Web development and commodity exchange software

An Industrial Internship Report

Submitted by

Harshit Kulshrestha

(16BCE0032)

In partial fulfillment for the award of the degree of

Bachelor of Technology

In

Computer Science

SCHOOL OF COMPUTING SCIENCE AND ENGINEERING

OCTOBER, 2018

DECLARATION BY THE CANDIDATE

I hereby declare that the Industrial Internship report entitled "**Web development and commodity exchange software"** submitted by me to Vellore Institute of Technology, Vellore in partial fulfillment of the requirement for the award of the degree of **Bachelor of Technology** in **Computer Science and Engineering** is a record of bonafide industrial training undertaken by me under the supervision of **Amit Kumar Gupta (tech head),Mr Vikas Chaturvedi (Manager Software Support) and Mr Vishwa Bhushan (MD) ,Bhushan Systems & Consultants Limited.** I further declare that the work reported in this report has not been submitted and will not be submitted, either in part or in full, for the award of any other degree or diploma in this institute or any other institute or university.

Signature of the student

Harshit Kulshrestha

16BCE0032

School of Computer Science and Engineering

<u>BONAFIDE CERTIFICATE</u>

This is to certify that the Industrial Internship report entitled "**Web development and commodity exchange software**" submitted by **Harshit Kulshrestha(16BCE0032)** to Vellore Institute of Technology, Vellore in partial fulfillment of the requirement for the award of the degree of **Bachelor of Technology** in **Computer Science and Engineering** is a record of bonafide Industrial Internship undertaken by him/her under my supervision. The training fulfill the requirements as per the regulations of this Institute and in my opinion meets the necessary standards for submission. The contents of this report have not been submitted and will not be submitted either in part or in full, for the award of any other degree or diploma in this institute or any other institute or university.

SUPERVISOR

Date: 17 October 2018   Date: 17 October 2018

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Internal Examiner (s)   **External Examiner (s)**

CERTIFICATE BY THE TRAINING OFFICER

BSC LIMITED

Bhushan Systems & Consultants Limited
(a house of total IT solution)
An ISO 9001:2008 Certified Company

Regd Office : 69/99, 1st Floor, Ganpati Marg, V.T. Road, Mansarovar, Jaipur-20 (INDIA)
Mumbai Office : 205, Dheeraj Sagar Bldg. II, Opp. Goregaon Sports Club, Malad (W), Mumbai - 64 (INDIA)
Dial: +91-141-2783323, 2785232, M : 9829059516, 9829059517, 9829010645, 09819654147
Web: www.bsclimited.com • Email: info@bsclimited.com

Date: Jun 20th 2018

TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Mr. Harshit Kulshrestha** (16BCE0032) IInd Year B.Tech (Computer Science Engineering) student of VIT University, Vellore, has successfully completed his industrial training from May 7th 2018 to June 8th 2018 in Software Testing and implementation.

He has shown keen interest during the training period and has been enthusiastic and sincere.

We wish him all the best in his future endeavours.

For **Bhushan Systems & Consultants Limited**

(V. Bhushan)
Director

Solution : Software Development, Networking, Technical Services, Web Solution, IT Solution, Data Security, Anti Virus, Turn Key Projects, ERP Solutions, Consultancy etc.

ACKNOWLEDGEMENT

Apart from the efforts of me, the success of my internship depends largely on the encouragement and guidelines of many others. I take this opportunity to express my gratitude to the people who have been part in the successful completion of this internship

I would like to thank to Mr Amit Kumar Gupta (Tech head) He is a very knowledgeable and vivid kind of person who carries his passion and enthusiasm actively in his job. His hard-working attitude influenced and inspire me to overcome all types of problems and to move onward with confidence.

I would like to extend thanks to Mr Vikas chaturvedi (Manager software support) and Mr Vishwa Bhushan (MD) for helping me out during my internship with various issues. Next, I would like to thank all other people who helped me in getting significant information and sparing their valuable time for me.

Place: Vellore

Date: 17 October 2018   **Harshit Kulshrestha**

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1. SYNOPSIS

This internship paid attention on web development and leveraging the commodity market broker's software. The start of the internship begins with the importance of web and how it is affecting the common people life these days, focusing mainly on easy user navigation and clean design. Web development mainly focus on basic web developing which include HTML which is used to develop or make the basic structure of a website and also include features such as background color, font styling, tables, images and hyperlinking, etc. then the use of CSS and how it can modify the look of an html page.. CSS essentially characterizes the classes of styling so we can utilize same style with the utilization of single tag as opposed to going for utilizing every one of the labels once more. Then it followed by general introduction of JavaScript started which makes the website more user interactive and result in more traffic on the website. JavaScript is important tool as it gives dynamic content rather than traditional static content. The use of Php is to make the user entered data available for the administrator and also used to connect the database and can be used to edit, store or fetch different queries and also includes the features such as array and string manipulation, etc. Web hosting is the way of uploading the webpage on the server with the goal that anybody having web association can see the website by entering the URL. Web hosting server was very much similar to that of Linux. Bootstrap is used because as there are various types of screen sizes available for the user like different sizes for smartphones, laptop, tablets, etc. there is a requirement of maintaining a dynamic webpage. It actually fits the content in the defined screen sizes of different devices so as to minimize the zooming out, zooming in, left right scrolling etc. if it is not done then it will kill the user experience. AngularJS is a section of web designing which implements the HTML but with improved attributes which result in better user experience. NodeJS is invisible part of web development which is used for customization techniques implemented in the backend. Python is also used for web development with the help of some framework namely Django. which can easily build web pages using python knowledge. The support of commex10 software actually helped me to interact with the knowledge of BackOffice software and commodity market. This software is used by brokers which ultimately helps them to reduce the workload by calculating the brokerage and displays the reports the problems faced by customers, their solution along with future updates of the software.

2. COMPANY PROFILE

BSCL is an ISO 9001:2008 Certified IT Company since 1999, it headquarters in Jaipur, India. It is a moderniser in the field of Software development which delivers best quality of service to its national customers. The capability of the company in the field of development, customization and incorporation of complex enterprise-level solutions which delivers a well-proportioned integrated combination of technology skills, domain knowledge, hands-on experience, effective methodology, along with Information Technology. The total strength of the company is nearly 80+.

It gives customization in software development facilities utilizing web technologies. Working zones of the organization incorporates E-commerce website development, Product development, web enablement, product migrations, web applications and so on. Their developments empower organizations to explore driving edge innovation to exceed expectations in their field and to give exceptional execution in the present commercial center.

Its development incorporates the Back Office solution for Capital and Commodity Exchanges for Brokers and Sub Brokers, fabricating industry, retail industry, education, and cooperative societies. As of now, it is privately held organisation in India with quick development of customers in Europe and United States. It is additionally arranging various provincial and worldwide workplaces in the coming years.

Over the time, their committed and enthusiastic experts were able to provide solutions with excellence. Many of these solutions includes system migration, web marketing, bespoke application development, third party integration, technological audits, e-learning tools and so on. Nowadays, with their experience and services, they exercise the opportunity to have a global footprint of clients and partners crossways the globe.

It delivers all sorts of technological software solutions to its clients over the globe. These product solution comprises of Customized and Generalized answers for vertical fragments, All sort of web solution, Data processing, Web based marketing, Financial services, Technical services, legal services, Mobile Application Development and so on. It is likewise fit for delivering hardware solutions to its customer incorporate the

get together of the PCs, arranging of LAN (Local Area Network), setting up servers etc.

They deliver strategy, business knowledge and asset obtainment through research, review, evaluation, value added introductions, identification, and negotiation, construction of value propositions, analysis, structuring, compliances and deal closure - across sectors.

It additionally offers Business Intelligence and IT Services to engineer and execute end-to-end solutions that fulfils the desire of the business intellect needs. Their advantage incorporates giving help in planning and building the procedures and high-performance systems important to coordinate unpredictable and voluminous information from over the venture, making quality, precise data accessible to business analysts and leaders, company-wise. These solutions frames the foundation of the high-esteem business forms, including customer relationship management(CRM), business advancement, announcing, promoting, effort administration, and substantially more.

Software Development

BSCL is one the most respectable name in the field of software development services which combines solution integration and offshore IT outsourcing to medium and small sized businesses (SMBs) across the globe. Upheld by profoundly skilled professionals, who have mastery in learning of their functional knowledge. They are flexible and can adapt the skills as the demands of the clients. Services are being developed of different best and exceedingly trend setting innovations, for example, .NET, J2EE, C#, PHP, Ruby, in order to guarantee no compromise in quality of the software and making it for future ready. This solution is at present in high demand in small and semi large scale firms, which takes complete advantage of all the characteristics in terms of growth, promotion & business accessibility on the Internet. Besides, it keeps up reliable association with customers amid their projects for understanding of the problem statement and giving the best required software. Their important customers benefit this at industry driving costs.

The qualifications of the software development includes:

Business Application Development : The arrangement of full-cycle custom programming facilities from business investigation to software development, including voice over IP(VoIP) ,Customer relationship management (CRM), site improvement, supply chain management(SCM), database, Enterprise content management(ECM), Enterprise resource planning(ERP (SAP)).

Offshore Software Development: This model turns out to be effective particularly for cost-time. Web, programming and testing turns into the goal for outsourcing software implementation, which includes including PHP, Ruby, .NET, J2EE, C/C++ development.

IT consultant: Information technologies, software development consulting, software solutions, business process analysis and offshore IT outsourcing.

Data Solutions

They have a reputable name in the foremost service providers which are associated with a wide series of Data Processing. This specific facility is very popular among the worldwide customers because of its advance state of precision, auspicious execution and privacy. In this space of service, they give data processing to Financial Service, Banking, Education Departments, Insurance, Life Science, Healthcare, NGO's and other firms. Moreover, they are specific in the capturing, data processing and digitization from different input sources, for example web forms, scanned images, hardcopy documents, e-mails, and fax. Before sending check process is done to limit any sort of error in the data.

Its growth is approaching in the areas of Cloud Computing, Customer relationship management (CRM) solutions, Enterprise resource planning(ERP) solution, IT consulting, Functional aptitude, Remote desktop Application, Software testing, application management, stock exchange skills, website optimization and halfway advancement, integrated communication, complete hardware solution, business Accounting Software, infrastructure management. it is also receiving fame for being the collaborate with a portion of the widely acclaimed organizations and helping them in extension of their product base and by offering help for the equivalent.

Associations

- National Distributor for: Shilpi Computers Limited (www.shilpisoft.com)
- Registered Partner for : Microsoft Corporation (India) Ltd.(www.microsoftindia.com)
- Associate Partner for : A3 Logics Limited(www.a3logics.com)
- Exclusive Partner for : NIIT GIS (ESRI India) Ltd.(www.esriindia.com)
- Channel Partner for : Dream Team Technologies Pvt.Ltd.(www.dreamteam.co.in)
- True Partner for : Tally Solutions P. Ltd. (www.tallysolutions.com)
- True Partner for : NCS Computech Ltd. (www.ncs.net.in)
- Registered Partner for : Redington India Ltd. (www.redingtonindia.com)
- Channel Partner for : SIFY Technologies Ltd. (www.sifycorp.com)
- Web Partner for : Syon Infomedia P Ltd.   (www.syoninfomedia.com)
- Web Partner for : Ab Infocom (www.abinfocom.com)
- Marketing Partner for : DATANET TECHNOLOGIES (www.qalam.in/)

Team

They are upheld by a highly knowledgeable group of social and specialized experts having significant information of their individual as well as of software industry. They work in partnership with customers to provide a well-organized business-oriented Consultancy service with ease and perfection.

Their team include:

- Management
- Hardware
- Software developer
- Software testing developer
- Web developer
- Networking experts
- Marketing
- Accounts and HR

Social Responsibility

Being Socially Responsible means that people and organisations must behave ethically and with sensitivity toward social, cultural, economic and environmental issues. BSCL is related to some of organizations working for the society.

- Akshay Patra Foundation
- Gandhi Gramin Vikas Kendra
- Human Life Foundation
- Cry
- Samajik Yuva Sangathan
- Oxfam India
- Senior Citizen Forum

3. SKILL SET

As a computer science student, the courses done by me are used to provide knowledge of the parts of computer science world.

The knowledge gained by me before this industrial internship:

Problem solving and python: Problem solving includes how to approach for the solution of the given problem with the help of flowcharts and the introduction to python include the basic syntax of python, loops ,conditional statements, functions and also how to write a pseudo code and algorithm for a code.

C and C++ programming: this course helps me to learn coding in a very logical way these courses include the basic syntax of c and c++, loops and conditional statements and also the use of object oriented programming in c++ gives the knowledge of classes and objects.

Digital logic and design: this course helps me in making small circuits using and gate, or gate, not gate, or gates and how to generate truth tables it also helps me to understand how to simplify the circuit using k-maps.

Data structures and algorithm: this course helps me to gain knowledge of how to store data in structures (stacks, queue, linked list, etc.) and to manipulate them. This course also include graphs and the use of algorithms to find minimal distance between 2 nodes.

Operating System: this course helps me to understand the working of an operating system, what are the different types of operating system and how scheduling is don between the processes and also critical section and deadlock.

Theory of computation and compiler theory: this course mainly focus on Deterministic finite automata (DFA) and non-deterministic finite automata(NFA) and their functions which are used in calculation, different phases of compiler, introduction to grammar and the functions of push down automata(PDA) and Turing machines.

Database management: This course helps me to understand how to create a database, creating tables in the database, use of primary keys altering and inserting values in the database and also fetching data from the database.

Image processing: this course helps me to understand how to process the images, medical application of image processing, deleting of noises and also the different types of connectivity between the pixels and histogram equalization.

Computer Networks: this course help me to understand the different protocols used for transferring the data from 1 node to another and understanding of different types of models which include OSI model and TCP/IP model and the function of each layer in transferring of data and data cryptography.

Software engineering: this course helps me to understand the importance of software engineering and the different types of process model on which software is developed, scheduling of the parts of software which includes activity network, critical path and Gantt chart and also the development of use cases and other UML diagrams.

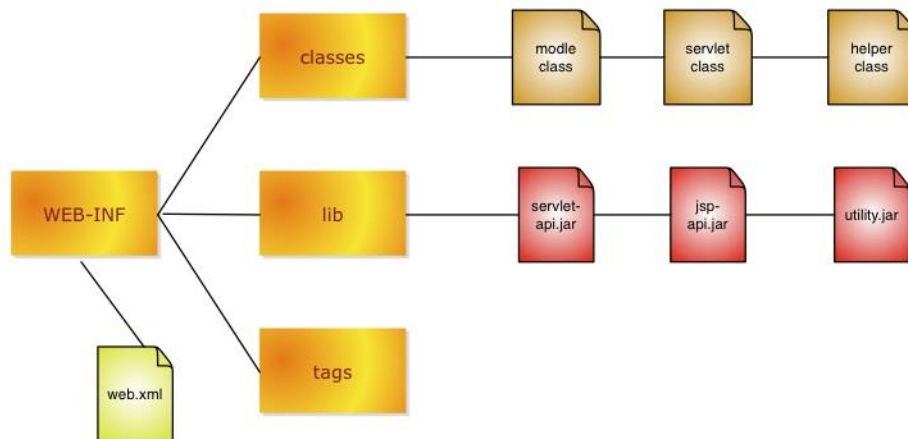# 4. Knowledge acquired from the In-plant training

4.1 Web structure

Figure 2: structure of web application

The above image tells the basic structure of the web application. the structure of web application contains web pages and web information. Web information is further divided into classes which include servlet class, tags which are used to build a webpage, libraries which are used and the database used by website.

The above structure split the web application into two modules web development and web designing. Web designing includes the designing part of the website which is done by web designer which uses graphics and graphics design software (like adobe Photoshop, illustrator)to create a look of the web, whereas web development includes the development of the website which is done by a web developer by building a backbone of a website using HTML,CSS and JavaScript. These two modules are further divided into sub modules which are used to improve quality of work. These two modules will help to improve the knowledge in designing and developing and the code written by developer will be easily understandable, etc.

4.2 HTML

HTML stands for hypertext mark-up language. Outlining of a webpages begins with html. it is anything but a programming language.it is one of the customary technique to produce page. Internet browsers can interpret the html documents and shows the result.

Html consists of tags, which are the core part of this language. Each tag characterizes the distinctive substance determined inside it. There are 2 types of tags opening tags and closing tags like(<p> tag,<h1> tag)both tags have opening and closing tags the tags which does not have any closing tags are referred to as empty tags(
 tag,<hr> tag)

HTML constitutes of two sections- header and the body. The head consists of title which is used to give title to the web page. The other part i.e. body part contains the content which is to be displayed in the html page it consists of all the tags which includes
tags, <p> tags, etc.

The content determined inside the heading tags (<h1>) can go from various heading sizes that are predefined in the html. Bgcolor tag is utilized to change the background color of the website page. The content written in the html document can likewise be given a font size, font color and font style.it additionally contain all the designing style content like subscript bold italics strikethrough underline superscript and so on. Anchor tags are used to provide linking between the two sections, it tends to be both internal tag and external linking .the internal linking determines causes in hopping to the predefined content in a similar website page while the external linking will direct to some other site page. Image tag is utilized to show the picture inside the page, customization should likewise be possible like editing the dimensions of the picture, and we can also add other attributes like alt and border to enhance the image. The format supported by html of the pictures are JPEG, PNG and GIF.

The information can be represent in either in tabular arrangement and the other one is showing the substance in list format, for the tabular arrangement we have to determine the table row and table data and for to represent data in list we have ordered list which consists for numbering and unordered list which consists of bullets, disc and circles.

4.3 CSS

Full form of CSS is Cascading styling sheets. Css fundamentally changes the outlook of the website page. For a specific html page there can be various css files, each document contains the one of a kind introduction for that html file hence we can get diverse web outlook for same html document.

Any modification in the design of websites was a very difficult and boring task, as it evolves manually editing every HTML page.

Css can be characterized as internal css in which the css document content is determines inside the html document, can be indicated after the id that will be called inline css and can likewise be indicated as an alternate record which is connected in the html.

To execute css, the tags are characterized with an id which will be utilized in the css document in order to give those unique qualities to that id which at that point will be passed to the content inside that tag

Css in normal form gives the styling content to the id it enhances the reusability and maintains a strategic distance from repetition instead of characterizing all the styling over and over we can utilize that id with the end goal to get the equivalent styling technique.

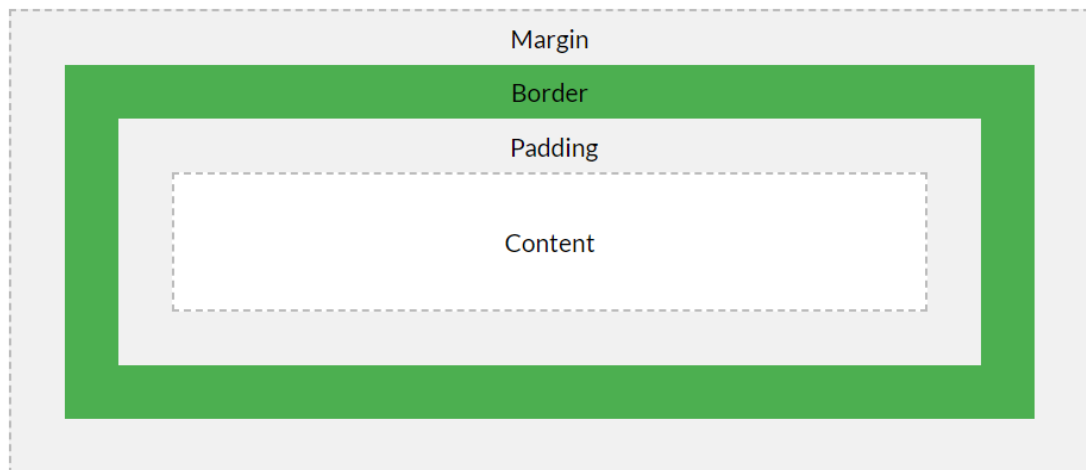The most important concept in css is the box model

Figure 2: BOX MODEL

Content - The content of the box, where text and images appear

Padding - Clears an area around the content. The padding is transparent

Border - A border that goes around the padding and content

Margin - Clears an area outside the border. The margin is transparent

The box model allows us to add a border around elements, and to define space between elements.

4.4 JAVASCRIPT

JavaScript is the programing language utilized in the web designing it is used utilized alongside html to give some unique characteristics to the current content its incorporates even little things like basic calculator, manipulation of array content, and manipulation of string content etc. it can likewise be utilized in the production of web applications.

A scripting languages are a form of programming language that are "embedded" in Web pages and interpreted at run time.it is executed by an interpreter contained within the web browser (scripting host)

Coding in JavaScript

It executes all the conventional style of coding procedures which are found out in the basic c language. Execution of JavaScript should be possible using those techniques which incorporates data types, loops, if else, switch etc. JavaScript contains the similar data types which are numbers, array, string and their manipulation using predefined functions in JavaScript.

Object in JavaScript

Objects are collections of properties (equivalent to members of classes in Java) .The Properties are either data properties or method properties. The Data properties are either primitive values or references to other objects. The Subprograms called through objects are called methods, subprograms not called through objects are called functions . It also implement object style coding which was a piece of object oriented programming and pattern.

Event

Event are the actions which occurs at wither by clicking or by hovering on the button or text. Most commonly used events include onclick, onmouseover, onchange, etc. Onchange is utilized to change the element of the html page. Onclick is utilized to play out any activity on the snap of mouse, onmouseover doesn't require click essentially finishes the response on hovering.

4.5 PHP

Php is scripting language particularly utilized for the servers.it is used for advancement of the web and consequently known as the backend.it is a genuinely necessary tool to create dynamic website pages, Php performs nearly the same operations as done in JavaScript however it incorporates certain highlights which makes it well known among designers.

Similarity

The features of Php is same as that of JavaScript i.e basically the coding style among the two.it uses loops, switches, if else statements, etc. it also incorporates data types such as arrays and strings and they can be manipulated in by some predefined functions as that were used in JavaScript to perform string and manipulates array.

Additional features of Php

Database connectivity

Database can be easily connected in using PHP and further insertion, deletion and modification of the data can be done using MySQL command inside the PHP. these commands can be initiated with the assistance of a button in to get access of the database.

Login Support

Login support can also be done in Php using the above feature i.e. Database Connectivity. A login is created which on a particular authorization can access the data of the table.

4.6 BOOTSTRAP

As there is the increased in the demand of hand-held devices there is a eed for the webpage to adapt these different screen sizes and display the content to the user friendly. Bootstrap is a framework for providing the frontend as it make the screen content according to the screen size of the user.it also provides the easy methodology to make the content available for different sizes.

Technique

The value given to the web page should be relative value instead of static values which will be according to the screen size. Moreover there are options to enhance the user interface of the different styles.

Additional features

Bootstrap Glyphicons are the basic icons which can be used to enhance the user experience while maintaining the screen size .it is used to give symbols instead of texts to enhance the user experience it plays a most important role in making the web site more user friendly.

Bootstrap popover is another way to improve the user interface .A popover can be seen as box that appears when the user clicks on an element.

4.7 NODE JS

Node JS is a framework which is utilized for server side scripting. NodeJS is also used the most because it is faster as it uses V8 JavaScript engine to execute the JavaScript code. The codes written in Php are executed in a serial fashion i.e. one after another whereas the Node js blocks of code are executed in a parallel fashion.

Buffers

Buffers are the module which provides a way of handling streams of binary data. This is basically done by storing these data temporarily in array.

Streams

Streams are very much useful to implement the viewing of the data without any downloading.

Web Servers

The web servers are very useful in request handling from the user, and then returning the response as a reply to the request to that user. Basically web server accepts the request from the user processes it and send the content asked by the user.

4.8 ANGULAR JS

Angular js is the client side scripting which basically enhances the user accessibility and makes the website more user friendly.

Modules

It aids in breaking down of an application into modules which can be implemented to create an application.

Directives

It is a client side language which will improve the tags of html. The improved tags are known as directives.

Controllers

There is a need to control the data which is supplied by the modules. These controllers connect to the JavaScript and invoke the object

Html

Html tags used by angular js are used for giving dynamic content instead of static data which includes list and tables. Angular js can also be used to implement the database and then supported by php.

4.9 PYTHON

The websites can also be created with the help of programming language like python along with framework like Django. Django framework has predefined components in format. Django helps in distributing the content according to the user.

Template

There are many predefined templates in Django which can be easily implemented in the website to generate the dynamic data. These templates will help the developers in not indulging them very much in designing part rather publishing the content to improve the quality of website.

4.10 COMMEX 10

A back office is a part of most organisations where work dedicated to running the organisation itself take place. The term back office comes from the building layout of early companies where the front office would contain the sales and other customer-facing staff and the back office would be those manufacturing or developing the products or involved in administration but without being seen by customers. Although the operations of a back office are seldom prominent, they are a major contributor to a business

Back office software for commodity market is made by BSCL and SHILPISOFT.

A market that trades in main instead of trading it in manufactured product is called commodity market. They include soft commodities which involves commodities such as coffee, wheat, sugar and cocoa. Whereas the hard commodities consists of rubber, gold, oil, etc. 50 chief commodity markets of the world is organised by the investors with purely monetary transactions which are progressively outnumbering physical exchanges when compared with goods are carried. Futures contracts are the traditional way of investing in commodity market. Security is given by the physical assets to futures. It include physical trading as well as derivatives trading using spot prices, futures, forwards and options on futures

The commodity market in India is maintained by NCDEX (National Commodity and Derivative Exchange).hierarchy of this market is basically from market to broker and broker to customer or sub broker to continue the daily work. Brokers in the commodity market needs a software which take care of all customers and for this they need a back office software.

The commex10 software is used to fulfil this demand of the brokers to reduce their burden of calculating brokerage for each and every client manually. The software requires the filling up the client details in order to calculate the brokerage and to generate the reports.

Commex10 software will imports the import.txt file provided by the front office and on the time basis of transactions this back office will execute all the transactions in the concerning books and after that it calculates the brokerage and taxes client and

commodity wise. The brokerage calculations can be of different types like it can be percentage, slabs, amount, and expiry of commodity and turnover brokerage.

Based on these above calculation this software will generate several reports like daybook trade checklist list, trade confirmation, trade reconciliation, trade summery, trade analysis contract cum bill contract, issue register and client wise turnover register.

This software is used to reduce the manual work of the broker and hence the reduces the error of calculation as the work is of maximum accuracy due to money. This correctness is preserved as the calculation section is only done and the results are generated in the required form i.e. client wise or day wise which is very helpful for the broker to calculate his daily growth or to get details of customer so that he can also verify his statements.

In another words, this software is required by the brokers (to reduce their burden) to perform the tax calculation and brokerage calculation task for every transaction done by the customer on the day. Currently commex10 is used by more than 10,000 brokers in India.

Commex10 software was initially introduced in 1992, it was DOS based software. Currently the front end of the software is based on Visual Basic .NET and has oracle based back end.

The software contains many extra packages for LAN, desktop and WEB. Software is based on exchange terms and conditions. Sub software package is also an option for customer.

The current version includes features such as
  ➢ Backup creation of the data on daily bases.
  ➢ Data corrupted due to power problem can be made available using temporary files.
  ➢ Online update of software patches are available via support

Future improvements

➢ Mobile application of the software so that whole calculations can be done on the mobile screen itself and this will also improve the portability of the broker.

➢ Antivirus support so that data cannot be harmed by the viruses.

➢ To make the data online and easy to access on any device at any time it should support cloud

➢ Merging of the reports so that all the reports can be printed just by pressing a single button.

➢ Combined report of all the exchanges, as now we have to select the exchange on which we are working and in in future we will easily get the report of all the exchanges in a single window.

5. APPLICATION OF KNOWLEDGE

5.1 HTML

HTML is basically used to design the web pages of a website which can be used to provide the content to the user. The primary aim of using the html is to have a basic structure of the web page and also to have a good presentation view which will attract the user.it is the most basic step for learning web development. It many other ways to represent the data which includes marquee tag that is used for scrolling the text and images in horizontal and vertical directions.

5.2 CSS

For a website, there can be can be only one css which will change the styling of the content of the whole website, the changes which are made in this css will change the whole layout of the webpage present in the website.

Another main use of the css is used to implementation of the box model of the webpage so that the content will not mix. The box model is used to understand the viewpoint of user to display content in readable manner.

5.3 JAVASCRIPT

JavaScript is utilized to make website applications that will have basic computing. This can be of string manipulation, array manipulation or arithmetic calculations or a small game.

Execution of the information of c programing in JavaScript is used within web format which will provide rich future content to the user instead of just plain text in readable form.

Events are the most important that can attract with the user, several event handlers can be used to give many interactions to the user let us suppose hovering on hard words will make a pop up and will display the meaning of that word.

5.4 PHP

Php is appropriate for server side language in the web development. Php is mainly responsible for upholding the executable code at server side which is very much similar to format that of JavaScript but for the server side.

There is an availability of utilizing the database server in case of Php which further improves the data stored in various formats. Database is utilized to store data which can be fetched according to the user's query at later stages.

Login module can be made utilizing the Php which helps in verification of the client. Most popular social networking site Facebook is based on Php.

Most part of the online networks and shopping sites are based on Php frame. Shopping sites utilizes Php as the use of Php will very easily manage the carts and inventory. They can easily process the order requests and then pass the request to the concerned seller.

5.5 BOOTSTRAP

At present there are over 70% of the web activities originating from mobile users which in fact is much higher than pc utilization

Bootstrap is used to implements the data of the webpage in the website to align itself according to the edges of the mobile browser and increases the user-friendliness to the web site.

There are various component which will aid in the implementing it including glyph icons, navbar etc. which will mainly improve the user responsiveness.

5.6 WEB HOSTING

This mainly aid in uploading the data which is mainly a web site to the internet which will be easily available for the general public to use. The website can be easily imported or can copy the code to files created in the Linux server which can be easily made online for the internet users.

5.7 NODE JS

NodeJS can be used for server side scripting which will be very much useful for easily maintaining of data in the desired form.

NodeJS is specifically be used for maintaining and gathering the background data which can be used to improve the quality of service and which will make the data accessible and readable to the developer which also can be used to enhance the services. Node js can also be utilized to store on the temporary data of the clients which is shared by the client.

5.8 ANGULAR JS

AngularJS is very useful for developing small websites with a very limited content of information that can be placed on a single web page usually known as single page application where all the content of the tabs are displayed on the single web page and the corresponding tabs are highlighted according to the content in the view.

As Google is the developer of the AngularJS so it is the user of this service which can be easily depicted in the nexus website.

Other useful fields will involves color scheme editor, Google reader clone, data integration, for displaying the popular areas nearby, template engines, uploading and maintaining online photo gallery, etc.

5.9 PYTHON

Python with Django can be used for the website development which has some pre-defined templates and give the developer to not indulge that much in coding part.

Django is the base for the photo sharing site different photos can be divide according to the need of the customer. Information is handled in the background and will help to display and manage the foreground.

5.10 Commex10

Commex10 is a software which is used in the back office and it is used to provide support to the brokers and sub-brokers.commex10 is very useful as it calculates all the brokerage depending on various types of clients and on the slab of his trading.Commex10 is then used to generate reports based on the daily trading accounts

of the brokers which help them to save time and maintaining records for audits. There are many problems faced by the client while using this software, which can be solved after the better understanding of this software. This software is very important for the broker and also to maintain relations with firms, supplier are required to sort out their problems with the software which can now be reduced after this training. This software improves the quality of work of the brokers or sub-brokers.
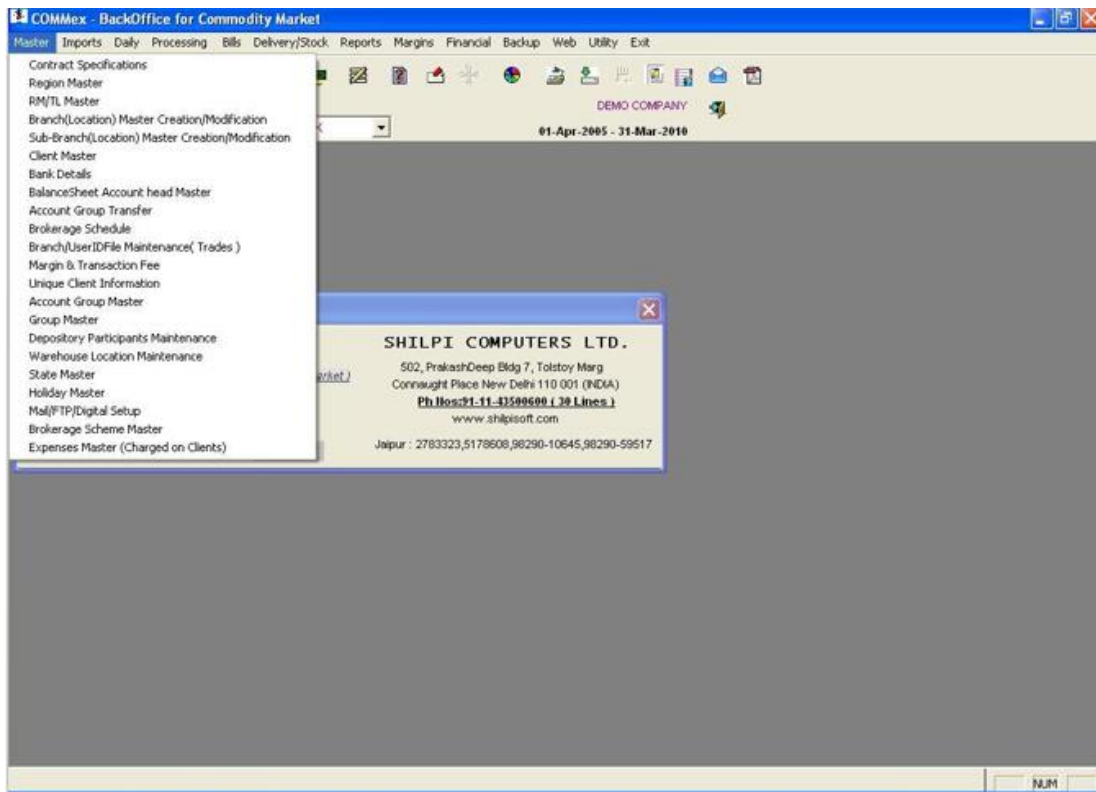

Figure 3: Commex10 master menu

Master Menu contains the listed items for creating Masters

- Contract Specification: This option contains details of all the commodities that are available in the market.
- Region Master: this option is used to create regions like North region, South region, etc. since taxation will be different from region to region.
- RM/TL Master: This option is used to make regional manager or team leader account.

- Branch (Location) Master Creation/Modification: This option is utilized to make or modify a Branch Parameter.
- Sub Branch (Location)) Master Creation/Modification: this option is utilized to make or modify a sub branch parameters.
- Client Master: This option is utilized to make or modify client account parameters.
- Bank Details: This option is utilized to enter Client Bank information.
- Balance Sheet Account Head Master: This option is utilized to open accounts other than client accounts those will be replicated in Trial Balance and Balance sheet.
- Account Group Transfer: This option is utilized to handover account head from one to another.

- Brokerage Schedule: This option is utilized to define brokerage for customers.
- Branch /User ID File Maintenance (Trades): This option is utilized to define branch, User ID, User ID suffixes etc. for trade imports.
- Margin & Transaction Fee: This option is utilized to define Gross Exposure Margin & Transaction Fee to be charged from customers.
- Unique Client Information: This option is utilized to give unique customer information in software as per exchange format.
- Account Group Master: This option is utilized to make balance sheet account groups as per accounting fundamentals. Up to two levels account groups can be created.
- Group Master: This option is utilized to make client family groups as per requirements.
- Depository Participants Maintenance: This option is utilized to preserve the data of Depository Participants in software.
- Warehouse Location Maintenance: This option is utilized to preserve the list of warehouses for the delivery of Goods.
- State Master: This option is utilized to make states in software for applying charges on state wise.
- Holiday Master: This option is utilized to make holiday calendar as per exchange.

- Mail /FTP/ Digital Setup: This option is utilized to define Email settings for mailing of reports through outlook.

- Brokerage Scheme Master: This option is utilized to describe brokerage on turnover basis.

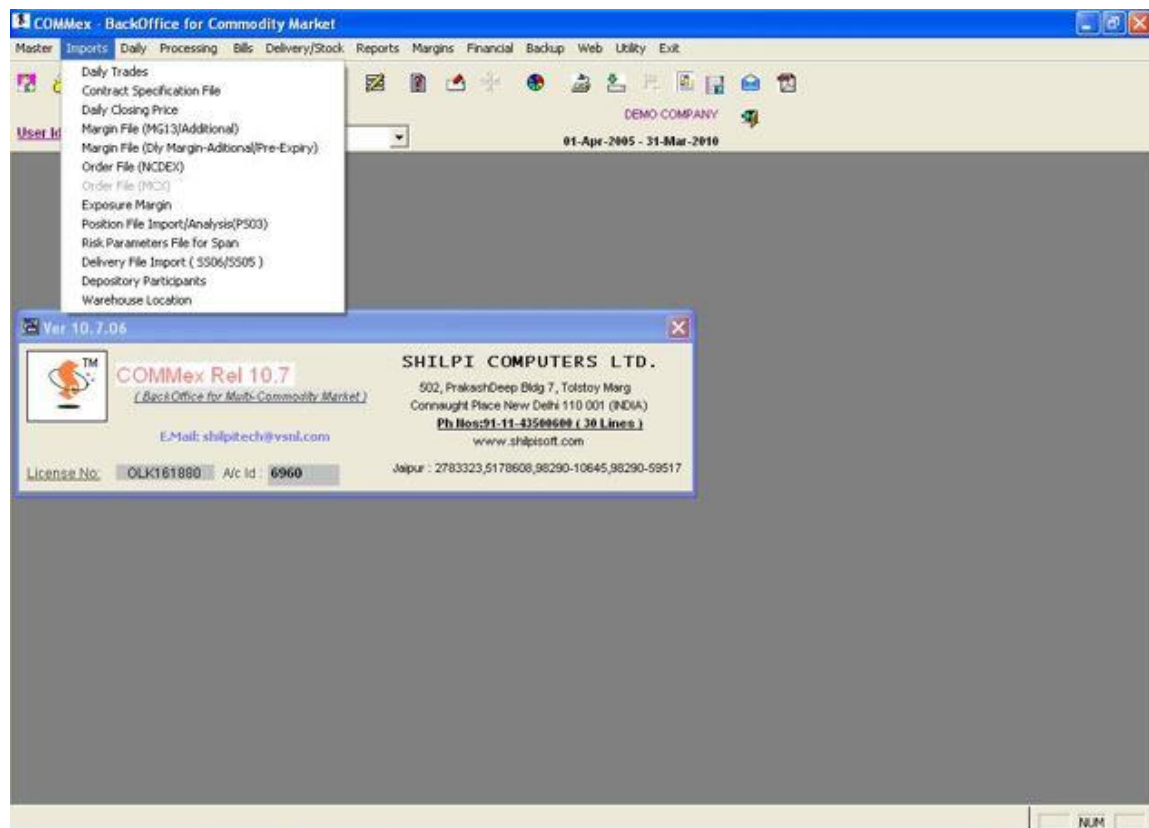- Expenses Master (Charges to Clients): This option is utilized to put on other charges to customers.

Figure4: Commex10 Import menu

Import Menu Contains Following Items for Importing Exchange Files

- Daily Trades: This option is utilized to import trade file provided by Exchange.

- Contract Specification File: This option is utilized to import Contract file provided by exchange.

- Daily Closing Price: This option is utilized to import closing price file provided by exchange at end of day.

- Margin File (MG13/ Additional): This option is utilized to import margin file provided by exchange.

- Margin File (Daily Margin –Additional (Pre Expiry): This option is utilized to import other margins applied by exchange.

- Order File (NCDEX): This option is utilized to import order file that is generated during trading at NCDEX for remarks.

- Order File (MCX): This option is utilized to import order file that is generated during trading at NCDEX for remarks.

- Exposure Margin: This option is utilized to import exposure margin file provided by exchange.

- Exposure Margin: This option is utilized to import exposure margin file provided by exchange.

- Position File Import (Analysis / PS03) this option is utilized to import position file provided by exchange.

- Position File Import (Analysis / PS03) this option is utilized to import position file provided by exchange.

- Risk Parameter File for Span: This option is utilized to import risk parameters file provided by exchange.

- Delivery Import (SS06/SS05): This option is utilized to import client delivery & shortage files provided by exchange.

- Depository Participants: This option is utilized to import Depository Participants details in software.

- Warehouse Location: This option is utilized to import Warehouse information in software.

Note: Out of these files only first five files to be imported on daily basis. Others are only imported if required.

Problem Faced

At the time of updating the brokerage on the daily basis, brokerage is not calculated for 2 accounts it is not to set up in the master profile of that client (multiple accounts).

Holiday master also plays an important role as it basically jump the calendar in case of holiday in order to maintain trading in valid days which are matched with the import files every day. This software also skips Saturday and Sunday.

Process by broker

Broker needs to import the files every day from the NCDEX server to the software files which include daily trade list, margin file and daily price.

6. Competency Level before and after Training

Earlier the education knowledge was only limited to theoretical aspects of the subjects and their applications. The knowledge gained from these subjects give me the initial steps towards the technology which is used to develop something. The knowledge gained from educational level aids to create interest in a specific field which will moreover help the individual to pursue his career in that field. The classroom knowledge is much more important as it acts as a building blocks on the field

The knowledge gained is then refined and it is used by the corporate sector in order to achieve results. The basics of coding are covered in the lab sessions itself which the individual to improve his skills. The algorithm used while coding is much more important as it will remain same irrespective of the language used and these algorithms can be implemented in each and every situations

The use of data structure helps to enhance the skills of data storing the data in different formats and then manipulating it and therefore eliminate the loopholes. Databases are used to store the data in an ordered format in the tables. The implementation of Php with database in used to enhance the user interaction.it requires to setup up the linking between Php and database software will be further used to insert, delete or modify the data using a web page instead of database command interface.

This internship helps me in acquiring the overview of web technologies the concept involved their working and application of them and also provide me the hands-on experience on their very useful software commex10.During the internship period I came to know about several technical and non-technical aspects and these activities will mainly help me in pursuing my career.

In the technical field, this internship improved my knowledge in web design and development their applications and basic concept behind them .the knowledge gained for Commex10 software give helps me a lot in learning about what is back office and commodity market and the problems faced by the brokers during their report generation and also how their problem is resolved using that software. The knowledge gained in web development and web design helps to make a good interface on both client and server side.

The Commex10 software is very much helpful in reducing the burden on brokers by calculating brokerage and generating the report automatically instead of using manual work. This software will help the broker to mainly focus on commodity market instead of performing calculation on daily bases. The usage of the software helps me to know about commodity market and what are problem faced by brokers. This internship gave me a chance to learn and know about this software and also what could be future changes in this software.

In the non-technical point of view. This internship helps me to learn the corporate work environment and their ethics. Which helps in social development of the firm.it also reduces the decision making and interaction making skills with others and also reduces the hesitation which is generally faced to solve the issue. This internship also help me to know about the IT corporate culture.

This internship gave me the knowledge required in an organisation in technical and non-technical point of view which will mainly help me in the coming future.