**Stock Market Charting System design document**

1. **Business Requirement**

This Software System lets Admin to upload Stock Price of a Company(which is listed in a Stock Exchange) at different points of time. It need to support multiple Stock Exchanges. And the registered Users should be able to generate various charts to perform Stock Market performance of various Companies or Sectors over certain period of time.

1. **Support Roles**

Admin and User

1. **Use case**
   1. **Admin use case**
      1. **login/Logout**

Login and Logout. Will stored the password in DB user\_info table.

* + 1. **Manage Stock Exchanges**

Lists all the Stock Exchanges currently supported. BSE, NSE Stock Exchanges need to be available by default. It should be possible to add new Stock Exchanges.

* + 1. **Manage Company:**

Add a new company details with fields or edit an already existing Company details.

Deactivate an already existing company.

Update any IPO related data.

* + 1. **Import Data(Excel format):**

Data can be imported(in Excel format) Below is sample Excel format

<https://github.com/vskreddy652/Genc_BatchB/blob/master/StockExchange_CaseStudy/sample_stock_data.xlsx>

Uploaded Excel need to be in a specific format, if not error message need to be displayed. While uploading Excel, specify the Stock Exchange to which the uploaded data belong to.

The company code, date ranges need to be appropriately checked, if any data will be over written.

After successfully imported, data need to get stored in a database and Uploaded Summary need to be displayed like which company, Stock Exchange, how many records got imported, from and to date range, etc…

Check the dates for which Stock Price of a Company is not available

* 1. **User use case**
     1. **login/Logout**

Signup for a new Account. When signed up, an email needs to be sent to the User with confirmation link.

Login to an existing and Email confirmed account. User should be able to Login only after E-Mail Confirmation is done.

Logout from an account.

* + 1. **Update profile(username, password and so on)**

User can update profile, password of an already existing Account.

* + 1. **Search for a company**

Search for a company to display Company profile & Turn over, CEO, board members, Industry, sector, brief write up, current/latest Stock market price. Search can be based on Company Name.

Types in 2 or more characters for a company name or company code, it should display matching company names(using ajax), so that user can select one of them, if required

* + 1. **Requsets chart/data for certain period**

User requests charts/data for certain period, the period need to be divided into appropriate intervals(Week or Month or Quarter or Year), to display the chart.

View IPOs planned in a Chronological order

Comparison Charts. It should be possible to perform below comparisons of

* 1. a single company over different periods of time
  2. Two different companies over a specific period

Use different colors when multiple Companies/sectors are displayed in a single chart and display legend

Use Bar charts to display data.

Be possible to export data and download in Excel

A chart is displayed, display Average, Min, Max, Growth for that specific period

1. **Data Model**
2. **Simple screen**
   1. **Admin part**
      1. **login/logout**

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* + 1. **Admin after login**

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* + 1. **After click import data**

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* + 1. **After import data**

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* + 1. **After click manage company**

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* + 1. **after click new company link**

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* + 1. **after click edit button**

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