

# DengAI: Visualizing Disease Spread



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## DATA SET DESCRIPTION:

- ✓ City- 8 cities of Connecticut
- ✓ Year - 3 years(2002,2003,2004)
- ✓ weekofyear – 52 weeks per year
- ✓ Week\_start\_date – Start date of the week
- ✓ Avg\_temp – Average air Temperature(0.5x0.5-degree scale).
- ✓ Precip\_amt- Precipitation(0.5x0.5-degree scale).
- ✓ Humidity- Humidity(0.5x0.5-degree scale).
- ✓ Total\_cases- No of Cases

city	year	weekofyear	week_start_date	avg_temp	precip_amt	humidity	total_cases
New_London	2002	1	1/1/02	299.1	2.5	15.81	37
Hartford	2003	12	3/19/03	299.171429	362.03	18.25286	2
Middlesex	2004	4	1/22/04	297.942857	16.4	14.77571	70
Fairfield	2002	4	1/22/02	298.014286	6.2	14.94714	138
Litchfield	2002	41	10/8/02	300.221429	32.52	18.72429	5
Tolland	2003	49	12/3/03	299.228571	65.7	18.10571	75
Windham	2003	51	12/17/03	300	19.7	17.14857	21
New_Haven	2004	52	12/23/04	297	23.5	16.4	5





## QUESTIONS??

- 1) Can you visualize the number of dengue fever cases reported each week in the cities for the given years?
  
- 2) Can you visualize the number of dengue cases each week in each location based on environmental variables describing changes in temperature, precipitation and humidity?



## Detailed Data set Description :

To answer the questions, first we want to visualize our data in macro level and micro level

In Macro, we will include total dengue cases reported for all the years in each county. For this, we are using total cases and cities grouped by year.

In Micro level, we will include total dengue cases reported each and every week for the given city and the year

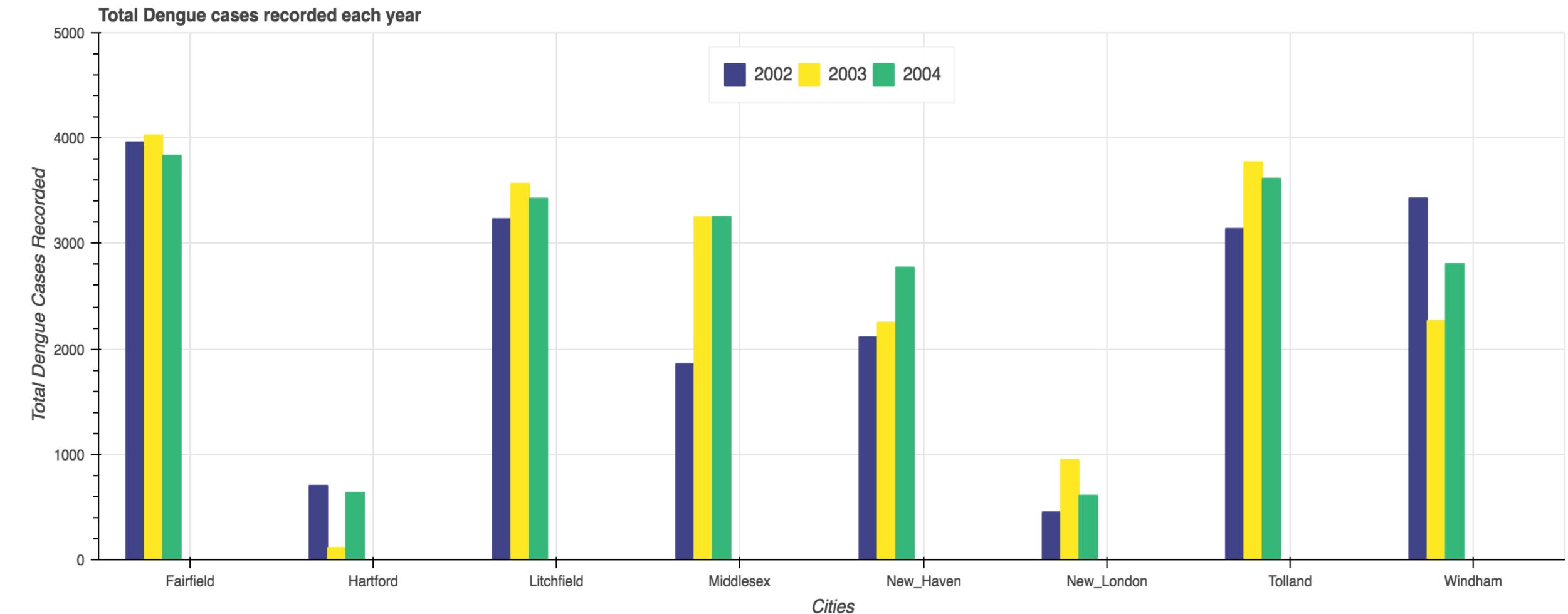
For second question, we will show the graph of precipitation amount, temperature and humidity vs Total cases for each week for the selected city and year.

City	Year	Weeks
City1	2001	1
		2
		.
		.
		52
	2002	1
		2
		.
		.
		52
City2	2001	1
		2
		.
		.
		52
	2002	1
		2
		.
		.
		52



# Macro :

Visualizing the number of dengue cases each year in each county

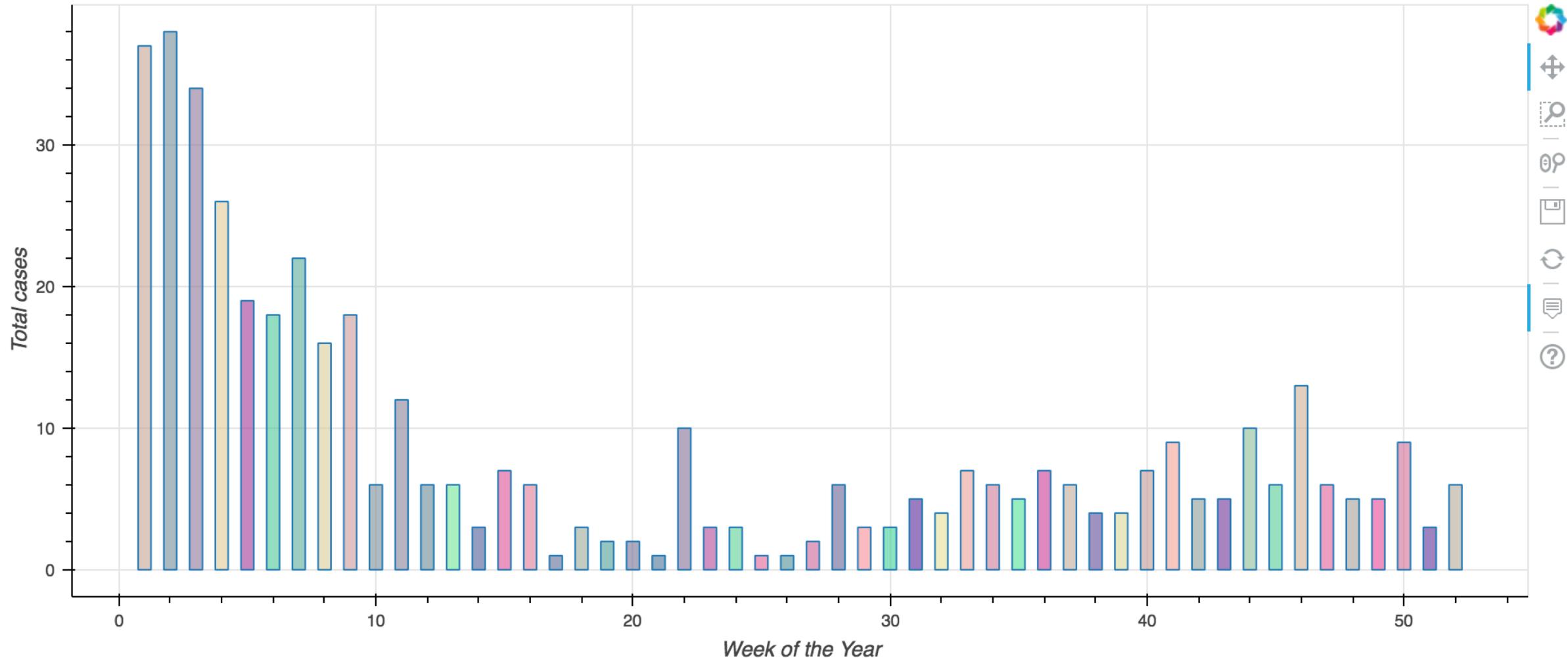


# Micro :

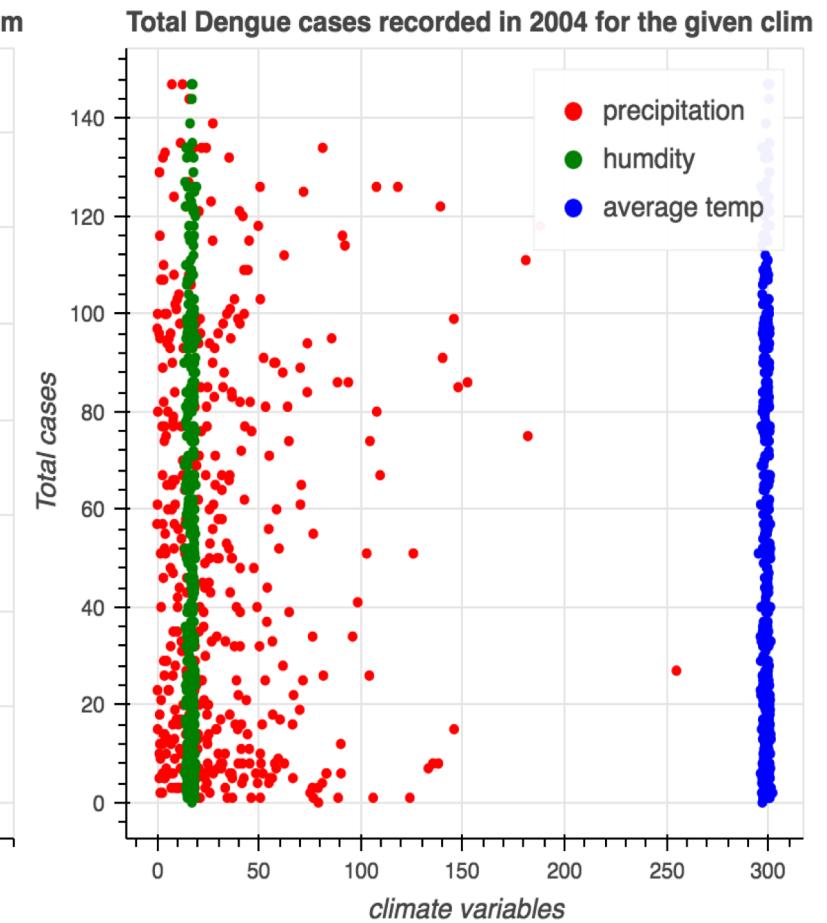
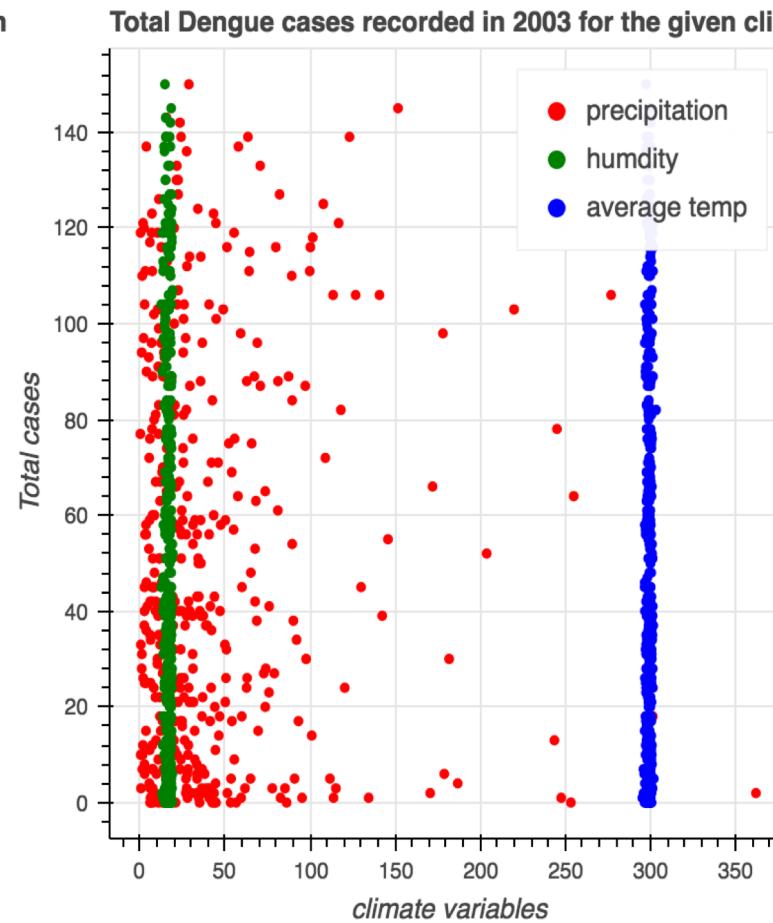
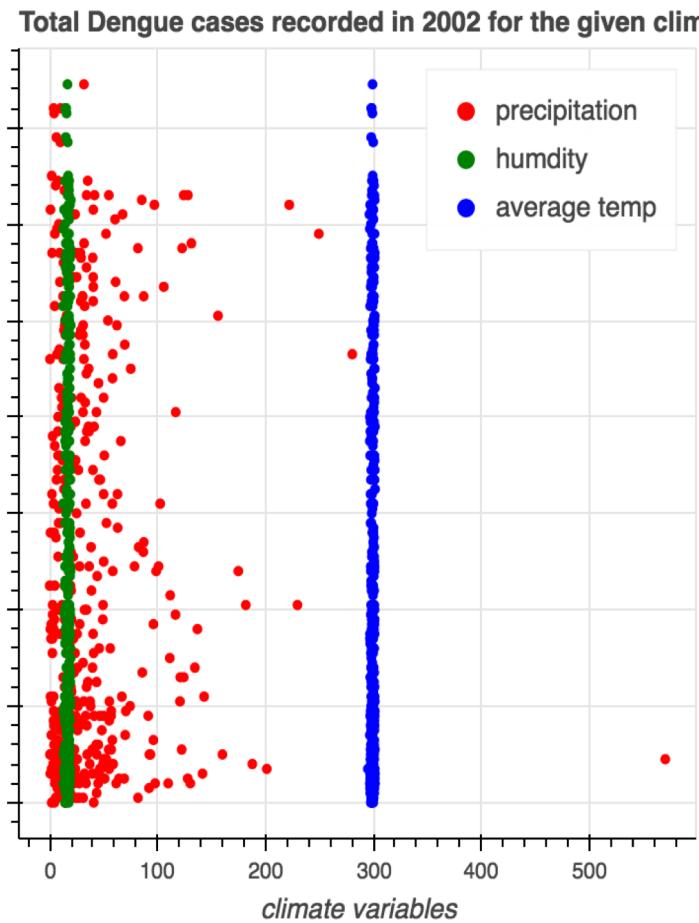
**Inputs:** City and Year.

**Output:** Each week total cases information

Total dengue cases recorded each week of the Year



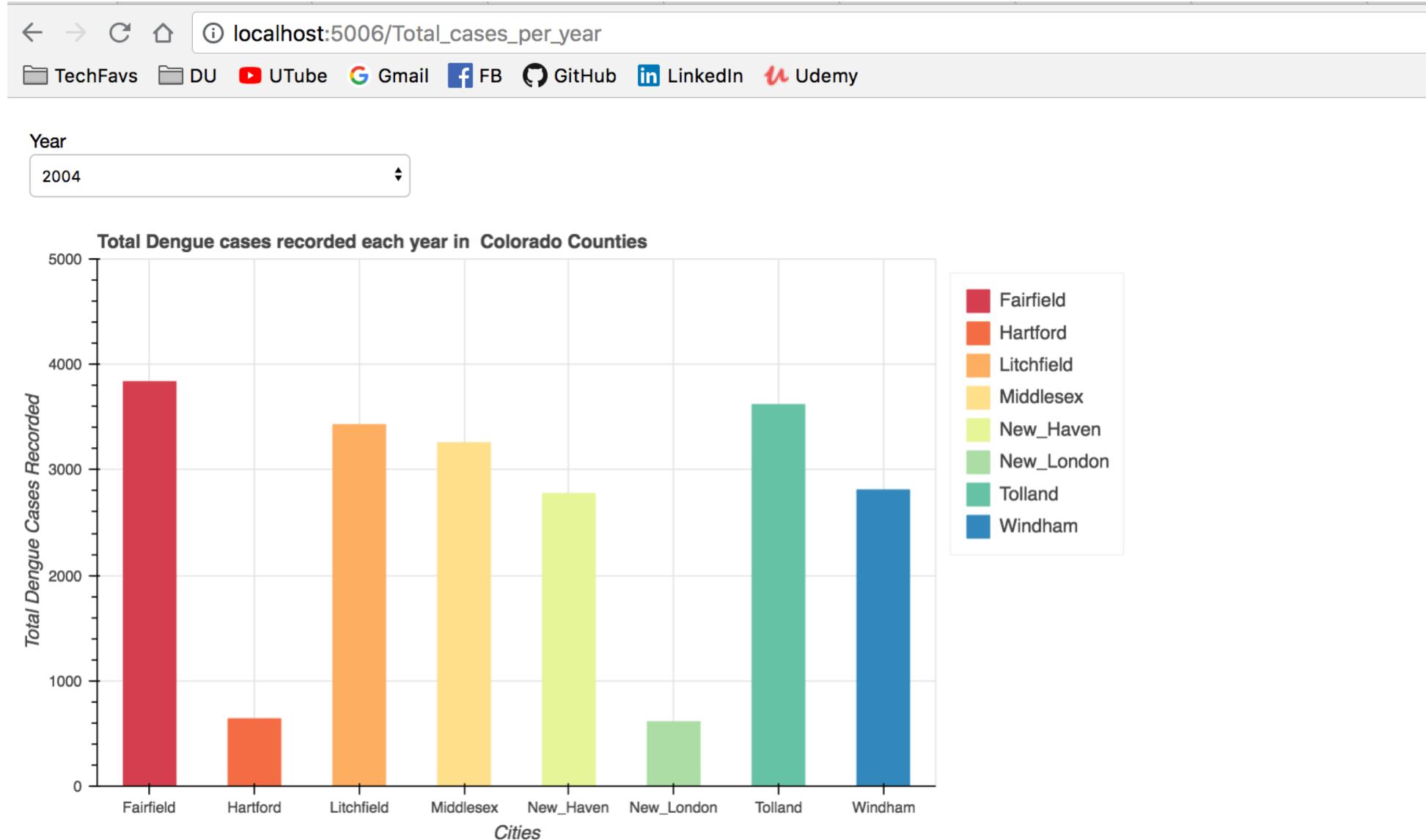
Number of dengue cases each year based on environmental variables describing changes in temperature, precipitation and humidity?



# Embedding Graphs in Webpage



## Interactive Web Page:



## Planned next steps:

- We are planning to include Hospitals information for each city and visualize number of cases recorded in each hospital for each year and show it in choropleth map.
- Focus on Macro vs Micro Levels to show data more clearly.
- Embed additional graphs and description about graphs in webpage

