INTRODUCTION

In today's digitalized world where everything happens on the fingertip with the fastest rate of delivery, it is even essential to move a step ahead in terms of one of the leading branch of education where scholarship plays a major role in both student and institutions development which has major impact on nation development. But still there is a lot of improvement to be made in storing the records of application, scholarship details and manage them continuously. Through our project we are trying to improve this aspect of management. The Online Scholarship Portal is majorly concerned by creating a platform that connects both students applying for scholarship and the scholarship providing organisation and help every student to be benefited.

An Online Scholarship Portal is an online platform where student can fill their details in an application on the go and also searches for scholarships to apply easily. At Admin page one can upload the scholarship details available to apply given by the donor organisations so that they can work upon the suggestions and improvement can be done on the project, also they can upload scholarship awardee details. Usually, the user will be asked to select scholarship as per the eligibility required, and the same is recorded in the database. A notification is sent to the user as soon as the record is being saved.

1.1 INTRODUCTION TO DBMS

A database is an organized collection of data, generally stored and accessed electronically from a computer system. Where databases are more complex they are often developed using formal design and modeling techniques.

The database management system (DBMS) is the software that interacts with end users, applications, the database itself to capture and analyze the data and provides facilities to administer the database.

Often the term "database" is also used to loosely refer to any of the DBMS, the database system or an application associated with the database.

Computer scientists may classify database-management systems according to the database models that they support. Relational databases became dominant in the 1980s. These model data as rows and columns in a series of tables, and the vast majority use SQL for writing and querying data. In the 2000s, non-relational databases became popular, referred to as NoSQL because they use different query languages.

1.2 FUNCTIONS OF DBMS

Existing DBMSs provide various functions that allow management of a database and its data which can be classified into four main functional groups:

Data definition: – Creation, modification and removal of definitions that define the organization of the data.

Update: – Insertion, modification, and deletion of the actual data.

Retrieval: – Providing information in a form directly usable or for further processing by other applications. The retrieved data may be made available in a form basically the same as it is stored in the database or in a new form obtained by altering or combining existing data from the database.

Administration: – Registering and monitoring users, enforcing data security, monitoring performance, maintaining data integrity, dealing with concurrency control,

and recovering information that has been corrupted by some event such as an unexpected system failure.

1.3 SQL DBMS

IBM started working on a prototype system loosely based on Codd's concepts as System R in the early 1970s. The first version was ready in 1974/5, and work then started on multi-table systems in which the data could be split so that all of the data

for a record (some of which is optional) did not have to be stored in a single large "chunk". Subsequent multi-user versions were tested by customers in 1978 and 1979, by which time a standardized query language – **SQL** [citation needed] had been added. Codd's ideas were establishing themselves as both workable and superior to CODASYL, pushing IBM to develop a true production version of System R, known as **SQL/DS**, and, later, Database 2 (DB2).

Larry Ellison's Oracle Database (or more simply, Oracle) started from a different chain, based on IBM's papers on System R. Though Oracle V1 implementations were completed in 1978, it wasn't until Oracle Version 2 when Ellison beat IBM to market in 1979. Stone baker went on to apply the lessons from INGRES to develop a new database, Postgres, which is now known as PostgreSQL. PostgreSQL is often used for global mission critical applications (the .org and .info domain name registries use it as their primary data store, as do many large companies and financial institutions).

In Sweden, Codd's paper was also read and Mimer SQL was developed from the mid-1970s at Uppsala University. In 1984, this project was consolidated into an independent enterprise

Another data model, the entity–relationship model, emerged in 1976 and gained popularity for database design as it emphasized a more familiar description than the earlier relational model. Later on, entity–relationship constructs were retrofitted as a data modeling construct for the relational model, and the difference between the two have become irrelevant.

1.4 HTML

Hypertext Markup Language (HTML) is the standard markup language for creating web pages and web applications. With Cascading Style Sheets (CSS) and JavaScript, it forms a triad of cornerstone technologies for the World Wide Web. Web browsers receive HTML documents from a web server or from local storage and render the documents into multimedia web pages. HTML describes the structure of a web page semantically and originally included cues for the appearance of the document.

HTML elements are the building blocks of HTML pages. With HTML constructs, images and other objects such as interactive forms may be embedded into the rendered page. HTML provides a means to create structured documents by denoting structural semantics for text such as headings, paragraphs, lists, links, quotes and other items. HTML elements are delineated by tags, written using angle brackets. Tags such as
and <input/>
directly introduce content into the page.

Other tags such as <**p>** surround and provide information about document text and may include other tags as sub-elements. Browsers do not display the HTML tags, but use them to interpret the content of the page.

1.5 CSS

Cascading Style Sheets (CSS) is a style sheet language used for describing the presentation of a document written in a markup language like HTML. CSS is a cornerstone technology of the World Wide Web, alongside HTML and JavaScript.

CSS is designed to enable the separation of presentation and content, including layout, colors, and fonts. This separation can improve content

accessibility provide more flexibility and control in the specification of presentation characteristics, enable multiple web pages to share formatting by specifying the relevant CSS in a separate .css file, and reduce complexity and repetition in the structural content

Separation of formatting and content also makes it feasible to present the same markup page in different styles for different rendering methods, such as on-screen, in print, by voice (via speech-based browser or screen reader), and on Braille-based tactile devices. CSS also has rules for alternate formatting if the content is accessed on a mobile device.

The name cascading comes from the specified priority scheme to determine which style rule applies if more than one rule matches a particular element. This cascading priority scheme is predictable.

1.6 PHP

PHP: Hypertext Preprocessor (or simply PHP) is a server-side scripting language designed for Web development, and also used as a general-purpose programming language. It was originally created by Rasmus Lerdorf in 1994; the PHP reference implementation is now produced by The PHP Group. PHP originally stood for Personal Home Page, but it now stands for the recursive initialism PHP: Hypertext Preprocessor. PHP code may be embedded into HTML code, or it can be used in combination with various web template systems, web content management systems, and web frameworks. PHP code is usually processed by a PHP interpreter implemented as a module in the web server or as a Common Gateway Interface (CGI) executable.

The web server combines the results of the interpreted and executed PHP code,

which may be any type of data, including images, with the generated web page.

PHP code may also be executed with a command-line interface (CLI) and can be used to implement standalone graphical applications.

The standard PHP interpreter, powered by the Zend Engine, is free software released under the PHP License. PHP has been widely ported and can be deployed on most web servers on almost every operating system and platform, free of charge.

The PHP language evolved without a written formal specification or standard until 2014, with the original implementation acting as the de facto standard which other implementations aimed to follow. Since 2014 work has gone on to create a formal PHP specification.

1.7 ARCHITECTURE OF DBMS

A Database Management system is not always directly available for users and applications to access and store data in it. A Database Management system can be **centralised** (all the data stored at one location), **decentralised** (multiple copies of database at different locations) or **hierarchical**, depending upon its architecture.

1-tier DBMS architecture also exist, this is when the database is directly available to the user for using it to store data. Generally such a setup is used for local application development, where programmers communicate directly with the database for quick response.

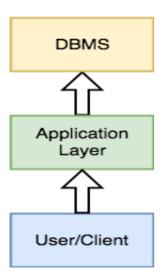
Database Architecture is logically of two types:

- 1. 2-tier DBMS architecture
- 2. 3-tier DBMS architecture

2-tier DBMS Architecture

2-tier DBMS architecture includes an **Application layer** between the user and the DBMS, which is responsible to communicate the user's request to the database management system and then send the response from the DBMS to the user.

An application interface known as **ODBC**(Open Database Connectivity) provides an API that allow client side program to call the DBMS. Most DBMS vendors provide ODBC drivers for their DBMS.



Such an architecture provides the DBMS extra security as it is not exposed to the End User directly. Also, security can be improved by adding security and authentication checks in the Application layer too.

3-tier DBMS Architecture

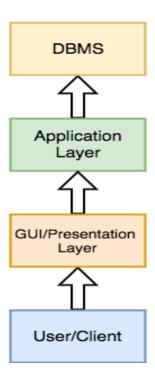
3-tier DBMS architecture is the most coA 3-tier architecture is a type of software architecture which is composed of three "tiers" or "layers" of logical computing.

They are often used in applications as a specific type of client-server system. 3-tier

architectures provide many benefits for production and development environments by modularizing the user interface, business logic, and data storage layers.

Doing so gives greater flexibility to development teams by allowing them to update a specific part of an application independently of the other parts.

This added flexibility can improve overall time-to-market and decrease development cycle times by giving development teams the ability to replace or upgrade independent tiers without affecting the other parts of the system. Commonly used architecture for web applications.



It is an extension of the 2-tier architecture. In the 2-tier architecture, we have an application layer which can be accessed programatically to perform various operations on the DBMS. The application generally understands the Database Access Language and processes end users requests to the DBMS.

In 3-tier architecture, an additional Presentation or GUI Layer is added, which provides a graphical user interface for the End user to interact with the DBMS.

For the end user, the GUI layer is the Database System, and the end user has no idea about the application layer and the DBMS system.

If you have used **MySQL**, then you must have seen **PHPMyAdmin**, it is the best example of a 3-tier DBMS architecture.

SYSTEMANALYSIS

2.1 Literature Survey

Online Scholarship Portal support the interaction between different organisation ready to provide scholarship and applicants, as well as the management of the data involved in the process.

Online Scholarship portal in India plays a crucial role in implementing and disbursing different types of scholarships and financial aid available for meritorious and underserved students. It acts as a dedicated online portal which allows the students from different strata of life to get information about various scholarships available for them and apply for them. It can be broadly categorised into merit based, talent based and mean based.

FOUR AMAZING FEATURES:

> Simplified process for the students:

- 1: All scholarships information available under one umbrella.
- 2: Single integrated application for all scholarships

Improved transparency :

- 1: System suggests the schemes for which a student is eligible.
- 2: Duplicates can be reduced to the maximum extent

> Helps in standardisation :

- 1: Single platform to connect between applicants and scholarship providing institutions and organisations.
- 2: Easy Scholarships processing

➤ Useful Reports

Get actual view of Scholarships available and students information who were awarded scholarships reports.

2.2 EXISTING SYSTEM

Earlier students used to search and apply for scholarships in various scholarship providing websites ,some were authenticate and many were stealing data from student documents. Few Organisation found hard in reaching thier scholarships to students ,many students applied more than one scholarship which caused other needy student deprived of benefits, but this system is being imposed can create a single platform to connect both and save time and money.

Some of the disadvantages of the existing system are:

- Students are not aware of available Scholarship Schemes
- Every Organisations having their own system spends money on maintaining it.
- Reduction in sharing information and user services.
- Time consuming and costly to produce reports and maintain records.

Despite being user friendly, Online Scholarship Portal is missing many of the features included in the best Scholarship websites. It doesn't support uploading documents. It does provide separate fields for view scholarships—and scholarship awardee details, so you can monitor these. But unlike top-rated solutions, you have to manually enter in data rather than having these transactions automatically tracked and recorded in your Daily Expense Manager System.



Fig:2 Existing System

2.3 Proposed System

Earlier students used to search and apply for scholarships in various scholarship providing websites .Donor Organisations found hard in reaching their scholarships to students ,many students applied more than one scholarship which caused other needy student deprived of benefits, but this system is being imposed can create a single platform to connect both applicant and scholarship provider and saves time and money.



Fig:1 proposed system

2.3.1 Scope of the Project

- Maintaining the records of applicant's application details and scholarship details on daily basis is the hectic work if we will do it in the form of hard copy, the main purpose is to easen this work only.
- Online Scholarship Portal is just like an online platform connecting donors and applicants
- Online Scholarship Portal has made applying scholarship process easy.
- Admin offers various services like insertion, deletion, updation and also searches the application, scholarship and testimonials details in record database.

2.3.2 Aim of the Project

- This software helps applicant to fill single application to apply for all kind of eligible scholarships.
- It is designed such a way that one can view all the updates of the scholarships and scholarship awardee details uploaded by the admin.
- The software will help in easy maintaining and updating records of application and scholarship to apply in the website for the user.
- It also helps in quick and easy completion of application submitting process and get scholarship

REQUIREMENT SPECIFICATION

3.1 System Requirements

3.1.1 Hardware Configuration:

Processor : Intel Core

Processor Speed : 13 GHz

RAM Size : 1 GB ram(min)

Minimum Disk Space : 250 GB Space(min)

3.1.2 Software Configuration:

Database :MySql

Server :Xampp

Front End : HTML

Back End : PHP

3.2 Development Environment

HTML

HTML stands for Hypertext Markup Language, it is the standard markup language for creating web pages and web applications. With Cascading Style Sheets(CSS) and JavaScript it forms a triad of cornerstone technologies for the World Wide Web.

Web browsers receives HTML documents from a Web server or from local storage and render them into multimedia web pages. HTML describes the structure of a web page semantically and originally included cues for the appearance of the document.

HTML elements are the building blocks of HTML pages, with HTML constructs, images and other objects, such as interactive forms, may be embedded into the rendered page.

It provides a means to create standard documents by denoting structural semantics for text such as headings, paragraphs, lists, links, quotes and other items. HTML elements are delineated by tags, return using angle brackets. Browsers do not display the HTML tags, but use them to interpret the content of the page.

Cascading Style Sheets(CSS)

It is a style sheet language used for describing the presentation of a document written in a markup language. Although most often used to set the visual style of web pages and user interface written in HTML, the language can be applied to any document, including plain XML, SVG and XUL, and is applicable to rendering in speech, or on other media. Along with HTML and JavaScript, CSS is a cornerstone technology used by most websites to create visually engaging web pages, user interfaces for web applications, and user interfaces for many mobile applications.

CSS is designed primarily to enable the separation of presentation and content, including aspects such as the layouts, colors and fonts. This separation can improve content accessibility, provide more flexibility and control in the specification of presentation characteristics, enable multiple HTML pages to share formatting by specifying the relevant CSS in a separate .css file, and reduce complexity and repetition in the structural content. Separation of formatting and content makes it possible to present the same markup page in different styles.

JavaScript

It is often abbreviated as JS, is a high level, dynamic, weakly typed, prototype based, multi-paradigm, and interpreted programming language.

Alongside HTML and CSS. JavaScript is one of the three core technologies of World Wide Web content production. It is used to make webpages interactive and provide online programs, including video games.

The majority of websites employ it, and all modern web browsers support it without the need for plug-ins by means of a built-in JavaScript engine. Each of the many JavaScript engines represent a different implementation of JavaScript, all based on the ECMAScript specification, with some engines not supporting the spec fully, and with many engines supporting additional features beyond ECMA.

As a multi-paradigm language, JavaScript supports event-driven, functional, and imperative programming styles. It has an API for working with text, arrays, dates, regular expressions, and basic manipulation of the DOM, but the language itself does not include any I/O, such as networking, storage, or graphics facilities, relying for these upon the host environment in which it is embedded. Initially only implemented client-side in web browsers, JavaScript engines are now embedded in many other types of host software, including server-side in web servers and databases, and in non-web programs such as word processors and PDF software, and in runtime environments that make JavaScript available for writing mobile and desktop applications, including desktop widgets.

PHP

It is a server-side scripting language designed primarily for web development but also used as a general-purpose programming language.

PHP was originally created by Rasmus Lerdorf in 1994, the PHP reference implementation is now produced by The PHP Development Team. PHP stands for the acronym: Hypertext Preprocessor.

PHP code may be embedded into HTML or HTML5 markup, or it can be used in combination with various web template systems, web content management systems and web frameworks. PHP code is usually processed by a PHP interpreter implemented as a module in the web server or as a Common Gateway Interface (CGI) executable.

The web server software combines the results of the interpreted and executed PHP code, which may be any type of data, including images, with the generated web page. PHP code may also be executed with a command-line interface (CLI) and can be used to implement standalone graphical applications.

The standard PHP interpreter, powered by the Zend Engine, is free software released under the PHP License. PHP has been widely ported and can be deployed on most web servers on almost every operating system and platform, free of charge.

MySQL SERVER

It is an open-source relational database management system (RDBMS). Its name is a combination of "My", the name of co-founder Michael Widenius's daughter, and "SQL", the abbreviation for Structured Query Language. The MySQL development project has made its source code available under the terms of the GNU General Public Licene, as well as under a variety of proprietary agreements.

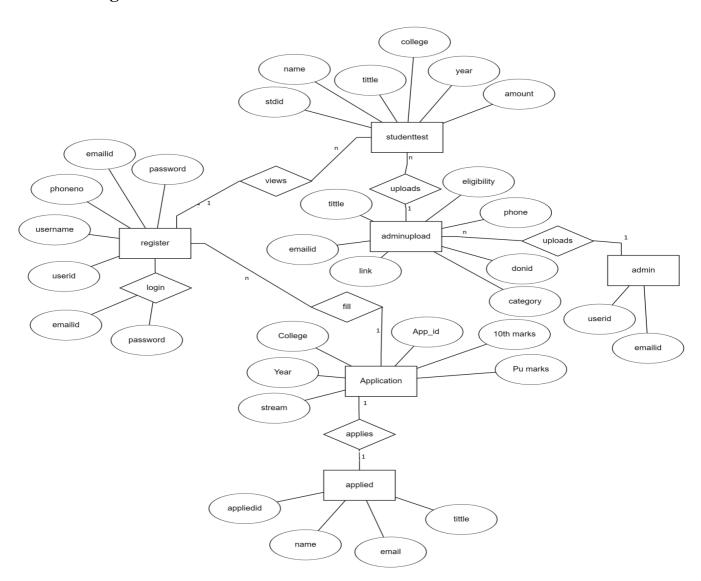
MySQL was owned and sponsored by a single for-profit firm, the Swedish company MySQL AB, now owned by Oracle Corporation. For proprietary use, several paid editions are available, and offer additional functionality.

The mysql server package will install the mysql database server which can interact with using a mysql client. User can use the mysql client to send commands to any mysql server; on a remote computer Themysql server is used to persist the data and provide a query interface for it (SQL). The mysqlclients purpose is to allow you to use that query interface. The client package also comes with utilities that allows you to easily backup/restore data and administer the server.

MySQL is a central component of the LAMP open-source web application software stack (and other " AMP " stacks). LAMP is an acronym for " Linux, Apache, MySQL, Perl / PHP / Python ". Applications that use the MySQL database include: TYPO3, MODx, Joomla, WordPress, phpBB, MyBB, is also used in many high-profile, large-scale websites, including Google (though not for searches).

SYSTEM DESIGN

4.1: ER Diagram



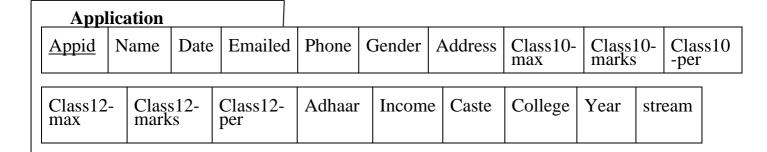
4.2: Schema Diagram

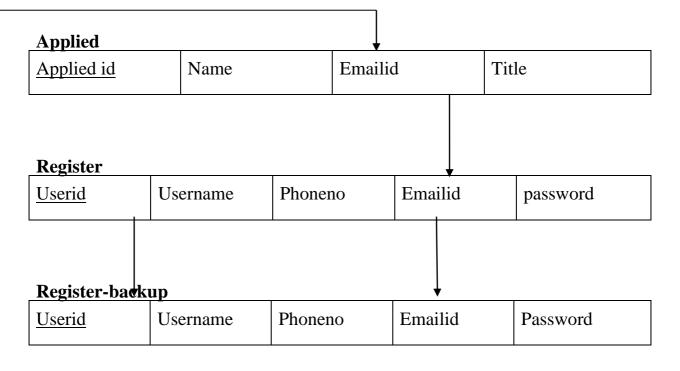
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<u>Userid</u>	Emailid	Password

Adminupload

<u>Donid</u>	Title	Eligibility	Category	Phone	Emailid	link





Studenttest

	Stdid Na	ame Title	College	Year	amount	
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SYSTEM IMPLEMENTATION

5.1 Tables

Admin

SNo	Column_name	Datatype	description
1	Userid	Int(11)	Primary Key
2	Emailed	Varchar(20)	
3	Password	Varchar(20)	

Adminupload

SNo	Column_name	Datatype	description
1	Donid	Int(11)	Primary Key
2	Title	Varchar(50)	
3	Eligibility	Varchar(20)	
4	Category	Varchar(10)	
5	Phone	Int(20)	
6	Emailid	Varchar(30)	
7	Link	Int(30)	

Register

SNo	Column_name	Datatype	description
1	Userid	Int(11)	Primary Key
2	Username	Varchar(20)	
3	Phoneno	Int(10)	
4	Emailed	Varchar(20)	
5	password	Varchar(20)	

Application

SNo	Column_name	Datatype	description
1	Appid	Int(20)	Primary Key
2	Name	Varchar(20)	
3	Date	Varchar(20)	
4	Emailid	Varchar(20)	
5	Phone	Int(20)	
6	Gender	Char(1)	
7	Address	Varchar(100)	
8	Class10-max	Int(5)	
9	Class10-marks	Int(5)	
10	Class10-par	Float(10)	
11	Class12-max	Int(5)	
12	Class12-marks	Int(5)	
13	Class12-par	Float(10)	
14	Adhaar	Int(20)	
15	Income	Varchar(20)	
16	Caste	Varchar(50)	
17	College	Varchar(50)	
18	Year	Int(4)	
19	stream	Varchar(20)	

Register_backup

SNo	Column_name	Datatype	description
1	Userid	Int(11)	Primary Key
2	Username	Varchar(255)	
3	Phoneno	Int(255)	
4	Emailed	Varchar(255)	
5	password	Varchar(255)	

Student testimonial

SNo	Column_name	Datatype	description
	Stdid	Int(50)	Primary Key
	Name	Varchar(30)	
	Title	Varchar(100)	
	College	Varchar(100)	
	Year	Int(5)	
	amount	Int(10)	

5.2 Queries:

Admin:

```
CREATE TABLE `admin` (
`userid` int(11) NOT NULL,
`emailid` varchar(20) NOT NULL,
`password` varchar(20) NOT NULL
);
```

Adminupload:

```
CREATE TABLE `adminupload` (
`donid` int(11) NOT NULL,

`title` varchar(50) NOT NULL,

`eligibility` varchar(20) NOT NULL,

`category` varchar(10) NOT NULL,

`phone` int(20) NOT NULL,

`emailid` varchar(30) NOT NULL,

`link` varchar(30) NOT NULL

);
```

Application:

```
CREATE TABLE `application` (
 `appid` int(20) NOT NULL,
 `name` varchar(20) NOT NULL,
 'date' varchar(10) NOT NULL,
 `emailid` varchar(20) NOT NULL,
 `phone` int(20) NOT NULL,
 `gender` char(1) NOT NULL,
 `address` varchar(100) NOT NULL,
 `class10_max` int(5) NOT NULL,
 `class10_marks` int(5) NOT NULL,
`class10_percent` float NOT NULL,
`class12_max` int(5) NOT NULL,
`class12_marks` int(5) NOT NULL,
`class12_percent` float NOT NULL,
`adhaar` int(20) NOT NULL,
'income' varchar(20) NOT NULL,
`caste` varchar(20) NOT NULL,
'college' varchar(50) NOT NULL,
'year' int(4) NOT NULL,
`stream` varchar(20) NOT NULL
  );
```

Applied:

```
CREATE TABLE `applied` (
`appliedid` int(50) NOT NULL,
`name` varchar(50) NOT NULL,
`emailid` varchar(50) NOT NULL,
`title` varchar(200) NOT NULL
);
```

Register:

```
CREATE TABLE `register` (
`userid` int(11) NOT NULL,
`username` varchar(20) NOT NULL,
`phoneno` int(10) NOT NULL,
`emailid` varchar(20) NOT NULL,
`password` varchar(10) NOT NULL
);
```

Register_backup:

```
CREATE TABLE `register_backup` (
`userid` int(10) NOT NULL,

`username` varchar(255) NOT NULL,

`phoneno` int(255) NOT NULL,

`emailid` varchar(255) NOT NULL,

`password` varchar(255) NOT NULL

);
```

Studenttest:

```
CREATE TABLE `studenttest` (
  `stdid` int(50) NOT NULL,
  `name` varchar(30) NOT NULL,
  `title` varchar(100) NOT NULL,
  `college` varchar(100) NOT NULL,
  `year` int(5) NOT NULL,
  `amount` int(10) NOT NULL
  );
```

5.3 Triggers:

Triggers register:

CREATE TRIGGER `backup` AFTER INSERT ON
`register` FOR EACH ROW INSERT INTO register_backup
VALUES (null,NEW.username,NEW.phoneno,NEW.
emailid,NEW.password)

5.4 Procedure:

BEGIN
Select * from admin upload

END

SNAPSHOTS

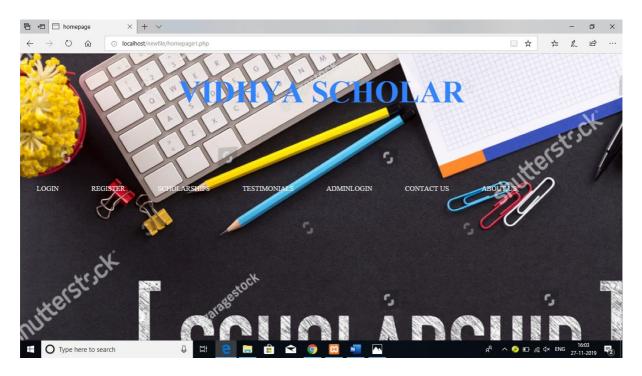


Fig 1 Home Page details

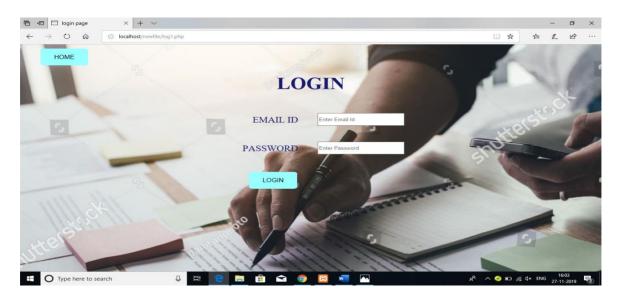


Fig 2 Login Page details

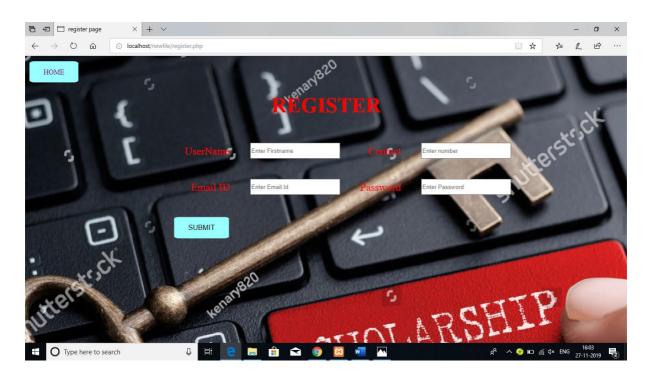


Fig 3 Register Page details

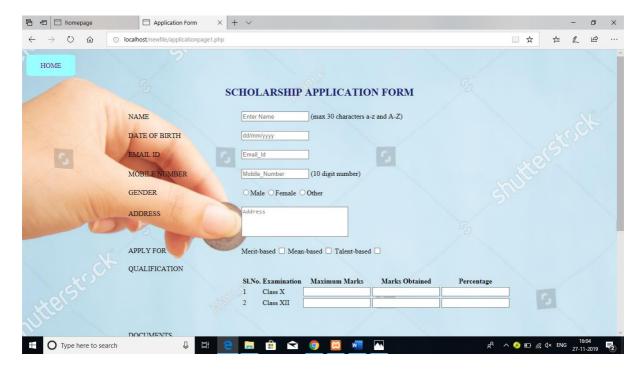


Fig 4 ApplicationPage details

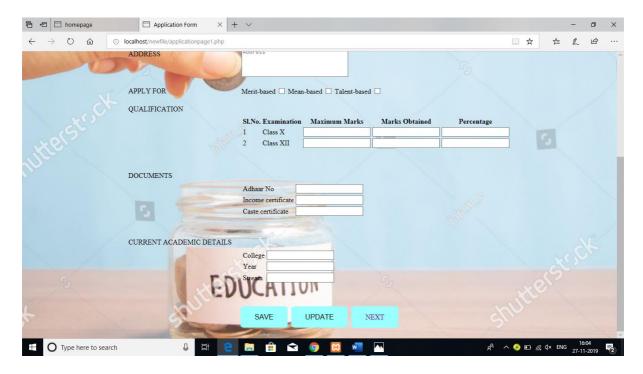


Fig 5 Application Page details

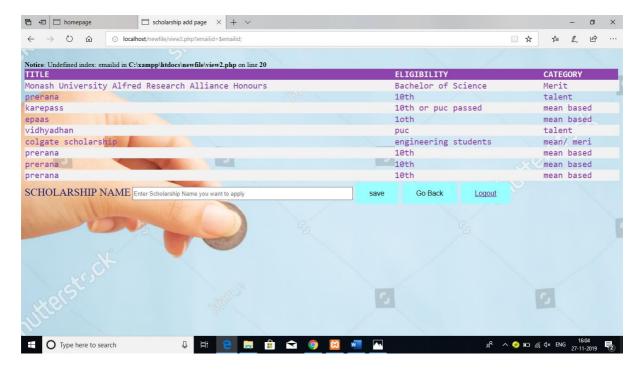


Fig 6 Scholarship details

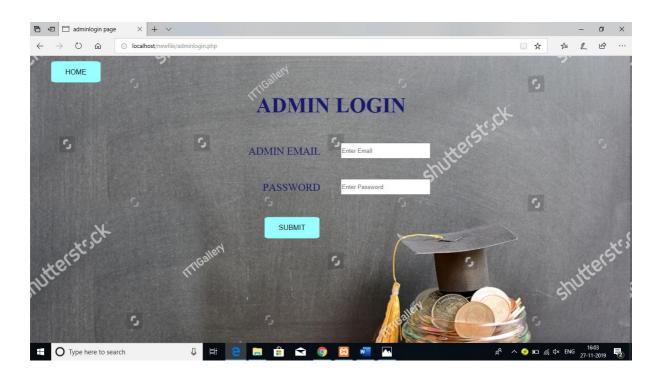


Fig 7 AdminLogin details

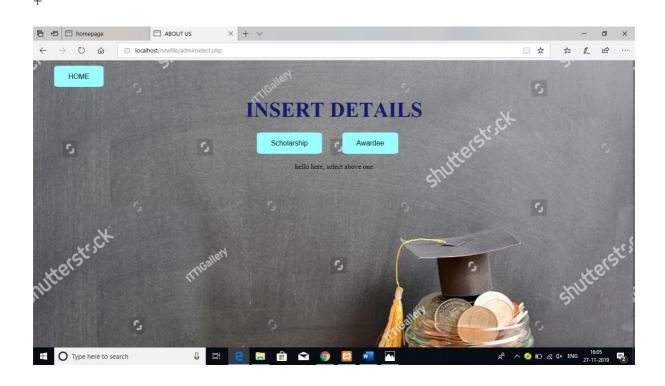


Fig 8 AdminSelect details

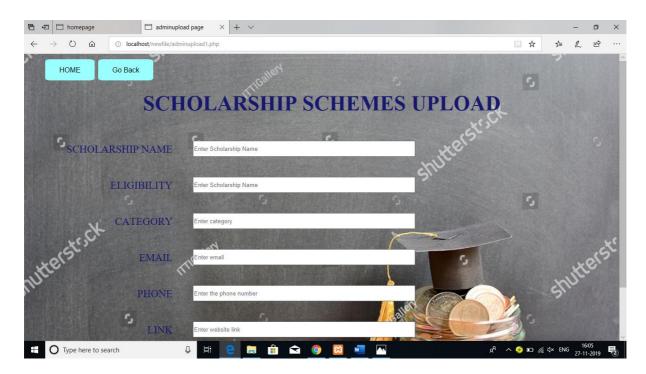


Fig 8 Upload Scheme details

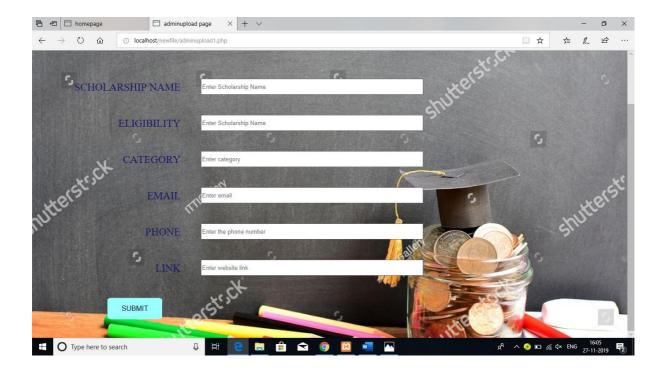


Fig 8 Upload Scheme details

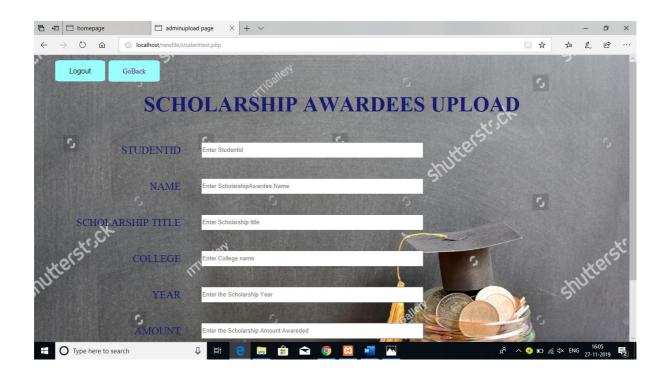


Fig 9 Upload awardee details

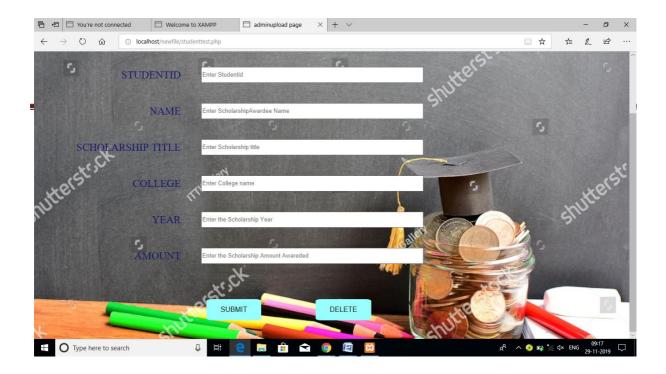


Fig 9 Upload awardee details

CONCLUSION AND FUTURE ENHANCEMENT

Online Scholarship Portal, this project is aimed to reduce paperwork and allowed students to apply for scholarship online irrespective of their geographical locations.

- This is also used to keep track of scholarship list as well as new scholarships and update list.
- It allows admin to add ,update ,remove a list of all types of scholarships available to apply and information about the scholarships.
- It allows admin to add ,update ,remove a list of all students who has obtained scholarships and information about the scholarships.
- It also has an about page which discuss about the Scholarship Portal.

FUTURE WORKS:

This project can be further extended and integrated for:

- This can be used for giving option to students to apply more than one scholarship at a time.
- Providing an application status for a student.

REFERENCES

Websites:

- 1. www.google.com
- 2. www.w3school.com
- 3. www.phppoint.com
- 4. www.mysql.com
- 5. www.youtube.com