Introductory Assignment:

Part I: Previous Work Experience with Data Visualization

Motive:

I created the below visualization for a client a year ago. An easy way to present verbose to the management is to show that using below image, to help them make a quicker and clear decision. The highlights could easily be caught or either taken upon action or further analyzed. This was done on several groups and over months, the magnitude of the problem could be seen in the brackets next to the word and compared.

Dataset description and Tools:

The dataset was a verbose of comments or concerns by various departments over months. The size of the dataset was ~1M and the tool that was used was R. The text mining was done using various packages

Part II: Dataset in which visualization could ease reading/analysis

Dataset Description: Global food pricing

I am considering the dataset from Kaggle (https://www.kaggle.com/jboysen/global-food-prices)

The dataset description is as below:

Column Name	Description	Data Type
adm0_id	country id	Numeric
adm0_name	country name – 74 developing countries	String
adm1_id	locality id	Numeric
adm1_name	locality name	String
mkt_id	market id	Numeric
mkt_name	market name	String
cm_id	commodity purchase id	Numeric
cm_name	commodity purchased	String
cur_id	currency id	Numeric
cur_name	name of currency	String
pt_id	market type id	Numeric
pt_name	market type (Retail/Wholesale/Producer/Farm Gate)	String
um_id	measurement id	Numeric
um_name	unit of goods measurement	String
mp_month	month recorded (Range 1 to 12)	Numeric
mp_year	year recorded (Range 1992 to 2017)	Numeric
mp_price	Price of the commodity	Numeric
mp_commoditysource	Source supplying price information	String

A snippet of the dataset is as below:

adm0_id	adm0_name	adm1_id	adm1_name	mkt_id	mkt_name	cm_id	cm_name	cur_id	cur_name	pt_id	pt_name	um_id	um_name	mp_month	mp_year	mp_price	mp_commoditysource
1	Afghanistan	272	Badakhshan	266	Fayzabad	55	Bread	87	AFN	15	Retail	5	KG	1	2014	50	WFP
1	Afghanistan	272	Badakhshan	266	Fayzabad	55	Bread	87	AFN	15	Retail	5	KG	2	2014	50	WFP
1	Afghanistan	272	Badakhshan	266	Fayzabad	55	Bread	87	AFN	15	Retail	5	KG	3	2014	50	WFP
1	Afghanistan	272	Badakhshan	266	Fayzabad	55	Bread	87	AFN	15	Retail	5	KG	4	2014	50	WFP
1	Afghanistan	272	Badakhshan	266	Fayzabad	55	Bread	87	AFN	15	Retail	5	KG	5	2014	50	WFP
1	Afghanistan	272	Badakhshan	266	Fayzabad	55	Bread	87	AFN	15	Retail	5	KG	6	2014	50	WFP

How visualization would Aid?

I was motivated to quote this, by the reason to analyze this dataset, which is to control famines mapping various factors: such as weather, population, etc.

Proposal

A motion map can be created. A timeline of the world map highlighting with colors how the prices are increasing (making darker color) or decreasing (lighter shade of the color), and simultaneously pointing in red the area facing famine would give a quick view of the situation