

PROJECT 2 – STAGE 3
ANALYSIS AND VISUALIZATION USER INTERFACE

Team Members:

Instructor: Prof. Bina Ramamurthy

Cuurie Athiyaman (50170367)

Prithvi Ganesan (50169094)

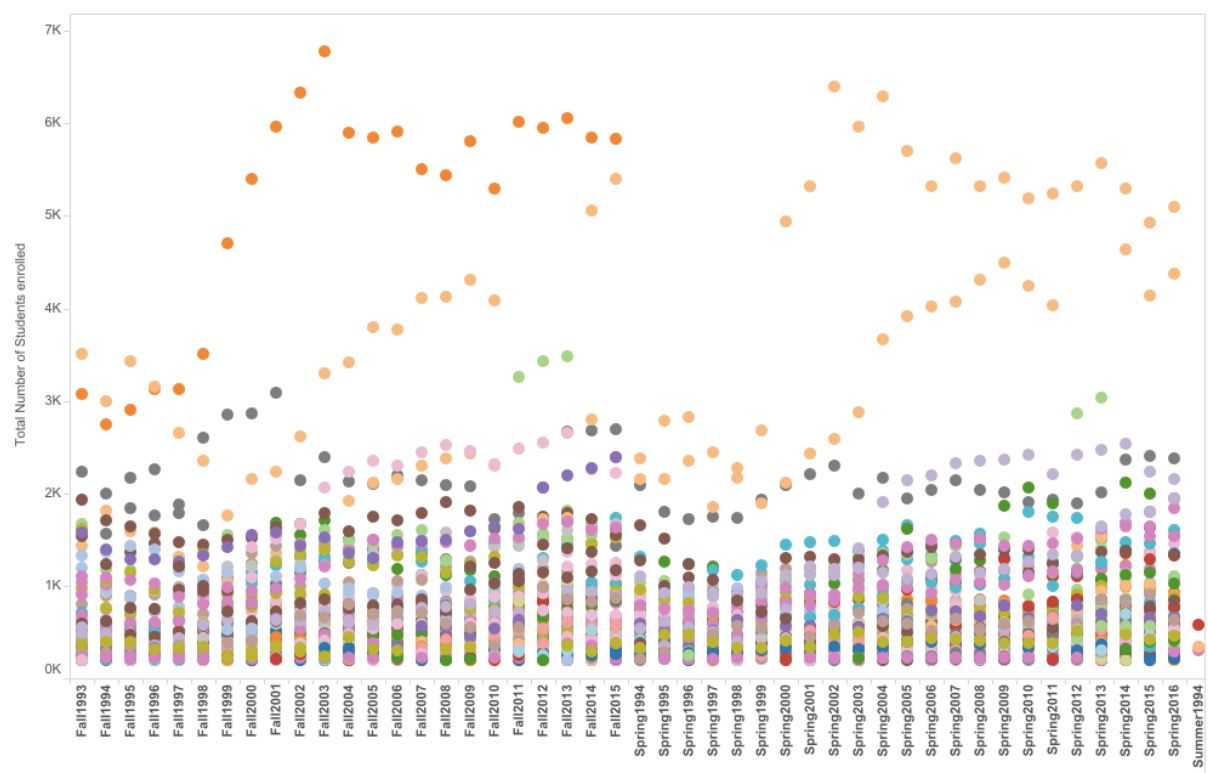
Using the results obtained from stage 2, where we have used multiple Map Reduce stages, as input we have created visual representation of the data using Tableau. Using Tableau, we have produced some pretty interesting plots from which dashboards are created.

LINK TO STORY:

https://public.tableau.com/views/UBStory/UBStory?:embed=y&:display_count=yes&:showTabs=y

PROBLEM 1:

Question: Find the most popular course in every semester based on the number of students enrolled for that course in each semester.



The above graph shows the number of students enrolled in a particular course for every semester. We can see that the most popular course is during the Fall 2003 semester with approximately 7000 students enrolled in it. We can also infer that almost every semester has at least one course which has least possible number of students in it. The vertical axis is the number of students enrolled while the horizontal axis is the semester names.

PROBLEM 2:

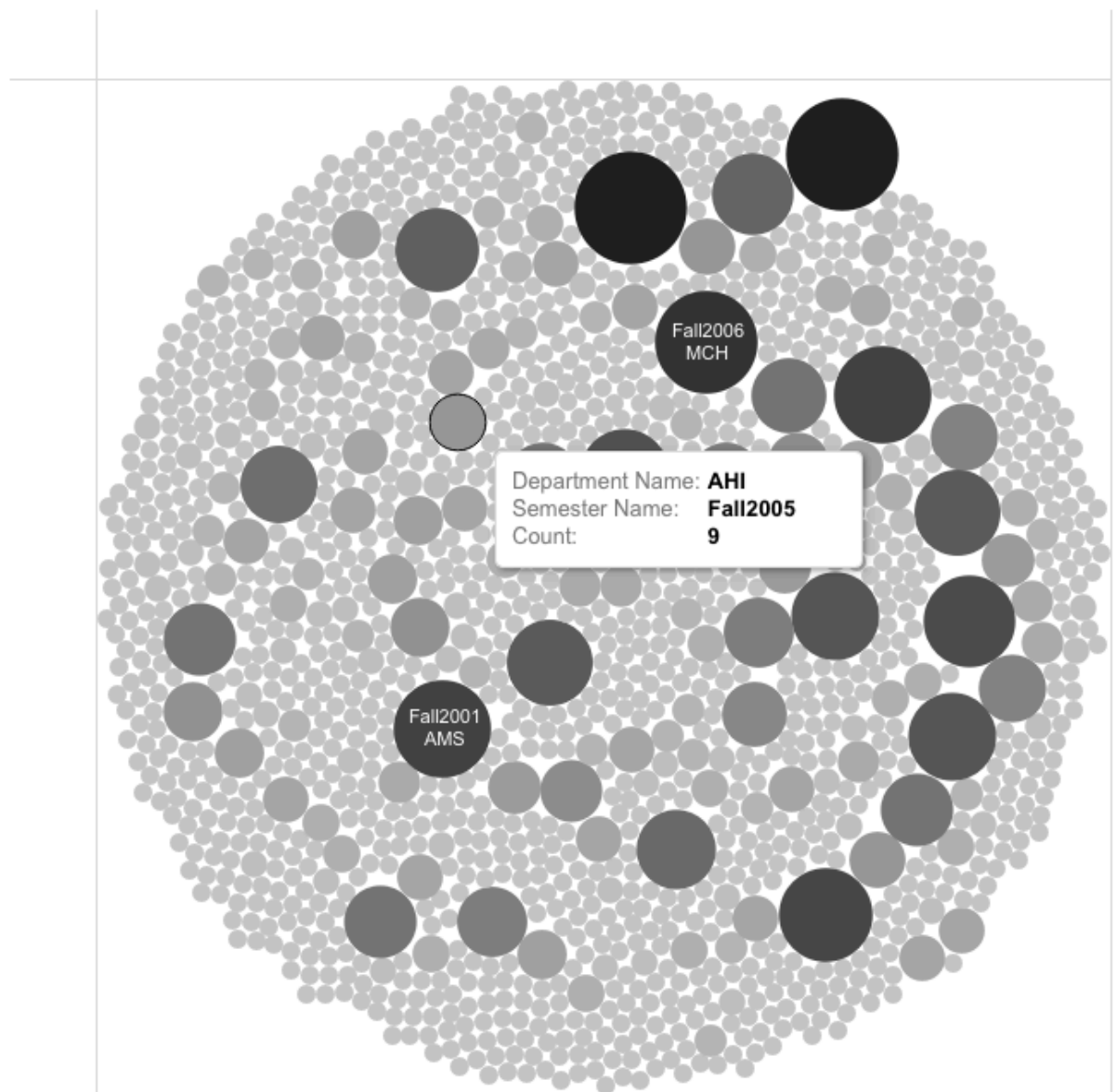
Question: Find the topmost used locations in each semester, based on the total number of days in a week for which it is used.



The above graph is plotted for the number of days each location is used for every semester. It is based on total number of working days for every location. By looking at the above graph, that during Fall 2001 all the locations were used equally while that is not the case in Fall 2002. Likewise, conclusions can be achieved by looking at the entire graph, as only a part has been displayed above. For the entire graph, please visit the link provided above.

PROBLEM 3:

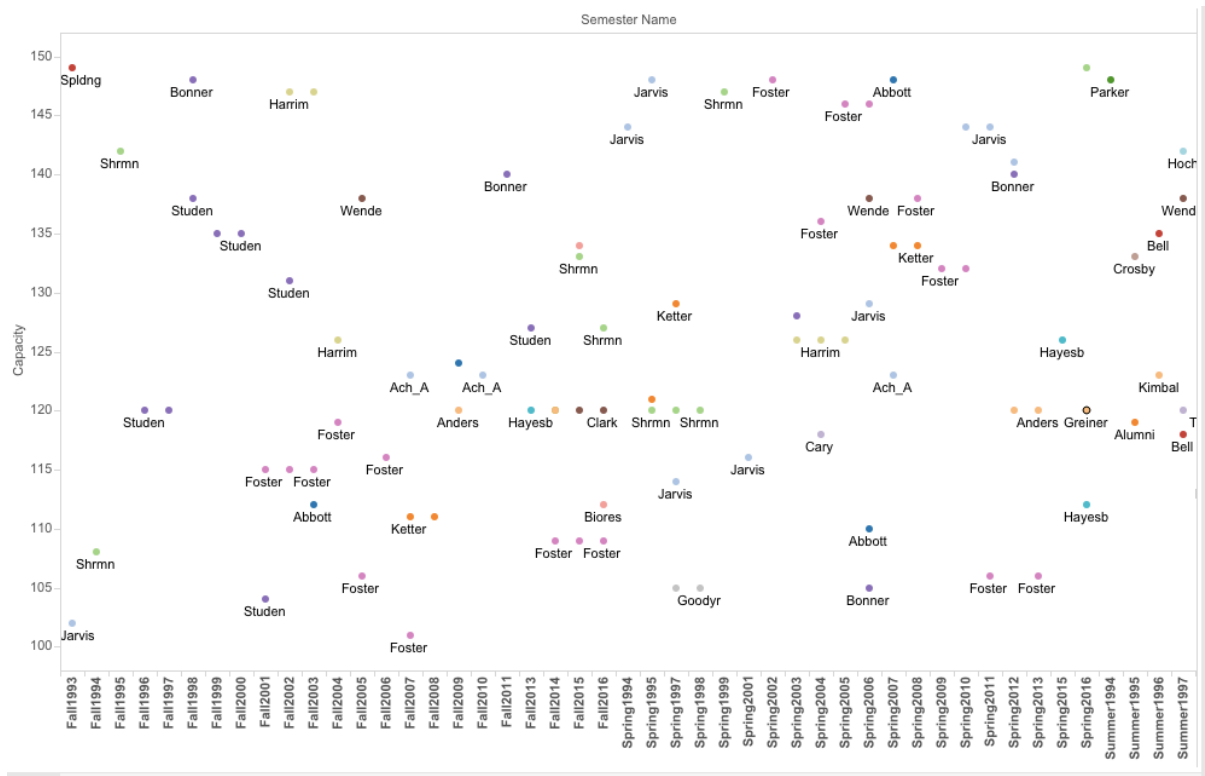
Question: Which departments are allocated the least number of rooms every semester?



The circle graph shows the various semesters along with the departments (which can be viewed by hovering over the circles). The size of each circle depends on the count of number of rooms each department is allocated each semester. By hovering over each circle, we can see the details displayed. By looking at this, we can find more than half of the departments in UB are assigned very less number of rooms. i.e. only the dark circles seen have a considerable number of rooms allocated.

PROBLEM 4:

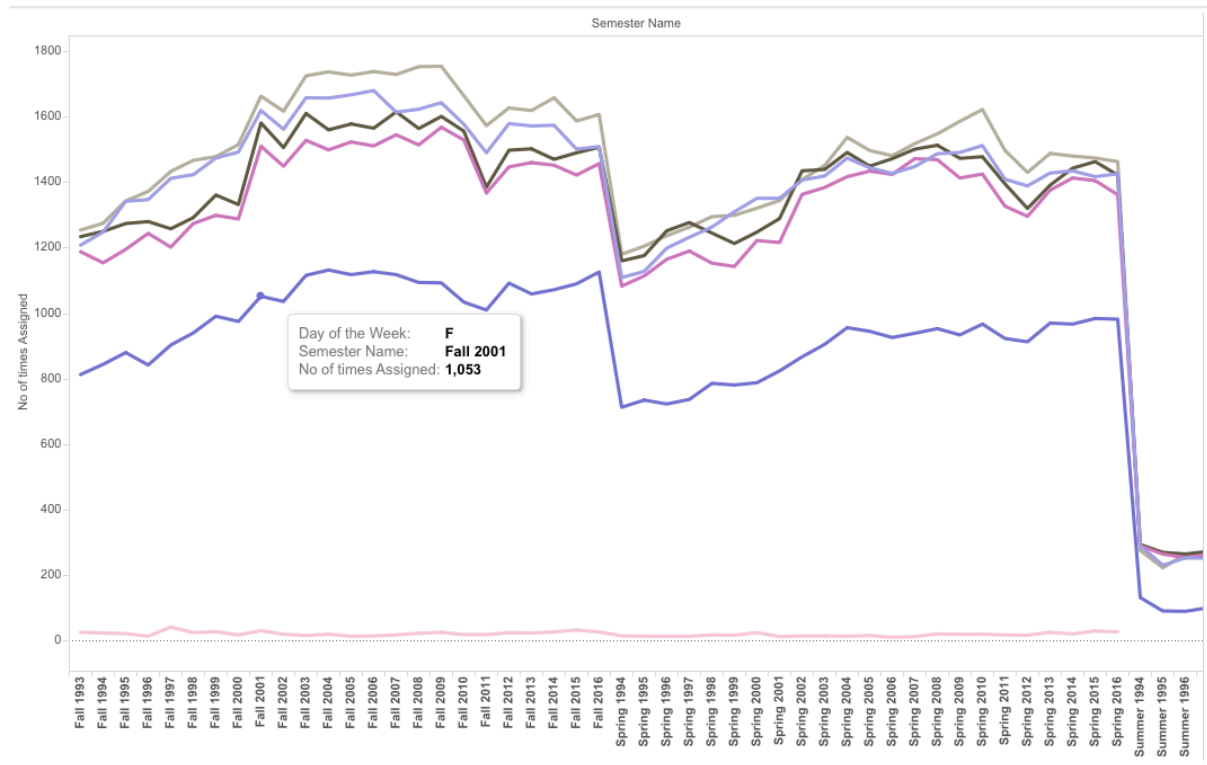
Question: Find the number of halls with total of maximum capacity ranging from 100 to 150.



The graph is for finding each building's capacity for every semester. The range taken here is between 100 and 150. From the above we can conclude that "Spldng" has the maximum capacity during Fall 1993. Similarly we can see that during the Fall 2007 semester, "Foster" has the least. The horizontal axis denotes the semester names while the vertical shows the capacity

PROBLEM 5:

Question: Find the top 3 busiest day of the week for every semester based on the number of times that day is working for any department in a particular year.



We have plotted the graph for each semester against the number of times a day is assigned. The top three days have been busy for almost all the semesters throughout with the exception of a few. We can also see that Saturday is the least busy in all the semesters, followed closely by Fridays. Details are displayed when we hover over the curve in the graph to make visualization and understanding easier.

CONCLUSION:

By using such visualizations, We are able to answer some important questions like

1. When is the most busy day of the week?
2. Are enough rooms allocated for every Department?
3. Which department has a higher demand?

etc. Using this analysis, we can then obtain proper space management in UB.