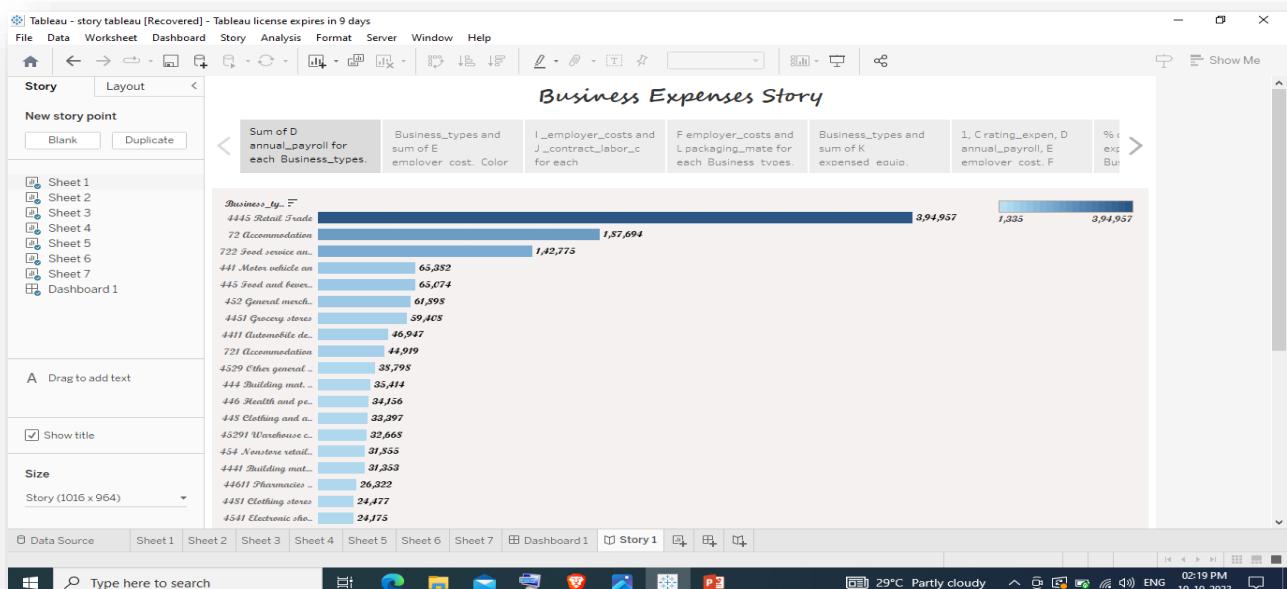


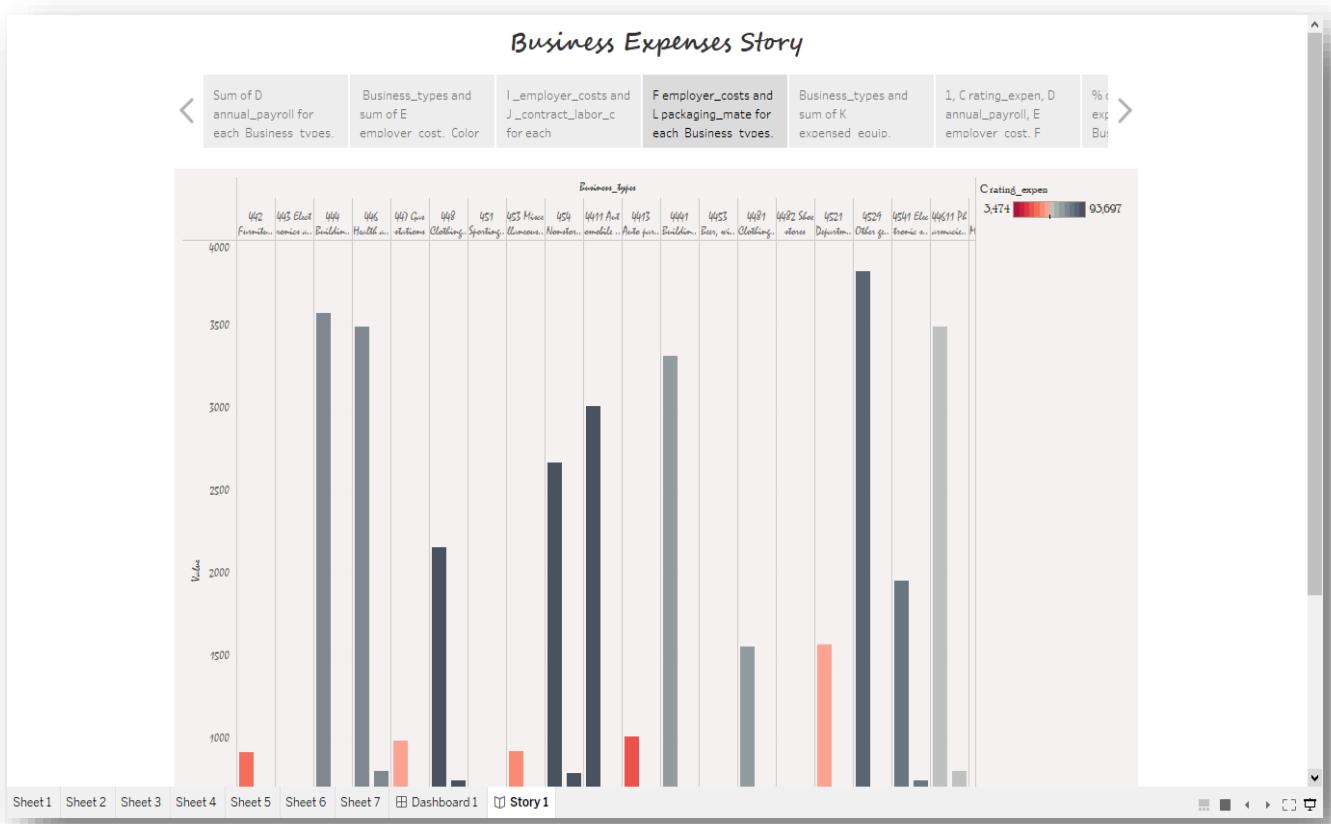
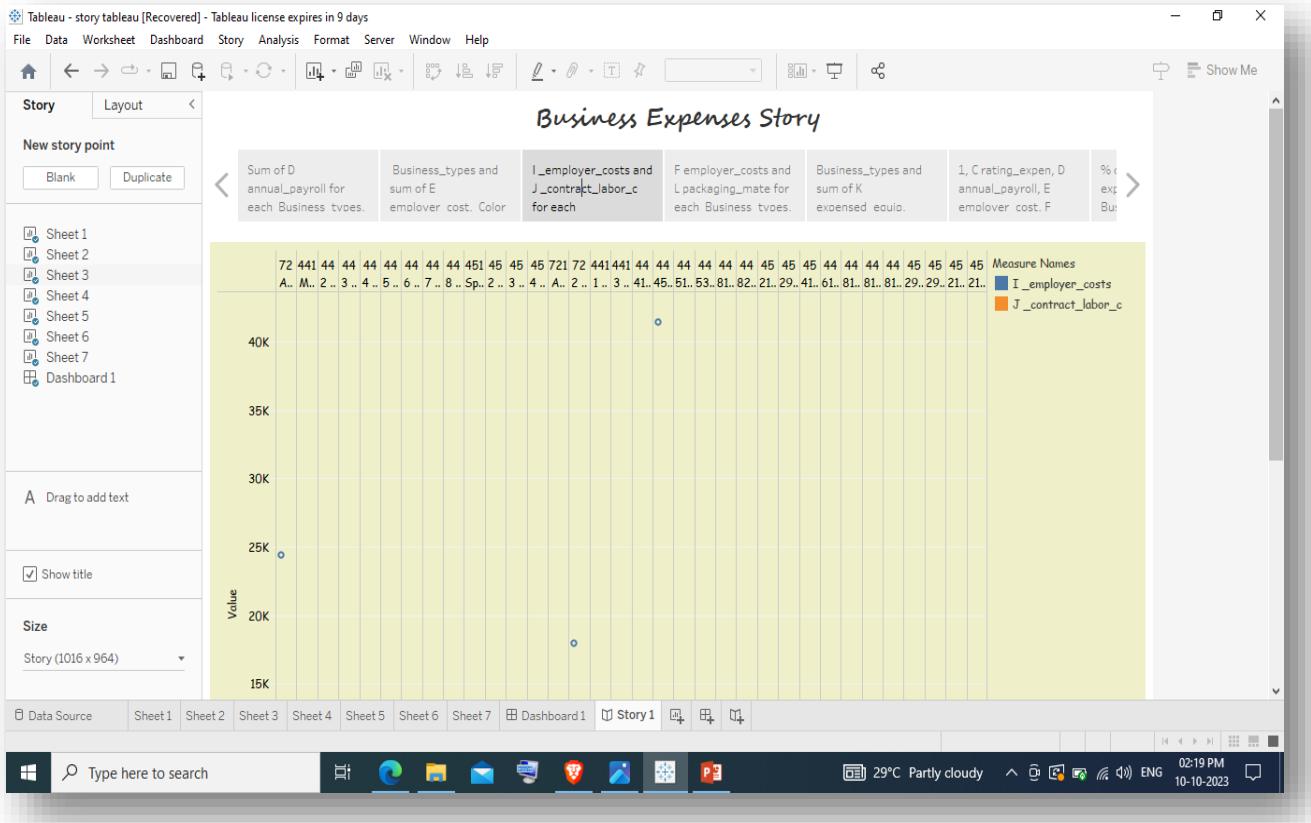
MILESTONE 6: STORY

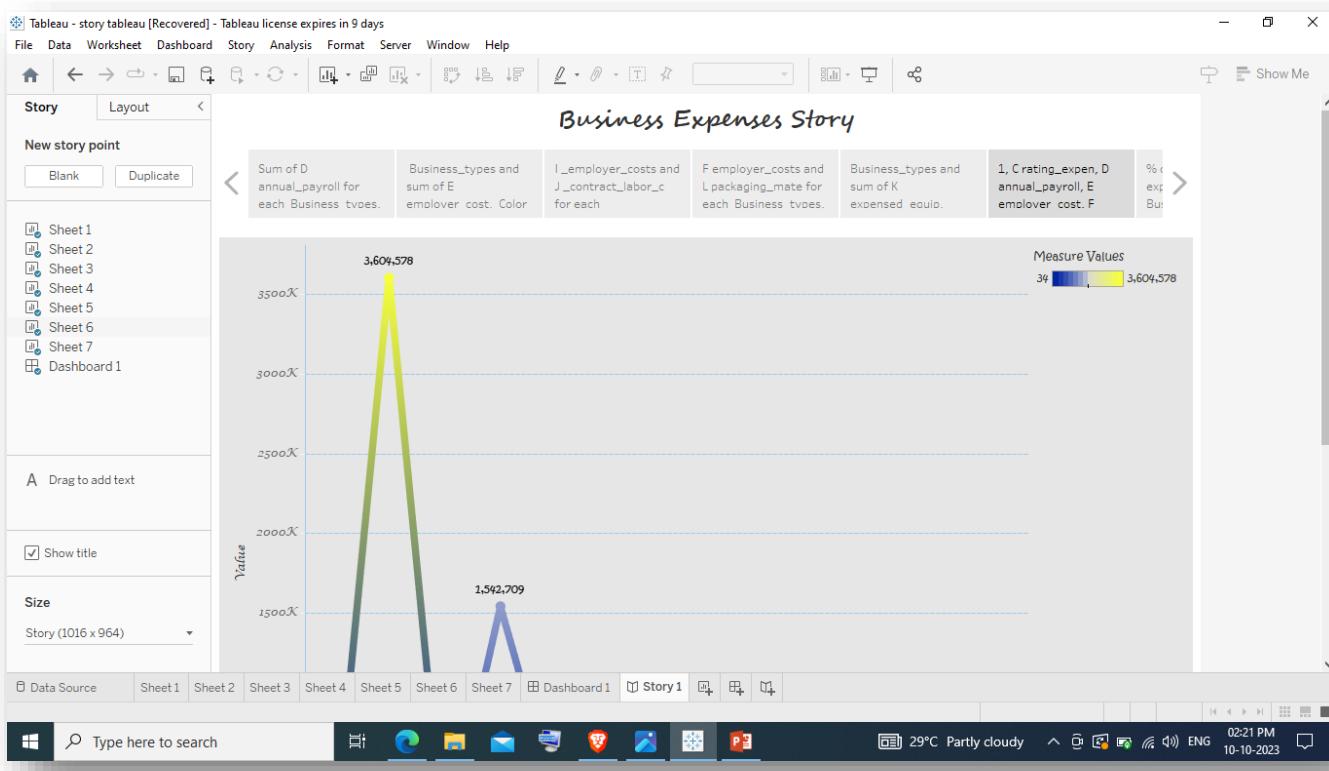
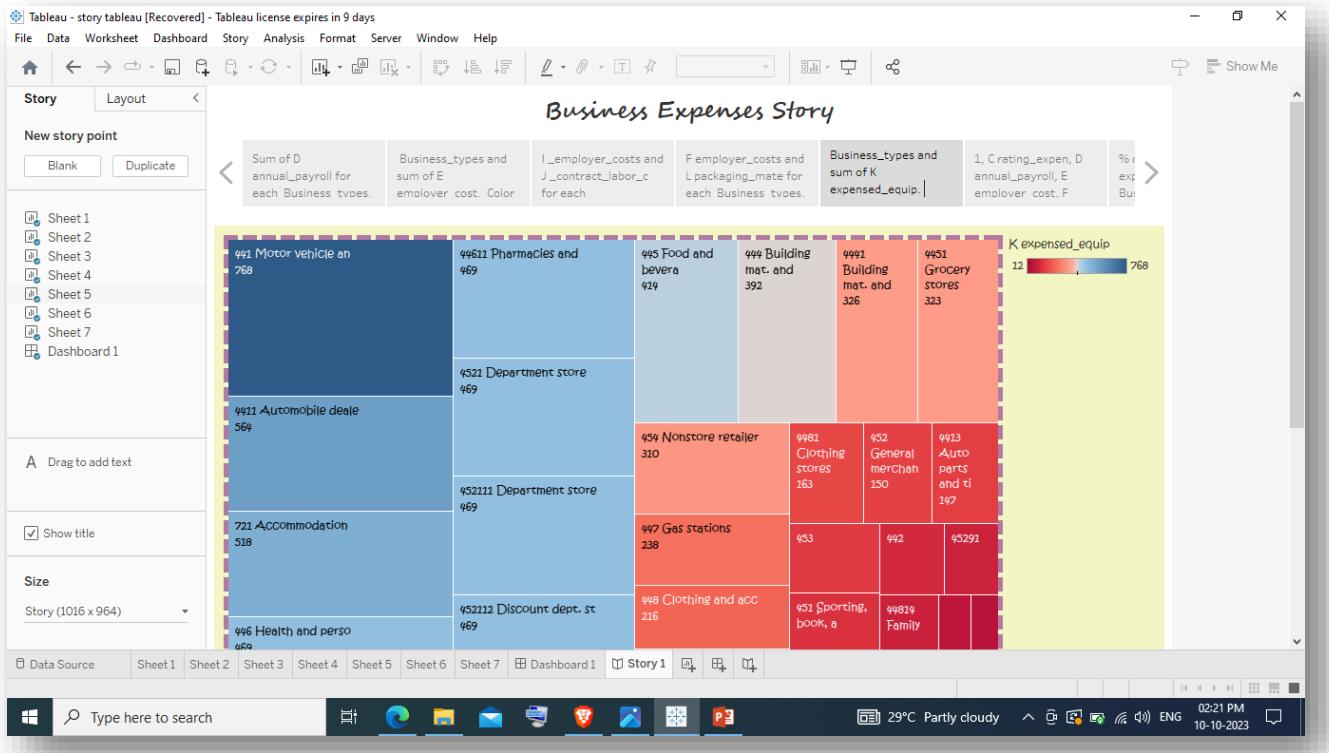
Activity 1: Number of scenes in a story

- The Storyboard is a visual representation of the data analysis process and it breaks down the analysis into a series of steps or scenes.

Activity 1.1: Story 1

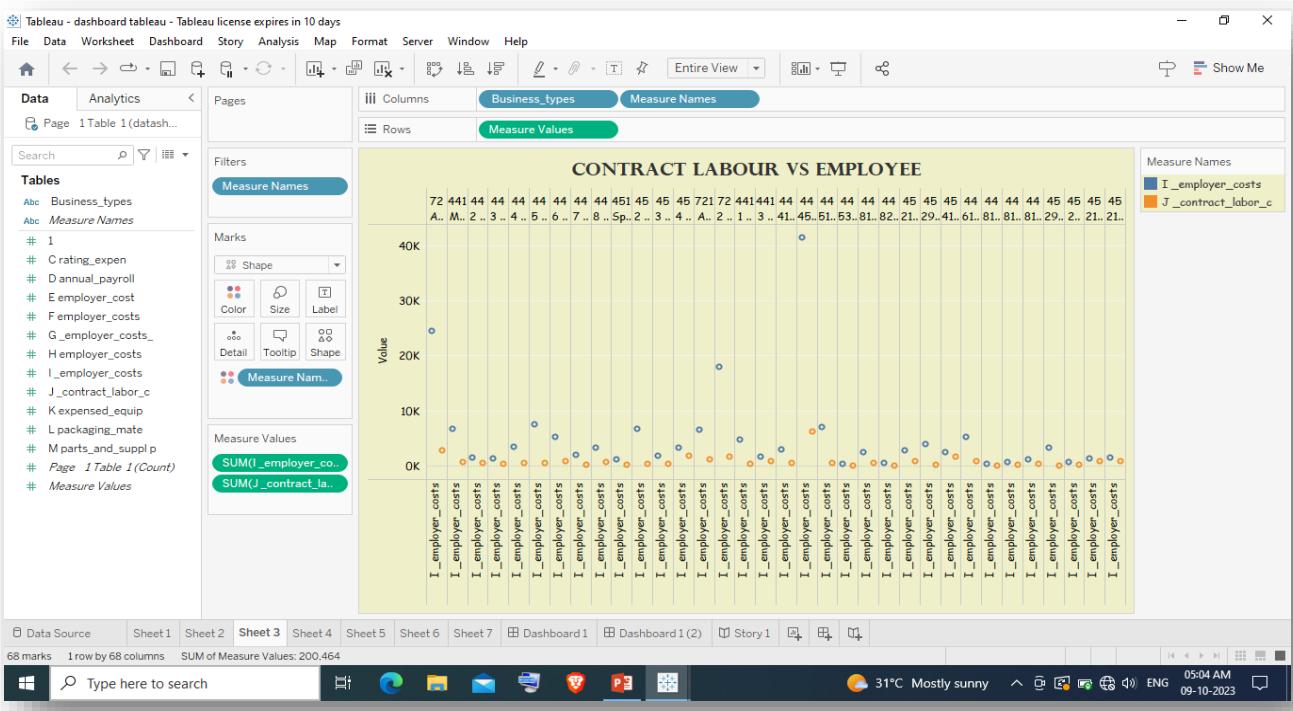
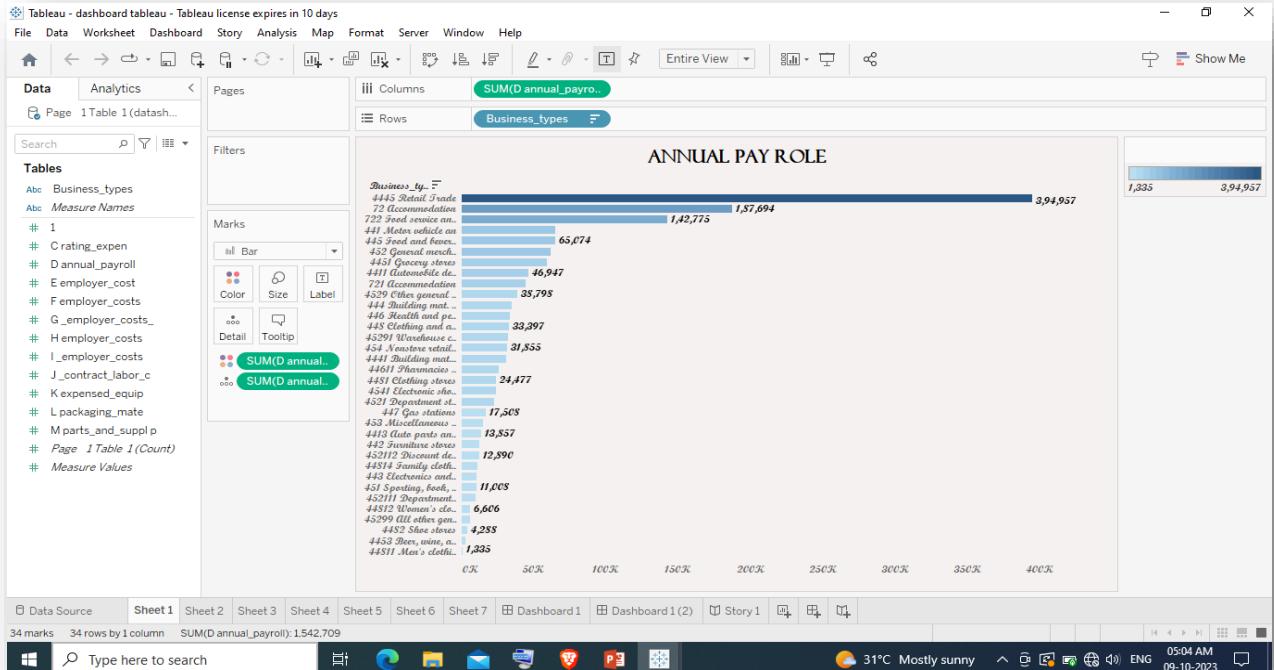


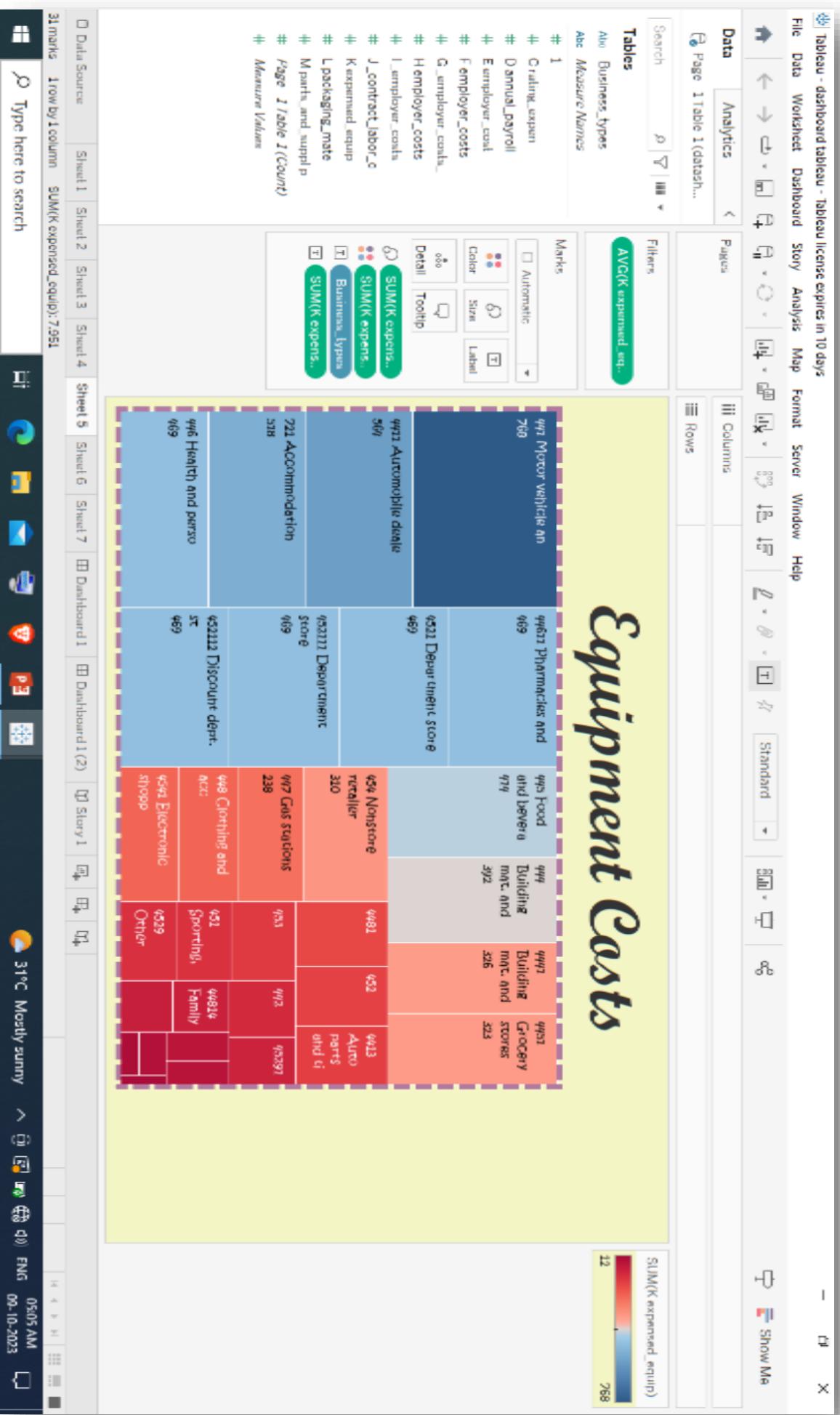




MILESTONE 7: PERFORMANCE TESTING

Activity 1: Amount of Data Rendered to Tableau





Activity 2: Number of calculation fields

The screenshot shows the Tableau Data Source interface. At the top, there's a navigation bar with File, Data, Worksheet, Dashboard, and other icons. Below it, a breadcrumb trail shows Page 1 Table 1 (datasource). A search bar and filter icon are also present. The main area is titled "Tables" and lists 34 calculation fields, each preceded by a green "#". The fields are:

- # 1
- # C rating_expen
- # D annual_payroll
- # E employer_cost
- # F employer_costs
- # G_employer_costs_
- # H employer_costs
- # I_employer_costs
- # J_contract_labor_c
- # K expensed_equip
- # L packaging_mate
- # M parts_and_suppl p
- # Page 1 Table 1 (Count)
- # Measure Values

At the bottom, it says "34 marks 34 rows by 1 column SU". There's also a Windows taskbar icon and a search bar.

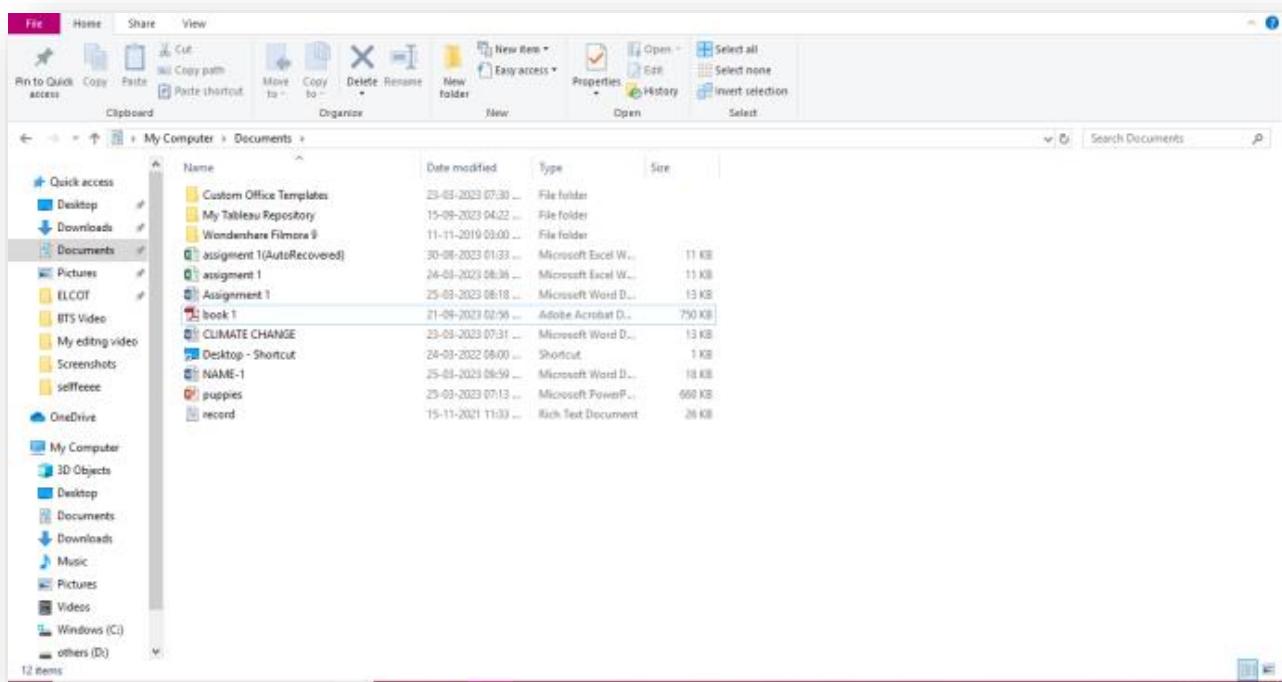
Activity 3: Number of visualizations

- Annual Pay Roll
- Advertisement Cost
- Contract Labor vs Employee
- Employee (Insurance vs pension)
- Equipment Costs. Expenses YoY
- 7. Fuel

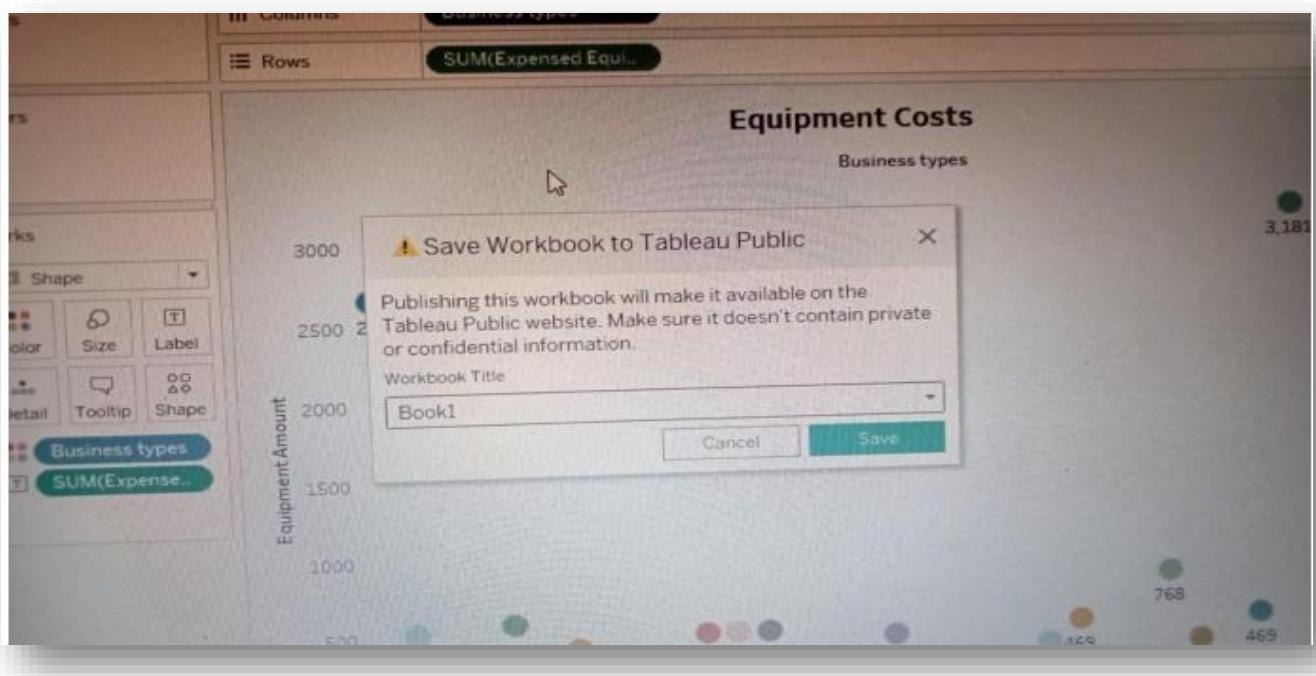
MILESTONE 8: PUBLISHING

Publishing dashboard and reports to tableau public

Step 1: Go to data Source and Select Extract so that hyper extension files are created and save it at your desktop.

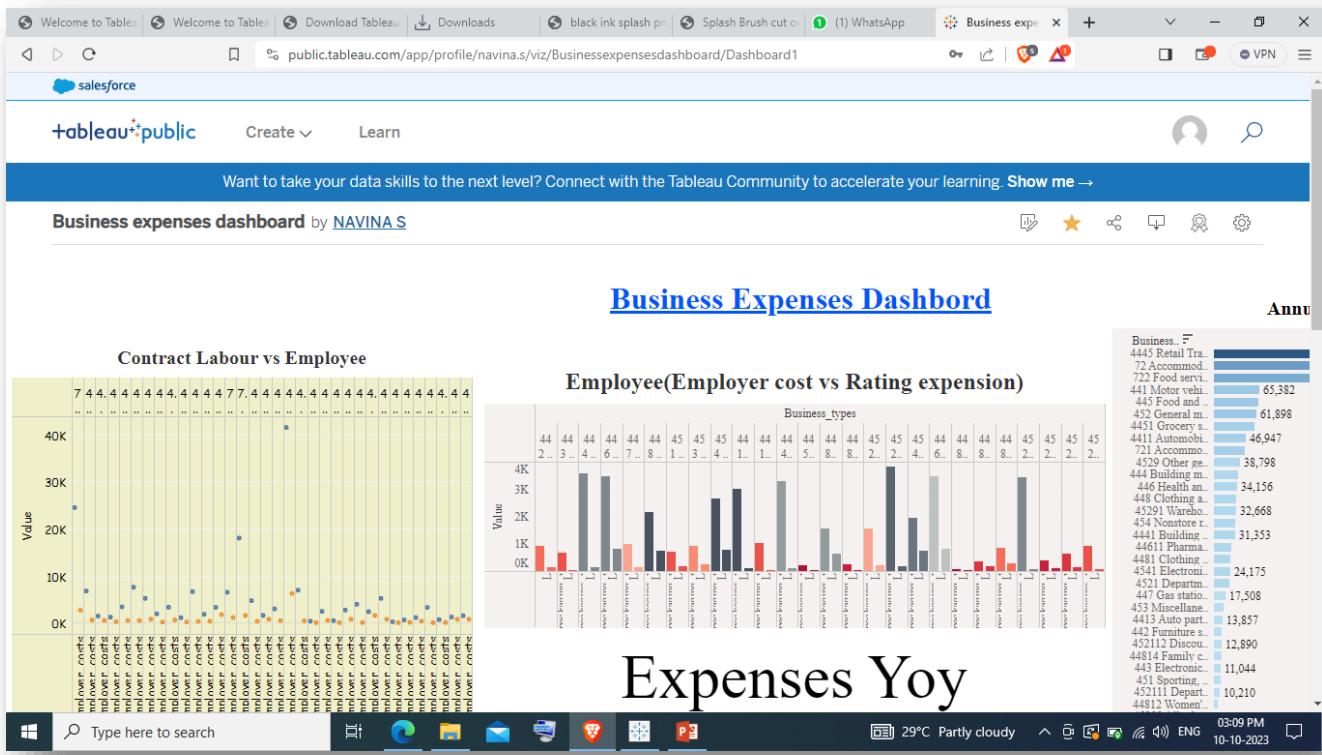


Step 2: Go to Dashboard/story, click on share button on the top ribbon



Activity 1: Publishing dashboard and reports to tableau public

A screenshot of a web browser displaying the Tableau Public profile of 'NAVINA S'. The page shows two items: 'Business expenses story' and 'Business expenses dashboard'. Both items have a star rating of 1 and 9 views. The browser's address bar shows the URL 'public.tableau.com/app/profile/navina.s/vizzes'. The bottom of the screen shows the Windows taskbar with various icons and system status.



ADVANTAGES:

FLEXIBLE AREAS OF CALCULATION

Cost estimation models interpret costs. Some use an array of algorithmic models to assign values to certain factors in order to compute costs. Other models include an expert judgment model and an analogy estimation.

EFFICIENCY AND COST CONTROL

On the downside, cost estimation is somewhat subjective. Even with algorithmic models, it is usually up to the business to weight certain values over others and assign the correct values to factors. The other model options are even more subjective. This means that sometimes a manager can make mistakes just as easily when using a cost estimation model than when working without one.

SUBJECTIVITY

On the downside, cost estimation is somewhat subjective. Even with algorithmic models, it is usually up to the business to weight certain values over others and assign the correct values to factors. The other model options are even more subjective. This means that sometimes a manager can make mistakes just as easily when using a cost estimation model than when working without one.

VARIABLE FACTORS

In a perfect world, factors remain steady and cost estimation models always produce accurate results. Unfortunately, markets are in constant flux, prices change and technology is always moving onward. This leads to constant changes in price, which means that costs have to be frequently updated and values changed to match. This can be a drain on time, especially in highly complex models.

DISADVANTAGES:

- It is costly to use as it involves experts.
- It is not effective for controlling many types of overhead costs.

- It is not easy to apply in non-manufacturing activities since relationship between cost and output cannot be determined.
- The estimate cannot communicate between labor and supervisor.
- Changing the method of estimation does not maintain the quality of the material.

Future scope:

Cost estimation in project management is the process of forecasting the financial and other resources needed to complete a project within a defined scope.

Cost estimation accounts for each element required for the project from materials to labor and calculates a total amount that determines a projects budget

