

PROJECT REPORT

(SAS TEAM 3: INFOGRAPHICS - We tell stories)

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Experiential goals:

- Our main focus was to develop a tool that would make the creation of dynamic infographics as easy as doodling on a canvas.
- We also hope that our design model would facilitate the designers to create a viewing experience that is not only aesthetically pleasing but also interactive and fun for the end users.

Approach:

1. **Discovery :** This was the initial phase of our project. The discovery phase involved:

a. Research topics on Infographics:

We went through a few infographic tools online.

Advantages and Disadvantages of some of the tools:

Tools	Advantages	Drawbacks
Piktochart	Templates provided.	Hover feature for maps, but no onclick changes to infographics
	Good user interface, good use of colors.	No slider functionality to show dynamic changes with slider.
Vennage	Simple easy to use UI.	No option to upload data from Desktop.
	Option to send to other social medias and add polling options.	Dynamic data not provided.
		Image overlay on maps and graphs not provided.
Visme	Templates provided.	No Maps.
	Music, Video adding facility.	No slider facility.

From these Tools we gathered that:

- Map functionality is there in some tools but not flexible to dynamic data.
- Infographics is about dynamic data, so more options of changing this dynamic data should be provided.

- Some tools don't have the facility to upload data from desktop.
 - Adding Templates option is provided by tools, but templates provided are based on very specific topics.
 - UI design is kept simple, so easy to understand.
- b. **Onsite visit:** We met our clients at SAS. We suggested them various ideas we had regarding infographics.

We had two ideas to present to them:

- Football statistics over the years with head to head comparisons.
- Deforestation rate on Maps.

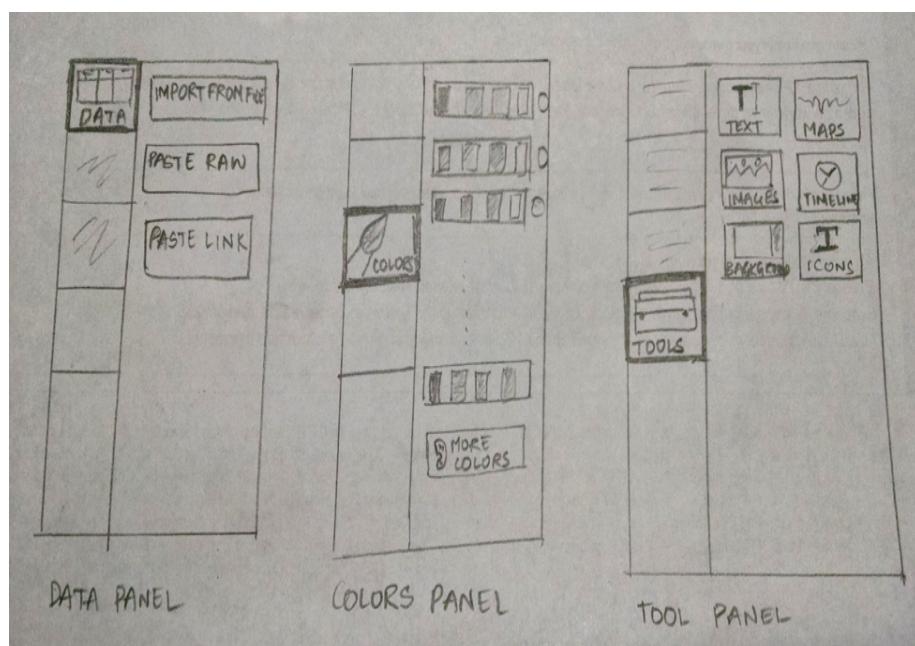
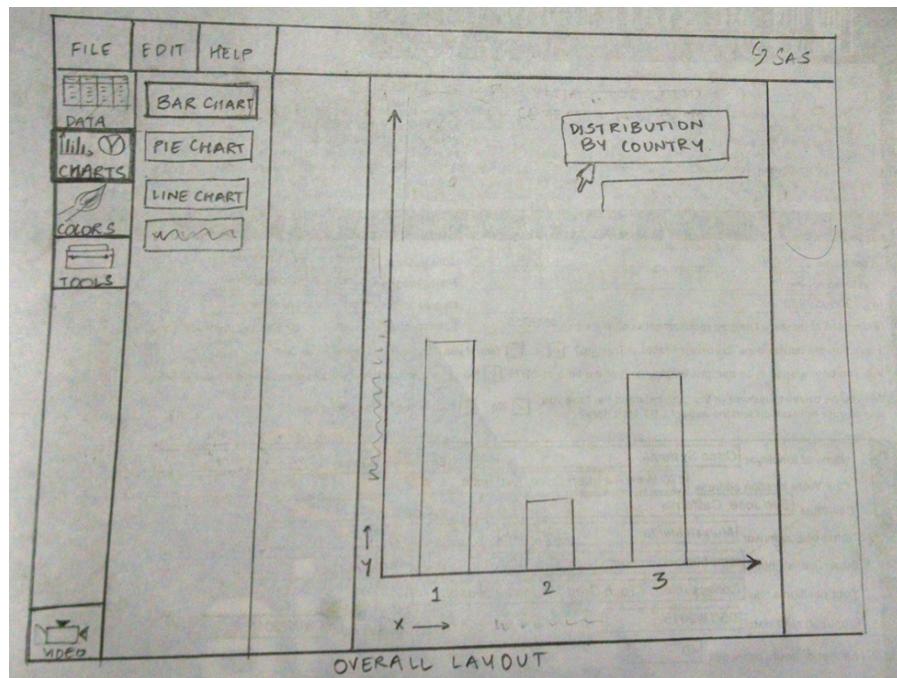
From our meeting we learnt that:

- Not to focus on their existing tools.
- Create a storyline of how to generate infographics.
- Focus on one infographic template.
- Add filters on transitions.
- Image overlays needed over normal charts.
- Dynamic infographics needed.
- Map onclick functionality can be incorporated.
- Designing a proper workflow.

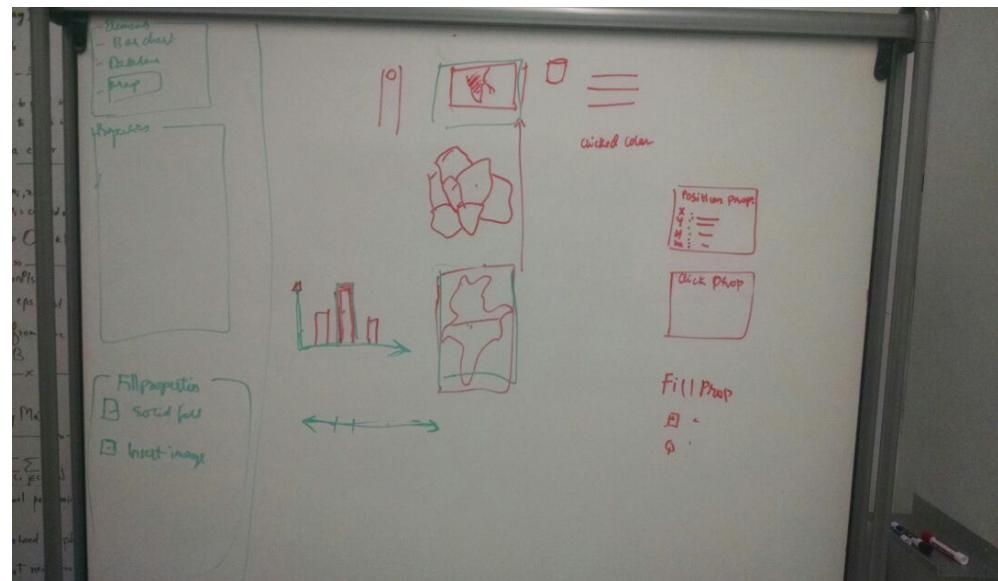
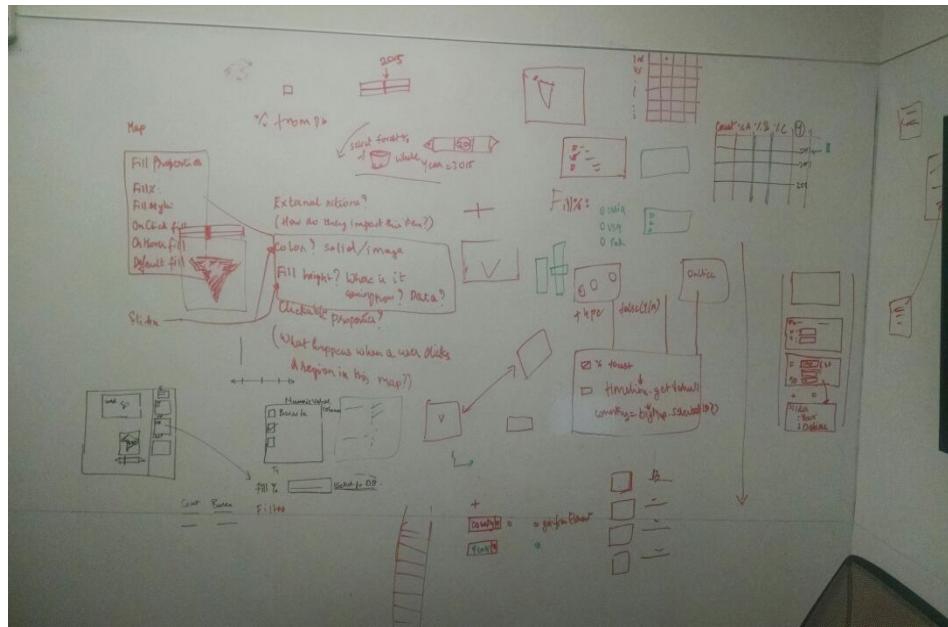
This gave us an inside perspective on the project and learn about the various issues faced by the current tool . They also showed us how their current SAS tool is dealing with infographics.

3. Prototyping: Our initial design phase involved building light weight prototypes.

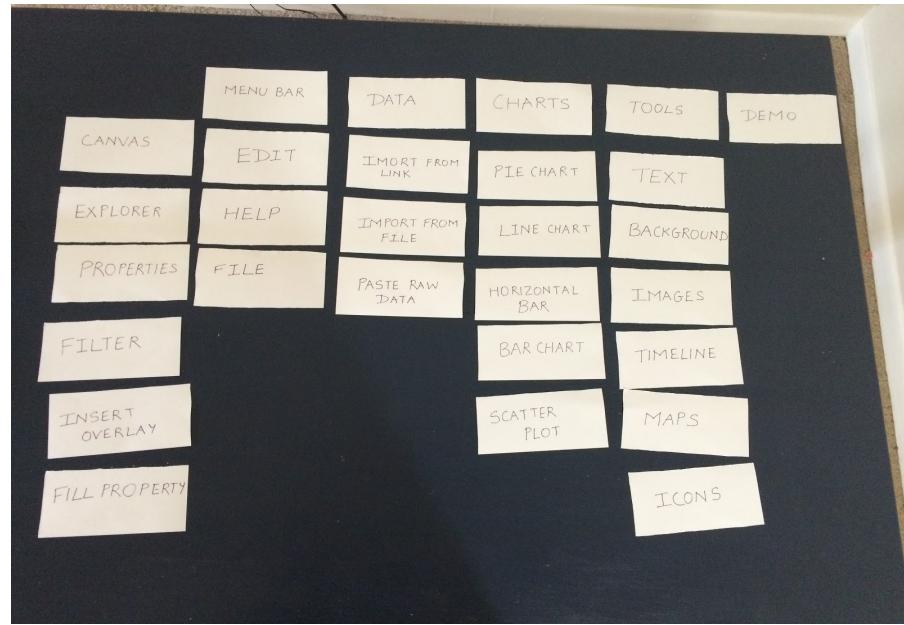
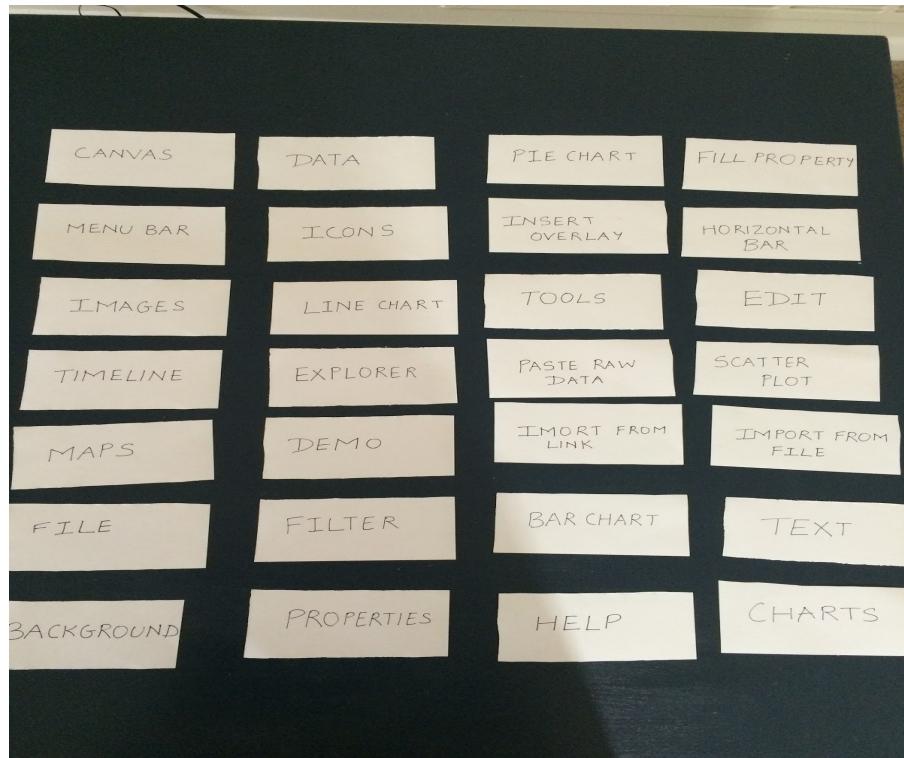
a. Sketches:



b. Brainstorming:



c. Card Sorting:



Based on card sorting and the above sketches, we started implementing our high fidelity prototype:



This was our basic layout. After getting approval from SAS Team and a few users, we started working on various functionalities.

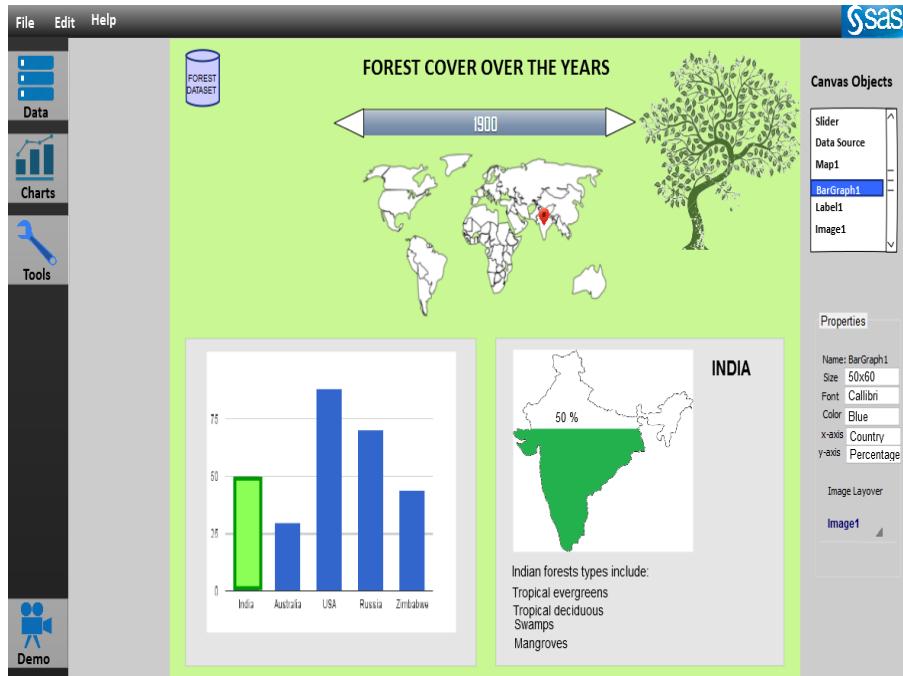
d. User Video:

We explained the user about infographics. We listed down his expectation from an infographic tool. After interviewing a user we reconfirmed our Layout

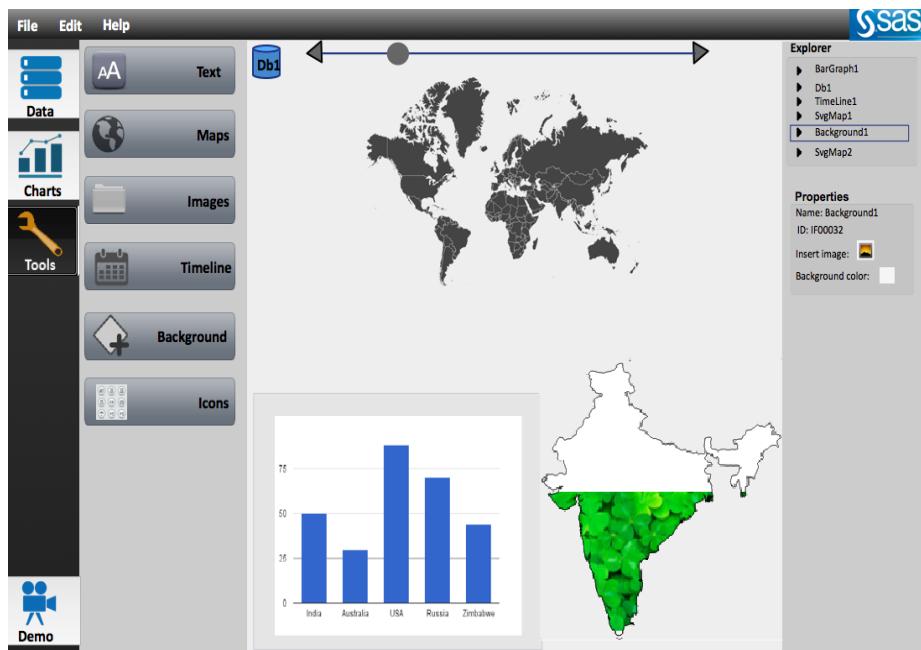
Following are the suggestions he gave us:

- Selecting different bars of the graph and changing overlays.
- Clickable maps instead of drop downs..
- Different timeline would make the canvas look clustered.
- Properties panel on the right side of the canvas.

Initial prototype:



Final prototype:



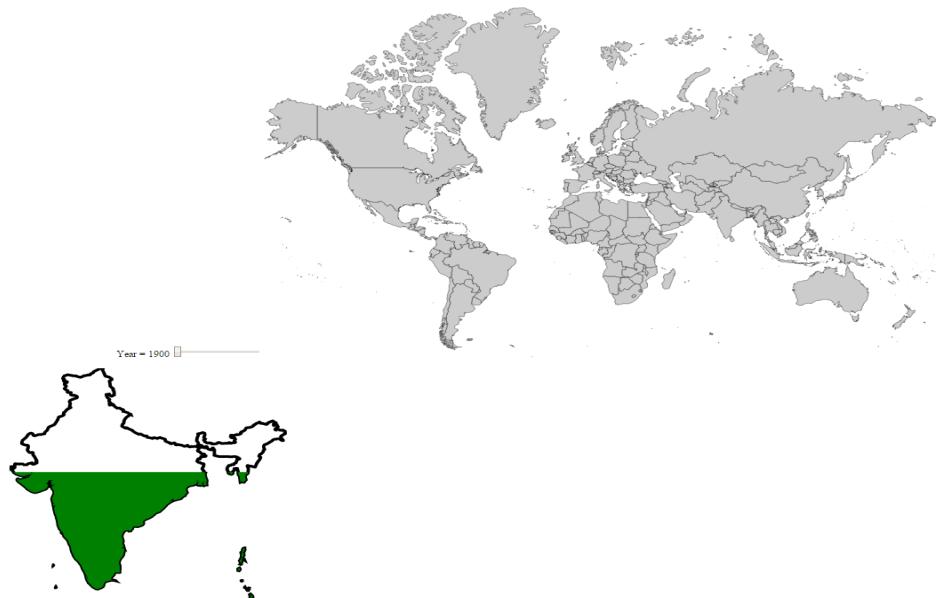
5. Implementation:

We created different images for our pages on Pencil tool. These images were then combined together showing every link on Invision. We have the following steps in our prototype:

1. We import data from our desktop.
2. We add a timeline from our tools and link it to our database.
3. We insert a bar graph and add filters to connect it to our data.
4. Now we can add overlays by individually selecting bars of our bar graph.
5. This gives users flexibility to add different images on the graphs.
6. Also we can change the color of the graph.
7. We can insert a world map to our canvas.
8. Also individual country map. Both these are linked to our data and bar graph.
9. Filter is added in both the maps.
10. Now we can use the slider to scroll through different years and see the deforestation changes in the country over the years. Also we can click on different countries of the world map and change the countries.
11. Other extra functionalities involved changing the background of canvas. We can also add image overlays on countries. We can add text and different colours to this text.

This prototype involved the flow of our tool. Our major challenge was to implement maps as infographics. We worked on map fill and slider functionality using d3js and jQuery.

We used svg maps to create clickable maps to get various countries on our canvas



6. Functionalities:

The are the functionalities which our tool supports:

- Options to add image overlays on the bar graphs
- Add a clickable world map to the canvas
- Add custom filters to individual countries, and add them to the canvas as well
- Adjust fill value for individual country based on data
- Option to add image overlay on country
- Add a timeline object, and change values of fill of countries based on temporal data.
- Add text data on top of individual countries to depict the percentage fill.

7. Tools used:

Pencil Project : For creating the layout.

Invision: Creating the flow of the prototype.

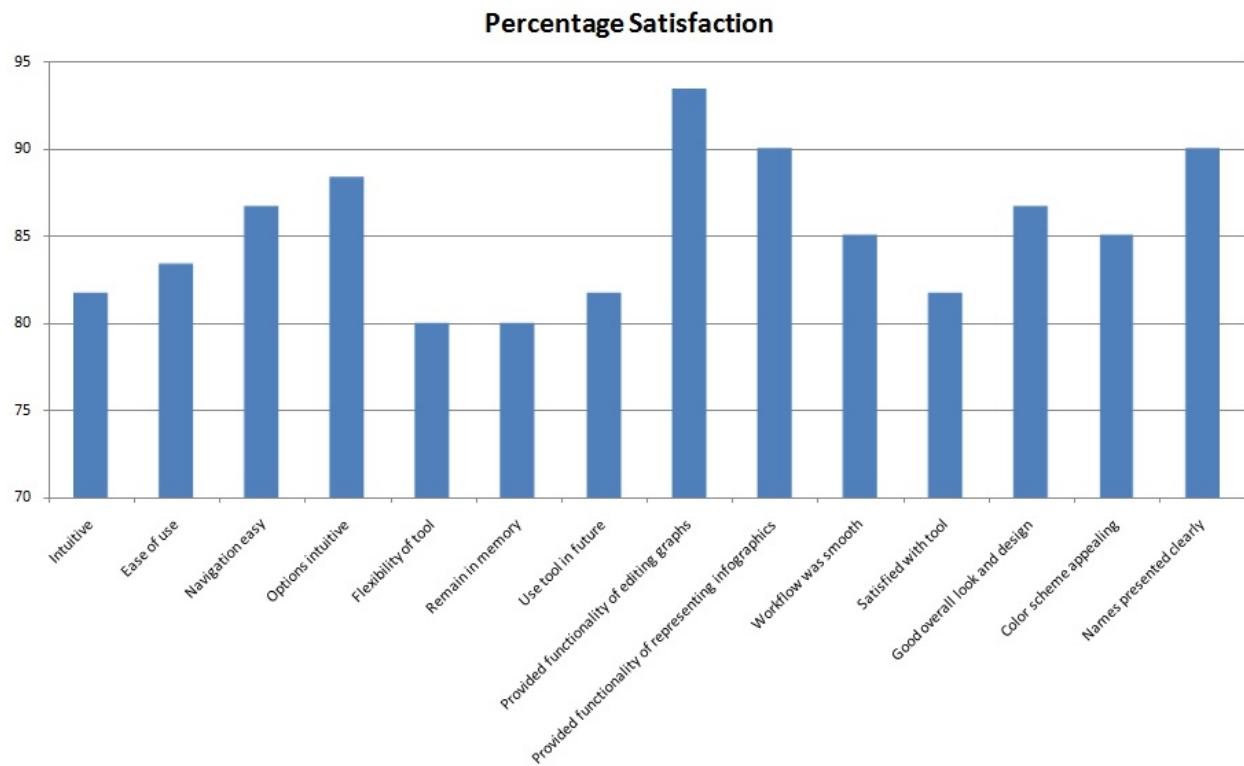
Jquery, HTML, CSS: For creating onclick Maps.

d3js: For creating map overlay using slider.

8. Evaluation: We performed usability testing and surveys for confirming our progress towards our experiential goals.

Link to our survey: <http://goo.gl/forms/fZKJYzLtuw>

Results obtained from our survey:



Conclusion from survey:

From the result statistics, it was seen that the users were quite satisfied in terms of the functionality for editing the graphs. We could however, work further on providing more flexibility to the users for creating infographics. Since the user has used the tool once, we cannot make firm conclusions regarding memory. So we would need firmer experimenting models to test this. We could test users in time gaps of a few weeks to confirm the memorizing aspect of this tool. Conducting advanced surveys would help us in understanding what exactly the users are looking for in the tool and thereby make the tool much more usable.