FINAL PROJECT REPORT

On

PLACEMENT CELL WEBSITE

Submitted in partial fulfilment of the requirements for the award of degree

of

BACHELOR OF TECHNOLOGY

In

COMPUTER ENGINEERING

Of

Punjabi University, Patiala.

JANUARY 2019- MAY 2019

Submitted To:

Ms. Kanchan Kashyap

(Technical Head)

Submitted By:

Mayank Verma

Roll No. 11501211

DECLARATION

We hereby certify that the project entitled “Placement Cell” by Mayank Verma roll no “11501211” in partial fulfilment of requirements for the award of degree of B. Tech Submitted in the Department of Computer Engineering at PUNJABI UNIVERSITY, PATIALA is an authentic record of our own work carried out under the supervision of Dr. Amardeep Singh, HOD. The matter presented has not been submitted by us in any other University Institute for the award of B. Tech Degree.

Mayank Verma (11501211)

ACKNOWLEDGEMENT

"It is our pleasure to be indebted to various people, who directly or indirectly contributed in the development of this work and who influenced our thinking, behavior and acts during the course of study.

We convey our gratitude to all those who have helped us reach a stage where i have immense confidence to launch our career in the competitive world of Information & Technology. I have taken efforts in this project. However, it would not have been possible without the kind support and help of many individuals and organization. We would like to extend our sincere thanks to all of them. I am highly indebted to **Er. Kanchan** (Technical Head) for her guidance and constant supervision as well as for providing necessary information regarding the project & also for her support in completing the project. We would like to express our special gratitude and thanks to institute persons for giving us such attention and time.

A heartfelt appreciation to Punjabi University, for including this project work in the curriculum, thus enabling students to develop complete application and get the experience of how to develop Database based applications, which will help us in future

MAYANK VERMA

(11501211)

COMPANY PROFILE

Solitaire Infosys Pvt. Ltd. is an acclaimed IT service provider contributing its part in the development of many businesses around the globe. We socialize with our clients to get a superior cognizance of their business and requirements and help them in fabricating websites and applications for their business. Founded in 2011 by a dynamic duo with the same aim and zeal, we have come a long way in satisfying our clients. We are serving our clients with the world-class services for more than seven years now. The clients are delivered with the best IT solutions after we have developed a great understanding of their business and requirements. Our team works on the client projects like its own and that is the reason why we hold the edge in the league. With every project that we deliver, we deliver our respect, creativity, quality, transparency, and teamwork to our clients. We have the experience, expertise, and capabilities to enable organizations to accelerate their service processes in every possible way. We are known for our excellent customer satisfaction, cost-effectiveness, and innovative skills that are unparalleled.

Services

Having a team of proficient developers and designers dedicatedly work on the client's projects to make sure that they are always provided with exactly what they have asked for. Our services revolve around the client's specifications and requirements. We customize the services in accordance with that to ensure greater productivity, security, and reliability in today's competitive world to our clients.

INDEX

ABSTRACT

Project work is a major part of our course. It is a period in which we are introduced to industrial and increased automation in the industries for increasing their production. With computers and electronic entering the field of processing, the inputs have been much more accurate and the controllers are much faster in response. World or in other words we can say that industrial environment with the advancement in computer technologies.

The state of art it uses in all process-controlled industries these save the function of managing the fast process, improving operative efficiency and ensuring full production. The objective of project work is to raise the level of performance in one or more of its aspects and this may be achieved by providing new knowledge and information relevant to the job.

1. INTRODUCTION TO JAVA

Java is a programming language originally developed by James Gosling at Sun Microsystems and released in 1995 as a core component of Sun Microsystems' Java platform. The language derives much of its syntax from C and C++ but has a simpler object model and fewer low level facilities. Java applications are typically compiled to byte code that can run on any Java Virtual Machine regardless of computer architecture. Java is general purpose, concurrent, class based, and object oriented, and is specifically designed to have as few implementation dependencies as possible. It is intended to let application developers "write once, run anywhere". Java is currently one of the most popular programming languages in use, and is widely used from application software to web applications. The original and reference implementation java compilers, virtual machines, and libraries were downloaded by Sun from 1995.

1.1 FEATURES OF JAVA

Object Oriented: -Java is object oriented to the truest sense of the word. Everything in Java is represented as objects. Variables and methods both are encapsulated in objects. Java is the purest object-oriented language.

Robust: Java is a very robust language owing to the following features.

- Excellent exception handling facilities.
- Memory management relief for the user. User does not have to worry about allocation and deallocation of memory.
- Strict compile-time and runtime checks for data types.

Portable and Architecture-neutral (Platform Independent): Java is portable and platform independent so much that they satisfy "write once; run anywhere, anytime, forever". This feature is implemented in the following ways:

- Compiler generates machine independent byte-code instructions which can be run on any machine supporting Java Virtual Machine.
- Size of primitive data type is machine independent.

Multithreaded:

- Programs can do many things simultaneously using different threads.
- Provides a solution for multiprocessor synchronization.
- Allows the creation of networked and interactive programs.

Distributed:

- Open access to remote objects by the use of RMI (Remote Method Invocation).
- Brings a level of abstraction to client/server programming.

Secure:

- Security is achieved by confining a java program to the java execution environment and not allowing access to other parts of the user computer.
- Absence of pointers provides memory related security as encroachment of memory is avoided Proper measures for prevention of viral infection and malicious intent

Dynamic and Extensible:

- Facilitates linking in of new classes, objects and methods.
- Supports native methods (methods written in other languages like C, C++).
- Programs carry with them a substantial amount of runtime type information that is used to verify and resolve accesses to objects at run-time.

High Performance:

Just-In-Time (JIT) compilers are used to convert byte-code into native machine code resulting in very high performance. These JIT compilers can be used on a real time, piece by piece demand basis to perform on-the-fly compilation of byte-code into native-code.

Compilation and Interpretation

Java programs are implemented as a two-stage system.

Compilation: Source code to byte-code and not machine instructions.

Interpretation: Byte-code to machine code (for any system that supports using JVM) Thus cross-platform programs can be written.

Java as Portable: - Unlike other language compilers, Java complier generates code (byte codes) for Universal Machine.

- Java Virtual Machine (JVM): Interprets byte code at runtime
- Architecture Neutral
- No Link Phase
- Higher Level Portable Features: AWT, Unicode

1.2 Java Virtual Machine

The .class files generated by the compiler are not executable binaries so Java combines compilation and interpretation Instead, they contain "byte-codes" to be executed by the Java Virtual Machine other languages have done this, e.g. UCSD Pascal. This approach provides platform independence.

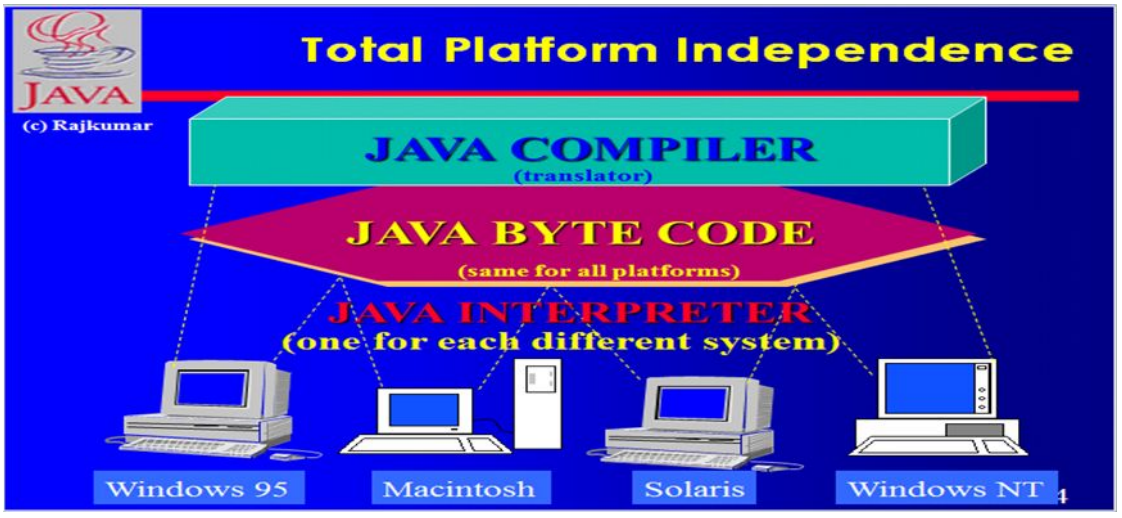

Figure 1.1 (Java Virtual Machine)

1.3 Java Runtime Environment

- Java Development Kit
- Javac - The Java Compiler
- Java - The Java Interpreter
- Jdb- The Java Debugger

- Appletviewer -Tool to run the applets
- javap - to print the Java bytecodes

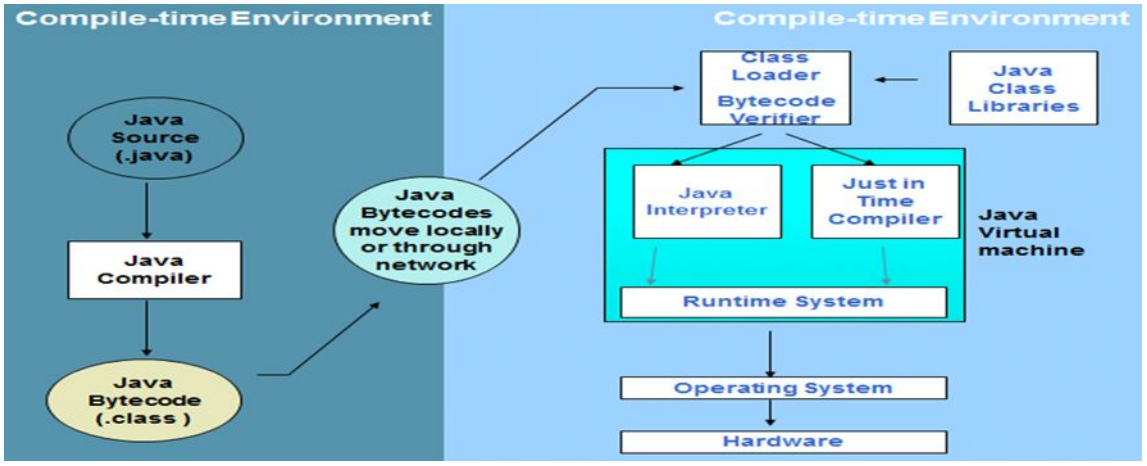

Figure.1.2 (Java Runtime Environment)

1.4 Concepts used in Advance Java

I. HTML

HTML is the main mark-up language for creating web pages and other information that can be displayed in a web browser. The purpose of a web browser is to read HTML documents and compose them into visible or audible web pages. The browser does not display the HTML tags, but uses the tags to interpret the content of the page.

HTML elements form the building blocks of all websites. HTML allows images and objects to be embedded and can be used to create interactive forms. It provides a means to create structured documents by denoting structural semantics for text such as headings, paragraphs, lists, links, quotes and written in languages such as Java

Web browsers can also refer to Cascading Style Sheets (CSS) to define the appearance and layout of text and other material. The W3C, maintainer of both the HTML and the CSS standards, encourages the use of CSS over explicit presentational HTML mark-up.

- Topics covered under the html are:

- Introduction to html, html fonts
- Style, links, images
- Tables, static vs dynamic websites
- form, attributes, heading, paragraph
- lists, colour, link on the same page

II. CSS

It is a style sheet language used for describing the presentation semantics (the look and formatting) of a document written in a mark-up language. It's most common application is to style web pages written in HTML and XHTML, but the language can also be applied to any kind of XML document, including plain XML, Sand XUL.

CSS is designed primarily to enable the separation of document content (written in HTML or a similar mark-up language) from document presentation, including elements such as the layout, colours, and fonts. This separation can improve content accessibility, provide more flexibility and control in the specification of presentation characteristics, enable multiple pages to share formatting, and reduce complexity and repetition in the structural content (such as by allowing for table less web design).

CSS Used Concept: -

- CSS id and class
- Styling backgrounds
- Font, link, CSS borders
- Margin, cell padding

III. JAVA SCRIPT

JavaScript (JS) is an interpreted computer programming language. It was originally implemented as part of web browsers so that client side scripts could interact with the user, control the browser, communicate asynchronously, and alter the document content that was displayed. More recently, however, it has become common in both game development and

the creation of desktop applications. It can also be used to allow the web page to display differently depending on the screen size or device on which it is being viewed.

While the author of a document typically links that document to a CSS file, readers can use a different style sheet, perhaps one on their own computer, to override the one the author has specified.CSS specifies a priority scheme to determine which style rules apply if more than one rule matches against a particular element. In this so-called cascade, priorities or weights are calculated and assigned to rules, so that the JavaScript's use in applications outside of web pages—for example, in PDF documents, site-specific browser, and desktop widgets—is also significant. Newer and faster JavaScript VMs and frameworks built upon them (notably Node.js have also increased the popularity of JavaScript for server-side web applications. JavaScript was formalized in the ECMA Script language standard and is primarily used as part of a web browser (client-side JavaScript). This enables programmatic access to computational objects within a host environment.

Topics covered under the java script are:

- Introduction to java script
- JS client validations
- JS events

IV. JAVA

Topics covered under the core java are:

- Jdk installation and Introduction
- Introduction to variables, Understanding Data types
- String functions
- Loops
- Get and Post methods
- JSP
- Servlets
- Session
- Cookies

- Beans
- Jsp forwards
- MySQL with all queries
- JDBC
- Working with API's

V. Bootstrap

Bootstrap is a powerful front-end framework for faster and easier web development. It includes HTML and CSS based design templates for common user interface components like Typography, Forms, Buttons, Tables, Navigations, Dropdowns, Alerts, Modals, Tabs, Accordion, Carousel and many other as well as optional JavaScript extensions.

VI. Java Database Connectivity (JDBC)

- JDBC stands for "Java Database Connectivity". It is an API (Application Programming Interface) which consists of a set of Java classes, interfaces and exceptions and a specification to which both JDBC driver vendors and JDBC developers adhere when developing applications.
- JDBC is a very popular data access standard. RDBMS (Relational Database Management Systems) or third-party vendors develop drivers which adhere to the JDBC specification.
- The JDBC API is a Java API that can access any kind of tabular data, especially data stored in a Relational Database. JDBC helps you to write java applications that manage these three programming activities:
- Connect to a data source, like a database.
- Send queries and update statements to the database
- JDBC is an API for the Java programming language that defines how a client may access a database. It provides methods for querying and updating data in a database. JDBC is oriented towards relational databases.
- JDBC was first introduced in the Java 2 Platform, Standard Edition, version 1.1 (J2SE), together with a reference implementation JDBC-to-ODBC bridge, enabling connections to any ODBC-accessible data source in the JVM host environment.

Until recently, the middle tier has often been written in languages such as C or C++, which offer fast performance. However, with the introduction of optimizing compilers that translate Java bytecode into efficient machine-specific code and technologies such as Enterprise JavaBeans, the Java platform is fast becoming the standard platform for middle-tier development. This is a big plus, making it possible to take advantage of Java's robustness, multithreading, and security features. With enterprises increasingly using the Java programming language for writing server code, the JDBC API is being used more and more in the middle tier of a three-tier architecture.

Some of the features that make JDBC a server technology are its support for connection pooling, distributed transactions, and disconnected row sets. The JDBC API is also what allows access to a data source from a Java middle tier. Different database systems have surprisingly little in common: just a similar purpose and a mostly compatible query language. JDBC is Sun's attempt to create a platform-neutral interface between databases and Java. With JDBC, you can count on a standard set of database access features and (usually) a particular subset of SQL, SQL-92.

The JDBC API defines a set of interfaces that encapsulate major database functionality, including running queries, processing results, and determining configuration information. A database vendor or third-party developer writes a JDBC driver, which is a set of classes that implements these interfaces for a particular database system. An application can use a number of drivers interchangeably.

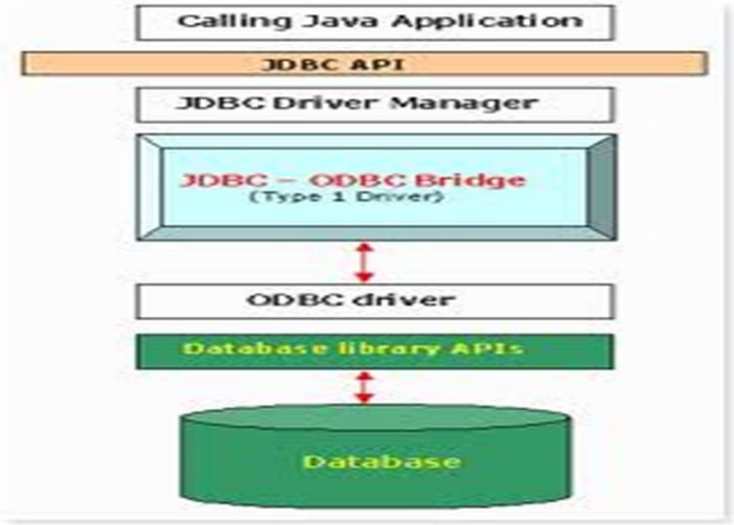

Figure 1.3

VII. Java Server Pages (JSP)

JSP technology is used to create web application just like Servlet technology. It can be thought of as an extension to servlet because it provides more functionality than servlet such as expression language, jstl etc.

A JSP page consists of HTML tags and JSP tags. The jsp pages are easier to maintain than servlet because we can separate designing and development. It provides some additional features such as Expression Language, Custom Tag etc.

A typical web application consists of the presentation logic representing the static content used to design the structure of a web page in terms of the page layout, color, and text. The business logic or the dynamic content involves application of business intelligence and diagnostics in terms of financial and business calculations. When developing web applications, time is often lost in situations where the developer is required to code for the static content. JSP Technology has facilitated the segregation of work profiles of a web designer and a web developer. A Web Designer can design and formulate the layout for the web page by using HTML. On the other hand, a Web Developer working independently can use Java code and other JSP specific tags to code for the business logic.

The JSP Request-Response Cycle:

JSP files are stored on the web server with an extension of jsp When the client/browser requests for a particular JSP page, the server in turn sends a request to the JSP Engine.

The Request-Response Cycle for a JSP Page:

The request-response cycle essentially comprises of two phases, namely the translation phase and request-processing phase. The translation phase is implemented by the JSP engine and involves generation of a servlet. Internally, these results in the creation of a class file for the JSP page that implements the servlet interface. During the request-processing phase, the response is generated according to the request specification. The servlet then sends back a response corresponding to the request received.

VIII. Servlets

Java Servlets are programs that run on a Web or Application server and act as a middle layer between a request coming from a Web browser or other HTTP client and databases or applications on the HTTP server. Using Servlets, you can collect input from users through web page forms, present records from a database or another source, and create web pages dynamically.

Java Servlets often serve the same purpose as programs implemented using the Common Gateway Interface (CGI). But Servlets offer several advantages in comparison with the CGI.

Performance is significantly better. Servlets execute within the address space of a Web server. It is not necessary to create a separate process to handle each client request. Servlets are platform-independent because they are written in Java. Java security manager on the server enforces a set of restrictions to protect the resources on a server machine. So servlets are trusted. Servlets perform the following major tasks:

- Read the explicit data sent by the clients (browsers). This includes an HTML form on a Web page or it could also come from an applet or a custom HTTP client program.
- Read the implicit HTTP request data sent by the clients (browsers). This includes cookies, media types and compression schemes the browser understands, and so forth.
- Process the data and generate the results. This process may require talking to a database, executing an RMI or CORBA call, invoking a Web service, or computing the response directly.
- Send the explicit data (i.e., the document) to the clients (browsers). This document can be sent in a variety of formats, including text (HTML or XML), binary (GIF images), Excel, etc. Send the implicit HTTP response to the clients (browsers). This includes telling the browsers or other clients what type of document is being returned (e.g., HTML), setting cookies and caching parameters, and other such tasks.

2. DATABASE

2.1 MYSQL

MySQL is a relational database management system, or RDBMS. It has become the world's most popular open source database because of its consistent fast performance, high reliability and ease of use. PHP has MySQL extension which makes it really easy to access data in MySQL. MySQL is a database. The data in MySQL is stored in database objects called tables. A table is a collection of related data entries and it consists of columns and rows. Both PHP and MySQL support various platforms, including Windows.

The MySQL (R) software delivers a very fast, multi-threaded, multi-user, and robust SQL (Structured Query Language) database server. MySQL Server is intended for mission-critical, heavy-load production systems as well as for embedding into mass-deployed software. MySQL is a trademark of MySQL AB. The MySQL software is Dual Licensed. Users can choose to use the MySQL software as an Open Source/Free Software product under the terms of the GNU General Public License or can purchase a standard commercial license from MySQL AB. The MySQL web site (http://www.mysql.com/) provides the latest information about the MySQL software.

2.2 Features of MySQL

It has common code base and include the following features:

- Cross-platform support
- Stored procedures
- Triggers
- Cursors
- Updatable Views
- True Varchar support
- Information schema
- Strict mode

X/Open Distributed transaction processing (DTP) support; two phase commit as part of this, using Oracle's InnoDB engine

Independent storage engines (MyISAM for read speed, InnoDB for transactions and referential integrity, MySQL Archive for storing historical data in little space)

Transactions with the InnoDB, BDB and Cluster storage engines; save points with InnoDB

SSL support

Query caching

Sub-SELECTs (i.e. nested SELECTs)

Replication support (i.e. Master-Master Replication & Master-Slave Replication) with one master per slave, many slaves per master, no automatic support for multiple masters per slave.

Full-text indexing and searching using MyISAM engine

Embedded database library

- Partial Unicode support (UTF-8 and UCS-2 encoded strings are limited to the BMP)
- Partial ACID compliance (full compliance only when using the non-default storage engines InnoDB, BDB and Cluster)
- Partitioned tables with pruning of partitions in optimizer
- Shared-nothing clustering through MySQL Cluster
- Hot backup (via mysqlhotcopy) under certain conditions
- The developers release monthly versions of the MySQL Server. The sources can be obtained from MySQL's web site or from MySQL's Bazaar repository, both under the GPL license.

2.3 Distinguishing features

- MySQL implements the following features, which some other RDBMS systems may not:

- Multiple storage engines, allowing one to choose the one that is most effective for each table in the application (in MySQL 5.0, storage engines must be compiled in; in MySQL 5.1, storage engines can be dynamically loaded at run time):
- Native storage engines (MyISAM, Falcon, Merge, Memory (heap), Federated, Archive, CSV, Black hole, Cluster, Berkeley DB, EXAMPLE, Maria, and InnoDB, which was made the default as of 5.5)
- Partner-developed storage engines (solidDB, NitroEDB, Infobright (formerly Brighthouse), Kickfire, XtraDB, IBM DB2). InnoDB used to be a partner-developed storage engine, but with recent acquisitions, Oracle now owns both MySQL core and InnoDB.
- Community-developed storage engines (memcache engine, https, PBXT, Revision Engine)

Custom storage engines

Commit grouping, gathering multiple transactions from multiple connections together to increase the number of commits per second.

release October 2005 (cursors, stored procedures, triggers, views, XA transactions)

2.4 The Main Features of MySQL

The following list describes some of the important characteristics of the MySQL Database Software.

I. Internals and Portability

- Written in C and C++.
- Tested with a broad range of different compilers.
- Works on many different platforms. Uses GNU Automake, Autoconf, and Libtool for portability.
- APIs for C, C++, Eiffel, Java, Perl, PHP, Python, Ruby, and Tcl are available.
- Fully multi-threaded using kernel threads. This means it can easily use multiple CPUs if they are available.

- Provides transactional and non-transactional storage engines.
- A very fast thread-based memory allocation system.
- Very fast joins using an optimized one-sweep multi-join.

In-memory hash tables which are used as temporary tables.

SQL functions are implemented using a highly optimized class library and should be as fast as possible. Usually there is no memory allocation at all after query initialization.

The MySQL code is tested with Purify (a commercial memory leakage detector) as well as with Valgrind, a GPL tool.

The server is available as a separate program for use in a client/server networked environment. It is also available as a library that can be embedded (linked) into standalone applications. Such applications can be used in isolation or in environments where no network is available.

II. Column Types

Many column types: signed/unsigned integers 1, 2, 3, 4, and 8 bytes long, FLOAT, DOUBLE, CHAR, VARCHAR, TEXT, BLOB, DATE, TIME, DATETIME, TIMESTAMP, YEAR, SET, ENUM, and OpenGIS geometry types.

Fixed-length and variable-length records.

III. Commands and Functions

Full Operator And Function Support In The SELECT And WHERE Clauses Of Queries. For Example:

```
Mysql> SELECT CONCAT(First Name, ' ', Last Name)
 FROM Tbl_Name
 WHERE Income/Dependents > 10000 AND Age > 30;
```

Full Support For SQL GROUP BY And ORDER BY Clauses. Support For Group Functions (COUNT(), COUNT(DISTINCT ...), AVG(), STD(), SUM(), MAX(), MIN(), And GROUP_CONCAT()).

Support For LEFT OUTER JOIN And RIGHT OUTER JOIN With Both Standard SQL And ODBC Syntax.

Support For Aliases On Tables And Columns As Required By SQL-92.

DELETE, INSERT, REPLACE, And UPDATE Return The Number Of Rows That Were Changed (Affected). It Is Possible To Return the number of rows matched instead by setting a flag when connecting to the server.

The MySQL-specific SHOW command can be used to retrieve information about databases, tables, and indexes. The EXPLAIN command can be used to determine how the optimizer resolves a query.

Function names do not clash with table or column names. For example, ABS is a valid column name. The only restriction is that for a function call, no spaces are allowed between the function name and the ` (' that follows it. You can mix tables from different databases in the same query.

IV. Security

A privilege and password system that is very flexible and secure, and allows host-based verification. Passwords are secure because all password traffic is encrypted when you connect to a server.

V. Scalability and Limits

Handles large databases. We use MySQL Server with databases that contain 50 million records. We also know of users that use MySQL Server with 60,000 tables and about 5,000,000,000 rows.

Up to 32 indexes per table are allowed. Each index may consist of 1 to 16 columns or parts of columns. The maximum index width is 500 bytes (this may be changed when compiling MySQL Server). An index may use a prefix of a CHAR or VARCHAR column.

VI. Connectivity

Clients may connect to the MySQL server using TCP/IP sockets on any platform. On Windows systems in the NT family (NT, 2000, or XP), clients may connect using named pipes. On Unix systems, clients may connect using Unix domain socket files.

The Connector/ODBC interface provides MySQL support for client programs that use ODBC (Open-Database-Connectivity) connections. For example, you can use MS Access to connect to your MySQL server. Clients may be run on Windows or Unix. Connector/ODBC source is available. All ODBC 2.5 functions are supported, as are many others.

The Connector/JDBC interface provides MySQL support for Java client programs that use JDBC connections. Clients may be run on Windows or Unix. Connector/JDBC source is available.

The server can provide error messages to clients in many languages.

Full support for several different character sets, including ISO-8859-1 (Latin1), german, big5, ujis, and more. For example, the Scandinavian characters `@^a', `@"a' and `@"o' are allowed in table and column names. Unicode support is available as of MySQL 4.1.

All data is saved in the chosen character set. All comparisons for normal string columns are case-insensitive.

Sorting is done according to the chosen character set (the Swedish way by default). It is possible to change this when the MySQL server is started. To see an example of very advanced sorting look at the Czech sorting code. MySQL Server supports many different character sets that can be specified at compile and runtime.

VII. Clients and Tools

The MySQL server has built-in support for SQL statements to check, optimize, and repair tables. These statements are available from the command line through the MySQL.

3 PROJECT INTRODUCTION

3.1 Project Name: -PLACEMENT CELL

Profile of the Problem Assigned

Campus Placements campus recruitment drives are conducted in various educational institutes and these provide job opportunities to the students pursuing their particular academic courses. Campus Placements offer a student a wonderful opportunity to get placed during the course of his academic pursuits, and provide him the comforts of a safe and secure future. Keeping in mind the importance of the campus placement programs, it is vital for a student to prepare adequately for these programs and make sure that they put their best foot forward.

Students logging should be able to upload their information in the form of a CV. This project provides the facility of maintaining the details of the students. It also provides a requested list of candidates to recruit the students based on given query. Administrator logging in may also search any information put up by the students.

3.2. LITERATURE REVIEW

Existing Systems:

a) Manual

In Various colleges, training and placement officers have to manage the students profile and documents of students for their training and placement manually. Placement Officer have to collect the information of various companies who want to recruit students and notify students time to time about them. Placement Officer have to arrange profiles of students according to various streams to company requirements.

Demerits of manual system:

- Size of collection of CV's may be very large. It is very over heading task to arrange CV's according to various streams, match them with the company's requirement.

- Students can't modify their CV themselves and if there is any updation or modification in CV, they have to inform it to TPO and get it updated.
- It is a time consuming activity of managing, updating and informing specific student for specific company requirements
- It takes a lot of time for gathering information regarding Companies.

b) Automated

Many colleges and universities has their placement websites:

(i). www.pupdepartments.ac.in

This website has e-notice board which provide day to day update about which company is visiting for campus recruitments on which date and also about off -campus drives. Registration link is also given and students can register through link if he meets eligibility criteria.

Demerit: Once Students have entered their data, by logging in through their registration id and password, students cannot change or update that information. So if a student has filled his data for placement record before his recent semester result, placement cell will have record of previous semesters only.

(ii). www.cgc.edu.in/placement-drive/

This is placement website of Chandigarh group of colleges. This website provides newsfeed about companies visiting the campus. Tis site is not updated regularly.

3.3 Proposed System

Placement Cell provide following features:

1) Students can change or update their information at any time by logging in. So if a student has filled wrong information like wrong address then he can change it afterwards and he can also update his aggregate marks after his result declaration.

2) Placement head will post sample question papers and interview tips and questions. Each company registered with campus will also provide its own previous year test papers. Students will log in and attempt these test papers for practice.

3) Students can upload their CVs to individual company for which they want to apply.

3.4 Objectives of The Project Work

This project provides the facility of maintaining the details of the students and gets the requested list of candidates for the companies who would like to recruit the students based on given query.

The main objectives of the system are-

1. To reduce paperwork.

2. Companies can easily reach students as per their qualification.

3. To manage all the details of college students, various companies visiting the campus for recruitment and the College Placement Officer.

4. Help students to easily create their profiles and upload their marks and qualification and they can update their data at any time just by logging in.

5. Data security.

This software package can be readily used by non-programming personal avoiding human handled chance of error.

3.5 Modules

This project has four modules:

1) Placement Head(ADMIN)

2) Company(CLIENT)

3) Students(USER)

1) Placement Head

Placement Head can maintain daily updates in details and print reports according to need. Administrator must be an authorized user. Placement head will post the lists of shortlisted students who are eligible for particular company. He will also update the results of recruitment processes regularly.

2) Company

Companies can create their accounts, view the CV's and upload the job posts and also upload test procedure for the students for their hiring process. Each Company will post all the details like skills required for job profile, number of students required for particular job profile, what will be rounds which students have to clear to get hired. Some companies will register for pool campus placement, so that students from different other colleges can also get chance to sit for placement drive.

3) Students

Students can create their accounts, upload their CV's and see the job posts by placement head and also apply for particular job. Students can also attempt sample placement papers which are posted by placement head and also previous year placement papers which each company provide.

3.6 System Requirements

Hardware Requirements: -

1	Core i3 Processors
2	4GB of RAM
3	500GB of Hard Disk
4	One SQL based Server
5	Client Machine

Software Requirements: -

1	Operating system
2	Glassfish as Web Server
3	Notepad++ as Editor or NetBeans
4	MySQL as Database
5	Chrome , Internet Explorer as a Web Browser

Programming Language and Development Tools:

•FRONT-END: HTML, CSS, BOOTSTRAP, JQUERY, JAVASCRIPT.

•BACK-END: JAVA (Core and Advance), MYSQL and PHP.

3.7 Data Flow Diagram

The Data Flow Diagram shows the flow of data. It is generally made of symbols given below. Many Symbols are used in data flow diagram. There are many levels of DFD.

1. A square shows the Entity:

2. A Circle shows the Process:

3. An open Ended Rectangle shows the data store

4. An arrow shows the data flow:

Data Flow Diagram Levels

- **0 Level DFD:**

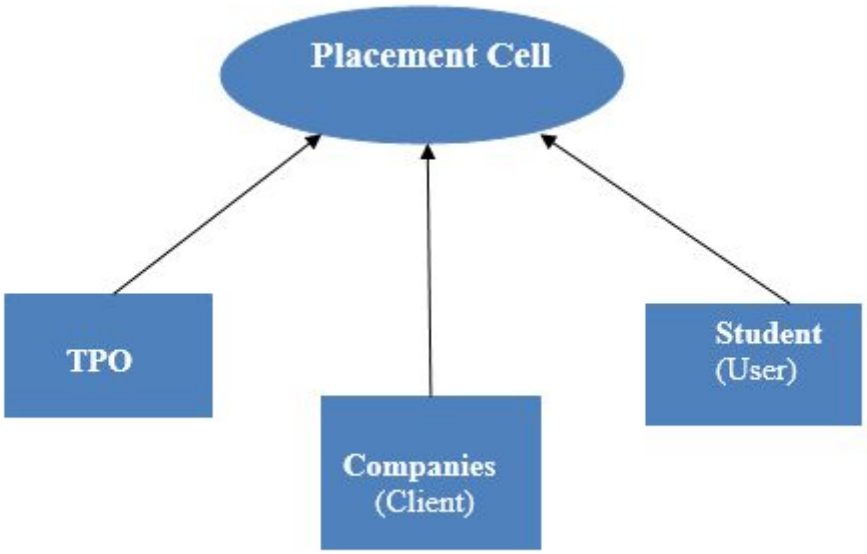

Figure 3.1 0 level DFD

1 Level DFD:

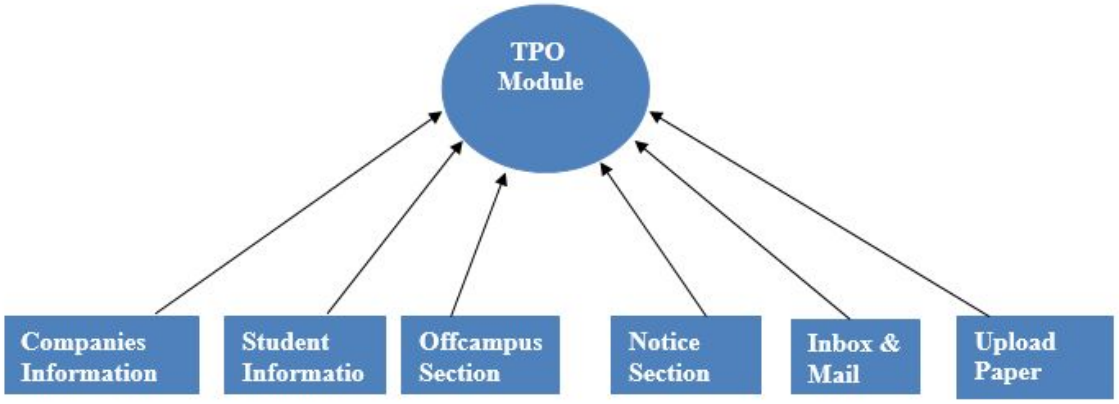

Figure 3.2 1 level DFD

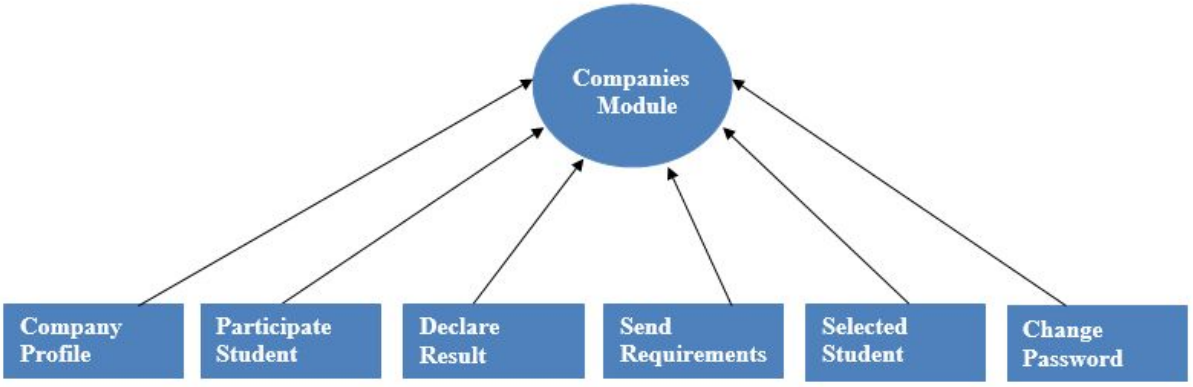

Figure 3.3 1 level DFD

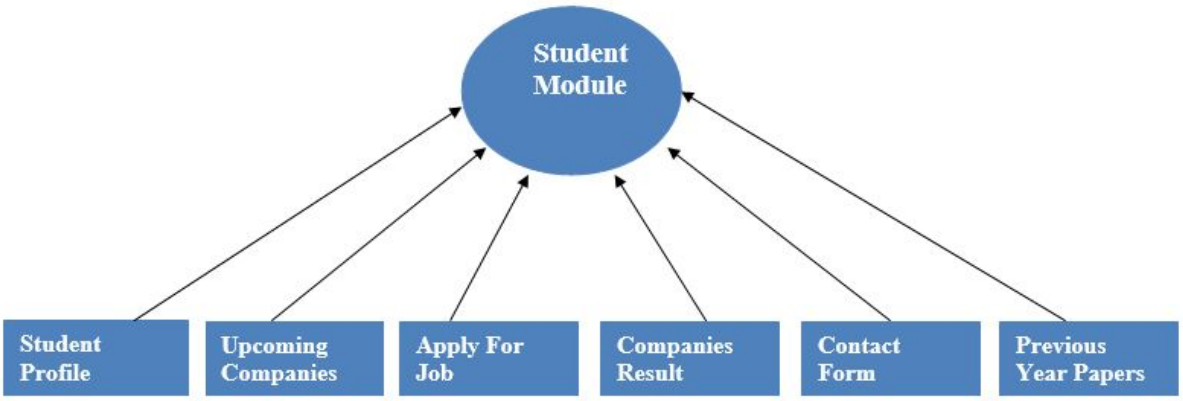

Figure 3.4 1 level DFD

4.DATABASE

We are creating database using Wamp Server. Name of our database is **“Placementcell”**.

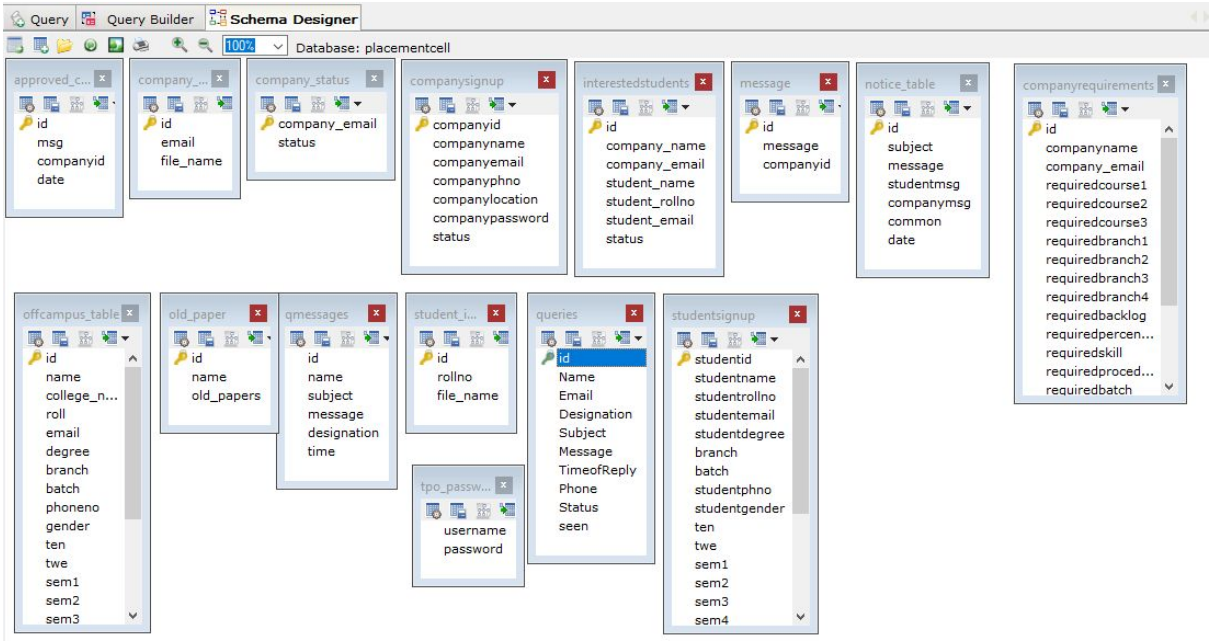

Fig 4.1: Database

4.1 Tables of Database

The first one is **“Studentsignup”**.

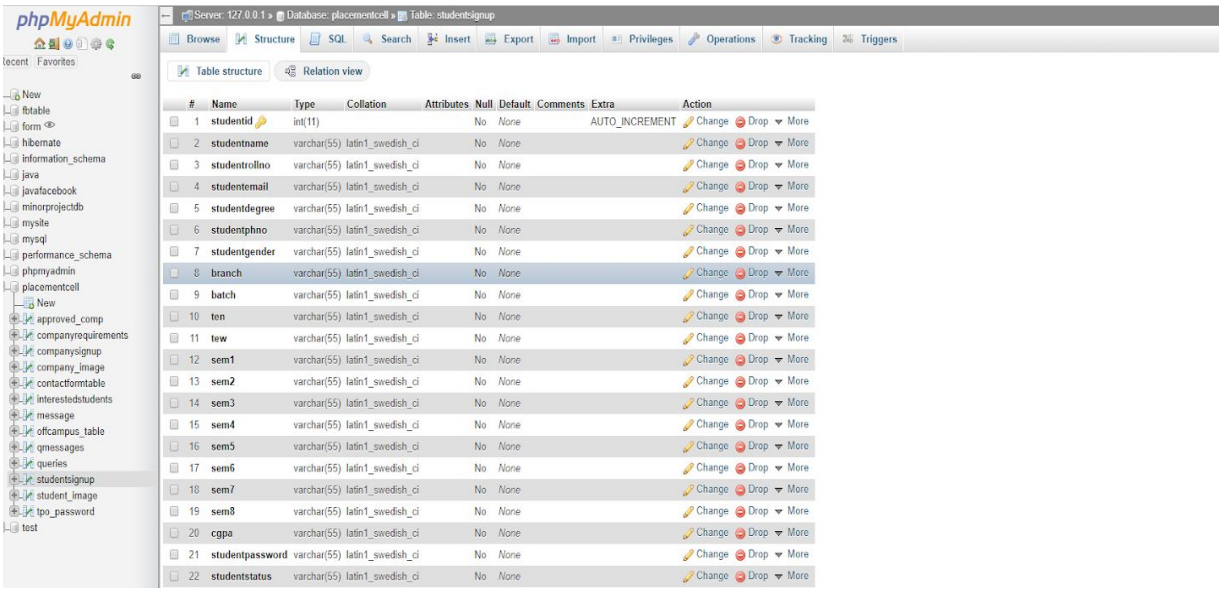

Fig 4.2: Studentsignup

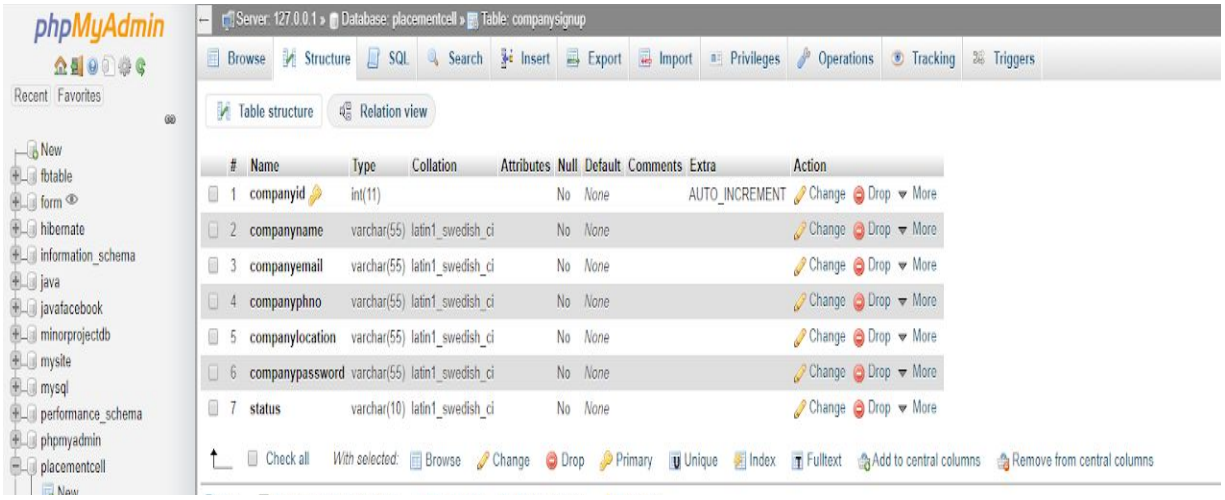

Fig 4.3: Companysignup

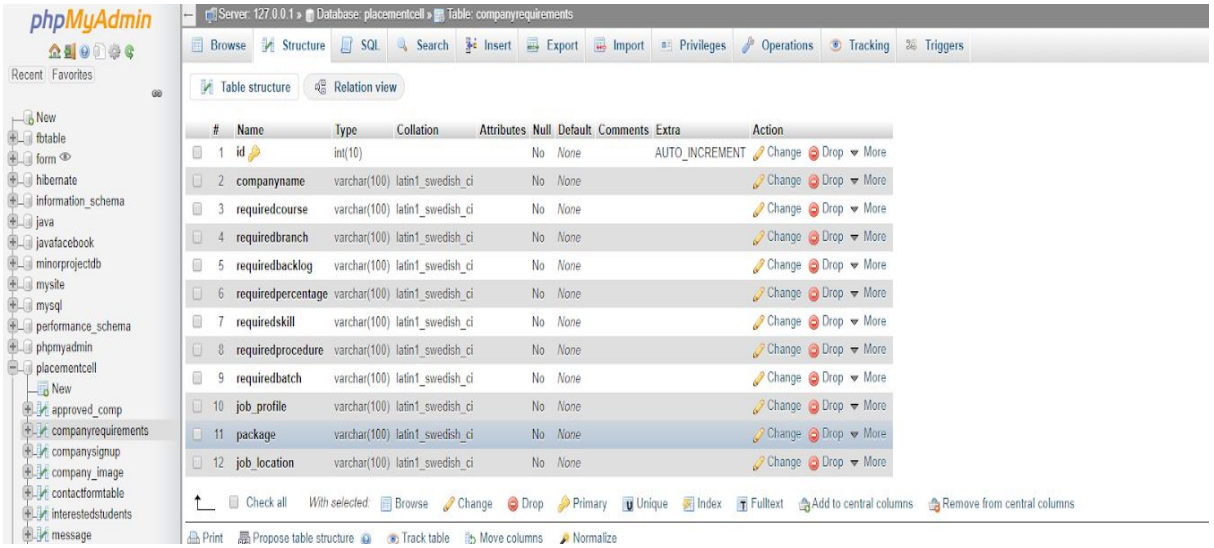

Fig 4.4: Company Requirements

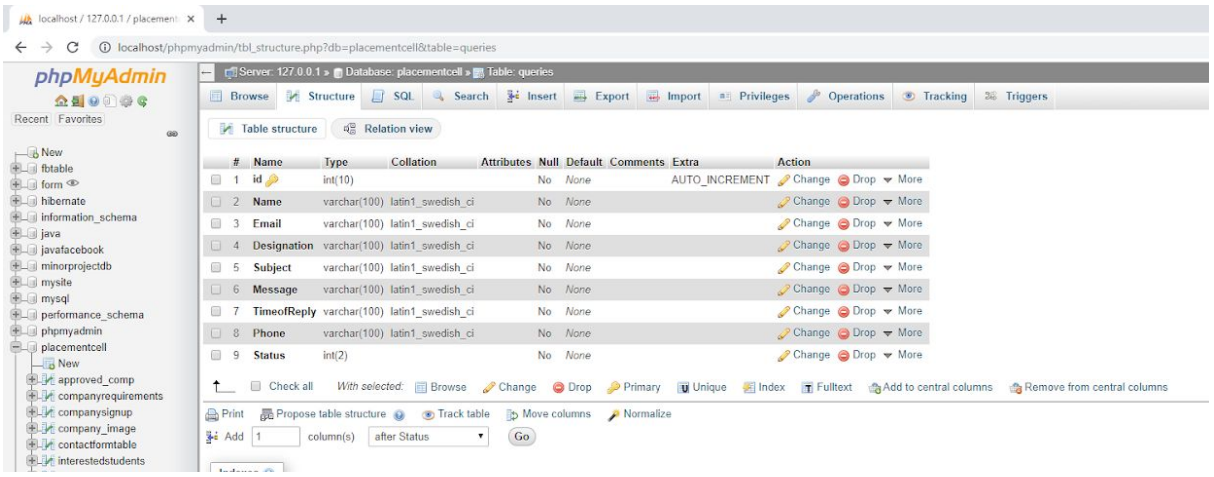

Fig 4.5: Interestedstudents

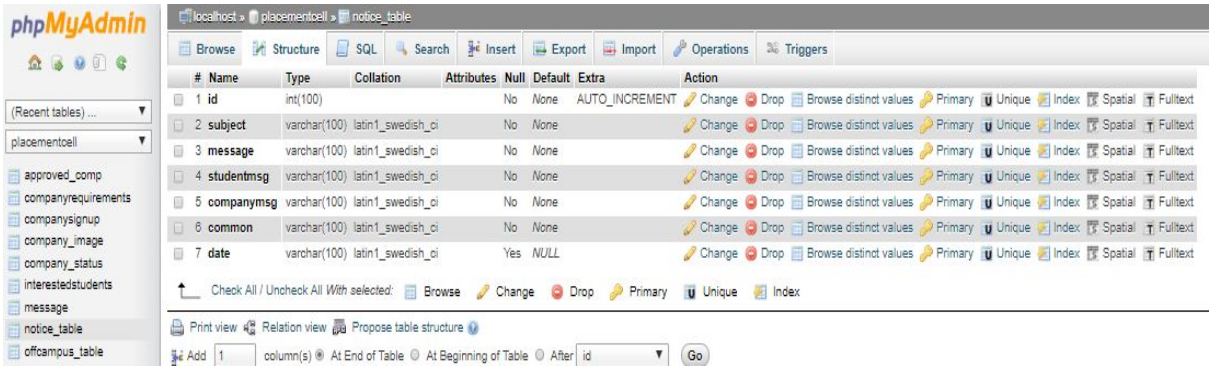

Fig 4.6: Notice Table

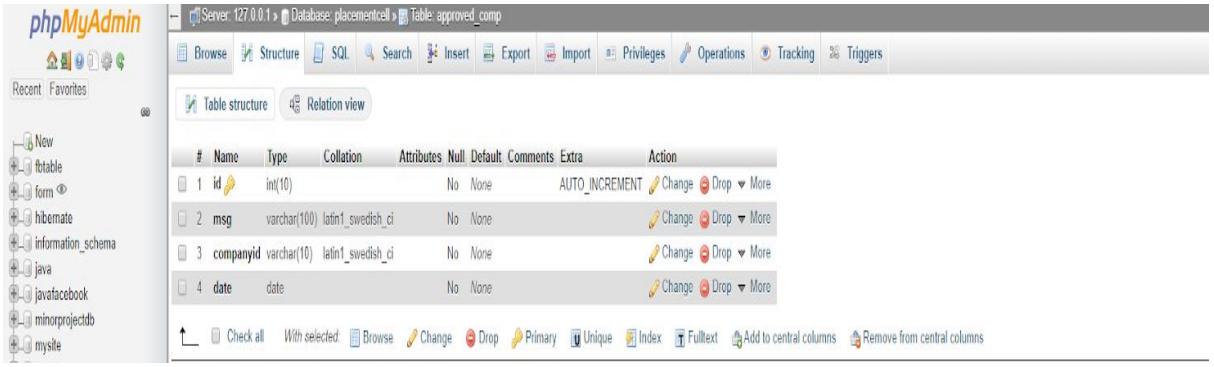

Fig 4.7: Approved Company

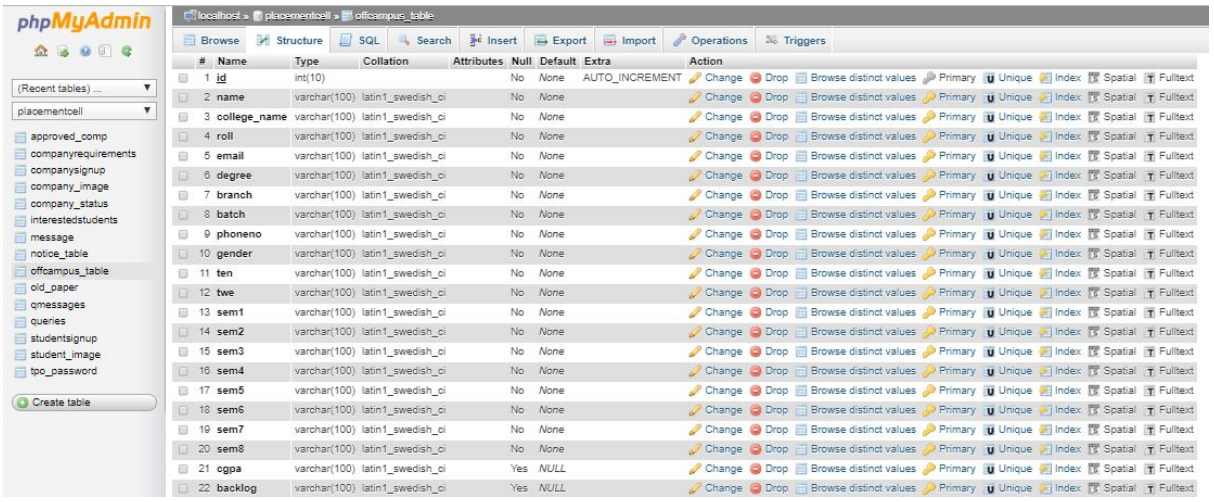

Fig 4.8: Offcampus table

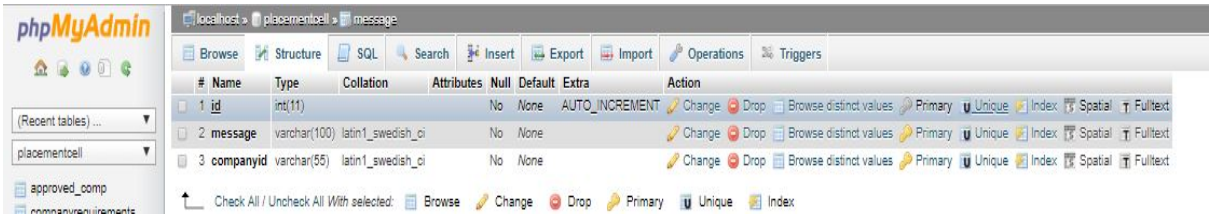

Fig 4.9: Message

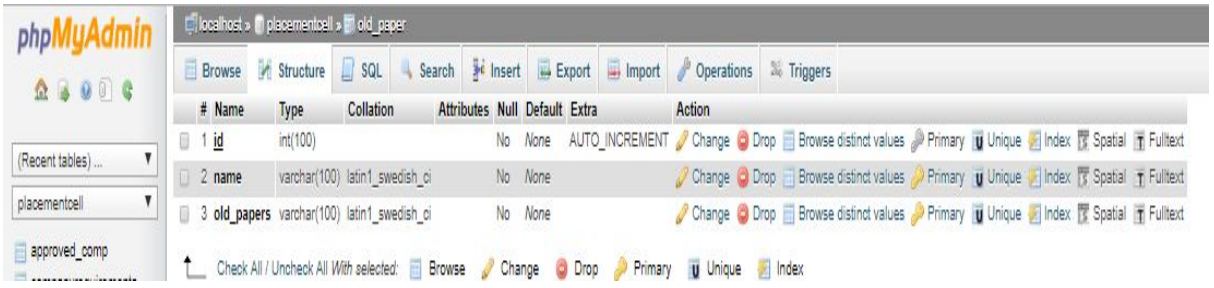

Fig 4.10: Old_Paper

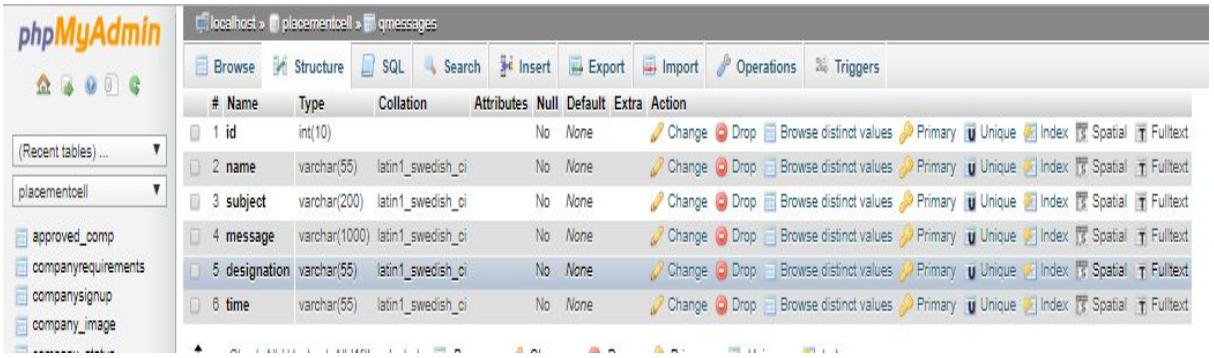

Fig 4.11: qmessages

Fig 4.12: queries

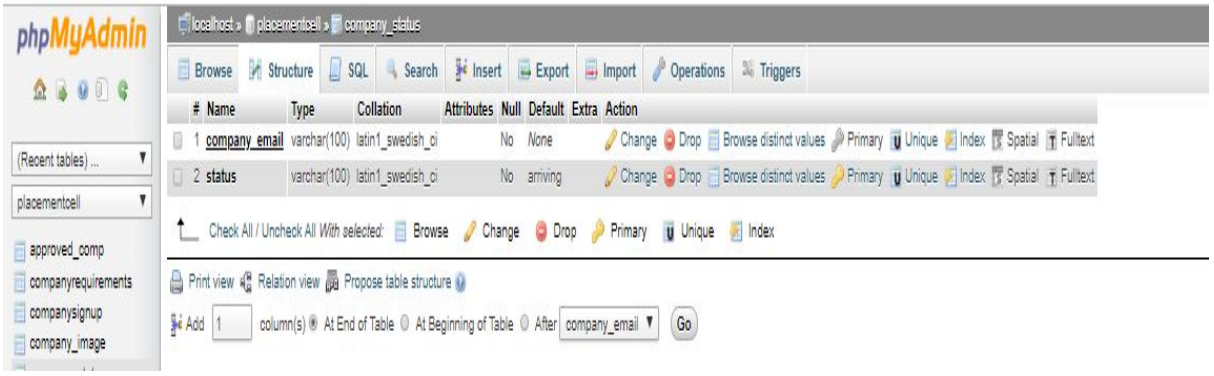

Fig 4.13: Company_Status

Fig 4.14: Company_Logo

5.PREVIEW OF WEB PAGES

5.1 Home Page

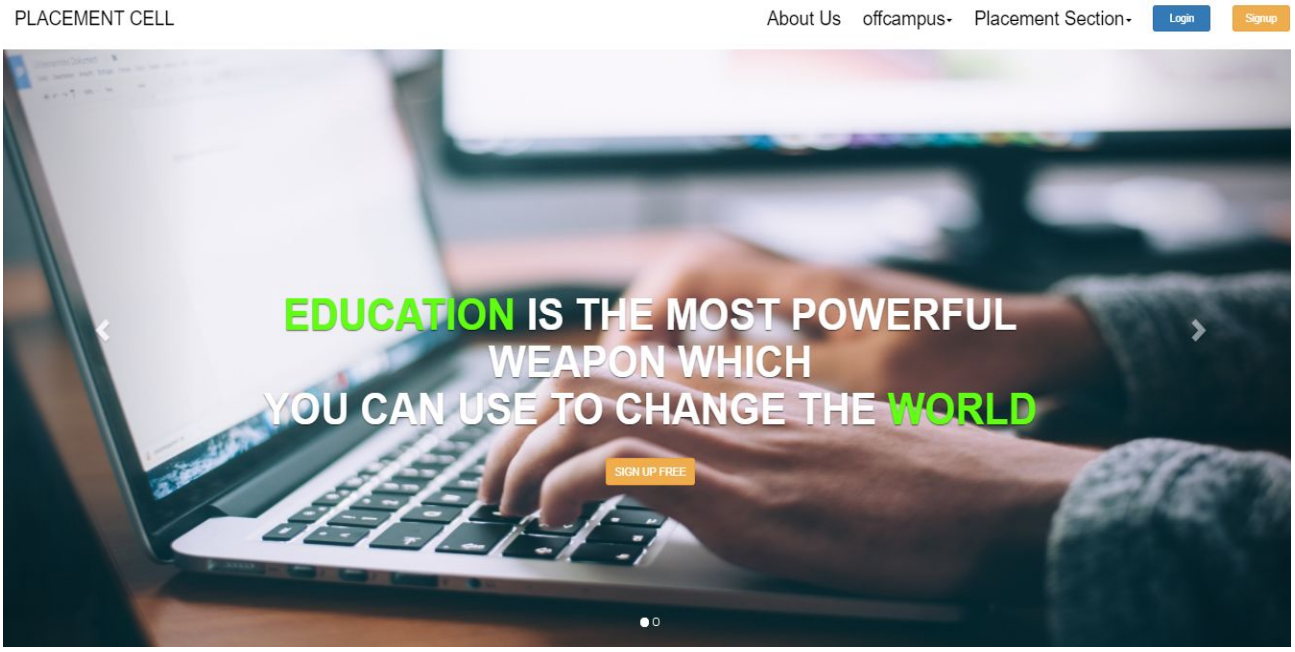

Fig 5.1 Home Page

5.2 Login Page

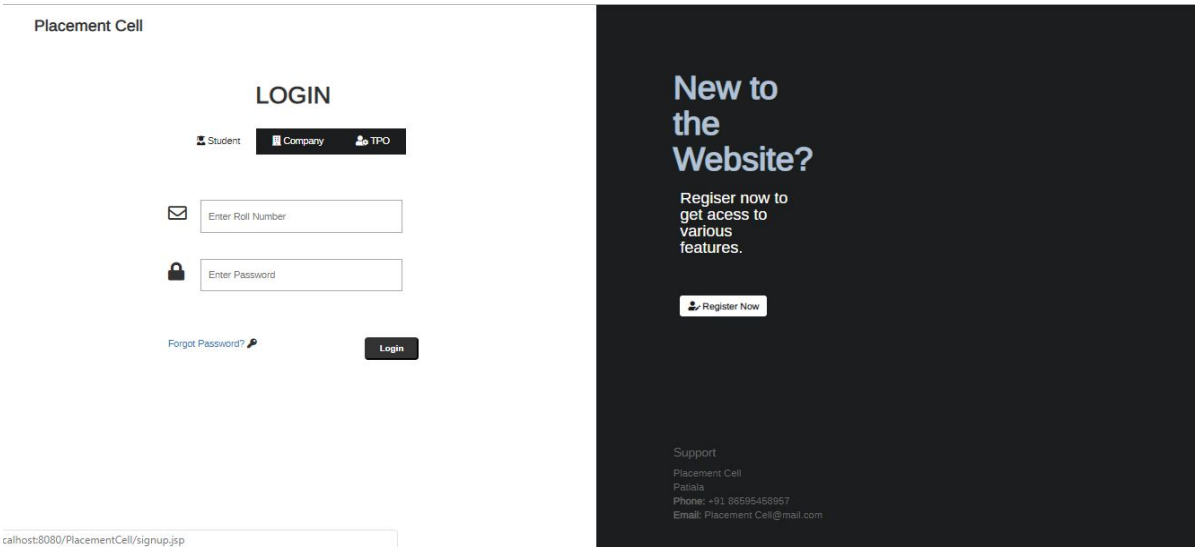

Fig 5.2 Login Page

5.3 Signup Page

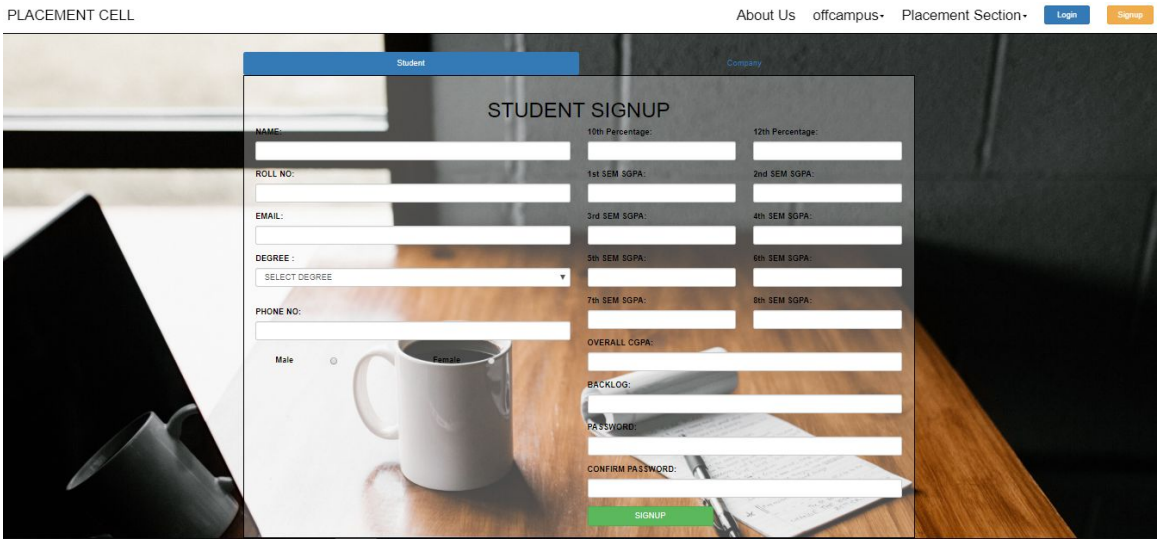

Fig 5.3 Student Signup

5.4 Newa & Update Section

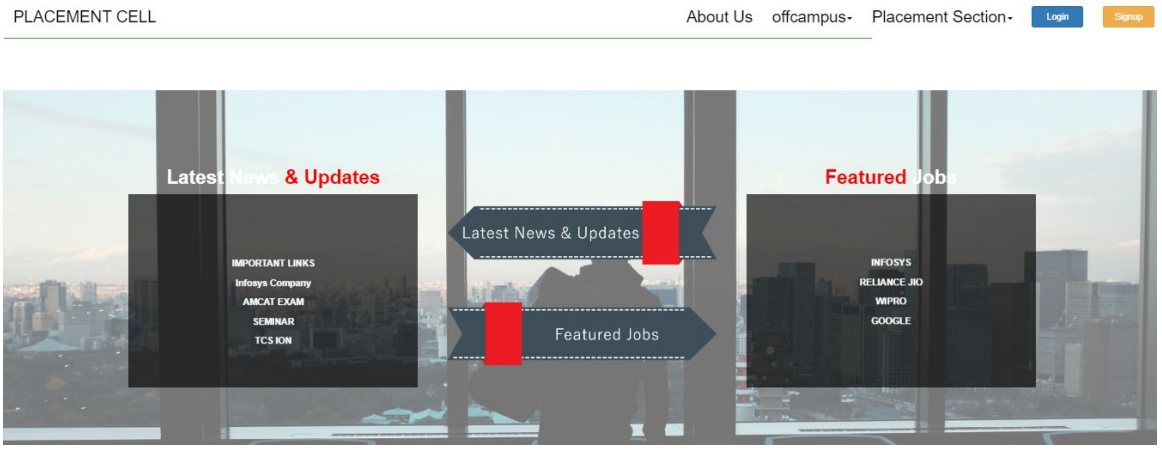

Fig 5.4 Notice

5.5 Forget Password Page

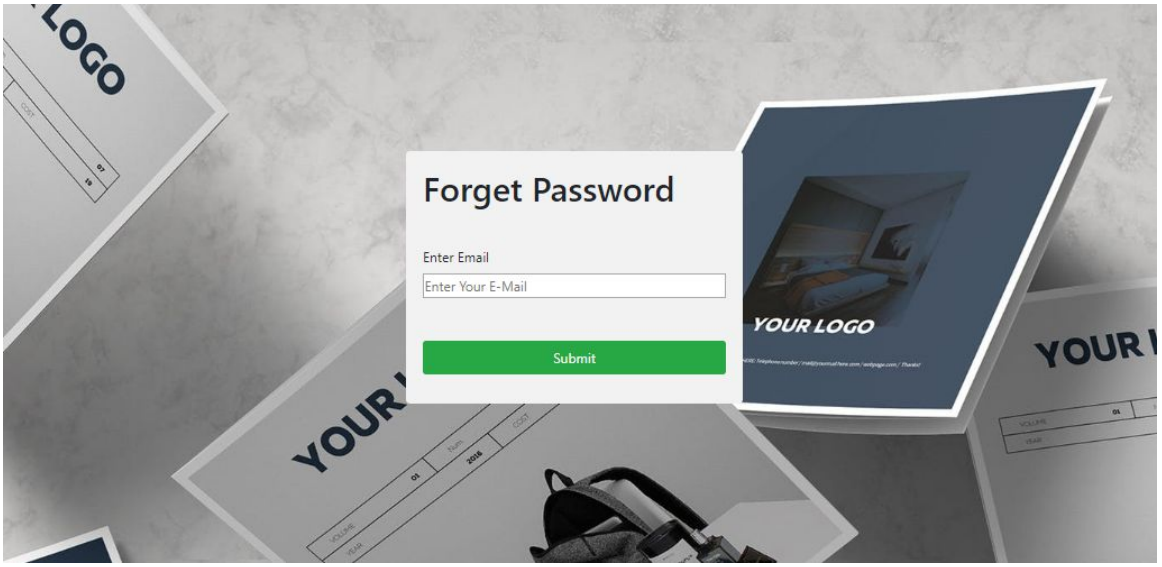

Fig 5.5 Forget Password

5.6 OTP Verification

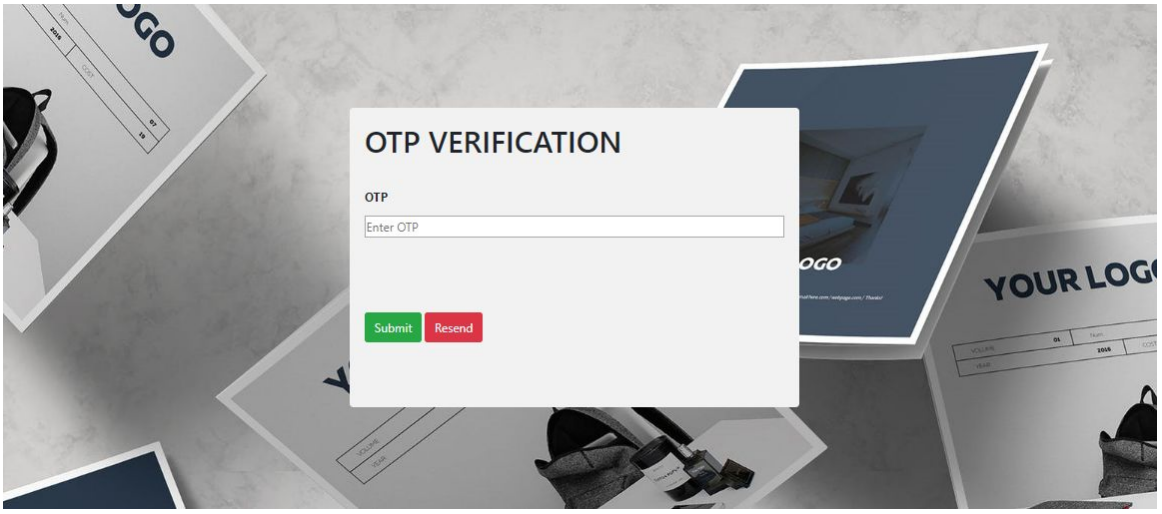

Fig 5.6 OTP Verification

5.7 Home Page:- TPO

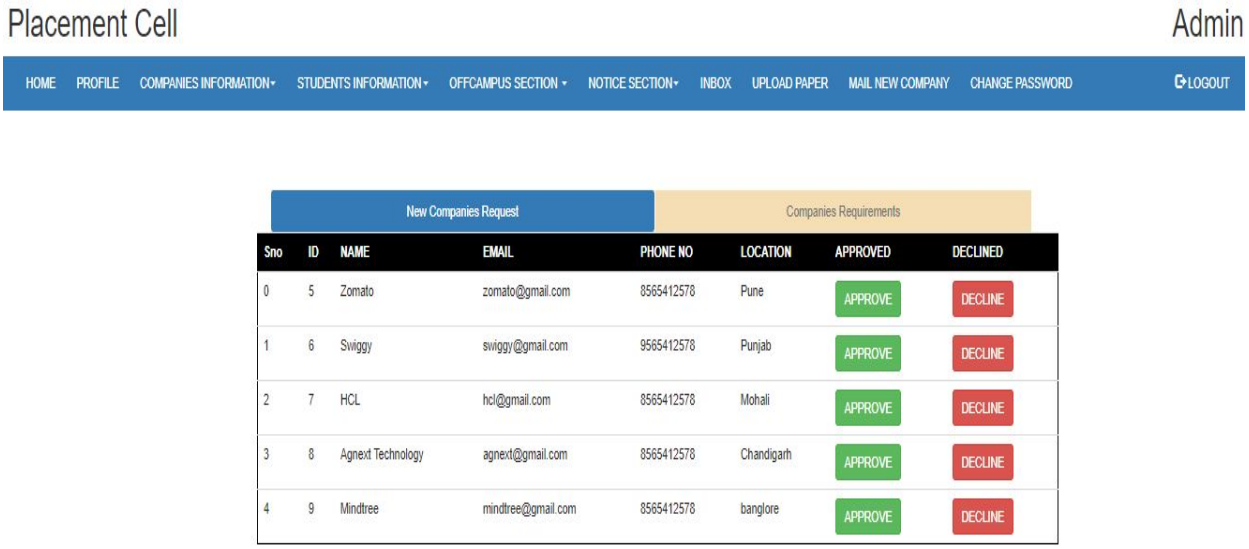

Fig 5.7 Home Tpo

5.8 Upcoming Company:-

Sno	ID	NAME	EMAIL	PHONE NO	LOCATION	APPROVED	DECLINED
0	5	Zomato	zomato@gmail.com	8565412578	Pune	APPROVE	DECLINE
1	6	Swiggy	swiggy@gmail.com	9565412578	Punjab	APPROVE	DECLINE
2	7	HCL	hcl@gmail.com	8565412578	Mohali	APPROVE	DECLINE
3	8	Agnext Technology	agnext@gmail.com	8565412578	Chandigarh	APPROVE	DECLINE
4	9	Mindtree	mindtree@gmail.com	8565412578	banglore	APPROVE	DECLINE

Fig 5.8 Upcoming Companies

5.9 Apply Student

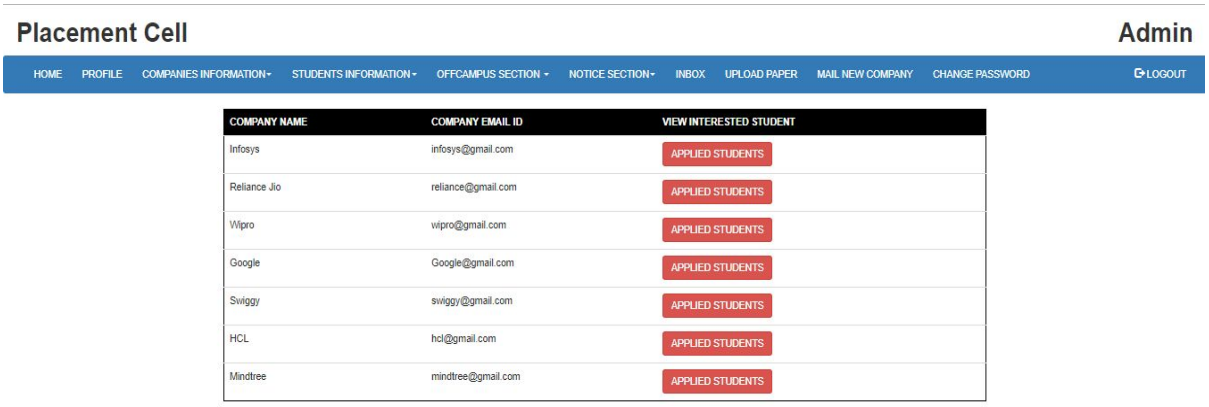

Fig 5.9 Apply Student In Company

5.10 Result Declaration Page

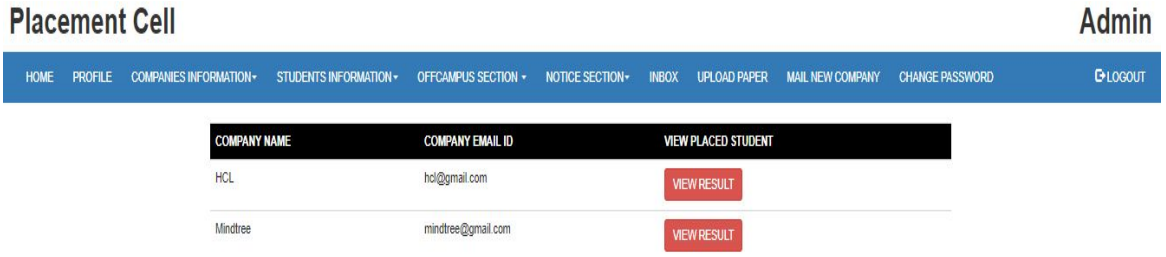

Fig 5.10 Declare Result By Company

5.11 Offcampus Student Section:

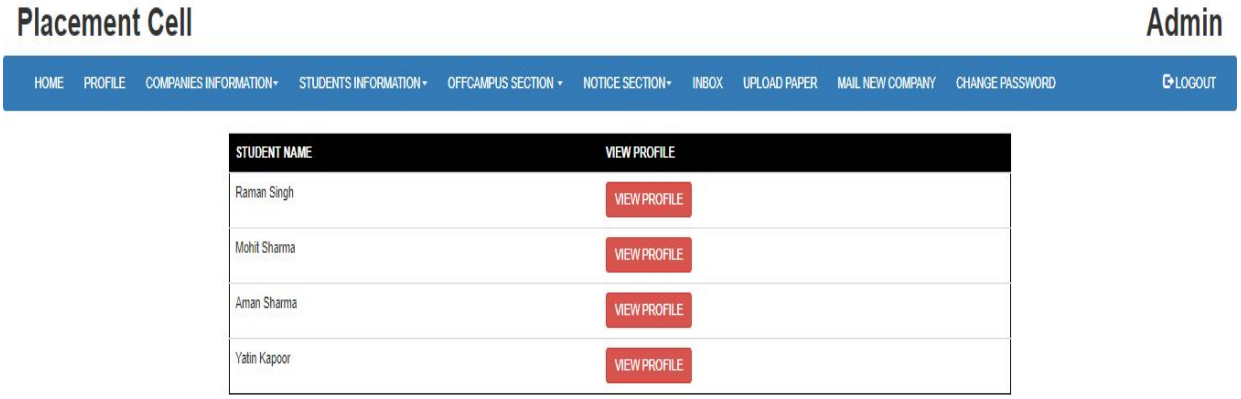

Fig 5.11 Detail Offcampus Student

5.12 Mail Offcampus Student:

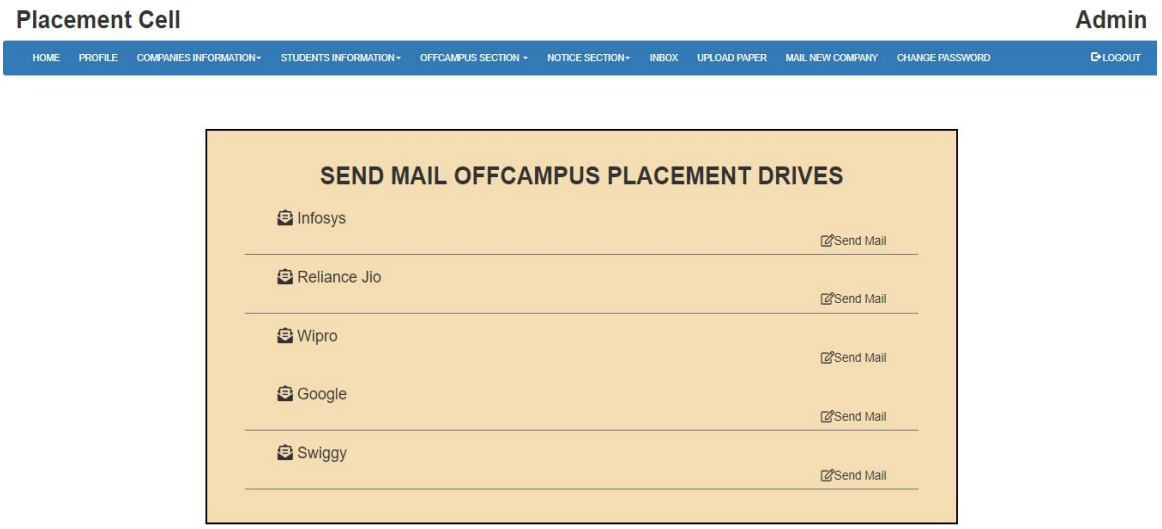

Fig 5.12 Mail Offcampus Student

5.13 Add Notice

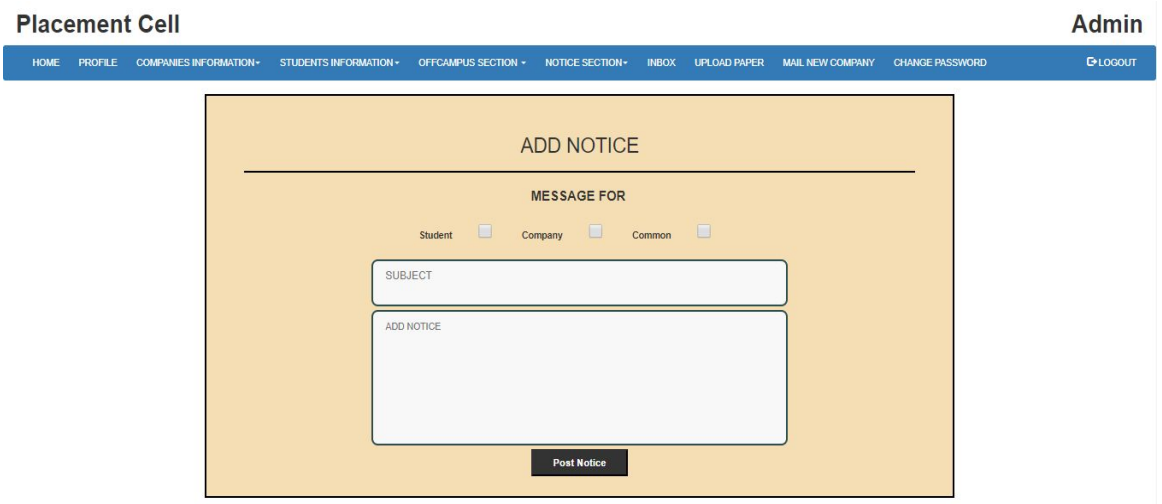

Fig 5.13 Add Notice By Tpo

5.14 Upload Paper

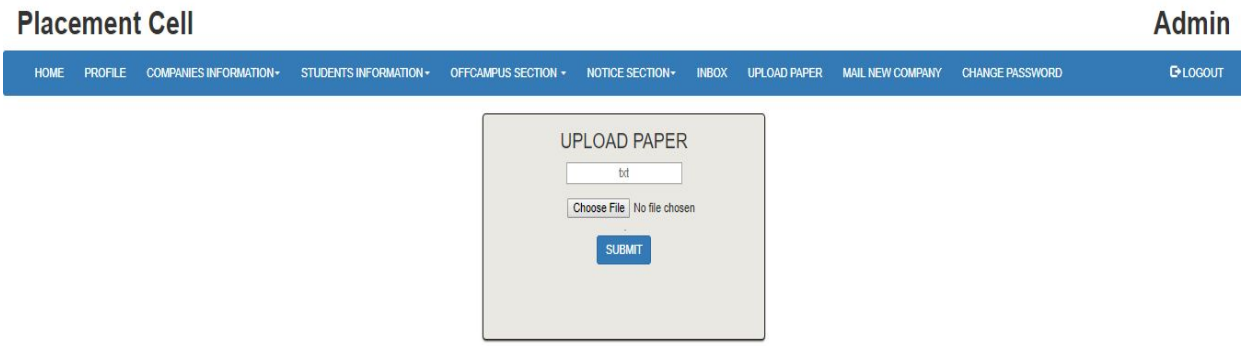

Fig 5.14 Paper Upload By Tpo

5.15 Company Home Page

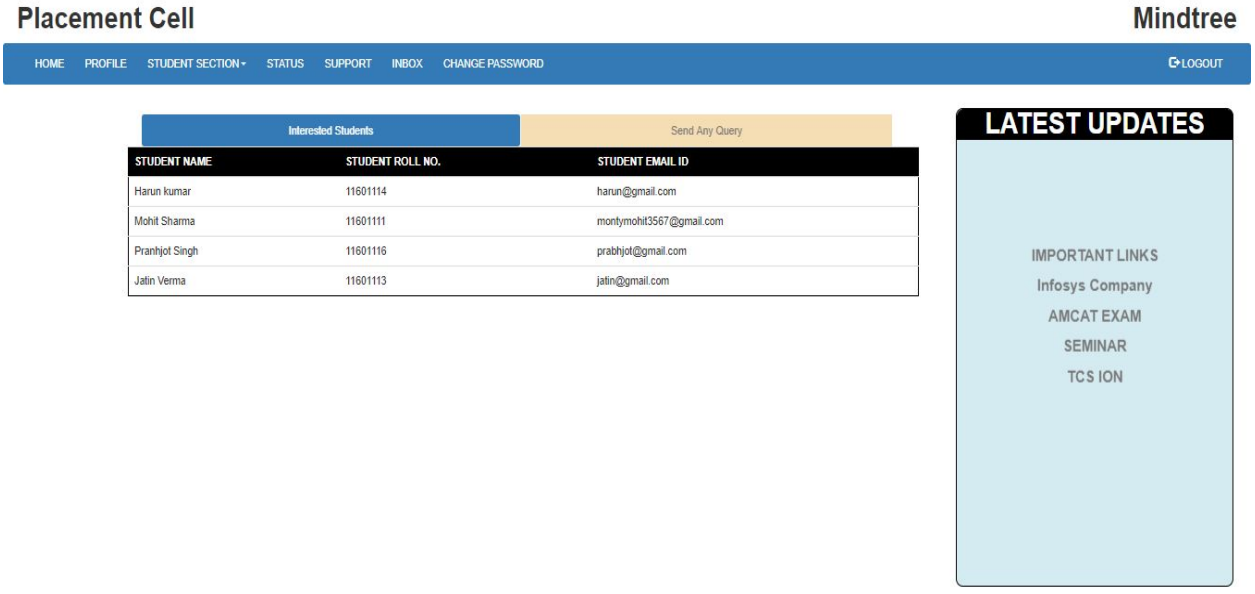

Fig 5.15 Home Company

5.16 Company Profile:

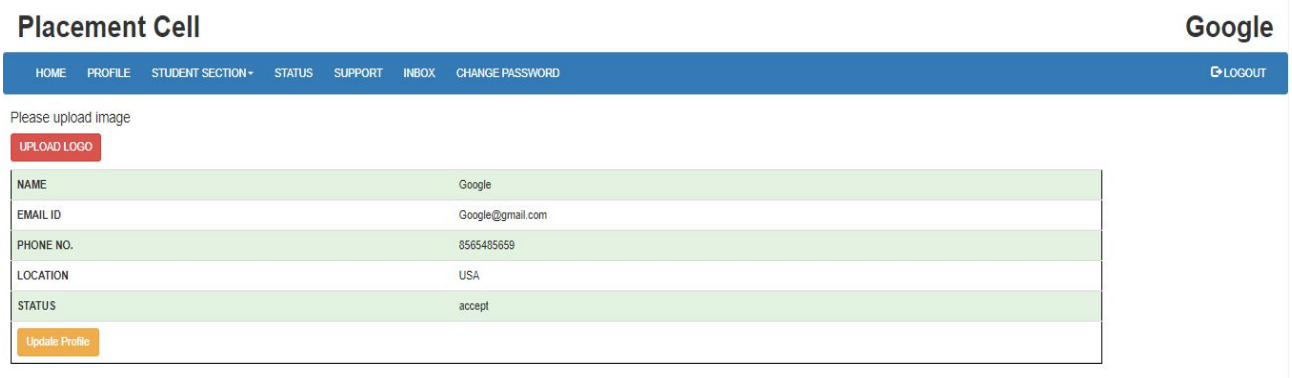

Fig 5.16 Company Profile

5.17 Upload Logo:

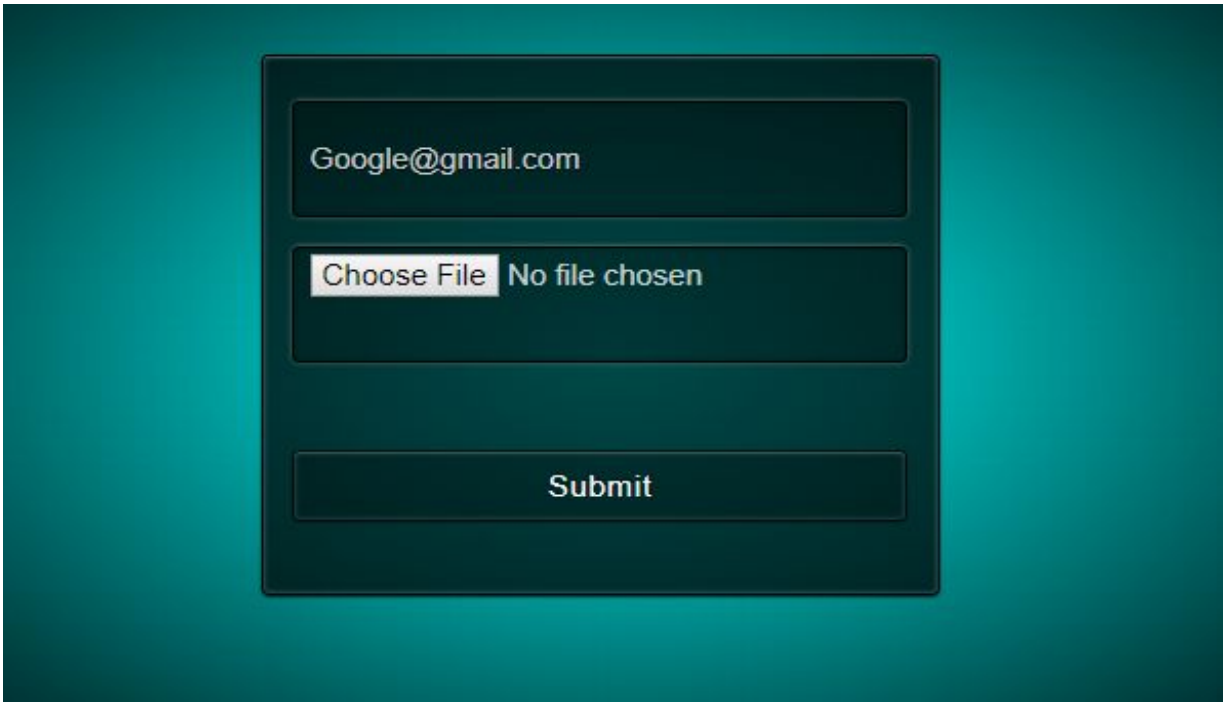

Fig 5.17 Upload Logo By Company

5.18 Company Status

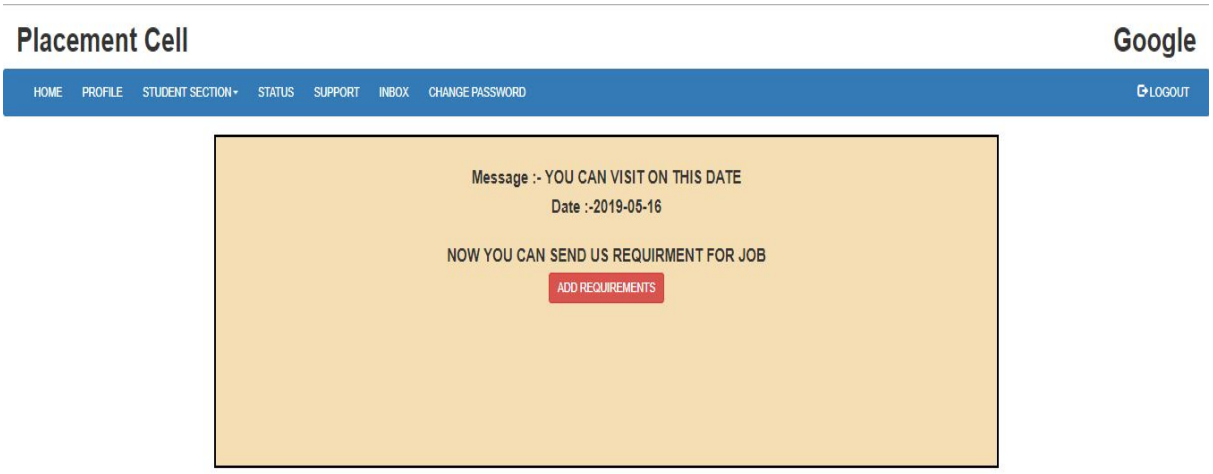

Fig 5.18 Company Status

5.19 Support

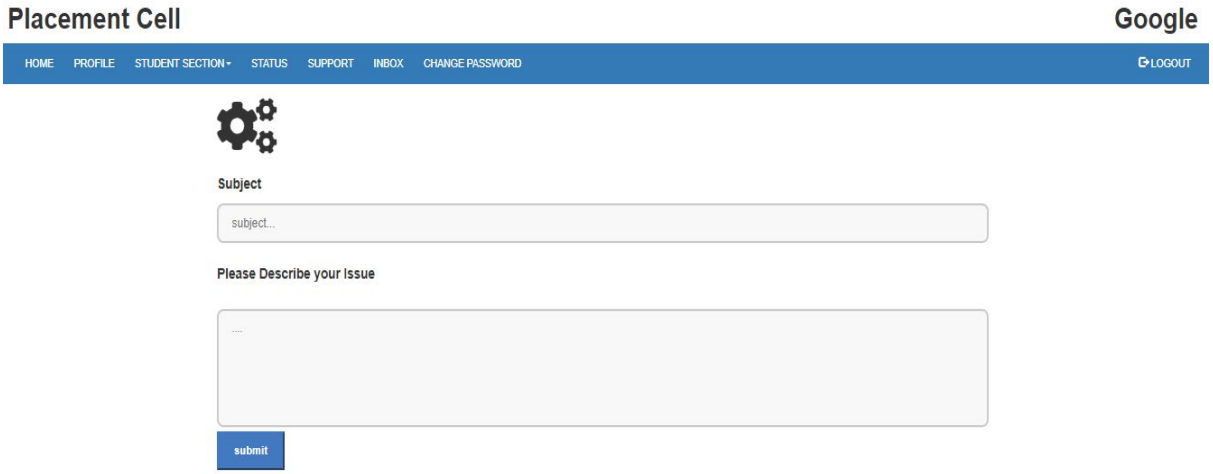

Fig 5.19 Query System

5.20 Inbox

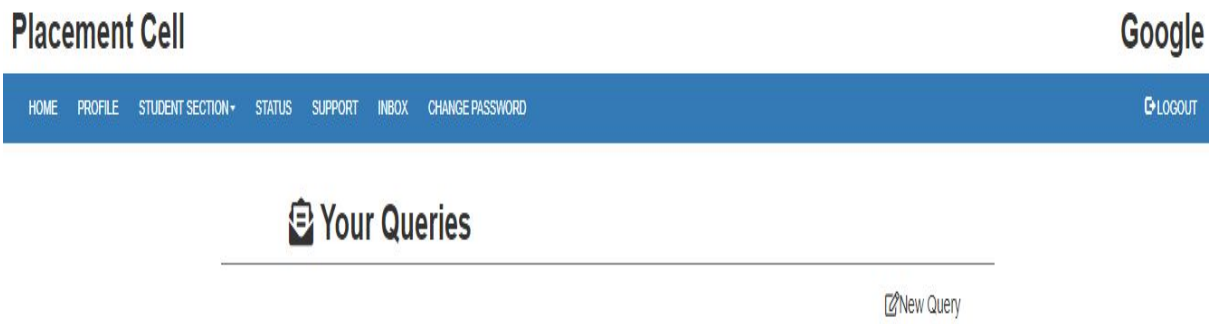

Fig 5.20 Message Box

5.21 Declare Result By Company:

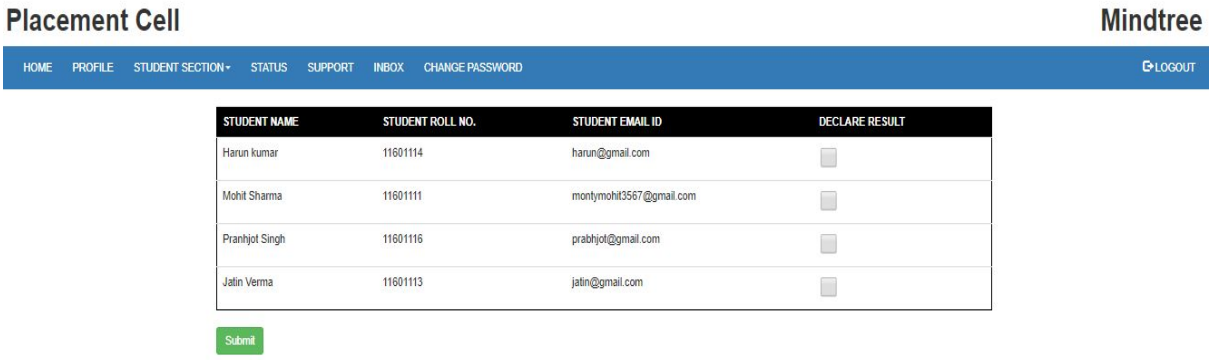

Fig 5.21 Declare Result

5.22 Interested Student In Company

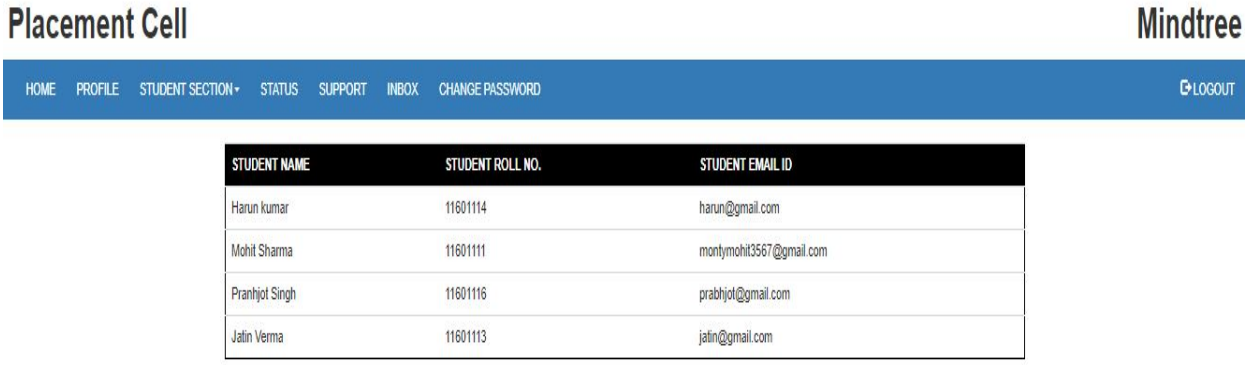

Fig 5.22 Interested Student

5.23 Home Student

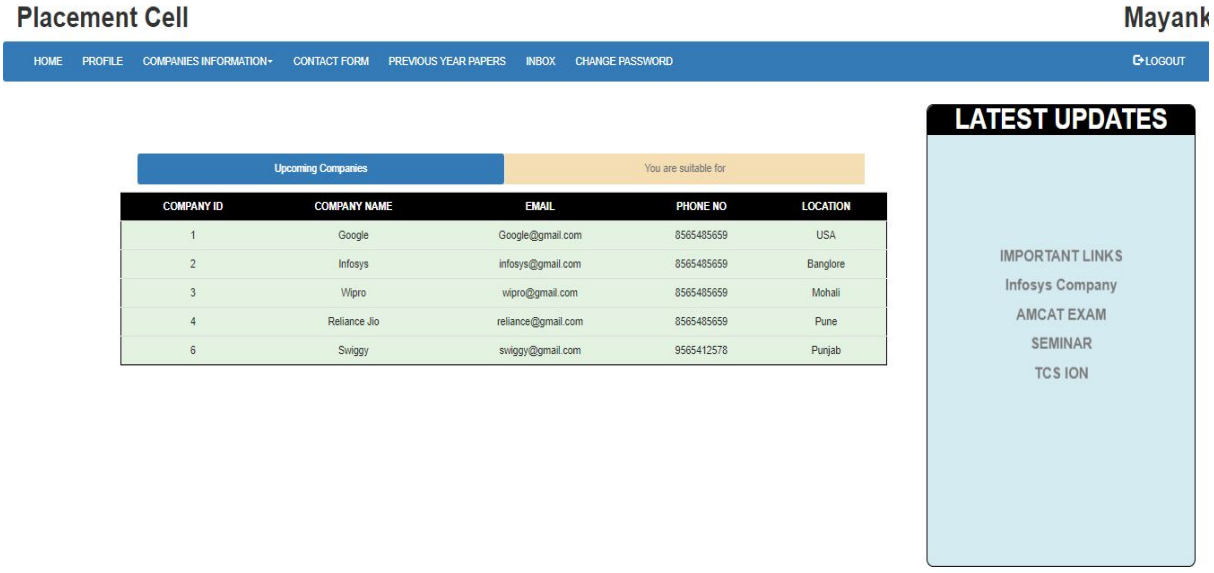

Fig 5.23 Student Home

5.24 Student Profile:

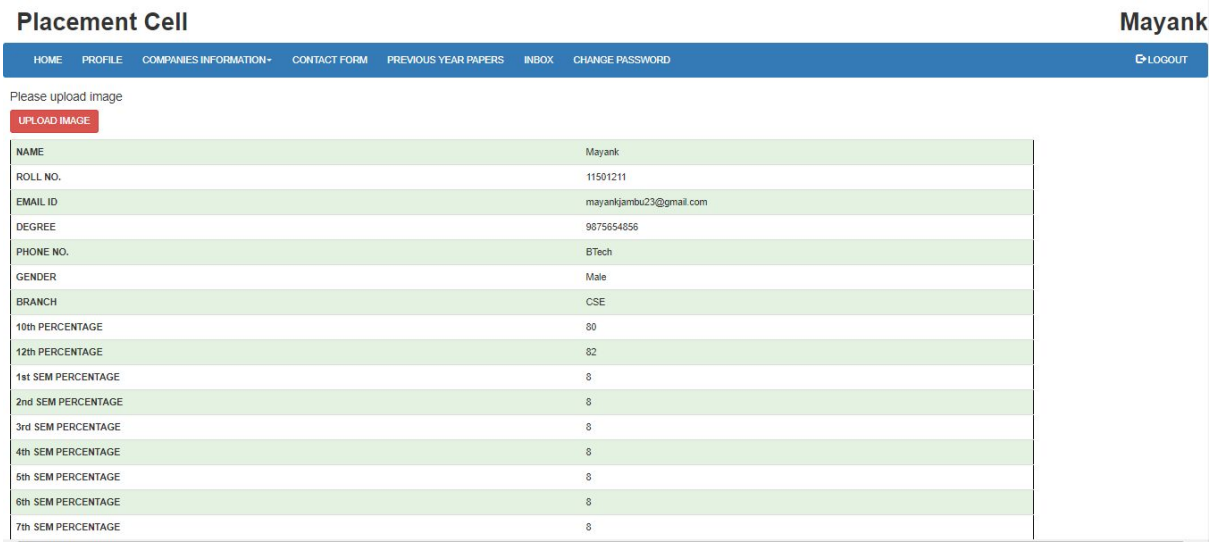

Fig 5.24: Student Profile Update

5.25 Student Image

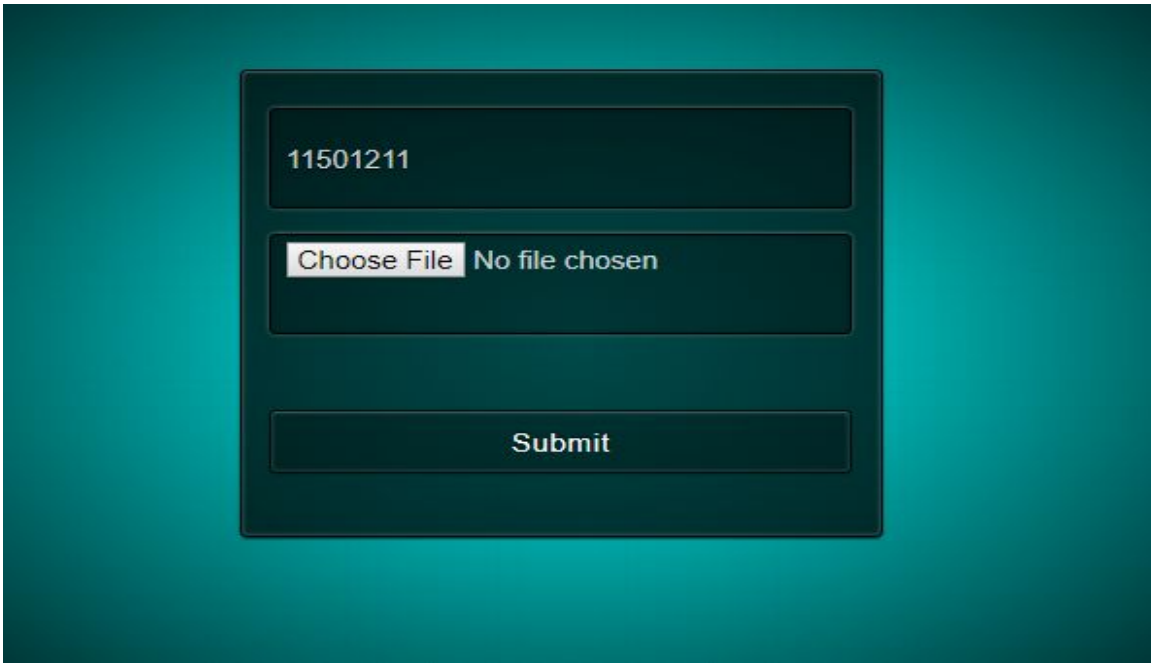

Fig 5.25 Student Image

5.26 Company Requirements:

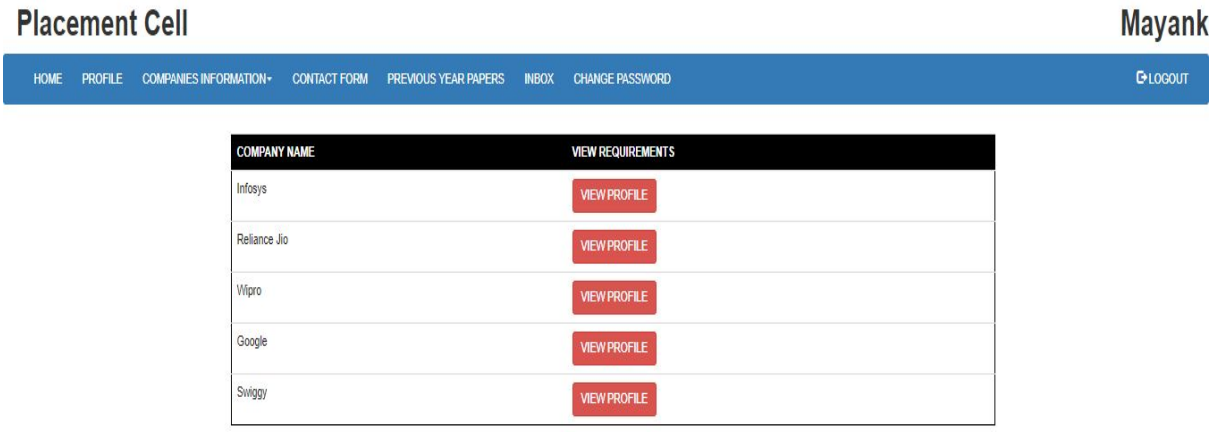

Fig 5.26 Company Requirements

5.27 Upcoming Company

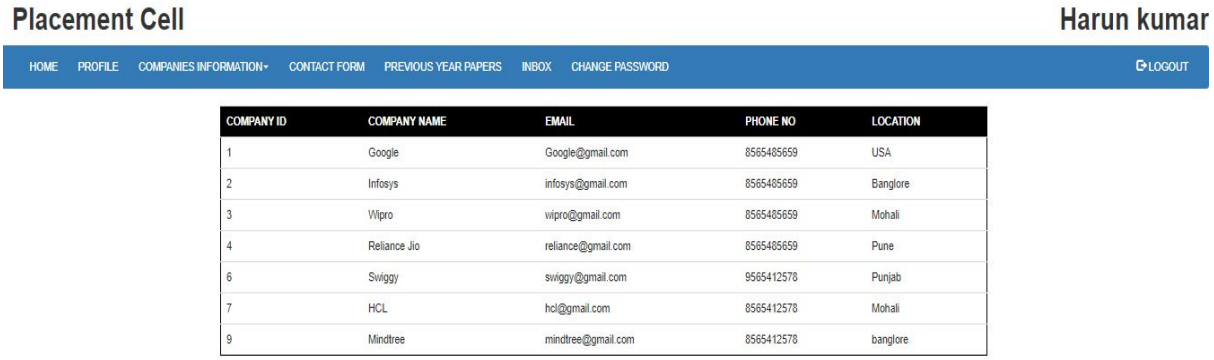

Fig 5.27 Upcoming Companies

5.28 Company Profile: Student Module

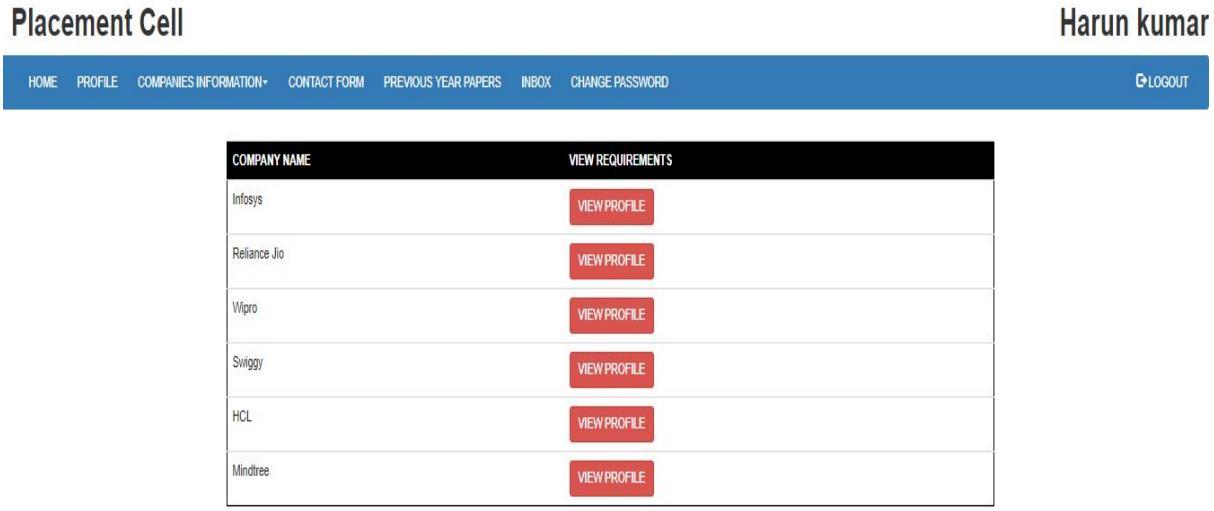

Fig 5.28 Company Profile

5.29 View Paper:

Fig 5.29 View Paper Upload By Tpo

5.30 View Paper Pdf

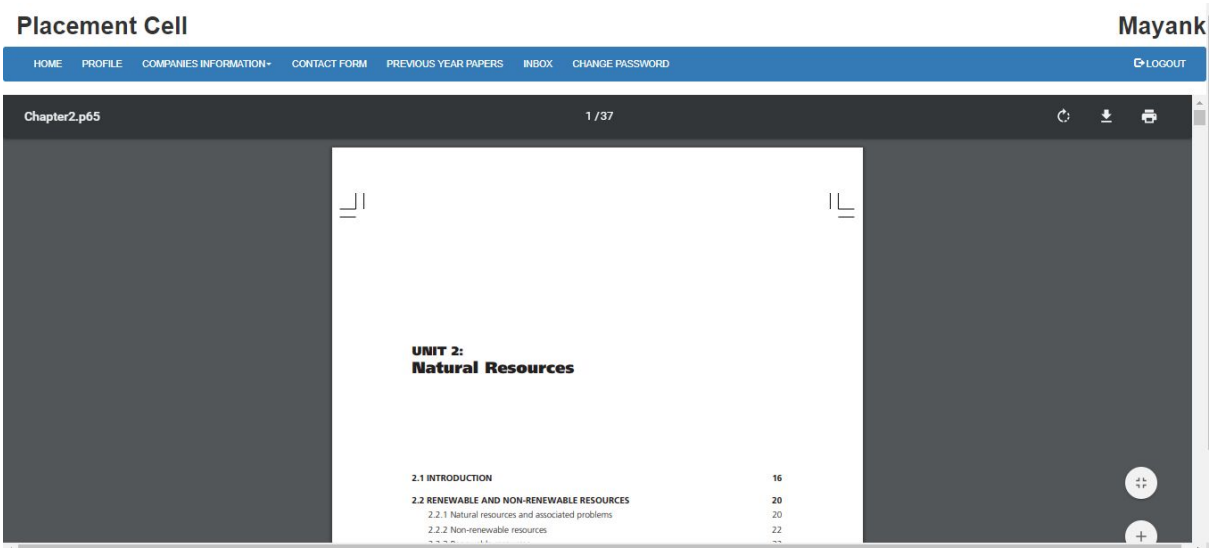

Fig 5.30 View Pdf

5.31 View Result: Publish By Tpo

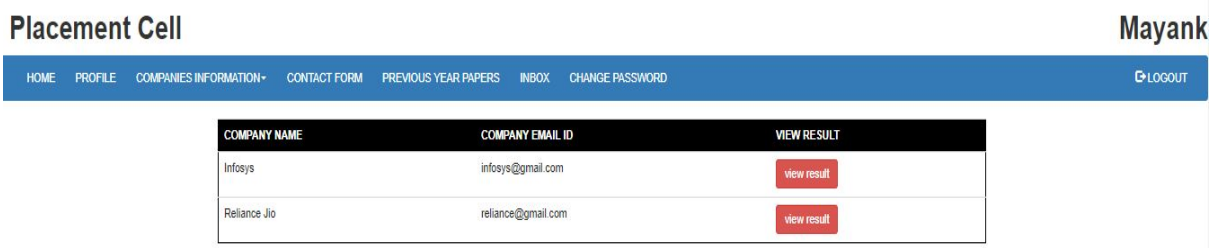

Fig 5.31 View Result

5.32 Offcampus:

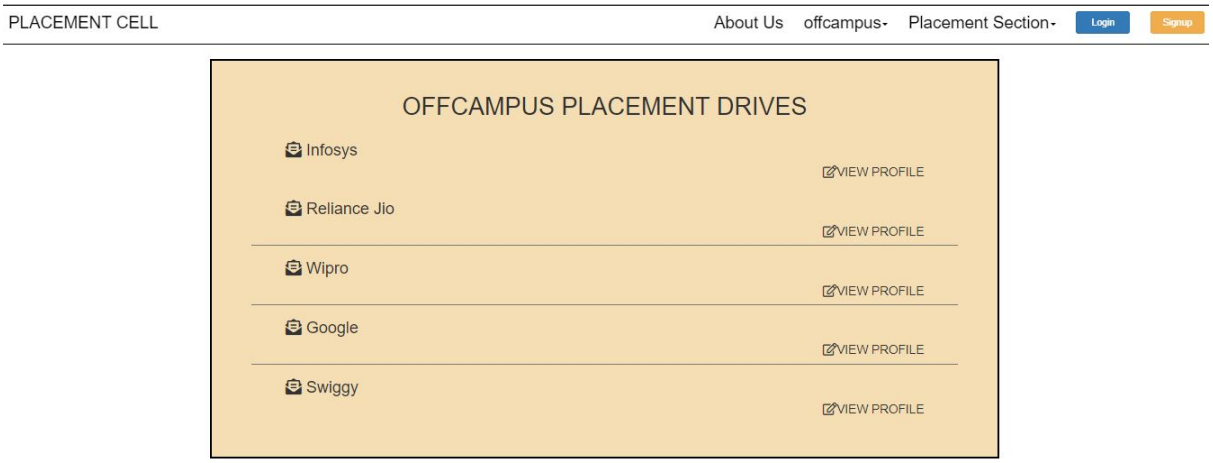

Fig 5.32 Offcampus Placement Drives

5.33 Offcampus Register:

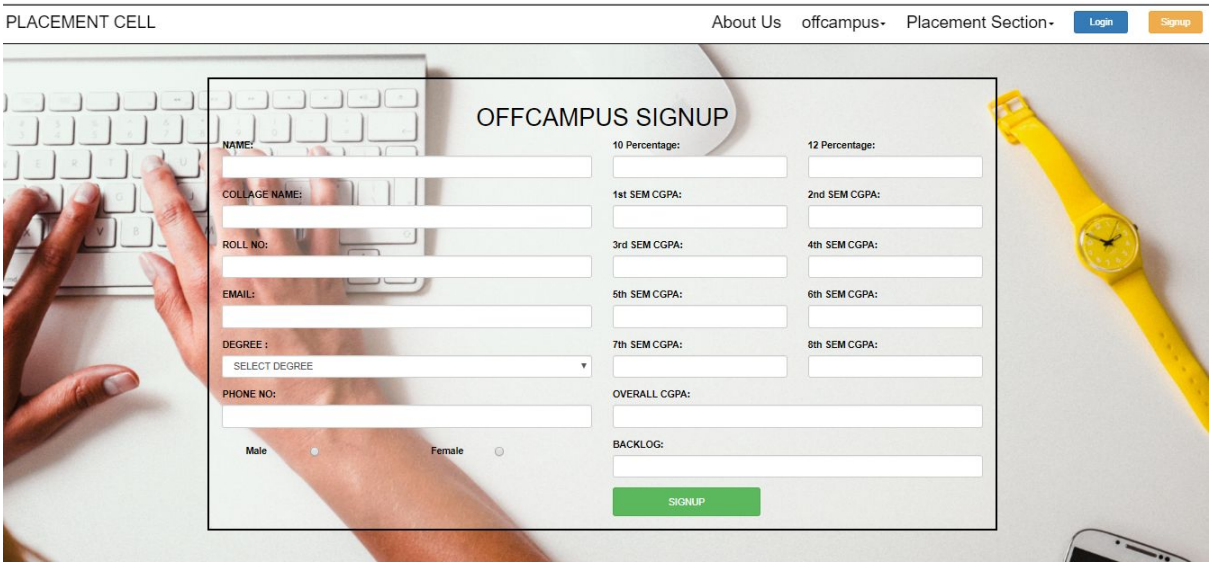

Fig 5.33 Offcampus Signup

6. CONCLUSION

From a proper analysis of positive points and constraints on the component, it can be safely concluded that the product is a highly efficient GUI based component. This component can be easily plugged in many other systems.

Also the component is user friendly. Generally the TPO's of the Collages has to face a lot of problems in management of the Students information. This all information has to be managed manually. So, there is a need to develop a system that can solve the mentioned problem. This software comes with just that solution.

7. REFERENCES

[1] Joshua Bloch (2016). Effective Java. (2nd ed.). Pearson Education.

[2] Douglas Crockford (2008). JavaScript: The Good Parts. (1st ed.). Yahoo Press.

[3] Abraham Silberschatz, Henry F Korth. Database System Concepts. (6th ed.). McGraw Hill Education, 2013.

[4] Wikipedia contributors. (2019, February 14). Internet forum. In *Wikipedia, The Free Encyclopedia*. Retrieved 08:12, May 8, 2019, from https://en.wikipedia.org/w/index.php?title=Internet_forum&oldid=883265583

[5] reddit: the front page of the internet. (2019, April 8). Retrieved from https://www.reddit.com/

[6] A tour to Stack overflow. (2019, April 8). Retrieved from https://stackoverflow.com/tour