**Initial Project Goal:**

Create a protoype data entry/analysis program that helps non-profits with project management.

**Features:**

1. Data Entry
2. Data Visualization
3. Customizable

**Nice to have features (required after prototype)**

1. Messaging
2. File Uploads
3. User Login

**Requirements Questions:**

1. We need to map out all required data types. We can always add data types later, but a best guess can help add structure to the application. Especially what are going to be top level data objects like user, business, etc and how these relate. i.e. business’s have users. (Feature 1 & 2)
2. We need to determine initial chart types. This will drive the charting system selection. Your template’s charts (chart-showcase.html) look great. Do we need more than this for the prototype? What data to we need to chart and what relationships do we need to show? (Feature 1 & 2)
3. Determine Customizability. Where do we need to maintain flexibility? In constructing applications it is best to build for a specific use case or two and keep an eye on what you may want to change. Getting a spec for the data types and structures can help us maintain flexibility for parts of the application. (Feature 3)
4. Security. Who will the users be and what will they be able to access? How will they log-in. Will they stay logged-in. When will this be needed? (Nice to Have 3)
5. File Uploads. Do we just want to save documents or do you want to automatically upload data from things like excel? The former is generally easier than the latter, but both are possible. (Nice to Have 2)
   1. Documents - Word docs and PDFs
6. How will messaging work? Real time chat? Video or audio? What are the main use cases? (Nice to Have 1)
   1. Persistent notifications – i.e when someone needs to get a message to the entire user group. A user would see there is a new notification when they logged in, would go to the notifications page (or dropdown like template) and notification would go away. Notifications would all sit on one page forever. May require separate Firebase?

**Your Questions**

1. We need to be able to handle different time spans: years, months, days? In graphs like

[http://finance.yahoo.com/echarts?s=^GSPC+Interactive#symbol=^gspc;range=1d;compare=;indicator=volume;charttype=area;crosshair=on;ohlcvalues=0;logscale=off;source=undefined](http://finance.yahoo.com/echarts?s=%5eGSPC+Interactive#symbol=^gspc;range=1d;compare=;indicator=volume;charttype=area;crosshair=on;ohlcvalues=0;logscale=off;source=undefined);

D3 can handle this, the most important thing is how we organize the data. I think Morris.js can handle this also (shown in the template) and may fit better and integrate easier with the template, although D3.js will likely have more flexibility in the future.

The question is do we need it now? Here are some D3.js examples: <http://nvd3.org/ghpages/cumulativeLine.html> and <http://www.verisi.com/resources/d3-tutorial-basic-charts.htm>. We can add the code to switch between months and years, etc., but we will need to style it with your theme.

This is a great point, and switching between different timespans is the best option. This is more advanced functionality that some clients may not even need.

Here are other options <http://www.highcharts.com/> and <http://www.amcharts.com/stock-chart/>, but I don’t think they fit with your theme.

1. Timestamp vs Date Picker vs manual entry. What is this for? You template already has a nice date picker (form-showcase.html). Do we need something else?  
     
   This question was really about the best way to have people enter the date to have it register as a date for the purpose of d3. Some people may be entering data in real time. Some may be entering it after-the-fact. And sometimes date pickers are cumbersome to use, especially if the date you want to select is far off from the current date.
2. File upload in Angular Fire. In firebase, we can ‘hack’ certain uploads, such as small pictures by using data urls, but Firebase doesn’t yet handle stuff like videos, powerpoints, etc. It is designed to enable realtime communication. I think it is an incredibly powerful system and great for protyping but we will currently need another solution for this. Firebase would be my dream if they handled this smoothly and allowed password resets ( resets should be ready in 2 months according to a senior engineer there.) We can probably spin up an NGINX/Node combo to handle this either on Heroku or Amazon, but it is an additional layer of complexity and will not be trivial.  
     
   Didn’t realize that about Firebase. If too technically cumbersome for now, we can scrap it until v2.0
3. Converting JSON to csv should be relatively easy as long as we define the structure of the data and how it should display. Also, where do we need to export to, the server(us) or the client(user)?  
     
   Client may want to export all data to perform more sophisticated statistical analysis on the entire data set.
4. Master dashboard? What do we need to pull? This will likely make itself clearer as we refine initial data requirements.  
     
   Use case: Client has multiple projects and is interested in collecting a similar piece of data from across projects for a higher level analysis. This is a huge selling point but not critical feature.

**My understandings**

1. Speed of development is an important requirement. Get a prototype out the door to use in sales and test with users.
2. Keep an eye to the future and be ready for the next stage: production.
3. Maintain flexibility to handle different requirements from different types of business. Allow the software to adapt to the business’s needs.

**Other questions:**

1. Do you have a link to where you got the Bootstrap theme? They may or may not have info that can help.  
   https://wrapbootstrap.com/theme/detail-admin-responsive-theme-WB07061TJ
2. Where is your code from? Which portions do we need to keep?  
   It’s a mishmash from the main Angular website, but I had to update it to work with most recent AngularFire. Don’t need to keep any of it. I just need it clear enough that I know what’s going on.
3. Process and Deployment. Do you want all this code private? Should we use git and github for version control? Should we use Yeoman and Grunt for development and build. I can get documents together to install and use everything if you let me know what type of computer you have. Not sure what you are currently using and what you want to do.  
   Open to your thoughts here. This doesn’t seem so sophisticated it needs to be kept private. I have a Mac with git, node and grunt installed, but am a noob at best with all of them.

Sorry for the long blast, but these questions should help us get going in the right direction to the goal. Super excited to do this. I think connecting your bootstrap theme with angular with firebase and handling basic graphs should be too difficult once we define the data. I think we can get it done in 2-4 weeks if we keep the functionality basic.

Regards,

Scott