**Class Library**

The Library for the site contains the following classes:

* connection
* IO
* Security
* Share
* Tables

**Connection**:

This class contains method to handle the connection to the database and perform operation on the data base.

**Constructor**:

**connection():** initialize a default object with an connection to data base.

**Properties**:

**Con**: SqlConnection object with an initialized connection.

**Error**: Any error generated during any operation.

**Methods**:

**Void** **open ()**: open the connection.

**Void close ()**: Close the connection

**Bool userExist (String mail, String Pass)**: check if the user with provided credentials exists or not

**Bool CompanyExist (String mail, String Pass)**: Check if the company with provided credentials exists in the system.

**bool AddUser (String fname, String mname, String lname, String mail, String pass, String dob, String phno, String gender, String address, String city, String state, String country, String pincode):** adds a new user in the system.

**bool addCompany (String name, String contact, String Person, String mail, String Password, String gst, String cin, String regdate, String add, String city, String state, String Country, String Pincode, String sector)**: Adds a new Company to the system.

**Bool deleteUser(String id)**: Delete a user permanently from the system.

**Bool deleteComapny(String id):** Delete a company permanently from the system.

**Bool blockUser(String id, int type)**: blocks a user/company.

**Bool verifyComapny(String id)**: Give a company the verified status.

**Share[] search(String searchString)**: search share form database.

**Tables query(String query)**: creates a table from a select query.

**IO Class:**

Handles all file handling operation for the system.

**Properties**:

**Error**: error generated during any operation.

**Methods**:

**Static bool move(String source, String destination):** moves a file from source to destination.

**Static bool copy(String source, String destination):** Copy a file from one location to another.

**Static bool delete(String source):** Delete a file from the system.

**Static String[] getFolderNames(String source**): return names of all directories at the source..

**Static String[] getFileNames(String source):** Get name of all the files at the source destination.

**Static void download(String source):** downloads a file from server to client’s device.

**Static bool upload(FileUpload doc, String limilt = null):** upload a file to the server of a specific type.

**Static string GetMimeType(String filename):** return mime type of a file.

**Share**:

This class is used to get details of any share.

**Properties**:

**Id**: Id of the share

**Symbol**: Symbol of share

**Cid**: id of company the share belongs to.

**Methods**:

**Static Share[] fromDataReader(System.Data.SqlClient dr):** Returns an set of share from a sql query.

**Static double calculatePrice(double x1, double y1, double x2, double y2, double x3, double y3, double x4, double y4)**: returns a new price from previous supply and demand of a particular share.

**Table**:

Class to display and sort table on pages.

**Constructor**:

**Tables(SqlDataResult result, String qs):** get a table object from created from database

**Properties**:

**Rows**: Number Rows in the table.

**Cols**: Number of Columns in the table.

**Data**: Data in a column.

**Qs**: Query string from which table is generated.

**Methods**:

**Private int getRowCount(SqlDataReader dr)**: get row count from a DataReader Object.

**Void print()**: Print data in a tabular Format.

**String[] getColumnArray(int index)**: Get a column from the tables in form of an array.

**String[] getRowArray(int index):** Get a row from table in form of an array.

Void sort(int index): sort the table object.

**Int compareString(String s1, String s2)**: Compare two String return 0 if same else return -1 or 1.

**Security:**

Handles basic security functionality for the system like encryption.

**Method:**

**Static String Hash(String text):** Return an md5 hash of the input text.