

ESTIMATION OF BUSINESS EXPENSES



PROJECT SUBMITTED BY:

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INTRODUCTION

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.

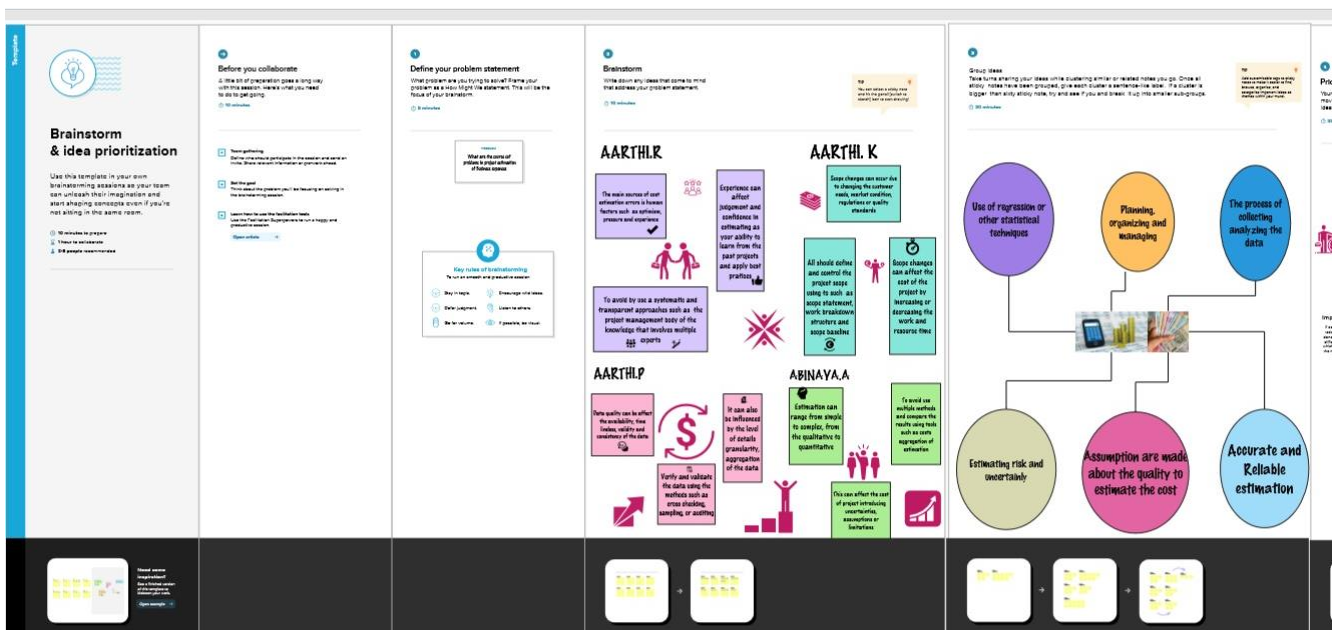
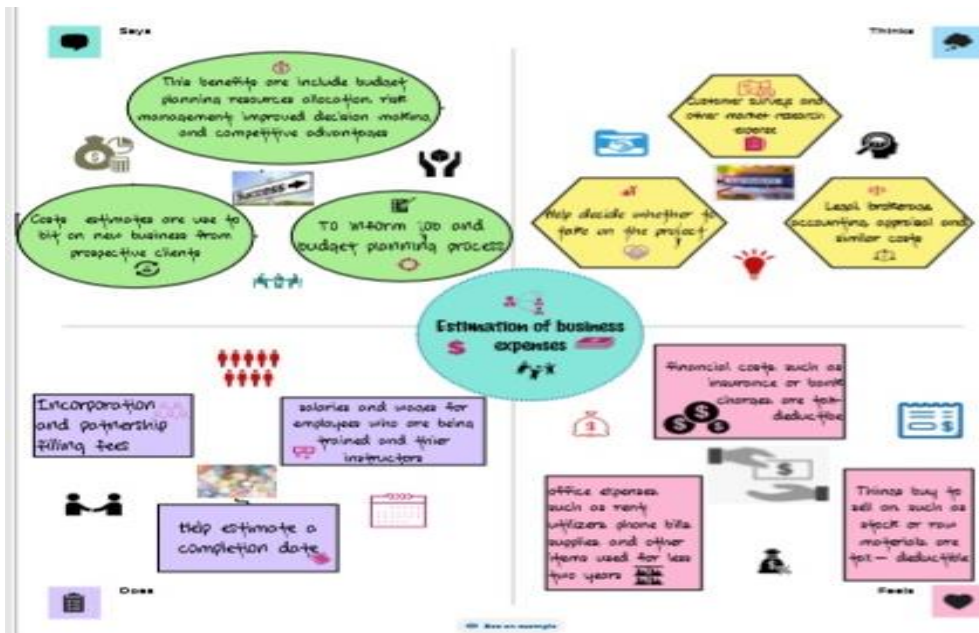
Estimated expense means the amount of the expenses which the Authority consider are properly to be incurred in the execution of the eligible works together with the amount of the costs which the Authority considers have been properly incurred, or are properly to be incurred, with respect to preliminary or ancillary.

Cost estimation is an indispensable process that provides numerous benefits to project management. These benefits include budget planning, resource allocation, risk management, improved decision - making, and competitive advantage.

Estimation is a key technique for predicting and controlling project risks. Accurate project estimates to aid in the identification of cost and schedule requirements with relative precision, lowering the danger of running out of time, resources, and money during a project.

Milestone 1: Define Problem / Problem Understanding

- 1. Specify the business problem**
- 2. Business requirements**
- 3. Literature Survey**
- 4. Social or Business Impact**



Milestone 2: Data Collection & Extraction

Activity 1: Downloading the dataset

file:///C:/Users/hp/Desktop/docs-google-com-spreadsheets-u-0-d-1EKJV41E81o9hnO2encxB6pfhoq2l51rDS34OQyqeZs-htmview.pdf

cleaned_business : cleaned_business														
	A	B	C	D	E	F	G	H	I	J	K	L	M	
1	naics_code	Business_types	operating_expens	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	441	Motor vehicle an	130153	65382	11700	4312	548	110	6729	571	768	150	2475	
4	4411	Automobile deal	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 bever	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	590	201	30	32	326	11	48	46	104	
13	446	Health and pers	72689	34156	717	3492.9	592	366.1	5158.9	737.1	469	803.2	2262.3	
14	44611	Pharmacies and	53280	26322	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	169	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, i	27424	11008	1907	701	99	44	1063	165	119	169	392	
23	452	General mercha	132672	61898	13920	5396	689	1237	6598	269	150	424	2503	
24	4521	Department ston	48579	23100	5140	1571	430	453	2686	737.1	469	229	886	
25	452111	Department ston	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 club	68433	32668	7686	3449	215	768	3253	4	84	87	1467	
29	45299	All other general	15660	6130	1094	376	44	15	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	481119	187694	35392	9472	1048	447	24425	2649	2666	4802	13841	
34	721	Accommodation	138357	44919	11305	4276	392	179	6458	1103	518	95	4676	

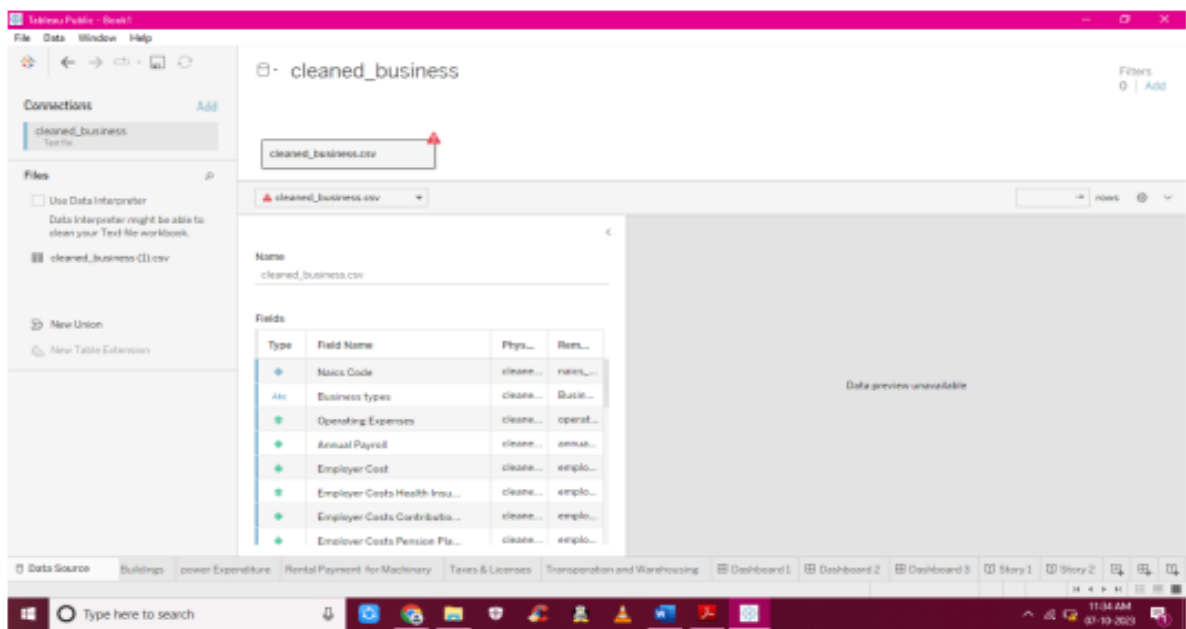
Activity 1.1: Understand the data

Data consists of 33 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 system
Annual payroll	Total yearly payment
Employer cost	Amount spent on Employees
Employer cost health insurance	Amount spent on health insurance
Packaging materials and containers	Amount spent on Pension plans for employees
Employers costs and Pension plans	Amount spent on packing
Repairs and Maintenance of equipment	Amount spent on repairs and maintenance

Activity 2: Connect Dataset with Tableau



Activity 1: Prepare the Data for Visualization



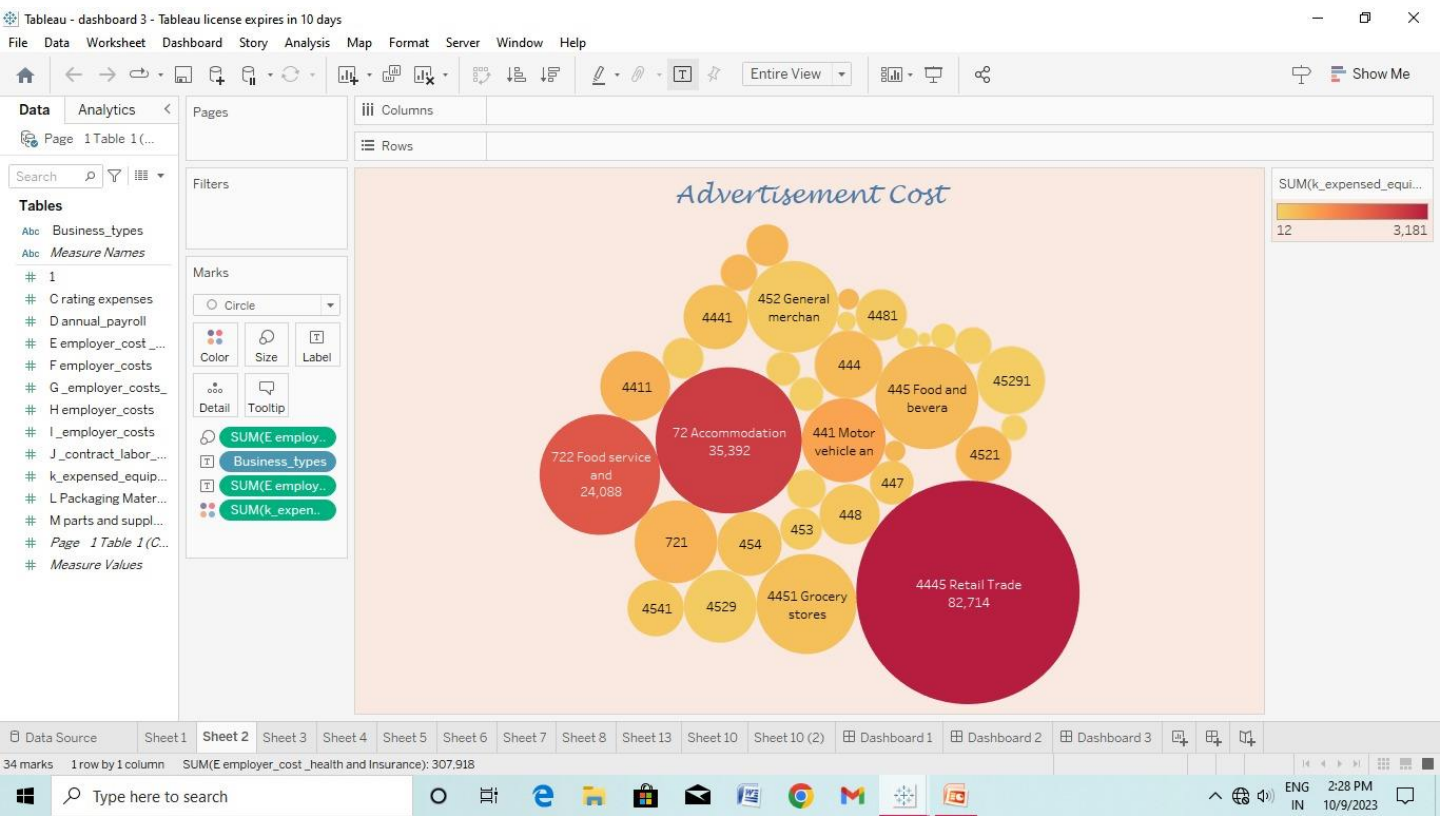
Activity 1: No of Unique Visualization

The number of unique Visualization that can be created with a given dataset.

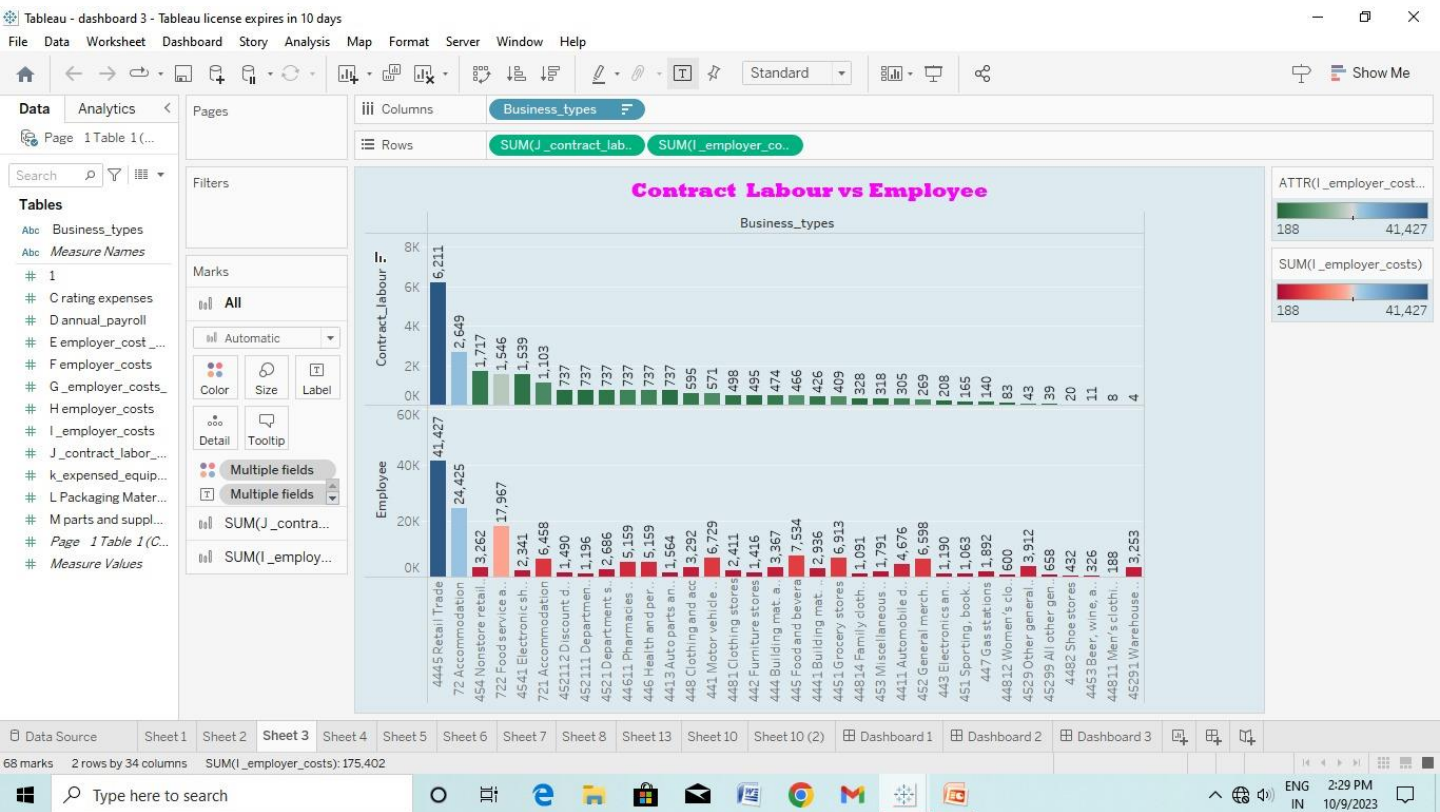
Activity 1.1: Annual Pay Roll



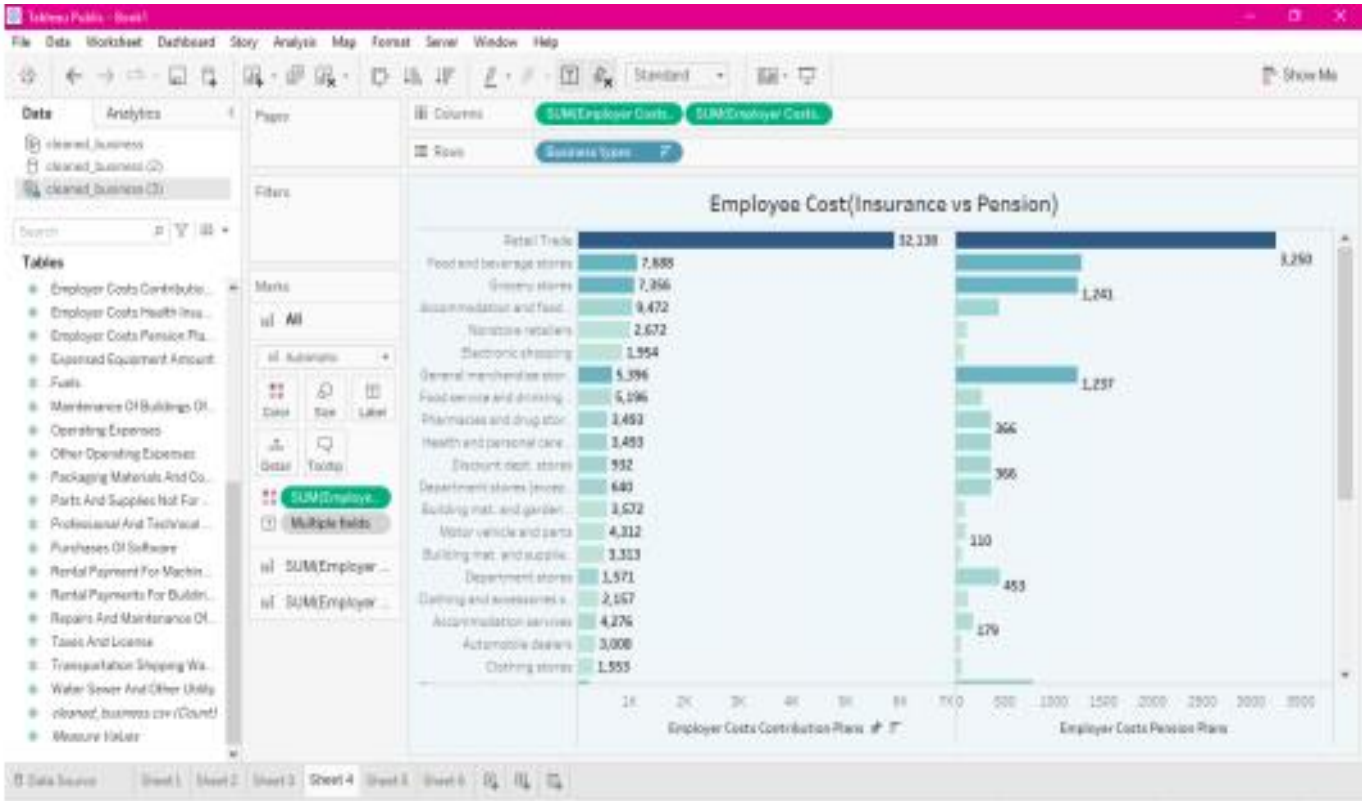
Activity 1.2: Advertisement Cost



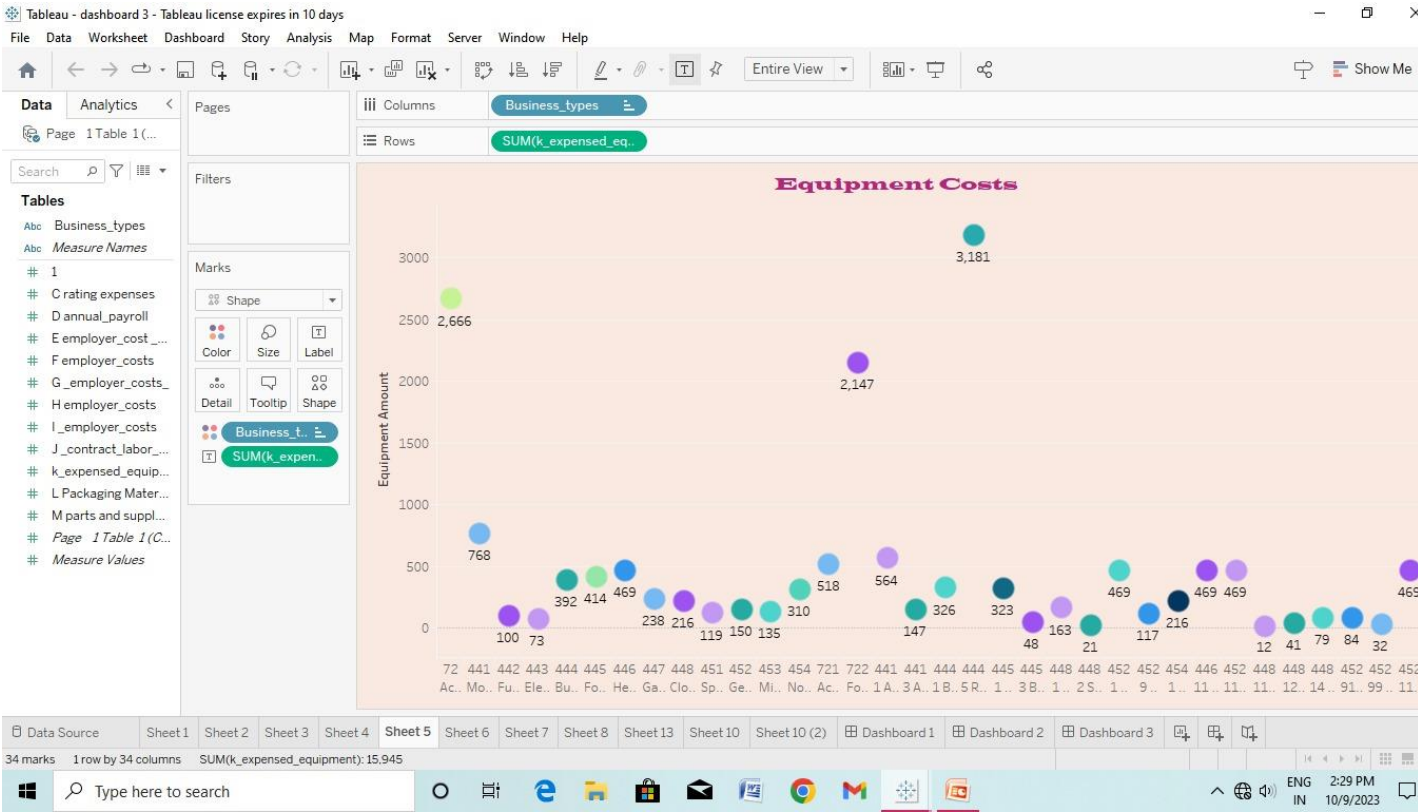
Activity 1.3: Contract Labour and Employee



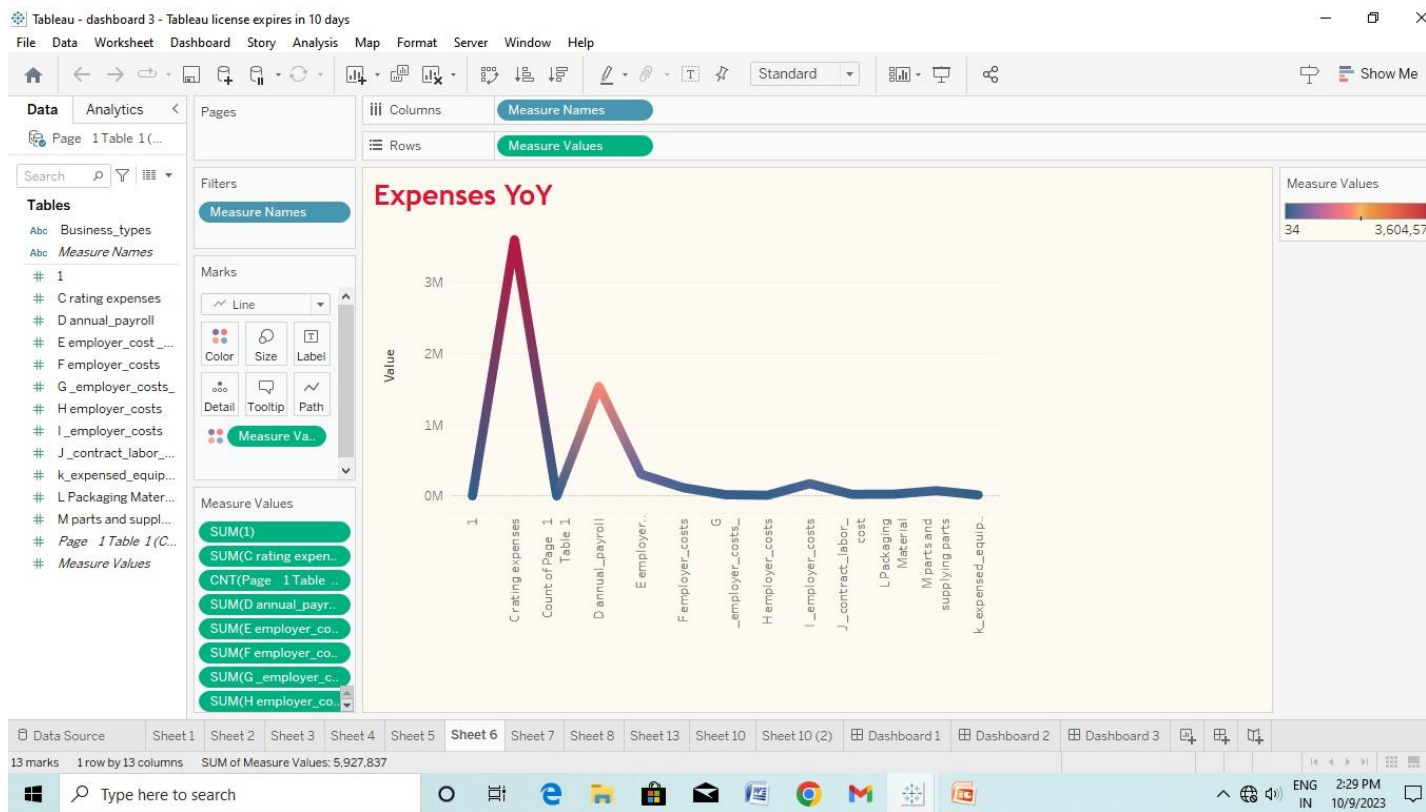
Activity 1.4: Employee (Insurance vs Pension)



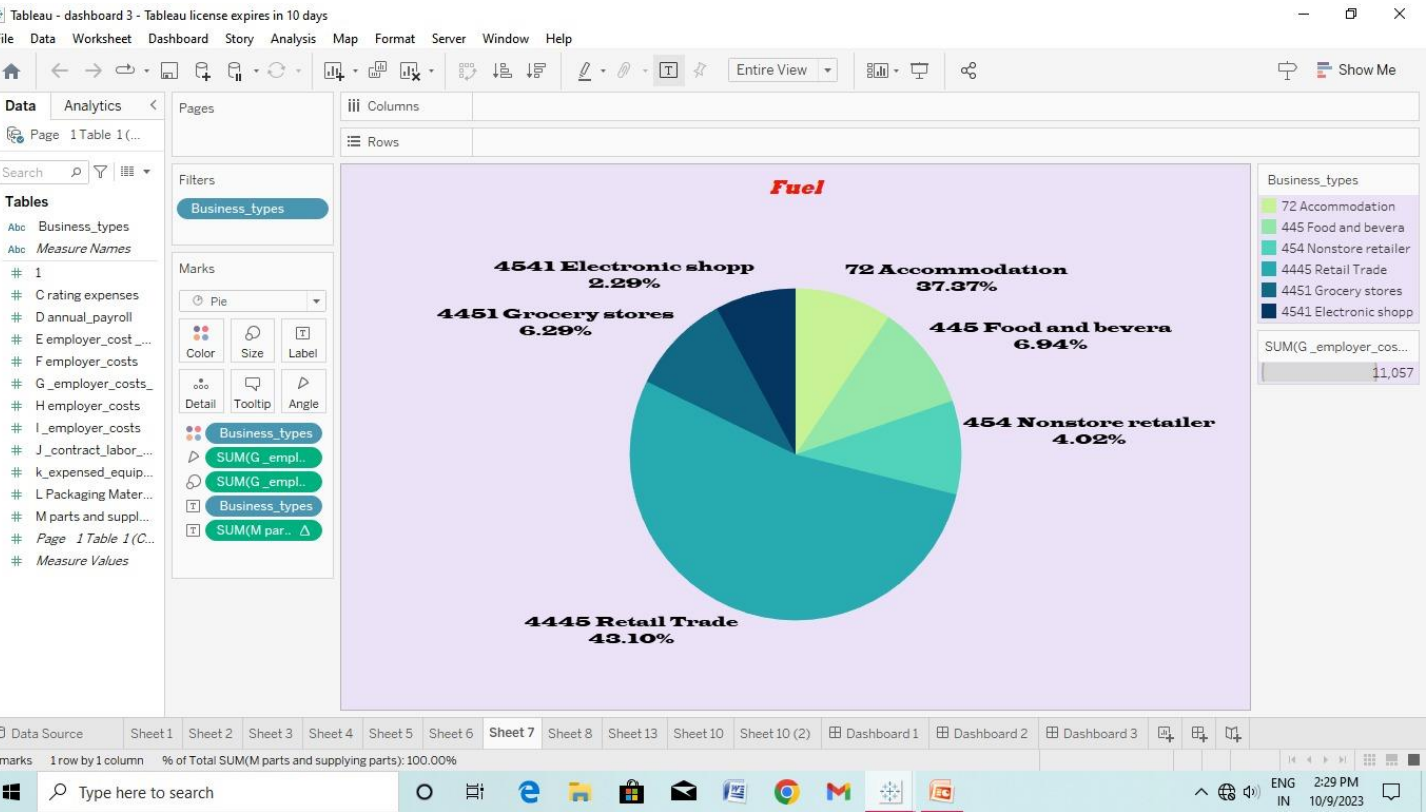
Activity 1.5: Equipments Costs



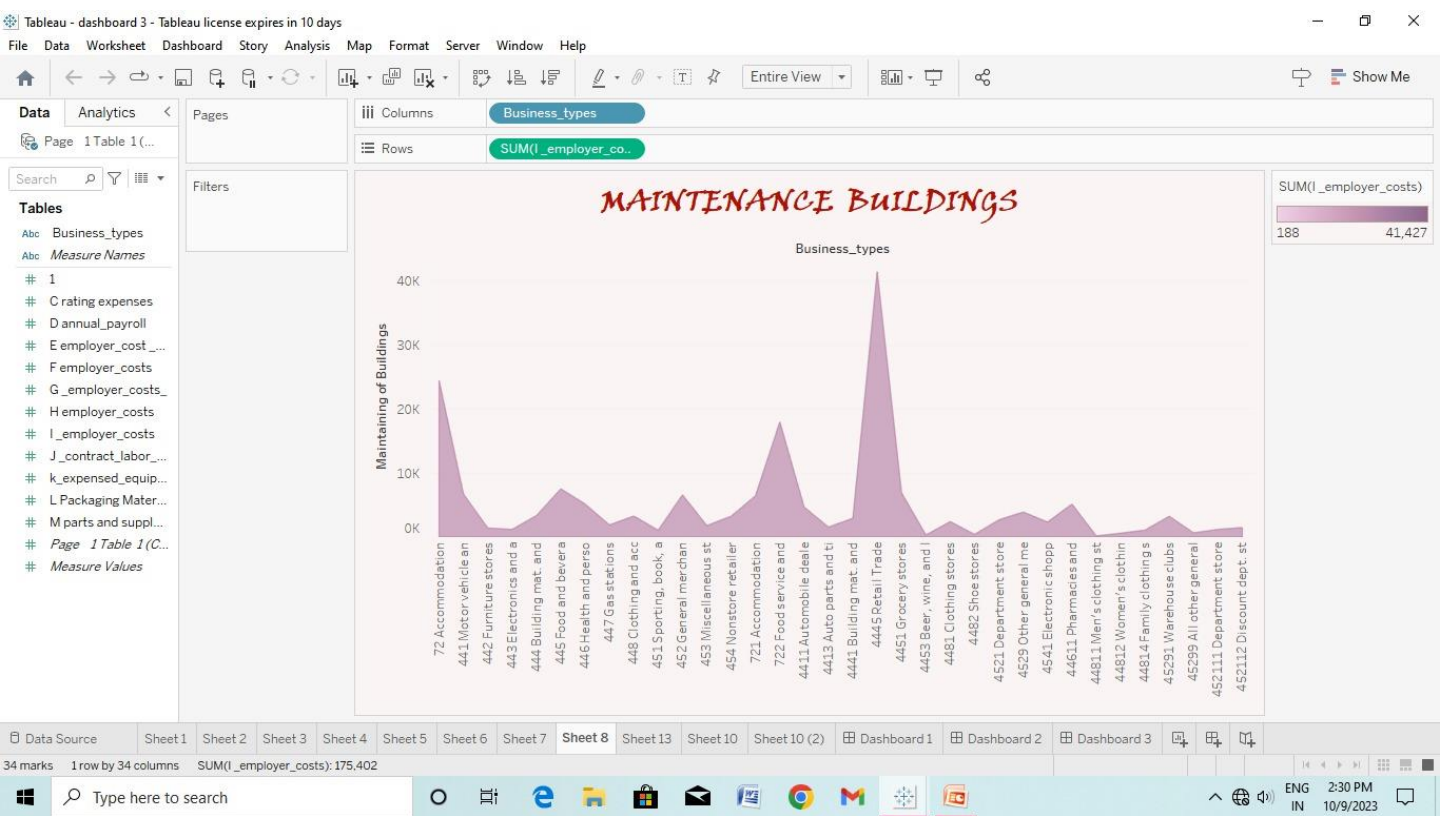
Activity1.6: Expenses YoY



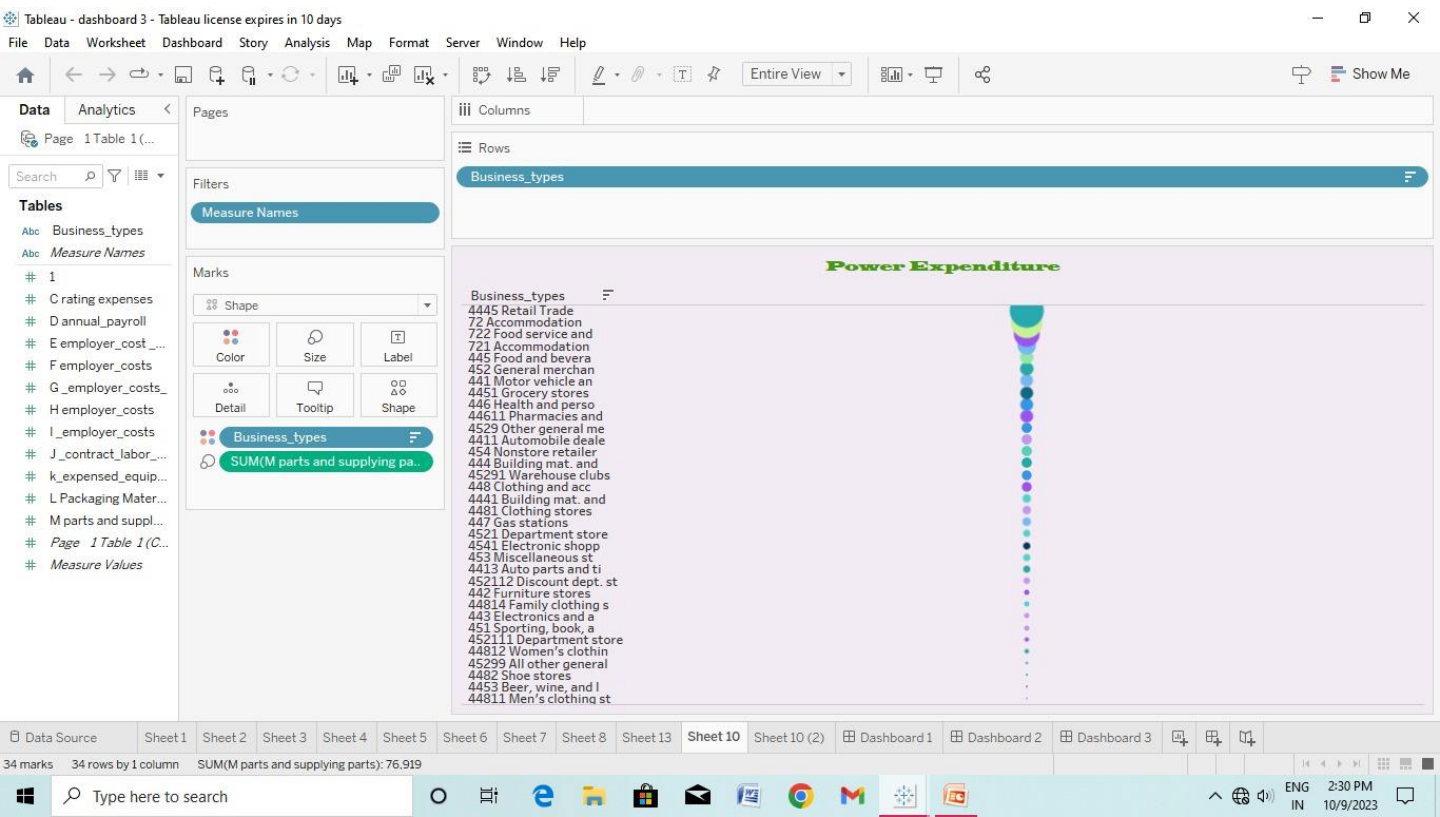
Activity 1.7: Fuel



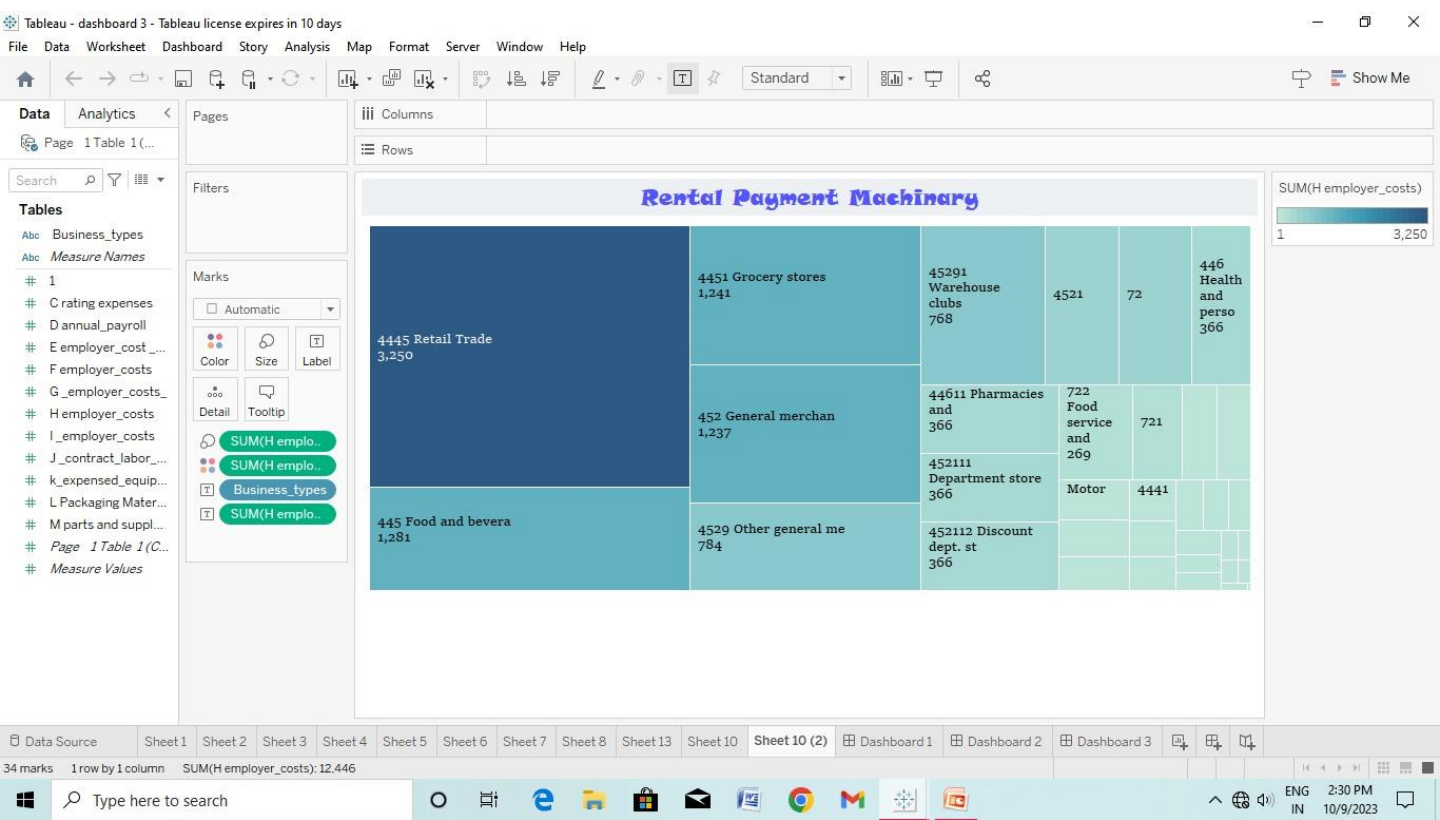
Activity 1.8: Maintenance of Buildings



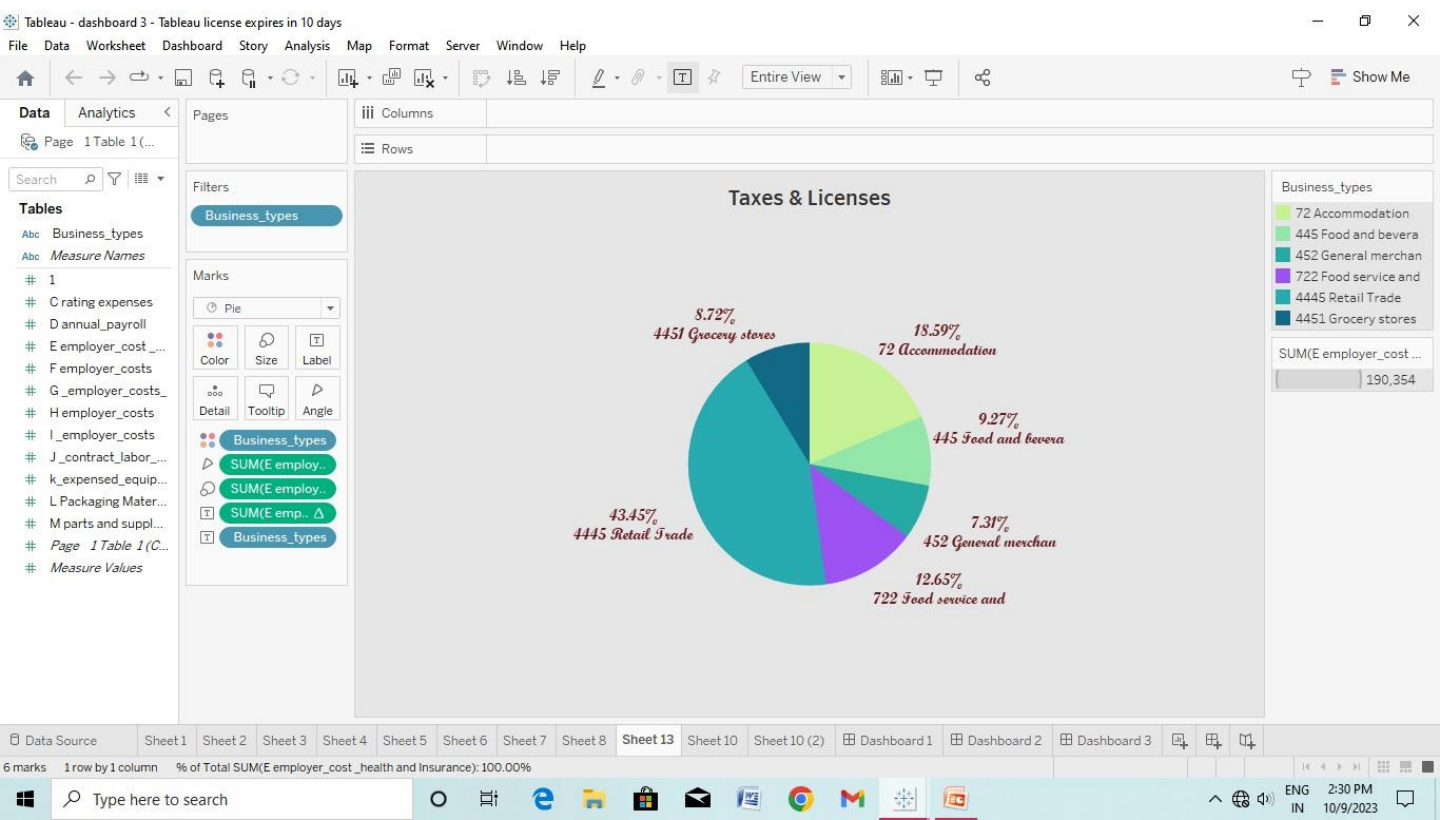
Activity 1.9: Power Expenditure



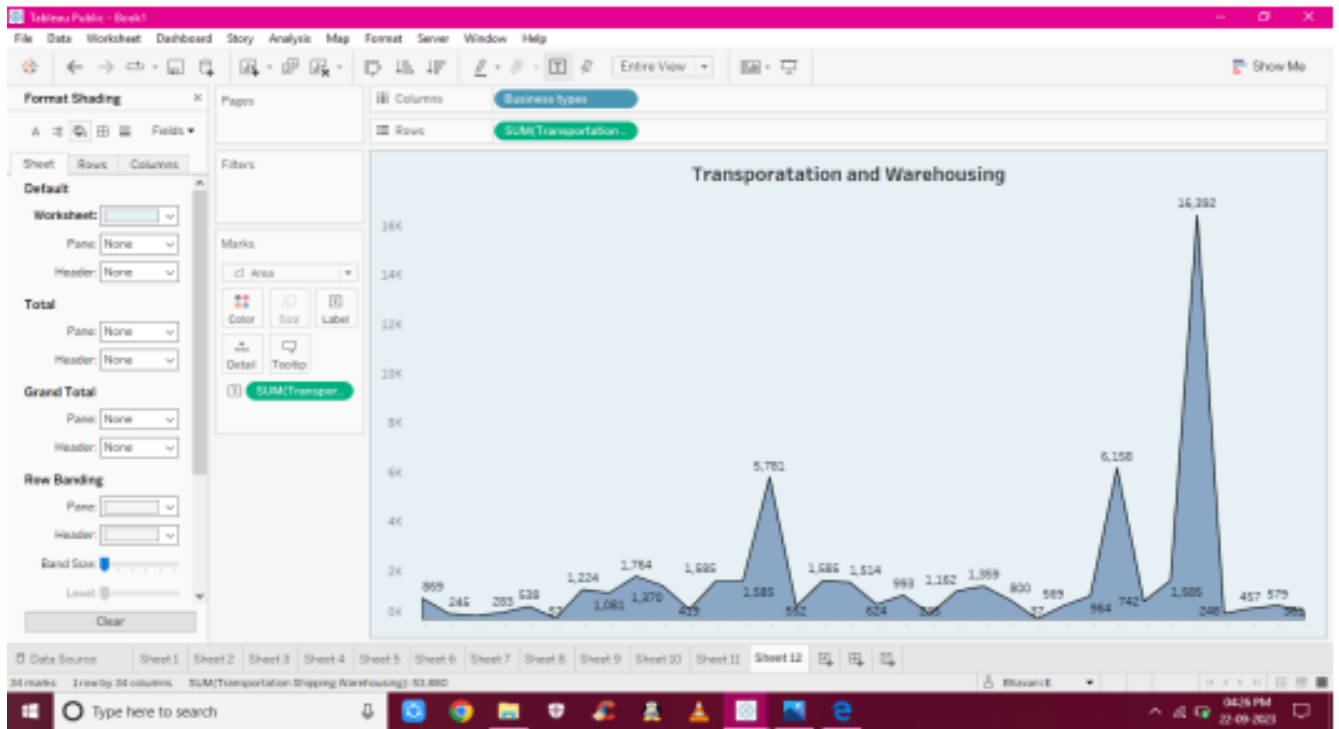
Activity 1.10: Rental Payment Machinery



Activity 1.11: Taxes and Licenses



Activity 1.12: Transportation

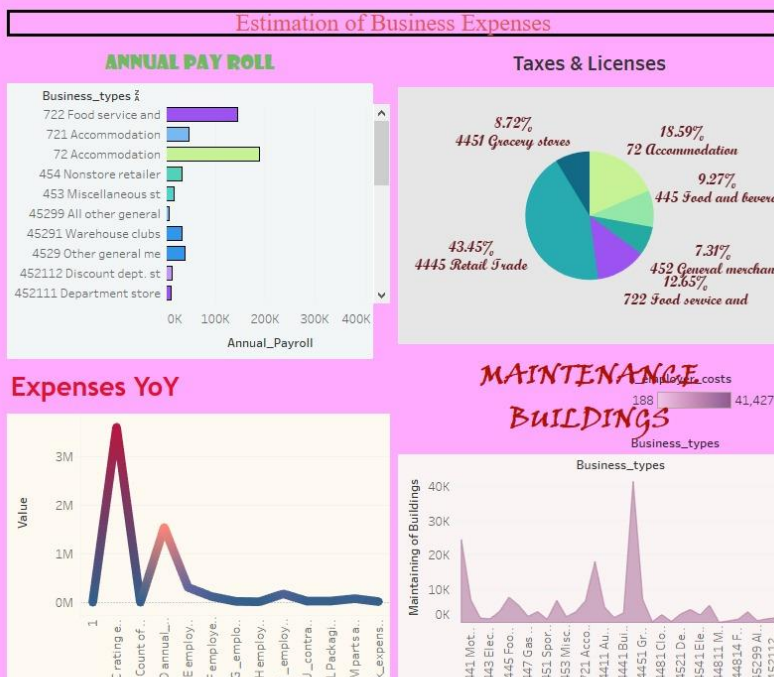


Milestone 5: Dashboard

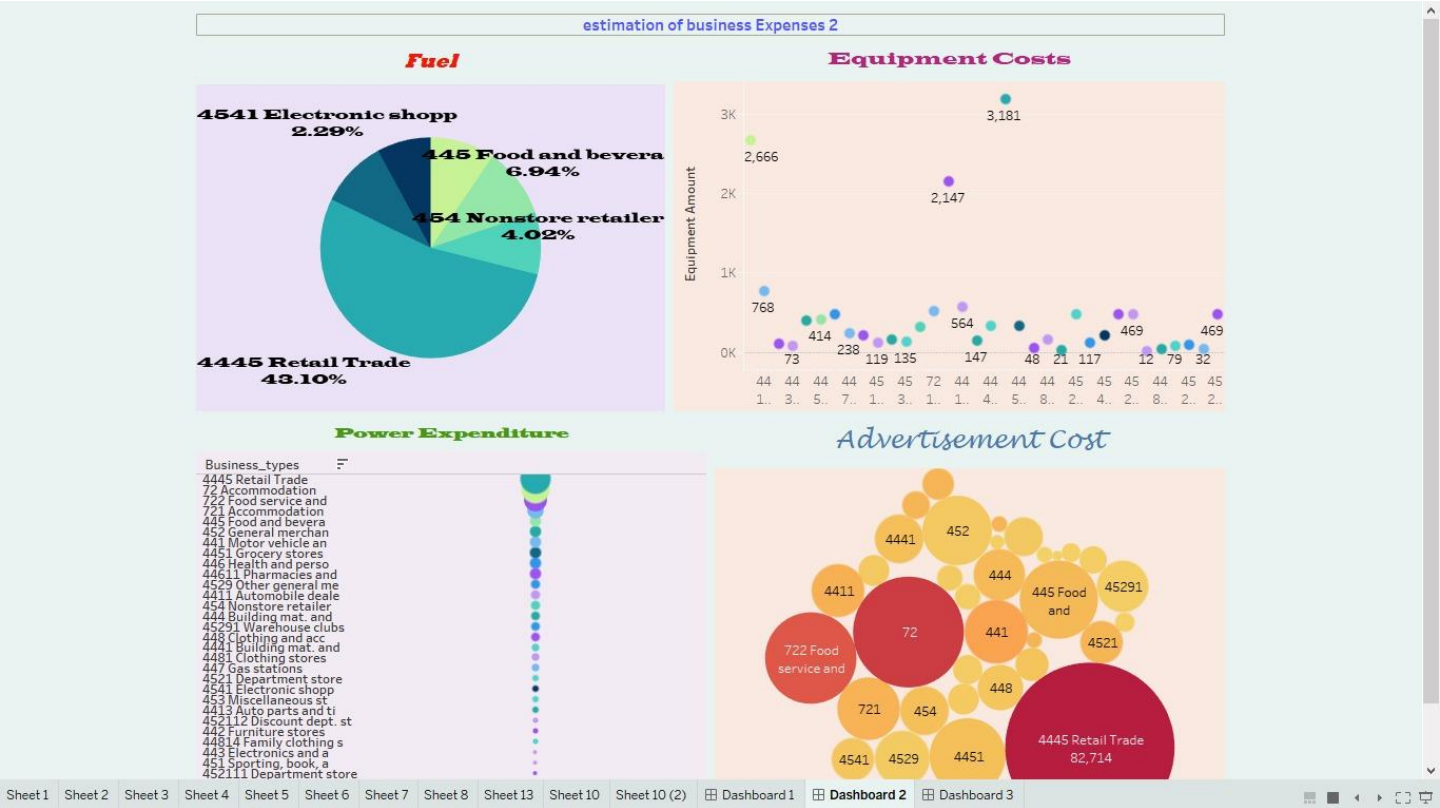
Activity 1: Responsive and Design of dashboard

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

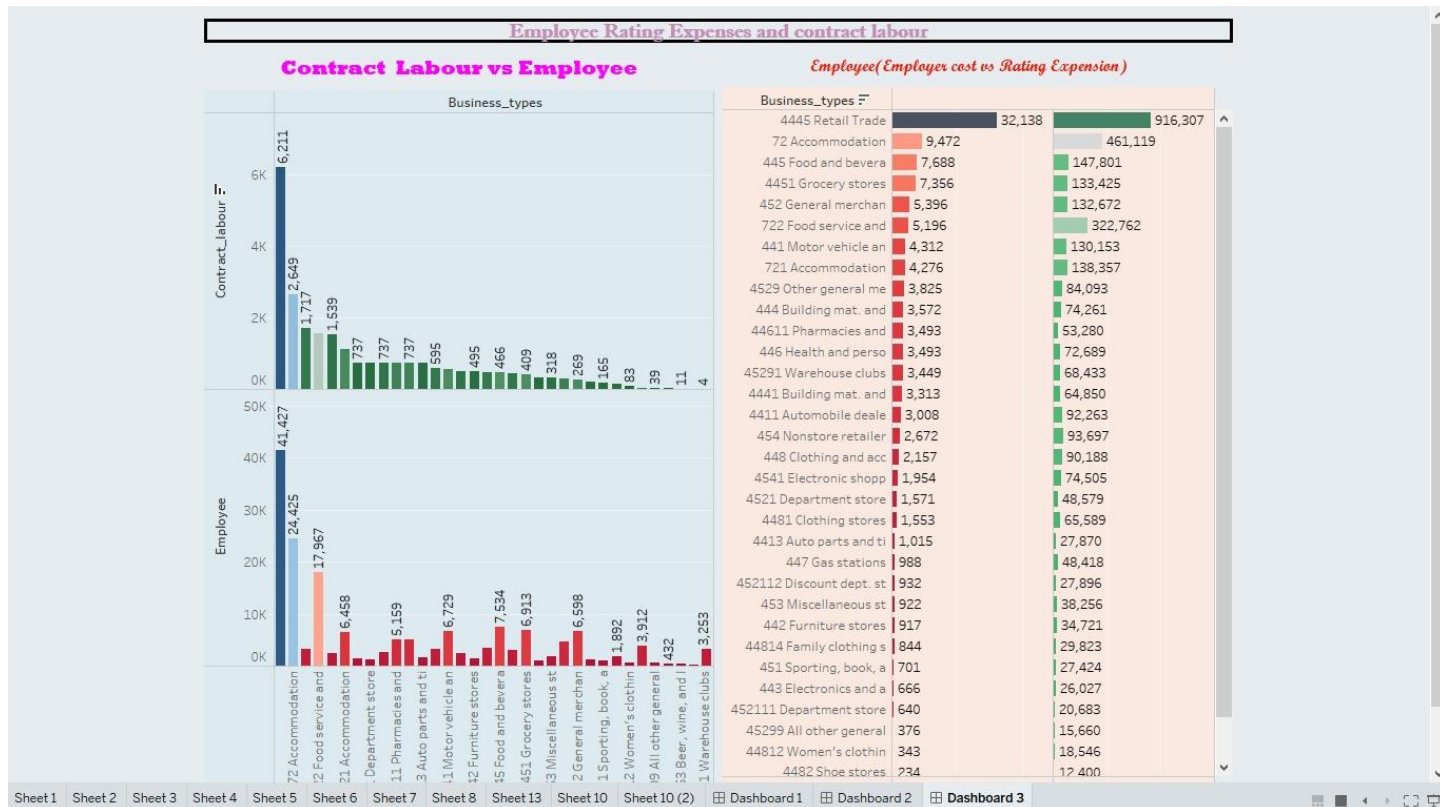
Activity 1.1: Dashboard 1



Activity 1.2: Dashboard 2



Activity 1.3: Dashboard 3

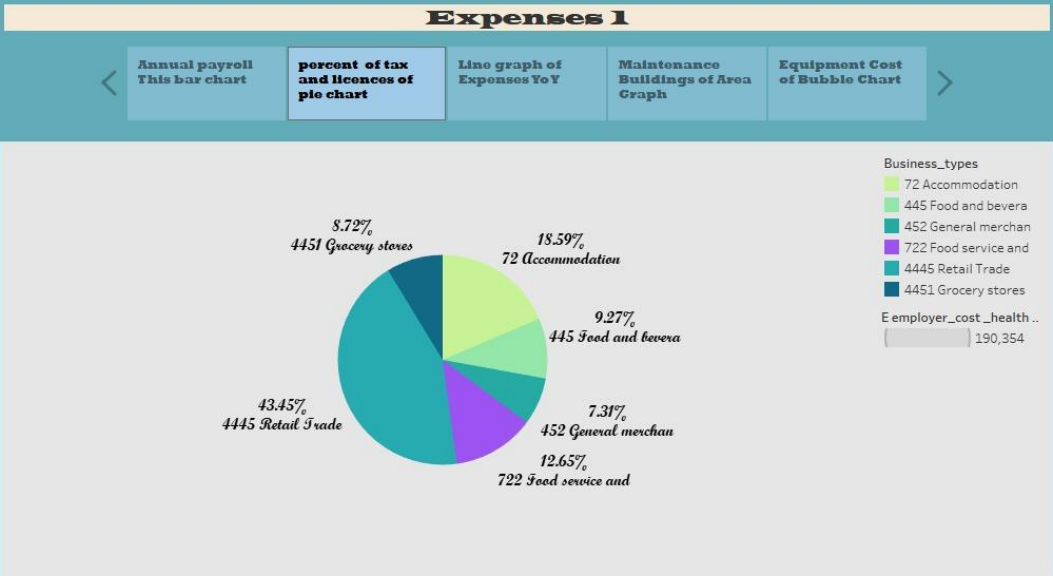
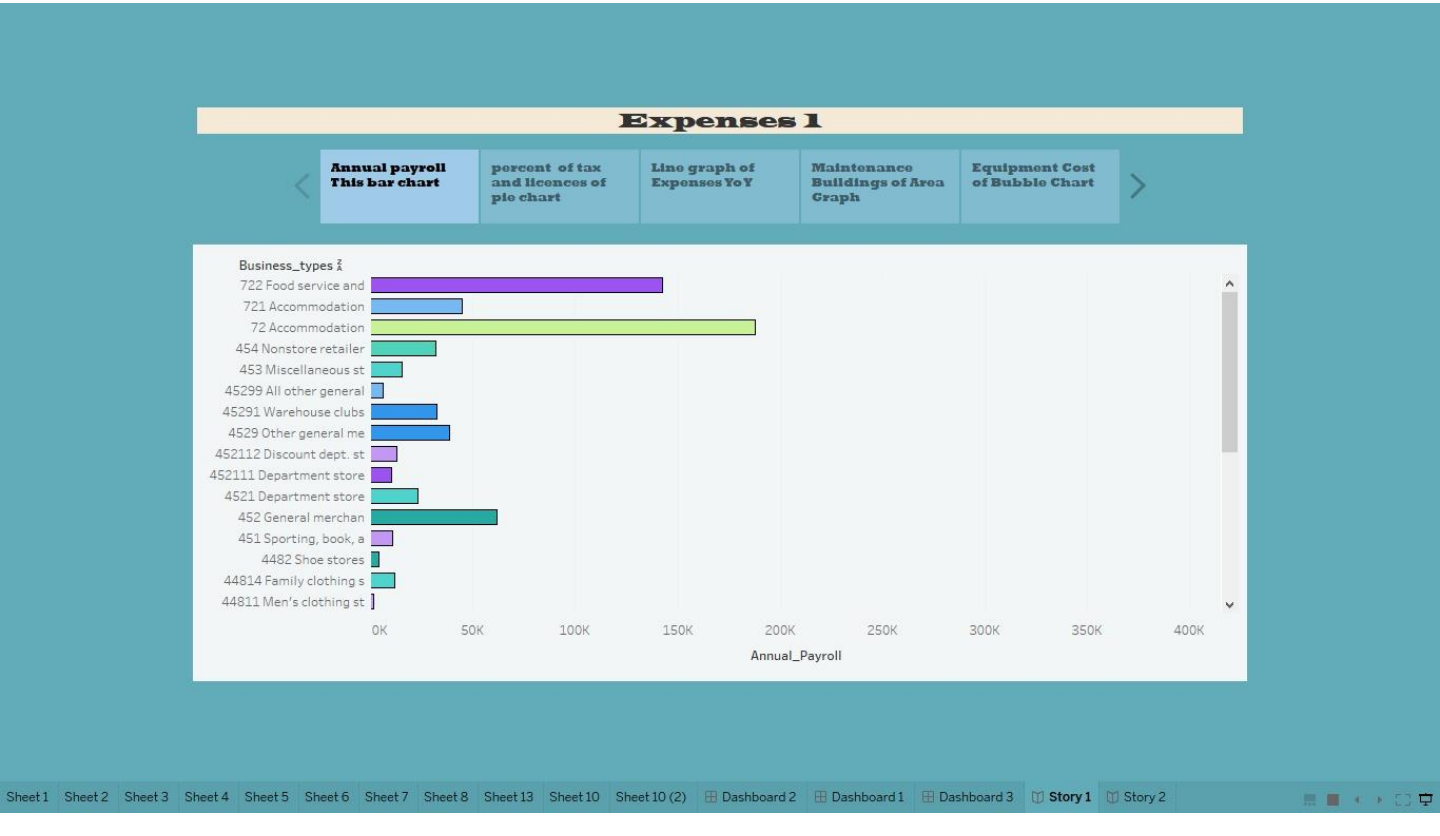


Milestone 6: Story

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.

Activity1.1: story



Expenses 1

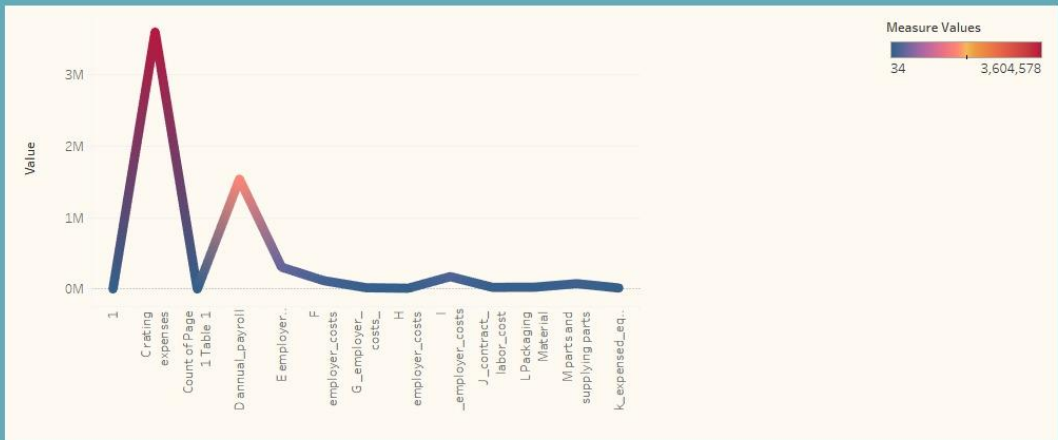
[Annual payroll
This bar chart](#)

[percent of tax
and licences of
ple chart](#)

**Line graph of
Expenses Yo Y**

[Maintenance
Buildings of Area
Graph](#)

[Equipment Cost
of Bubble Chart](#)



Expenses 1

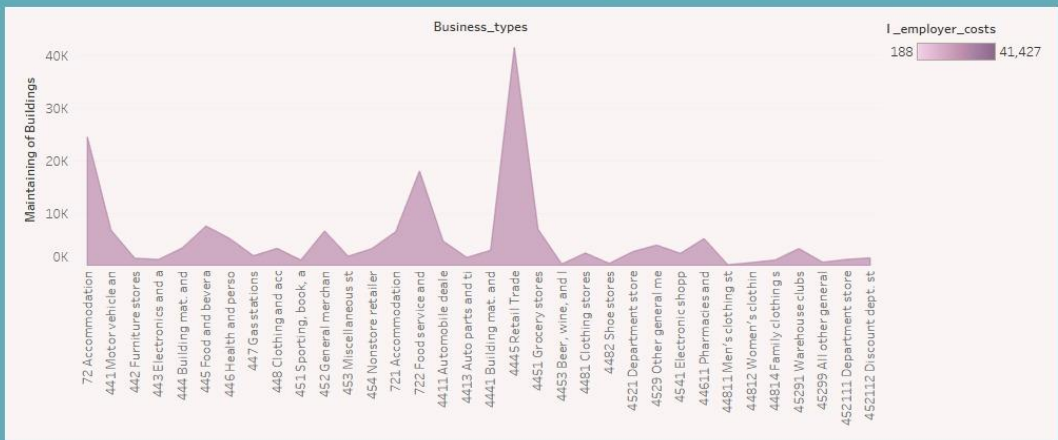
[Annual payroll
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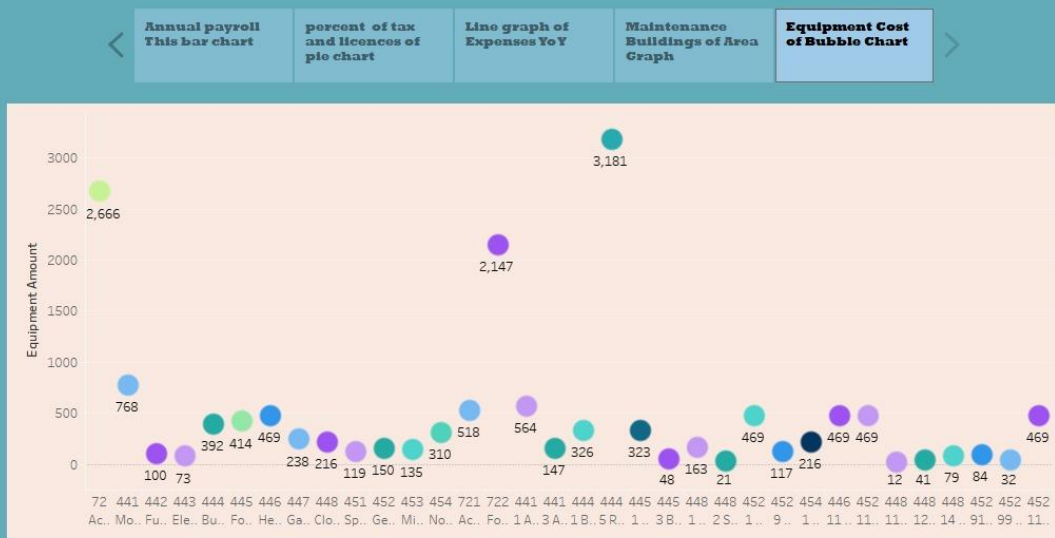
[Line graph of
Expenses Yo Y](#)

**Maintenance
Buildings of Area
Graph**

[Equipment Cost
of Bubble Chart](#)



Expenses 1



Activity 1.2: story 2

Expenses 2

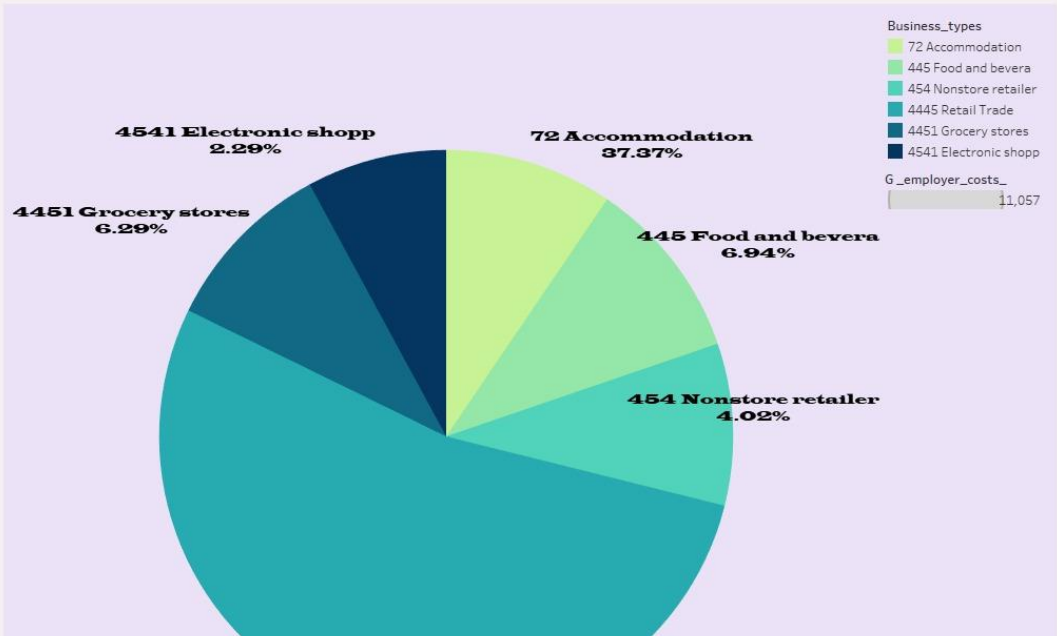


Expenses 2

- <

power
Expenditure of
bubble chart
- amount of Fuel
and pie chart
- advertisement
cost using
bubble chart
- comparison
between
contract Labour
- Comparison
between
employer costs
- Rental Payment
Machinery of
chart

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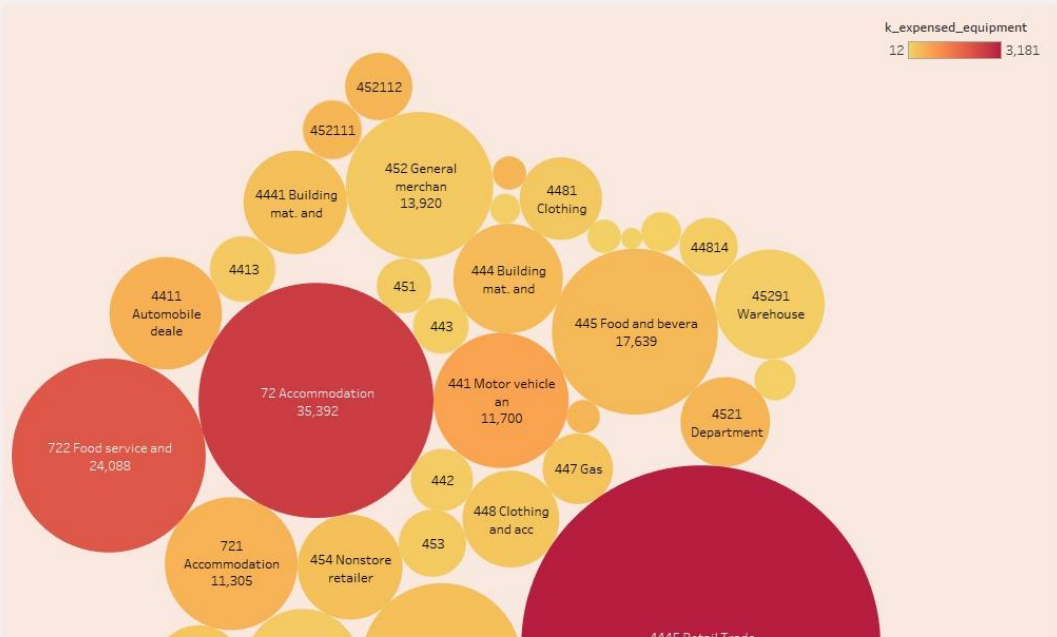


Expenses 2

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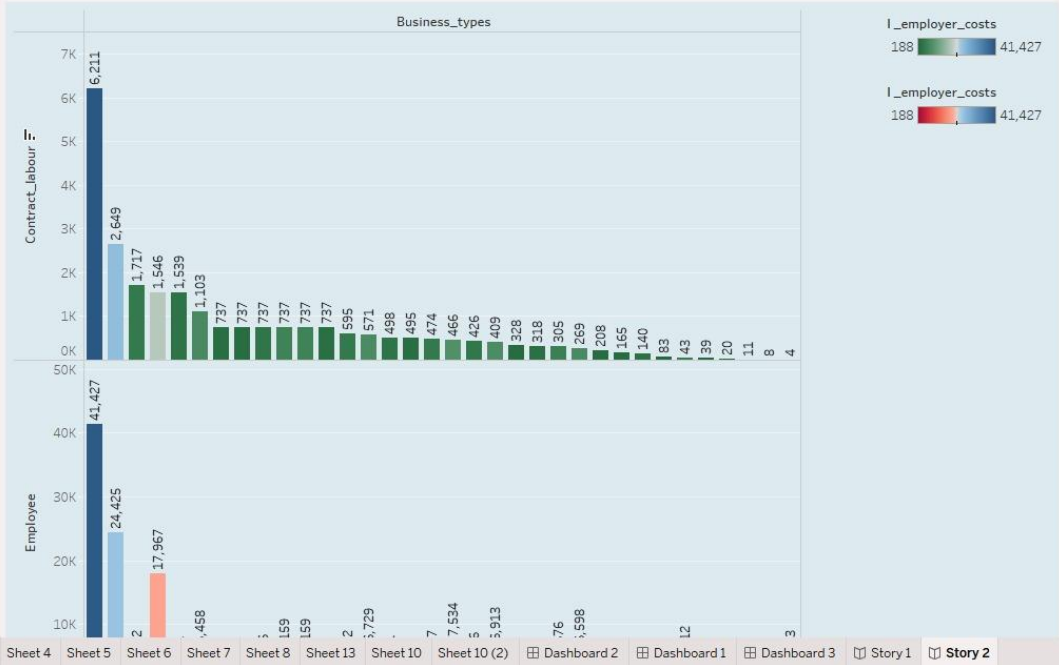
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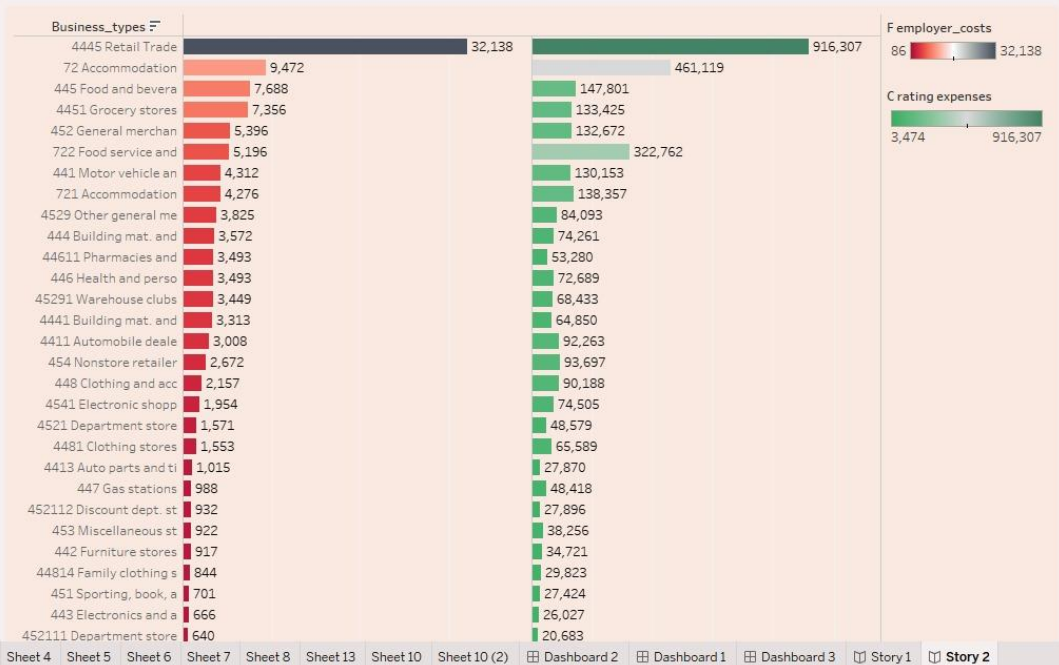
Expenses 2

- power Expenditure of bubble chart
- amount of Fuel and pie chart
- advertisement cost using bubble chart
- comparison between contract Labour
- Comparison between employer costs
- Rental Payment Machinery of chart

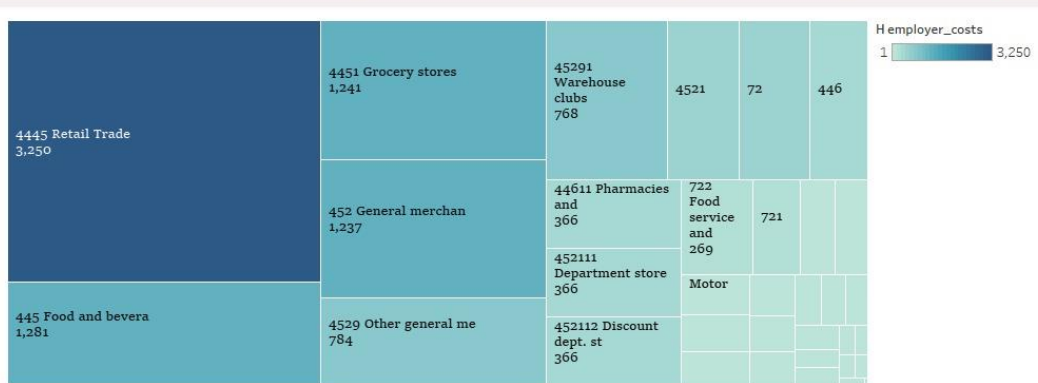
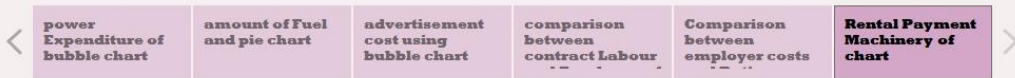


Expenses 2

- power Expenditure of bubble chart
- amount of Fuel and pie chart
- advertisement cost using bubble chart
- comparison between contract Labour
- Comparison between employer costs
- Rental Payment Machinery of chart



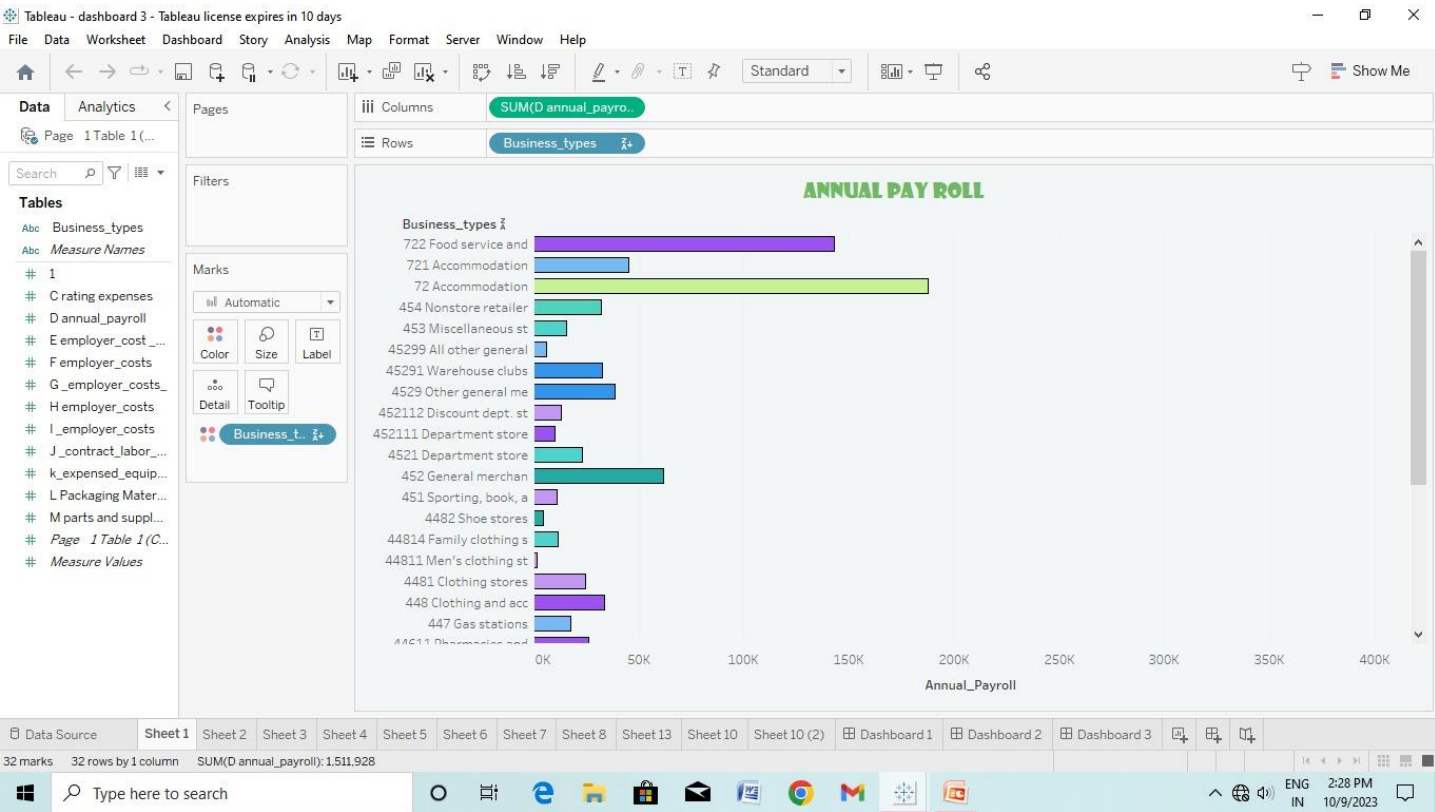
Expenses 2

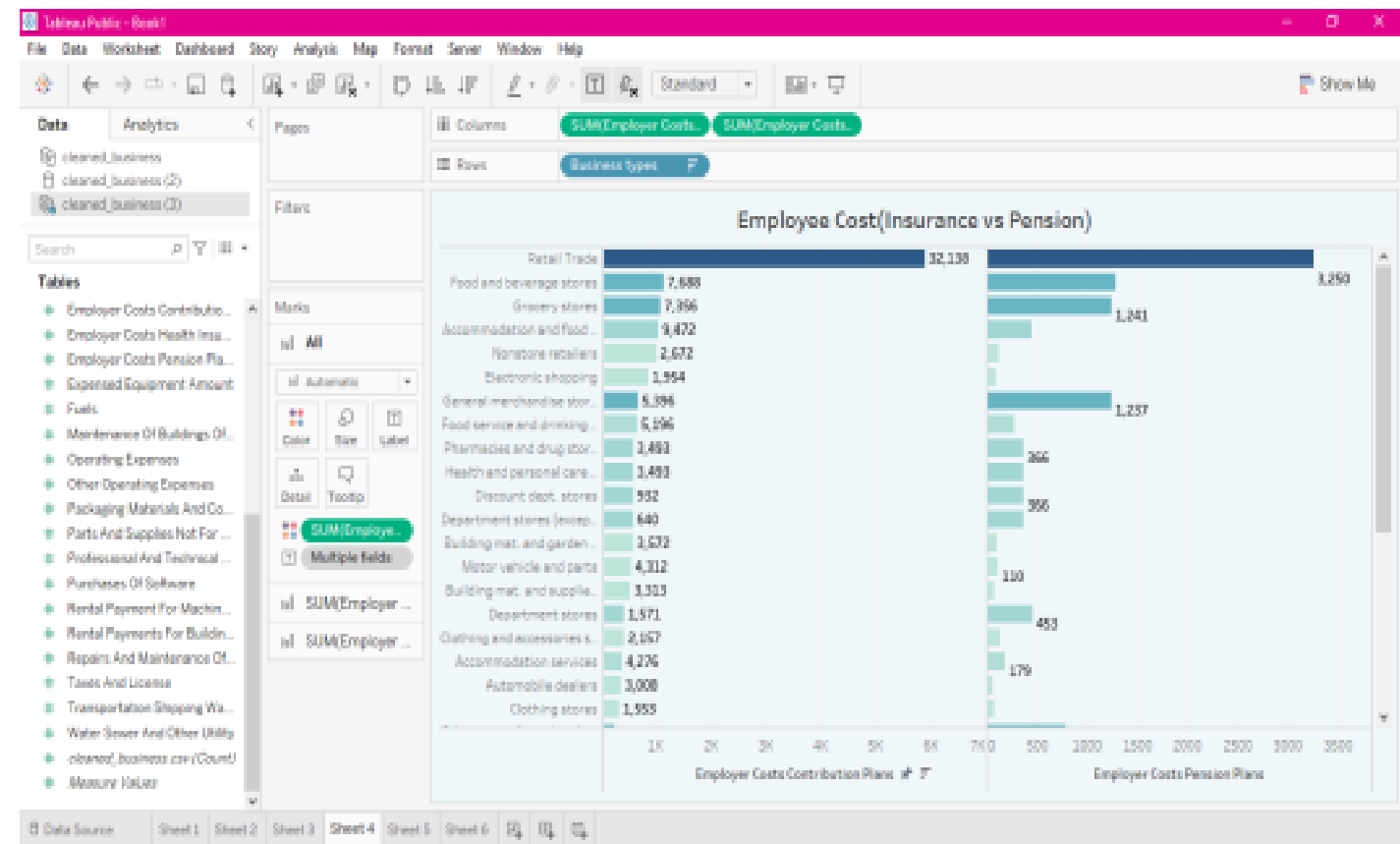
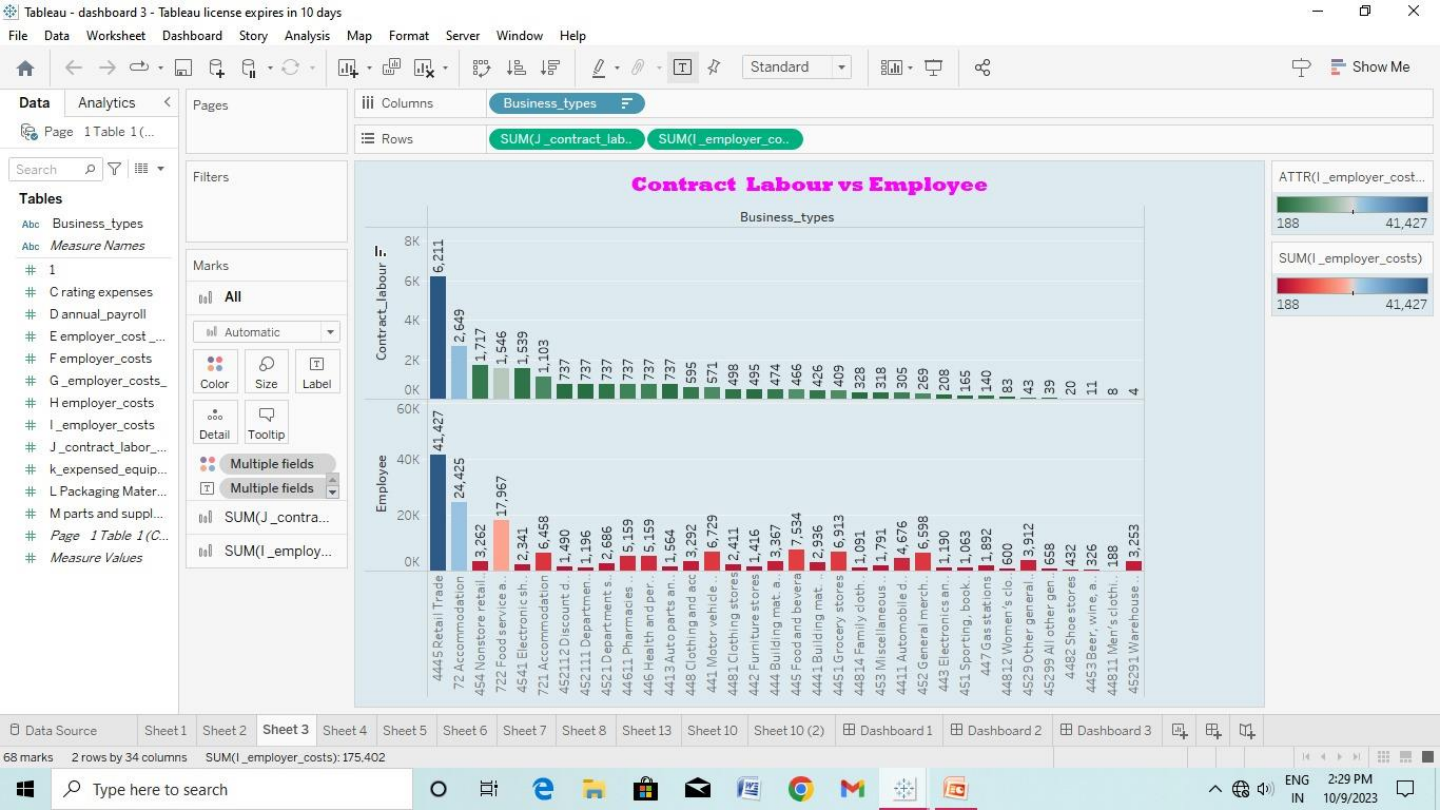


Sheet1 Sheet2 Sheet3 Sheet4 Sheet5 Sheet6 Sheet7 Sheet8 Sheet13 Sheet10 Sheet10 (2) Dashboard 2 Dashboard 1 Dashboard 3 Story1 Story2

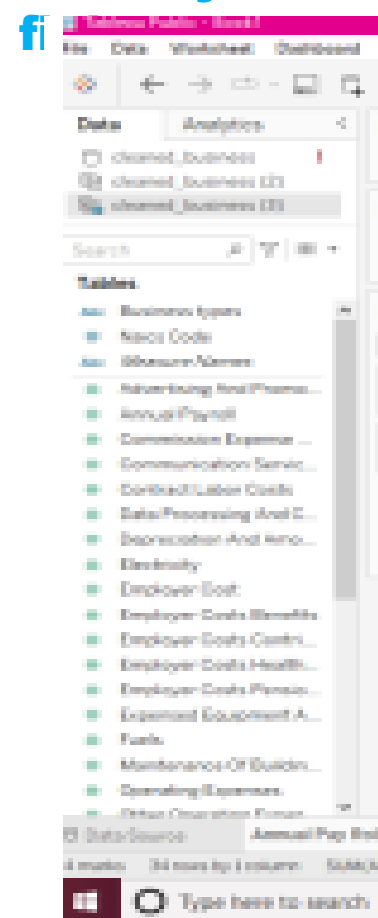
Milestone 7: Performance Testing

Activity 1: Amount of Data Rendered to Tableau





Activity 2: Number of Calculation



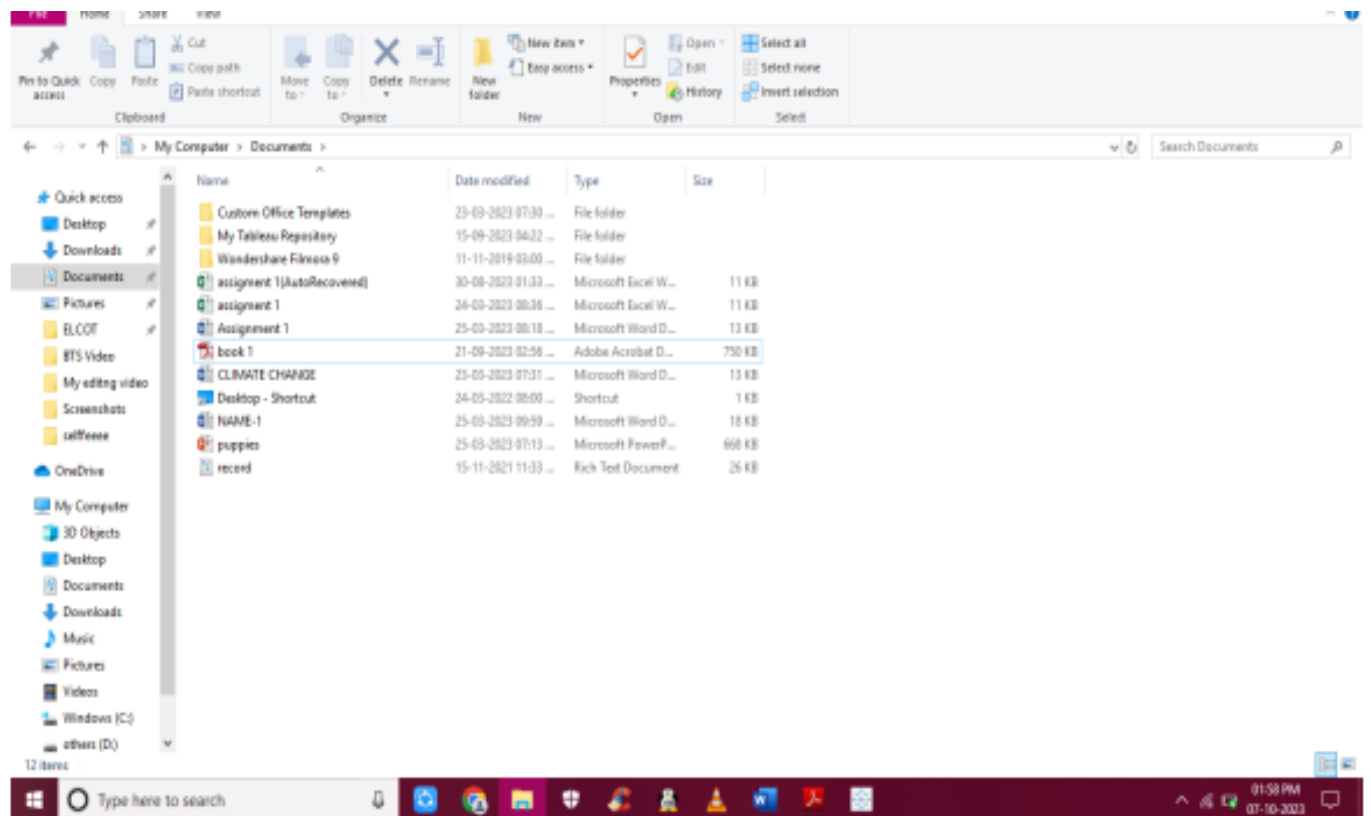
Activity 3: Number of visualizations

1. Annual Pay Roll
2. Advertisement Cost
3. Contract Labor vs Employee
4. Employee (Insurance vs pension)
5. Equipment Costs
6. Expenses YoY
7. Fuel
8. Maintenance of Buildings
9. Power Expenditure
10. Rental Payment Machinery
11. Taxes & Licenses
12. Transportation

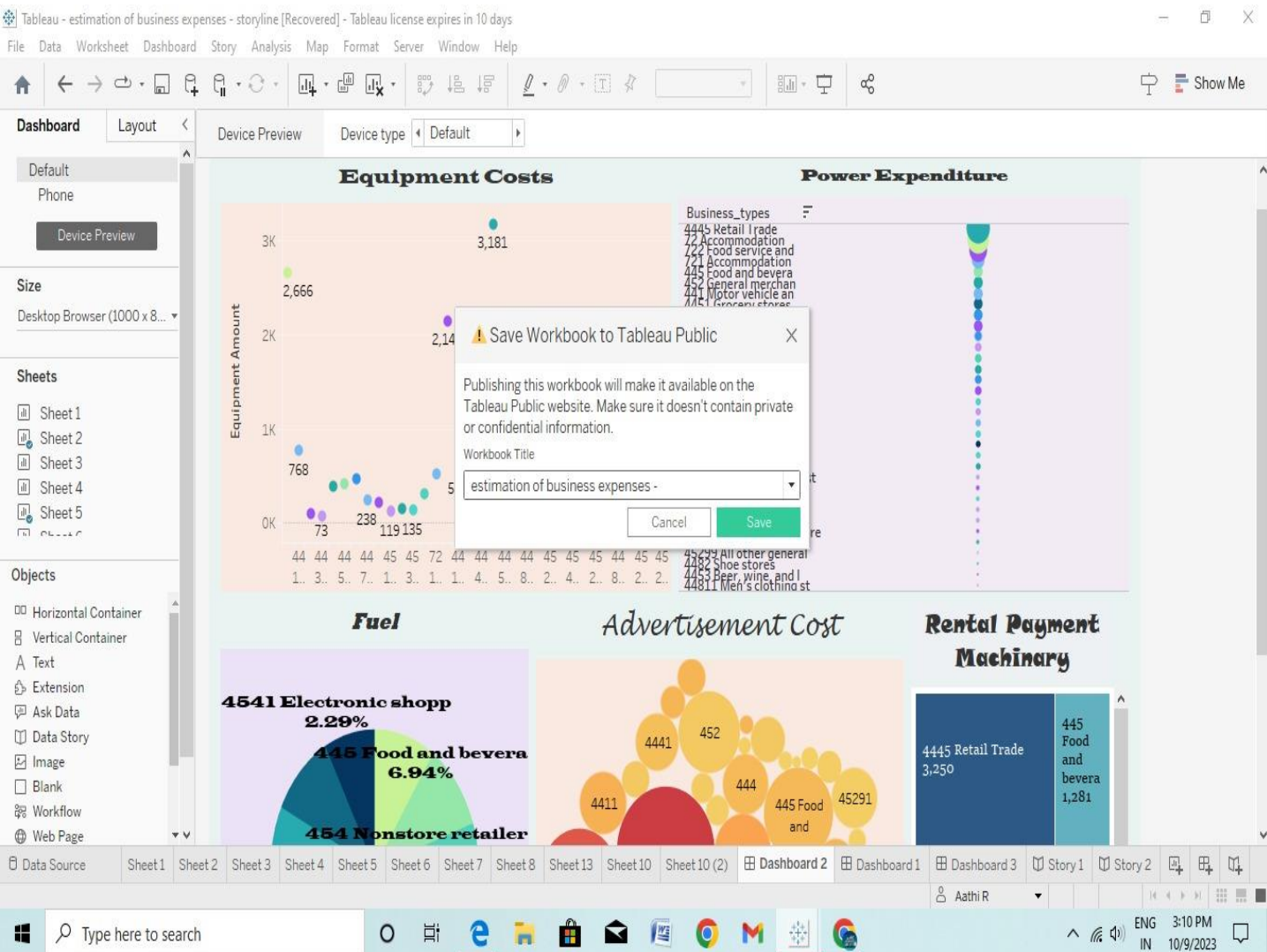
Milestone 8: Publishing

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. (please wait for pop up of file to save)



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



Activity 1: Publishing dashboard and reports to tableau public



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 Efficiency

refers to the ability to do a task quickly and accurately, saving the business both time and money. When the right type of model is chosen, the business can realize gains from efficiency by using cost estimation to quickly calculate expenses and make choices on funding projects, choosing suppliers and other activities.

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.

