

CS 4460

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## **Programming Assignment 5**

The member of our team are: Young Hoon Cho and Hyungsuk Do. We have chosen the dataset: Candy.csv. For this project, we decided to implement a single-window visual representation, as we thought that we could represent all the important information on a single window for both efficiency and for the clients, whom are the surveyors. Additionally, we were able to utilize most of the data in the dataset. The data attributes we have excluded were:

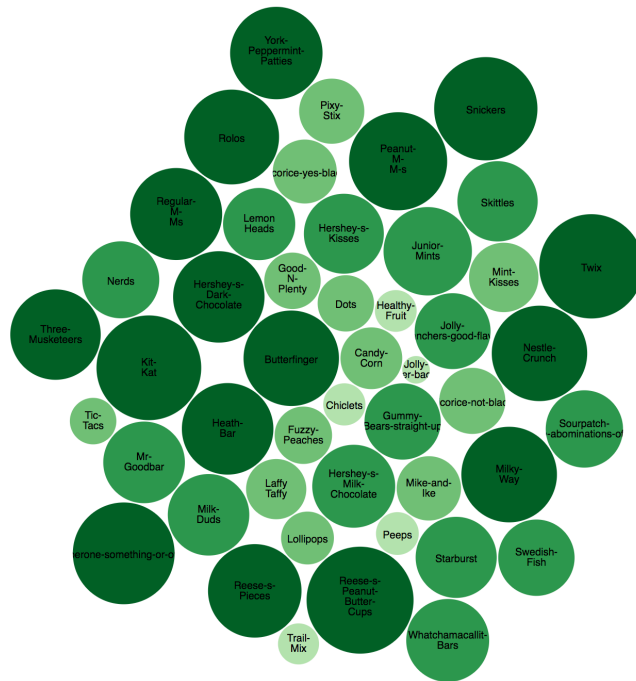
Q1\_GOING\_OUT, Q4\_COUNTRY, Q5\_STATE\_PROVINCE\_COUNTY\_ETC,

Q6\_Any\_full\_sized\_candy\_bar, Q7\_JOY\_OTHER, Q8\_DESPAIR\_OTHER, Q9\_OTHER\_COMMENTS.

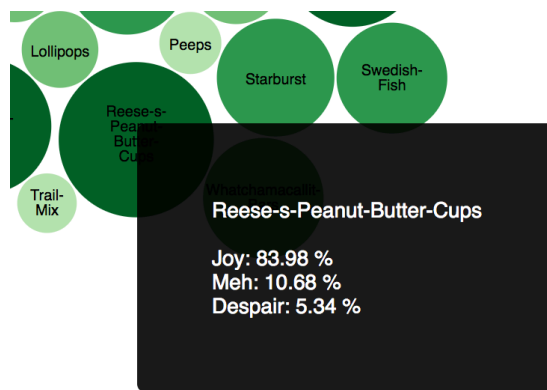
The analytic task it supports is that the user can navigate themselves to see which candy is popular, supported by size and color. Also, hovering onto them will show specific percentage of the Joy/ Meh/ Despair scale of the sample population. The user can learn the gender domain's trend by clicking on the desired item, as the pie chart will reflect the satisfaction scale by gender per pie chart. With these features, the user can quickly tell the target consumer for each product for future marketing plans.

The design we have chosen for this project is bubble-centric visualization. Deriving from the idea of InfoCanvas, we wanted a design that would be more pleasing to the viewer than the standard bar/line charts, but still consist of powerful information.

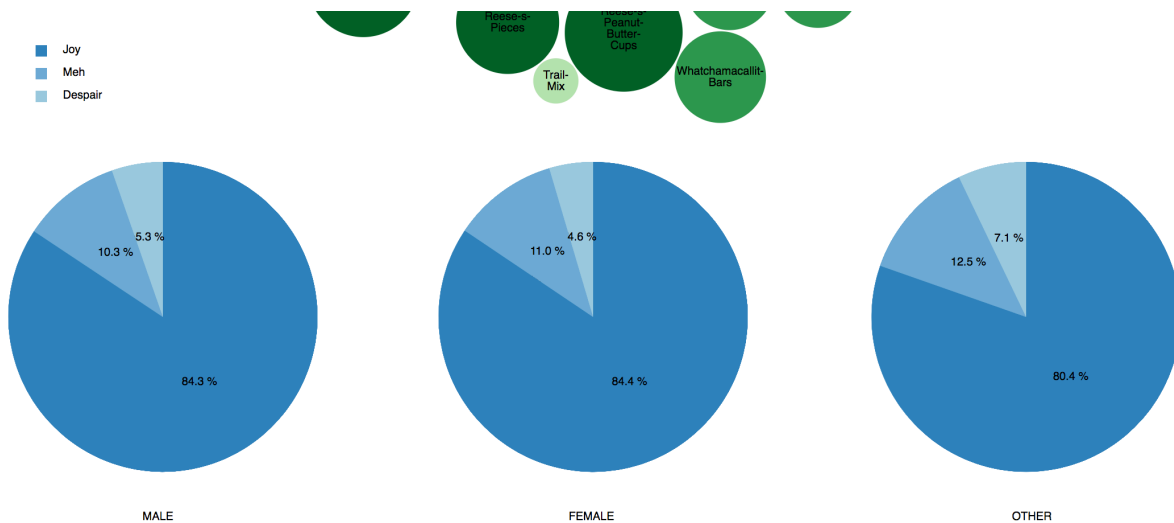
Once you go into the file, you will first face the bubble graph. The bubble graph itself gives many useful data for the user.



As the image depicts, each bubble represents each item. The size is relative to the overall Joy rating by the survey result. The maximum “Joy” out of all the items was roughly about 1,100, so we have divided the color into 4 folds accordingly. Deeper color indicates the stronger “Joy”.



As stated in the analytic task, the bubble graph has tooltip implemented for the user to better understand each and every item. Here, we can see that the majority of the population loves Reese-s-Peanut-Butter-Cups.



Once we click on the item, the pie charts pops up. We aimed to bring out additional piece of information (visualization) only after the user better understands the information of the bubble graph's information first. Each pie chart represents the gender of the population and what the majority of the gender thinks about the certain candy.