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# Progress Report
## An Online Web-Streaming Service for Bitcoin-Exchanges

*Group Members Name*

- Krishna Kant – 450429176
- Xiaojun Dong – 430411649
- Hangyuan Yu – 460469308
- Hongyu Ai – 460086655

## Project Description

Exchanges, all the time, plays a big role when it comes to the real-time currencies. There are many exchange which is used to buy and sell the cryptocurrencies. The market of exchange is very different. When new exchange appeared in the market is pushing the other one out of the market.  The Mt. Gox, for instance, was the large exchange till 2014 when it crashes and exit the market in 2016. The market is getting vast and very ups and downs to the currencies. It is not possible for any exchange to play with all of the cryptocurrencies in the market. The GDAX, for instance, are dealing with three currencies namely Bitcoin, Ethereum and Litecoin. The security of currencies and increasing Cyber Crime would plays big role in the downfall of exchanges.

Coinbase (GDAX) mainly allow customer to trade in USD, for the user from outside United State, are worried about the current conversion rate and would find it difficult to trade. Our product will give the advantage for customer to trade in any currencies they want like, USD, AUD, SGD and many more. The user also worried about the product they are buying. None of the exchange shows the comparison between cryptocurrencies so that user can decide at one place and can buy the product easily. Our product will allow the customer to compare the three most important currencies, as discussed above, and can decide at one go.

## Progress

Until now, basically, we are on schedule. We have finished programming the demo of all web page, including most of the charts. The extension JavaScript library we have been using is similar to D3.js called AmCharts.js, which is more helpful in creating dynamic, interactive stock exchange data visualizations. Also, we are able to retrieve data from the APIs provided by GDAX.com, BlockChain.info and Bitnodes.21.co and store those data into the created database. The rest things we left are integrating all parts, connecting database, testing and perfecting all other functions.

The timeline described in the proposal got deviated for some extent but we worked together and manage to get it back on track. The Timeline changes is described in the later section described below. The milestone, such as, database connectivity and testing delayed due to lack of experience in using the technology. The milestone and deliverable which could not achieve the deadline is described below. We change our role so that we could achieve our target before the new schedule.

## Experienced Problem

1. **API's –** The API's we mentioned in our proposal were from the anonymous website which is not available now. Searching for the appropriate API's took a lot of time.

After spending time and with the help of our supervisor (Martin) we are able to use bitnode and gdax account for API's.

2. **The responsibility changes –** According to the plan we moved forward but the difficulty in finding and implementing the right code were toughest problems where some of us could not proceed with the assigned task. We switched tasks immediately so that it could not affect the timeline and milestone.

3. **Database connectivity -** As a novice user in mongodb, we all are from software background and know little about data science, it took more than expected time to learn and implement the database design. We manage to show static data even after learning all the technique from the mongodb. This all process takes more time for all of us and accessing the real time data is still a biggest challenge for us.

4. **Meeting the timeline –** The project used to deviate from the timeline mentioned in the proposal. Achieving milestones became challenging for us. Database connectivity, for instance, became very difficult to finish on time. Our timeline shift to one week later and we are working as planned to achieve the target. The role change plan helped us to get the things done otherwise it could be a disaster.

## Changes in technology

1. Chart changes - We planned to use bar chart and pie chart to visualize the different currencies and the price. We collected the data and realised that the items to show is so high that it could not be implement on bar chart and pie chart. Then we decided to use line chart and candle chart to visualize the content.

2. Technology changes - We planned to use D3.js file for graphical representation. We found some limitation while using it and planned to change to AmChart.js which is full commercialised and can provide better graphical presentation than D3.js.

## Group Responsibility Update

Xiaojun Dong (Scott) - Visualisation charts and graphs for different purposes.
Hongyu Ai (Isaac) - Front end programming and integration graphs into web page.
Hangyuan Yu (Harry) - Database Implementation.
Krishna - Team management and support.

# Timeline

| Time | Task Before | Task Now |
|------|-------------|----------|
| Week 1 | ·    Team Formation <br> ·  Kick-Off Meeting | ·    Team Formation <br> ·  Kick-Off Meeting |
| Week 2 | ·  Initial meeting with client <br> ·  Identify deliverables | ·  Initial meeting with client <br> ·  Identify deliverables |
| Week 3 | ·  Background research <br> ·  Define project strategy | ·  Background research <br> ·  Define project strategy |
| Week 4 | ·  Define tasks <br> ·  Start proposal | ·  Define tasks <br> ·  Start proposal |
| Week 5 | ·  Proposal Submit | ·  Proposal Submit |
| Week 6 | ·  Design Home page <br> ·  ==Design all pages== <br> ·  ==Create databases== | ·  Design Home page |
| Week 7 | ·  ==Store value in databases== <br> ·  ==Integrate and Test== | ·  ==Design all pages== <br> ·  ==Create databases== |
| Week 8 | ·  Progress report start | ·  ==Create databases== <br> ·  Progress report start |
| Week 9 | ·  Progress report submit | ·  ==Store value in database== <br> ·  Progress report submit |
| Week 10 | ·  Project Report start | ·  ==Integrate and Test== <br> ·  Project Report start |
| Week 11 | ·  Start preparing slide for presentation | ·  Start preparing slide for presentation |
| Week 12 | ·  Presentation | ·  Presentation |
| Week 13 | ·  Final project report | ·  Final project report |

The "Task Before" column is the task we proposed in our proposal. Whereas, the Task "Now column" contains the task with current and future deadline.

The task in different colour mentioned in the table describes the incomplete tasks and the task with same colour co-related to the same task.

## Milestone

| Milestone | Deadline | New Deadline | New Status |
|---|---|---|---|
| 1. Project Proposal | 1/09/2017 | 1/09/2017 | Finished |
| 2. Project Progress Report | 6/10/2017 | 6/10/2017 | Finished |
| 3. Design Web Page | 18/9/2017 | 28/09/2017 | Finished |
| 4. Database Connectivity | 05/10/2017 | 12/10/2017 | In Progress |
| 5. Implement Web Services (API's) | 20/10/2017 | 20/10/2017 | In Progress |
| 6. Testing | 30/10/2017 | 30/10/2017 | Not Started |
| 7. Presentation | 25/10/2017 | 25/10/2017 | Not Started |
| 8. Project Report | 03/11/2017 | 03/11/2017 | Not Started |

This table will describe the changes made in our milestones.

The "Deadline" column is the column we described in our proposal. "New deadline" field is the task with current deadline and "New Status" field is the current status of tasks. The tasks in yellow colour shows the task which got displaced from the time.