1. why do we use the linking and brushing on that specific chart?

System A:

System A: in this system we use multiple charts to visualize the data, presenting the information such as films’ released year, vote average, popularity and budget/ revenue of each genre more directly. it is done by ‘tooltip’ method in altair, to enable that when user hover the mouse over a data point, the specific and additional information will be showed, it is very convenient for user to browse all these information combined in one chart and know the details as they want.

System B: in this system we use the linking and brushing method to show the information of the data. When user selects an area of data in one chart, the other charts which are linked together will change simultaneously, helping user to get a better overview on the data which is interesting to them.

System C:in this system we also use tooltip to show the information. What’s more, we also make the visualization system more interactive. Users can enlarge or shrink the chart by rolling the mouse, which will be useful to get details in a specific area of a chart or an overview of the whole chart. Additionally, users can get different view on top 10 movies of each film type by selecting the genre in a dropdown selection box, which will be effective to indicate data in different categories.

1. why do we choose these attributes to display the information that user is searching for?

There are some quantitative data attributes and some nominal data attributes in the data set we select. Basically, we use nominal data attributes as X axis and quantitative data attributes as Y axis of the chart, so users can get not only the statistics but also the relationships between attributes and comparisons between it through the system. In addition, we also make the chart linked and interactive, so users can make selections to view the data which they are interested in, among several linked charts on one page.