

## QUESTION :

### **Assignment:**

Study different charts and maps used in information visualization such as proportional symbol maps, scatterplots, histograms, heat maps, choropleth maps, dendrograms, parallel component plots, etc and apply standard ways of visualizing data. Prepare a “dashboard” using any visualization tools.

### **Problem Domain**

Choose your interesting problem domain (Examples listed below for reference)

*Examples:*

Poverty, Childhood Obesity, Health Care, Financial Analysis, Disaster Management (floods, earthquake, forest fire etc.), Immigration Stresses, Sports, Agriculture etc.

### **Note:**

Dataset can either created manually or downloaded from repositories

Make your visualizations be sure to add the necessary elements to make them nicely finished presentations includes title, axis, annotations, sorting and coloring/highlighting.

### **Submission Guidelines:**

Dashboard should be interactive and includes different types of data like tables, network, spatial, temporal and stream data.

## Problem Definition :

A Salary analysis dashboard is built in tableau that provides Employees with a comprehensive view of their employee salary, experience level, and Employment type. It enables employers to make informed decisions based on data-driven insights, and shows the comparisons which can help them optimise employee behaviour, performance, and overall experience.

DATASET : salaries

Fields

Type	Field Name	Physical Table	Remote Field Name
#	F1	ds_salaries.csv	F1
#	Work Year	ds_salaries.csv	work_year
Abc	Experience Level	ds_salaries.csv	experience_level
Abc	Employment Type	ds_salaries.csv	employment_type
Abc	Job Title	ds_salaries.csv	job_title
#	Salary	ds_salaries.csv	salary
Abc	Salary Currency	ds_salaries.csv	salary_currency
#	Salary In Usd	ds_salaries.csv	salary_in_usd
Abc	Employee Residence	ds_salaries.csv	employee_residence
#	Remote Ratio	ds_salaries.csv	remote_ratio
🌐	Company Location	ds_salaries.csv	company_location
Abc	Company Size	ds_salaries.csv	company_size

# ds_salaries.csv F1	# ds_salaries.csv Work Year	Abc ds_salaries.csv Experience Level	Abc ds_salaries.csv Employment Type	Abc ds_salaries.csv Job Title	# ds_salaries.csv Salary	Abc ds_salaries.csv Salary Currency	
0	2020	Intermediate	Full Time	Data Scientist	70,000	EUR	
1	2020	Senior	Full Time	Machine Learning Scientist	260,000	USD	
2	2020	Senior	Full Time	Big Data Engineer	85,000	GBP	
3	2020	Intermediate	Full Time	Product Data Analyst	20,000	USD	
4	2020	Senior	Full Time	Machine Learning Engineer	150,000	USD	
5	2020	Entry level	Full Time	Data Analyst	72,000	USD	
6	2020	Senior	Full Time	Lead Data Scientist	190,000	USD	
7	2020	Intermediate	Full Time	Data Scientist	11,000,000	HUF	
8	2020	Intermediate	Full Time	Business Data Analyst	135,000	USD	
9	2020	Senior	Full Time	Lead Data Engineer	125,000	USD	
10	2020	Entry level	Full Time	Data Scientist	45,000	EUR	
11	2020	Intermediate	Full Time	Data Scientist	3,000,000	INR	
12	2020	Entry level	Full Time	Data Scientist	35,000	EUR	
13	2020	Intermediate	Full Time	Lead Data Analyst	87,000	USD	
14	2020	Intermediate	Full Time	Data Analyst	85,000	USD	
15	2020	Intermediate	Full Time	Data Analyst	8,000	USD	

ds_salaries.csv	ds_salaries.csv	ds_salaries.csv	ds_salaries.csv	ds_salaries.csv	ds_salaries.csv	ds_salaries.csv
Salary	Salary Currency	Salary In Usd	Employee Residence	Remote Ratio	Company Location	Company Size
117,104	CAD	117,104	CA	50	CA	Large
51,999	EUR	59,303	DE	100	DE	Small
70,000	USD	70,000	US	100	US	Large
60,000	EUR	68,428	GR	100	US	Large
450,000	USD	450,000	US	0	US	Medium
41,000	EUR	46,759	FR	50	FR	Large
65,000	EUR	74,130	AT	50	AT	Large
103,000	USD	103,000	US	100	US	Large
250,000	USD	250,000	US	50	US	Large
10,000	USD	10,000	NG	100	NG	Small
138,000	USD	138,000	US	100	US	Small
45,760	USD	45,760	PH	100	US	Small
70,000	EUR	79,833	ES	50	ES	Large
44,000	EUR	50,180	PT	0	PT	Medium
106,000	USD	106,000	US	100	US	Large
88,000	GBP	112,872	GB	50	GB	Large
14,000	EUR	15,966	DE	100	DE	Small

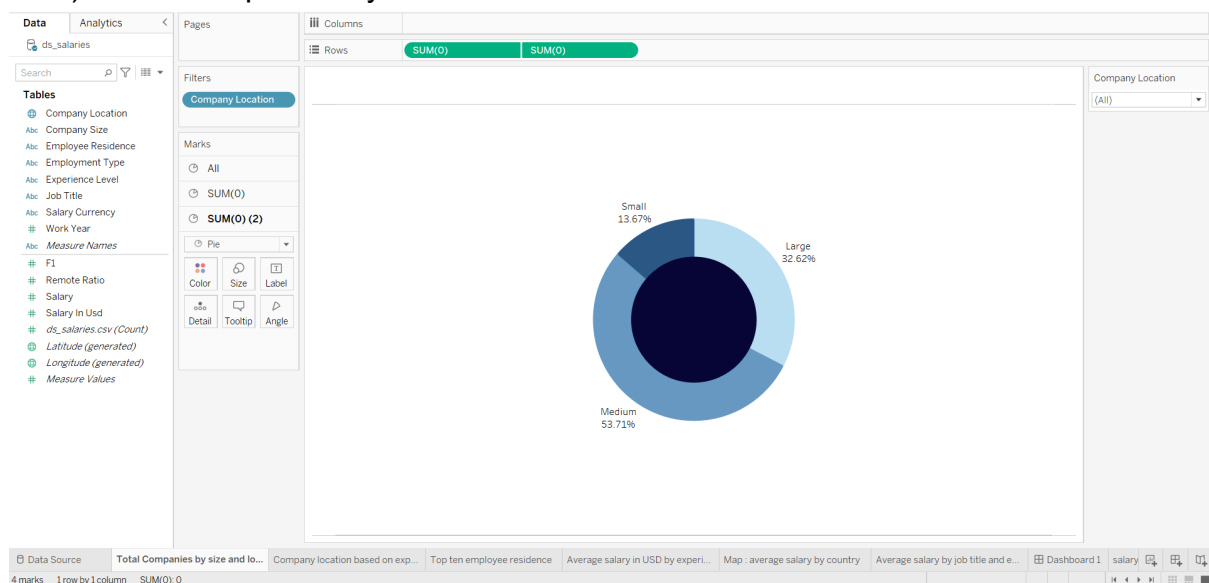
	A	B	C	D	E	F	G	H	I	J	K	L	M
1		work_year	experience	employee	job_title	salary	salary_cur	salary_in_usd	employee	remote_ratio	company	company_size	
2	0	2020	MI	FT	Data Scien	70000	EUR	79833	DE	0	DE	L	
3	1	2020	SE	FT	Machine L	260000	USD	260000	JP	0	JP	S	
4	2	2020	SE	FT	Big Data E	85000	GBP	109024	GB	50	GB	M	
5	3	2020	MI	FT	Product D	20000	USD	20000	HN	0	HN	S	
6	4	2020	SE	FT	Machine L	150000	USD	150000	US	50	US	L	
7	5	2020	EN	FT	Data Analy	72000	USD	72000	US	100	US	L	
8	6	2020	SE	FT	Lead Data	190000	USD	190000	US	100	US	S	
9	7	2020	MI	FT	Data Scien	11000000	HUF	35735	HU	50	HU	L	
10	8	2020	MI	FT	Business D	135000	USD	135000	US	100	US	L	
11	9	2020	SE	FT	Lead Data	125000	USD	125000	NZ	50	NZ	S	
12	10	2020	EN	FT	Data Scien	45000	EUR	51321	FR	0	FR	S	
13	11	2020	MI	FT	Data Scien	3000000	INR	40481	IN	0	IN	L	
14	12	2020	EN	FT	Data Scien	35000	EUR	39916	FR	0	FR	M	
15	13	2020	MI	FT	Lead Data	87000	USD	87000	US	100	US	L	
16	14	2020	MI	FT	Data Analy	85000	USD	85000	US	100	US	L	
17	15	2020	MI	FT	Data Analy	8000	USD	8000	PK	50	PK	L	
18	16	2020	EN	FT	Data Engin	4450000	JPY	41689	JP	100	JP	S	
19	17	2020	SE	FT	Big Data E	100000	EUR	114047	PL	100	GB	S	
20	18	2020	EN	FT	Data Scien	423000	INR	5707	IN	50	IN	M	
21	19	2020	MI	FT	Lead Data	56000	USD	56000	PT	100	US	M	
22	20	2020	MI	FT	Machine L	299000	CNY	43331	CN	0	CN	M	
23	21	2020	MI	FT	Product D	450000	INR	6072	IN	100	IN	L	
24	22	2020	SE	FT	Data Engin	42000	EUR	47899	GR	50	GR	L	
25	23	2020	MI	FT	BI Data An	98000	USD	98000	US	0	US	M	
26	24	2020	MI	FT	Lead Data	115000	USD	115000	AE	0	AE	L	
27	25	2020	EX	FT	Director o	325000	USD	325000	US	100	US	L	
28	26	2020	EN	FT	Research S	42000	USD	42000	NL	50	NL	L	
29	27	2020	SE	FT	Data Engin	720000	MXN	33511	MX	0	MX	S	
30	28	2020	EN	CT	Business D	100000	USD	100000	US	100	US	L	
31	29	2020	SE	FT	Machine L	157000	CAD	117104	CA	50	CA	L	

## STEPS TO MAKE A DASHBOARD :

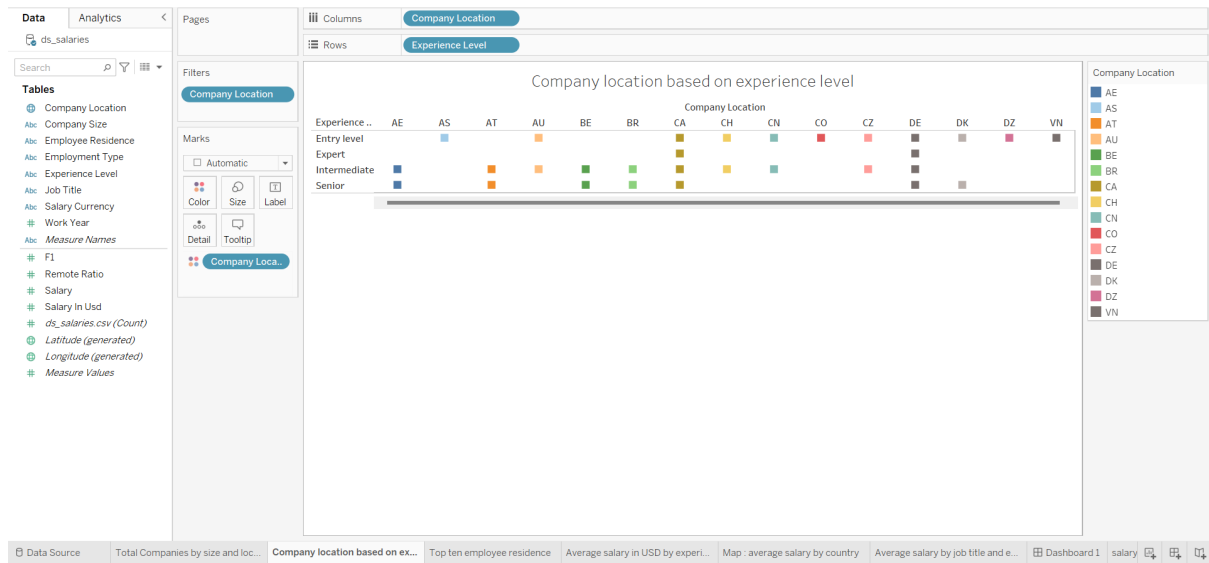
- Step 1: Connecting to data Click "Connect to Data" in the left pane of Tableau after it is open. To connect to a data source, select it and then follow the instructions. Data will appear in the "Data" tab once it has been connected.
- Step 2: Create Worksheets: Use Tableau's drag-and-drop interface to create visualisations that represent the key metrics identified in step 1.
- Step 3: Design the Dashboard: Bring the visualisations created in step 3 together on a single dashboard. Use Tableau's formatting tools to adjust the layout, colours, and fonts to create a clean and visually appealing design.
- Step 4: Increase Interactivity: Increase the dashboard's interactivity by adding features such as filters, dropdown menus, and other tools that let users dig deeper into and examine the data.
- Step 5: Publish the dashboard: Once the dashboard is complete, publish it to Tableau Server or Tableau Public for others to access and share. Use the appropriate security settings to restrict access to sensitive data.
- Step 6 : Monitor and update the dashboard: Regularly monitor the dashboard to track changes in customer behaviour and adjust your strategy accordingly. Update the data source and visualisations as needed to ensure that the dashboard remains relevant and useful.

## VISUALISATIONS :

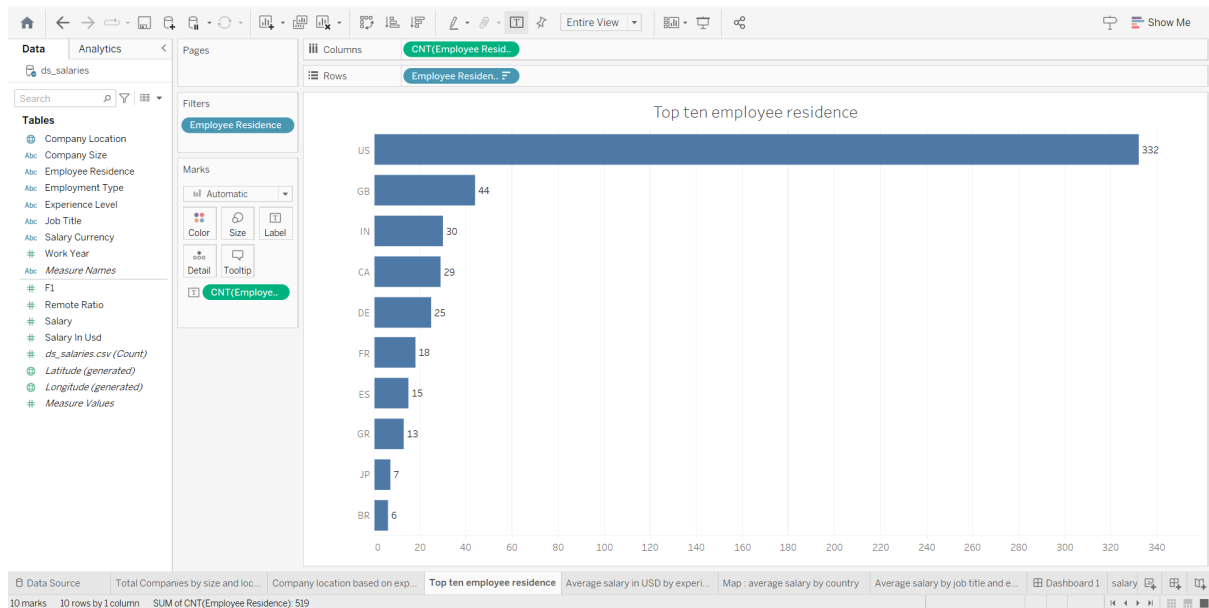
### 1) Total Companies by size and location



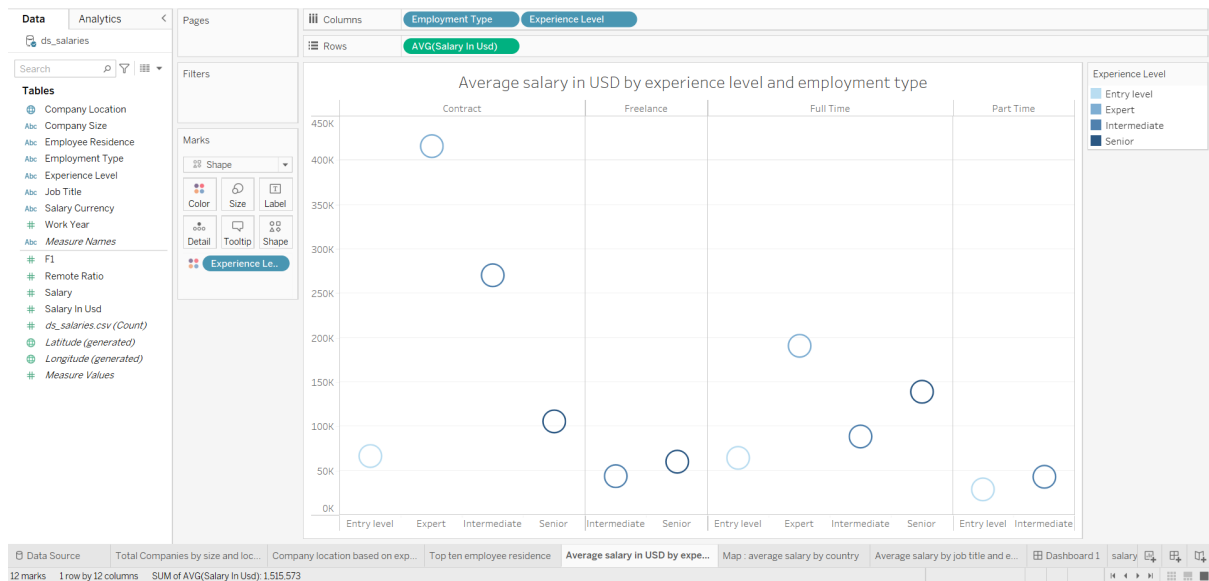
## 2) Company location based on experience level



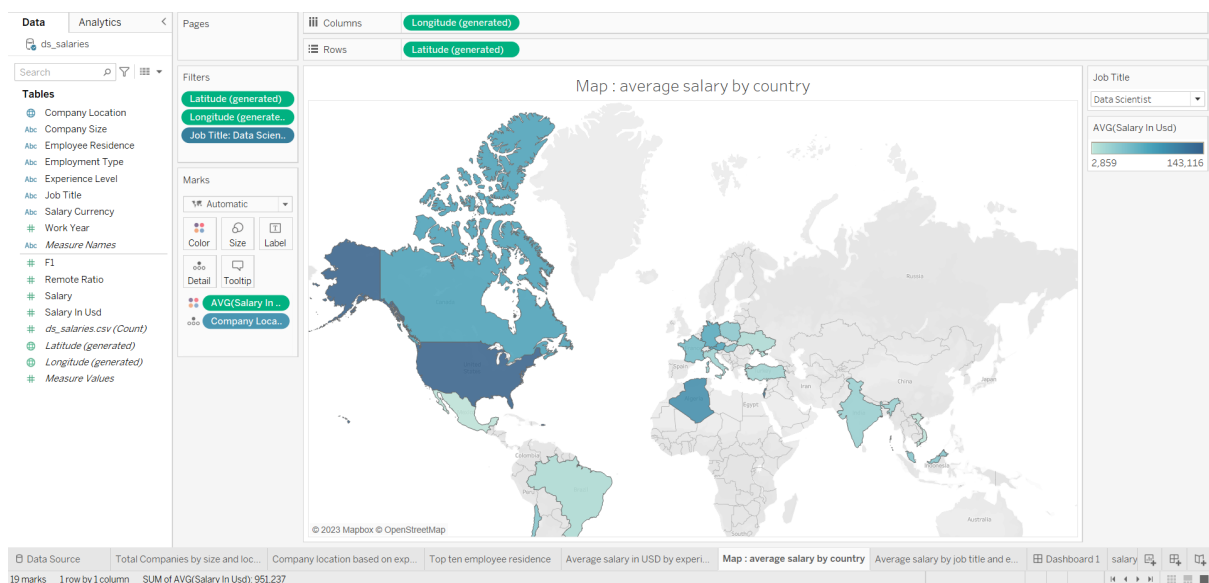
## 3) Top ten employee residence



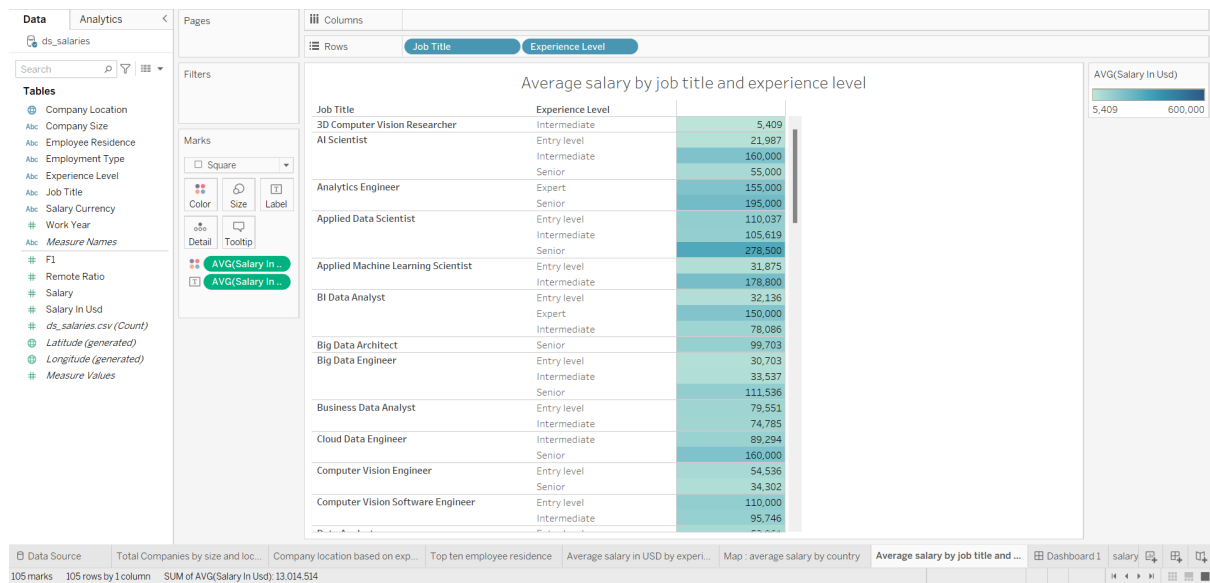
#### 4) Average salary in USD by experience level and employment type



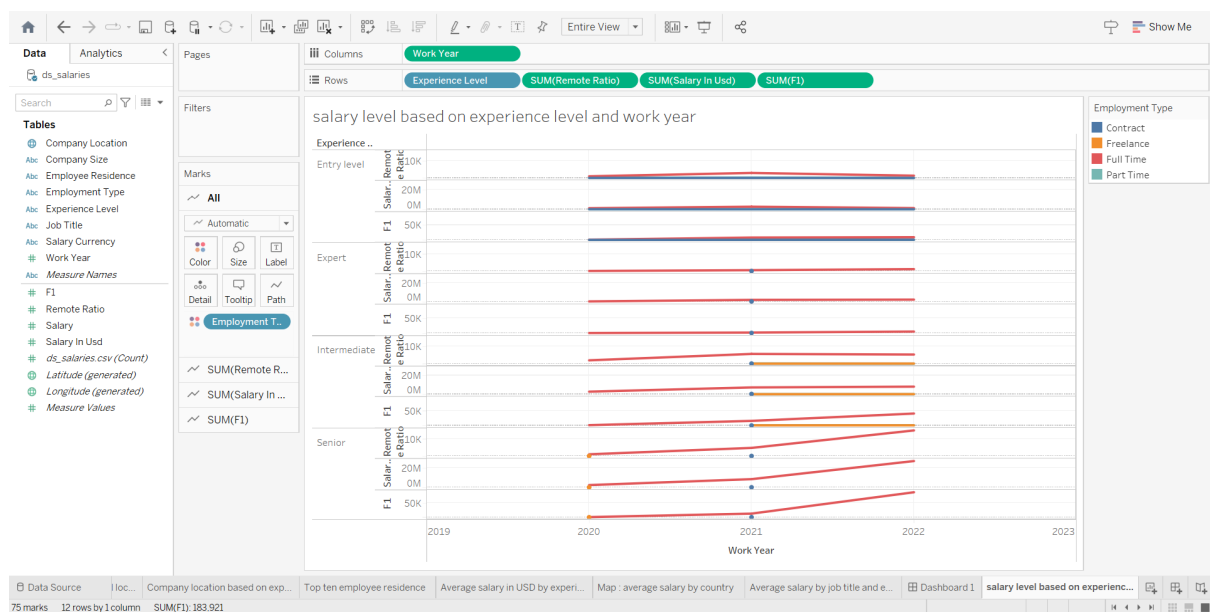
#### 5) Map : average salary by country



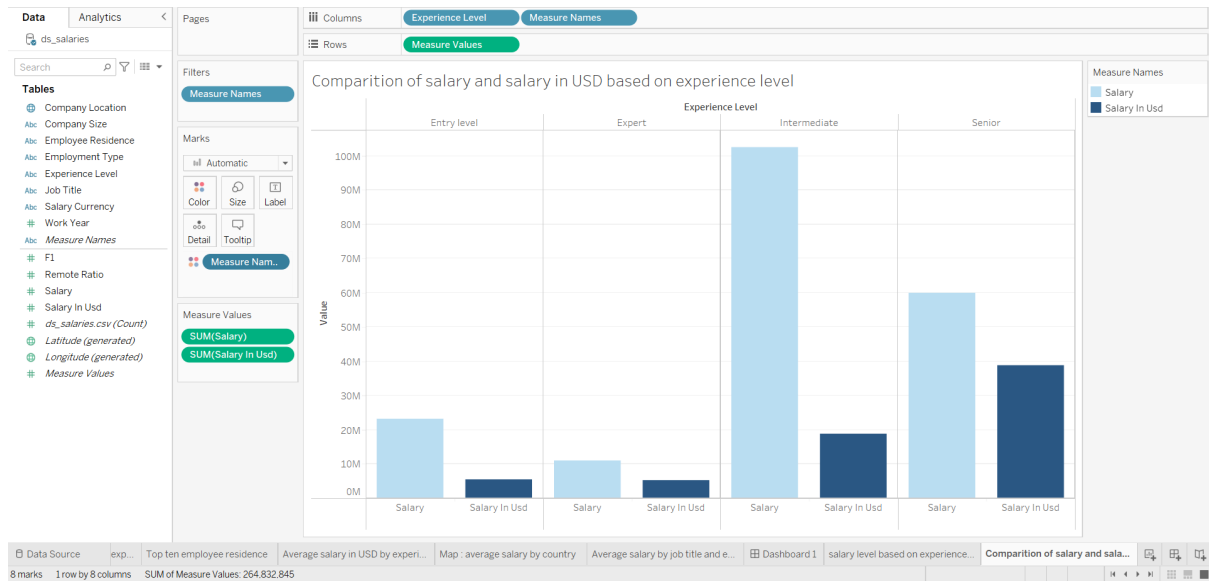
## 6) Average salary by job title and experience level



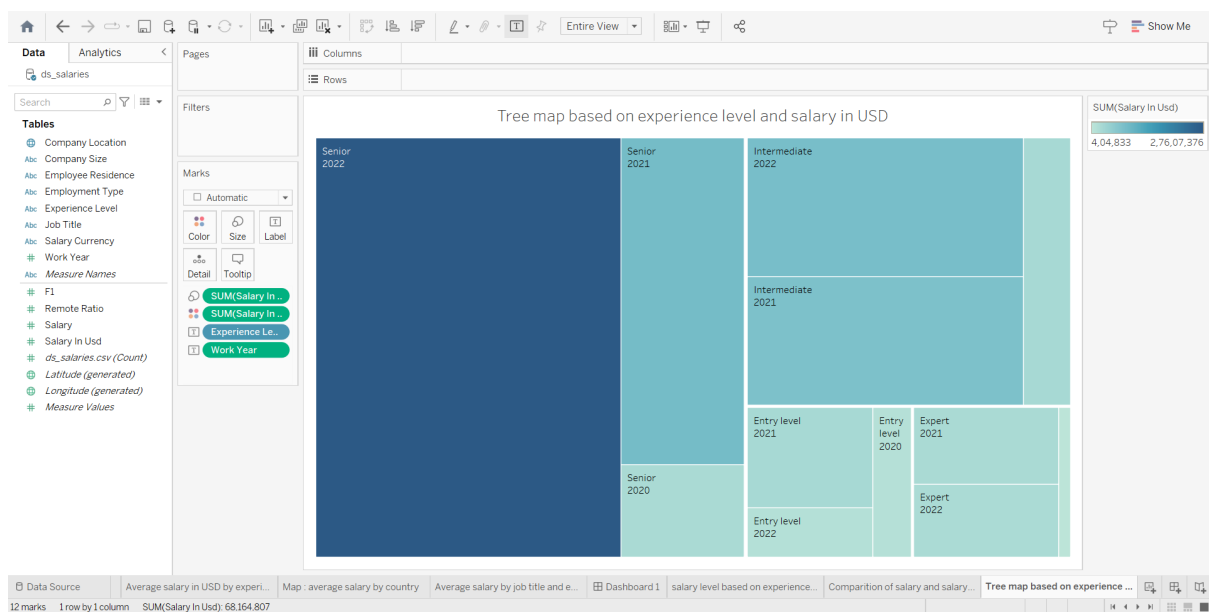
## 7) salary level based on experience level and work year



## 8) Comparison of salary and salary in USD based on experience level



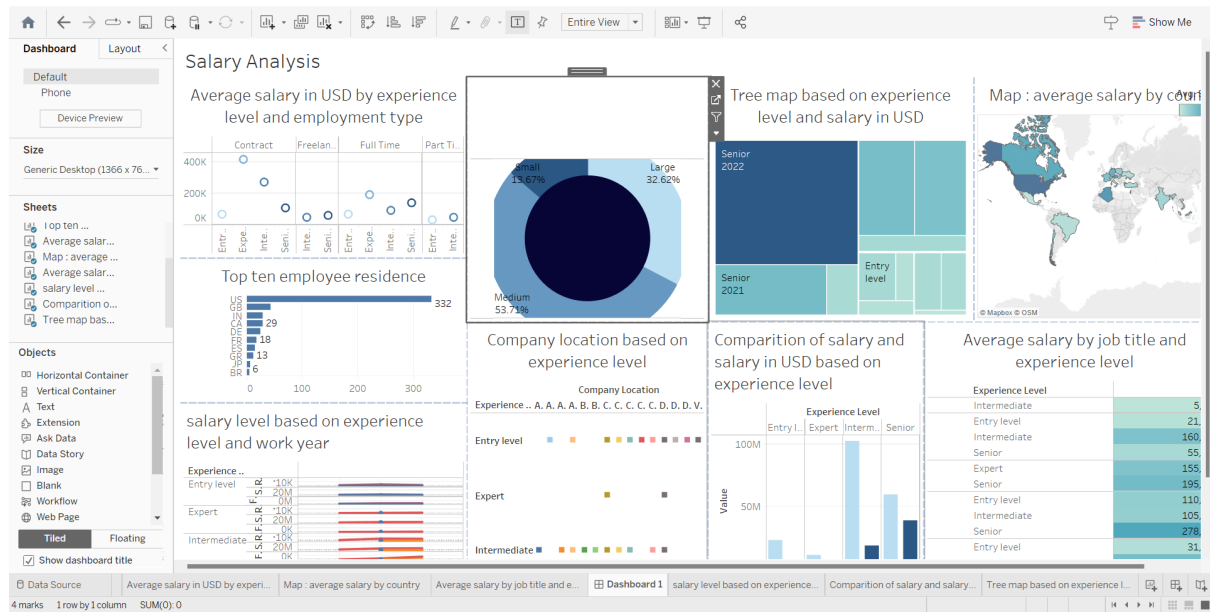
## 9) Tree map based on experience level and salary in USD





## DASHBOARD :

### Full View :



### Partial View :

