E-GOVERNANCE SYSTEM FOR THASILDHAR DEPARTMENT

**abstract**

The aim of this project is to provide the feasible environment to handle the citizens of India those are eligible for the various government schemes. The revenue department work for giving the advertisements and getting the request petitions from the people and verify the request immediately by using the system is going to develop and shows the details of the scheme and eligibility criteria.

This web based application has been widely used for different district headquarters and further it can be governed by the RI (Revenue inspectors) of the particular departments. This system is very useful for the government officials with minimum computer operating skills.

It includes the process of application submission, application request handler, eligibility concern metric, Government benefits schemes recommendation for the people and application status information. The web admin is also the part of the automated status policy enforcement with update from the headquarters. This system is platform independent and can be used by any people.

**INTRODUCTION**

E-government is simply the use of information and communications technology, such as the Internet, to improve the processes of government. Thus, e-government is in principle nothing new. Governments were among the first users of computers. But the global proliferation of the Internet, which effectively integrates information and communications technology on the basis of open standards, combined with the movement to reform public administration known as New Public Management, has for good reason generated a new wave of interest in the topic. E-government promises to make government more efficient, responsive, transparent and legitimate and is also creating a rapidly growing market of goods and services, with a variety of new business opportunities. To some, e-government might seem to be little more than an effort to expand the market of e-commerce from business to government. Surely there is some truth in this. e-government is not only or even primarily about reforming the work processes within and among governmental institutions, but is rather about improving its services to and collaboration with citizens, the business and professional community, and nonprofit and nongovernmental organizations such as associations, trade unions, political parties, churches, and public interest groups.

In India, the government deals with several matters affecting people’s lives. It is said government is all encompassing as it touches the lives of human beings from cradle (health services for women and children) to grave (payment of pensions, gratuity etc.). Government has to tackle unending problems and challenges emanating from over-population, poverty, illiteracy, unemployment and underdevelopment. Government is expected to look after defense, foreign policy, communications and infrastructure, maintenance of land records, maintenance of law and order, collection of revenue, promotion of agriculture, science and technology, international trade, banking, insurance, transport, social welfare, family planning etc. As citizens of India, we have to deal with government in our day-to-day lives. Citizens expect speedy service, courteous treatment, and quick disposal of grievances or applications. This interaction, however, is not always pleasant. The general perception among citizens is that the quality of administration is deteriorating day-by-day and that quality of governance needs to be considerably improved upon. The general feeling outside the government is that the government is huge, it lacks direction, it is unmanageable, is wasteful and it is uncaring of the citizen. But those in the government continue to feel that they are doing a fine job and nothing could be done better. There is, therefore, a wide gap between the expectations of the citizens and their experience with the government. This gap can only be filled by drastic simplification of procedures and change in attitude of civil servants vis-à-vis the citizens. Just as business corporations have discovered over the last few decades that information technology can make their service (or product) delivery value chain more efficient and lead to quality improvements and cost savings, governments in developing countries, over the last 5-7 years, have discovered that information technology can make the provision of services to the citizen more efficient and transparent, can save costs and lead to a higher level of comfort and satisfaction to the citizens in dealing with Government. So far as governments are concerned, the coming together of computerization and internet connectivity/web-enablement in association with process Re-engineering, promises faster and better processing of information leading to speedier and qualitatively better decision making, greater reach and accountability, better utilization of resources and overall good governance. In the case of citizens, it holds the promise of enhanced access to information and government agencies, efficient service delivery and transparency in dealings and interactions with government. With the increasing awareness among citizens about their rights and the resultant increase in expectations from the government to perform and deliver, the whole paradigm of governance has changed.

Among the most interesting and challenging socio technological issues of e-government are in the area of e-Democracy, which aims to apply information and communication technology to improve the public opinion formation process central to government’s primary regulatory function. Here the ambition is to broaden actual public participation, not just the technical possibility, and counter political apathy without disenfranchising the poor or poorly educated. Government, today, is expected to be transparent in its dealings, accountable for its activities and faster in its responses. This has made the use of ICT imperative in any agenda drawn towards achieving good governance. It has also led to the realization that such technologies could be used to achieve a wide range of objectives and lead to faster and more equitable development with a wider reach.

**PROBLEM STATEMENT**

One of the major categories of **E-Governance System for Thasildhar Department** is Government-to-Citizens. The G2C category includes all of the interactions between a government and its citizens that can take place electronically. Since the existing system is manual one, the data have to be collected and stored properly. The documents can be damaged, and there will be difficulty in analyzing and managing data. In some cases, manual systems were completely replaced by the current computerized system about 8-10 years back and in other cases the frequency with which users avail a service might be very low. This might make recalling experience with the manual system challenging for users.

**UNAUTHORIZED ACCESS:**

The documents may include personal information and official information. It is possible that the unauthorized person can access it and alter the information.

**TIME CONSTRAINT:**

Manual calculation of user’s details and generation of details will take more time and it may contain errors.

**LOSS OF DATA:**

The unauthorized people may engage in theft, they can alter the data will leads to data loss. Such kind of security breaches are prohibited in the proposed system.

**EXISTING SYSTEM**

The existing system is having many problems such as security problems, more human involvement which is a time consuming process with many manual calculations. It even includes the machine damage and signature verification process for secured transactions which allows the customers and government to waste their valuable time and resources.

**DISADVANTAGES**

* Lack of security of data.
* More man power.
* Time consuming.
* Needs manual calculations.
* No direct role for the higher officials.
* Damage of machines due to lack of attention.
* Retrieving of data is a tedious job.
* Lots of time has to be spent for doing calculations.
* All these disadvantages lead to the development of proposed system.

**PROPOSED SYSTEM**

The aim of proposed system is to develop a system of improved facilities. The proposed system can overcome all the limitations of the existing system. The proposed system is highly computerized in which the data related to user accounts will be secured high with high accuracy that even reduces the machine damage and human made errors and this existing system is highly efficient to offer best services to the customers as well as government because it has user friendly access that consumes less time when compared with normal management system.

**ADVANTAGE**

The system is very simple in design and to implement. The system requires very low system resources and the system will work in almost all configurations. It has got following features:

* Security of data.
* Ensure data accuracy’s.
* Proper control of the higher officials.
* Reduce the damages of the machines.
* Minimize manual data entry.
* Computerized registration for certificates.
* Minimum time needed for the various processing.
* Greater efficiency.
* Better service.
* User friendliness and interactive.
* Minimum time required.

**SYSTEM REQUIREMENTS**

**SOFTWARE SPECIFICATION**

Server Side Programming : PHP.

Middleware Programming : JAVASCRIPT

Operating System : Windows XP Professional (Service Pack 2)

Web Server : Internet Information Server

Client Script : HTML, CSS and Java Script

Database : MYSQL-Server 2005 Express Edition

**HARDWARE SPECIFICATION**

Processor : Intel Pentium IV Dual Core 2.8 GHz

Hard Disk : 160 GB

Monitor : LG 17” Color Monitor

RAM : 2 GB

Keyboard : 104 Keys Multimedia Keyboard

Mouse : Logitech Optical Mouse

CD – ROM : 52X CD-ROM.

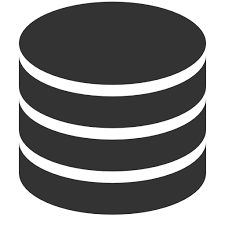
**MODULES**

1. **ABOUT TOOL**
2. **CITIZEN LOGIN**
3. **SCHEMES PORTFOLIO**
4. **E-FORM FILLING**
5. **ELIGIBLITY METRIC**
6. **E-FORM STATUS TRACKER**
7. **THASILDAR ADMIN**
8. **SCHEMES EDIT OPTIONS**
9. **REPORTS**

**MODULE DESCRIPTION**

1. **CITIZEN LOGIN**

This module is used by all the users to log into the account. The user is required to enter his/her user name and password. The user will be prompted to enter the needed page provided username and password are correct otherwise he/she will be asked to reenter password and security authentication persevered. Then only the web page is loaded into the browser on any app. After verification the login page is loaded for user authentication. After successful login user will be redirected to the user’s home page.





User Login

Authenticate

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1. **SCHEME PORTFOLIO**

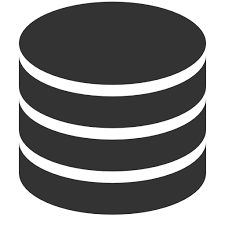
If the user log in to their account, they will be redirected to the next page i.e. scheme portfolio page. In this module, it contains lots schemes about this department. Admin collects all the schemes like Old Age Pension Scheme, Physically handicapped Pension Scheme, Widow Pension Scheme, Agricultural Laborers Pension Scheme, Accident Relief Scheme and all the schemes are stored in the database. All the schemes are day by day updated in the database and the user will check the favor scheme is the concept of this module.



View type of schemes

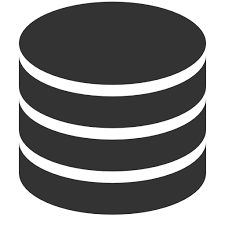
User Login

Stored in db



1. **E-FORM FILLING**

After selecting the type of scheme, user will be redirected to the next module i.e. form filling module. In this module, it contains a form and those forms contain the username, type of selected schemes, and upload the particular proof about the schemes and then fill the user details. And then the form will be stored in the database. After admin login, admin view the database and check the schemes of the given user.



Filling Form

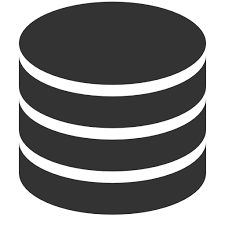
Stored in DB

Check form



1. **ELIGIBILITY METRIC**

After fill the form, the user will be redirected to the eligibility metric module. In this module, it contains the details and conditions of the user selected scheme. User checks the details and all the conditions are satisfied, the user is eligible for that scheme. Then the form and the scheme details are stored in database. Admin check all the details and proof of the user is the concept of this module.





Stored in db

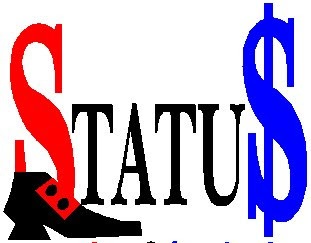
Check eligible or not

Check form



1. **E-FORM STATUS TRACKER**

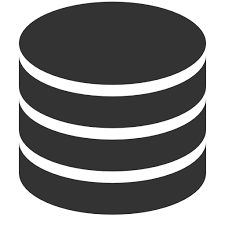
Next module is the status tracker module. In this module it contains a status about the user selected schemes. Admin view all the user details and the form and the proof of the user and all the conditions are satisfied, admin give the appropriate status about the selected scheme and the user view the status and check the details is the concept of this module. If the user submits a wrong proof means they will not eligible for that scheme.



Check status

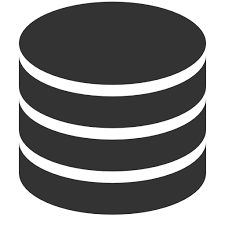
Stored in db

Give status about the form



1. **TAHSILDAR ADMIN**

This module is used for login to the admin account. The admin is required to enter user name and password. The admin will be prompted to enter the needed page provided username and password are correct otherwise admin will be asked to reenter password and security authentication persevered. Then only the web page is loaded into the browser on any app. After verification the login page is loaded for user authentication. After successful login admin will be redirected to the user’s request page.



Check

Admin name

Admin login

1. SCHEMES EDIT OPTIONS

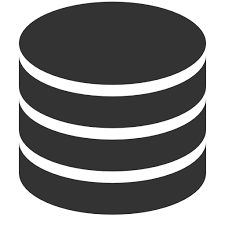
This module is only for admin. In this module it contains the details of the schemes. Admin check the schemes, user form and user details, are accurate and timely available and check the account details customer. After check the form and schemes, the other new schemes are updated in particular module and the old schemes are deleted in the database is the work of admin. Then the user checks the new scheme and all the validation are performed during the form filling.



Edit schemes

Admin login

Stored



1. REPORTS

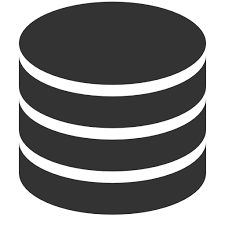
This module is used to view the information about this website. In this module, the users have to fill their username and then submit in to the server. All the information is stored in database then within a minute the user details and scheme details are displayed on the screen. So the user can easily view the information about the schemes and then they can also download the user information and scheme details.





Check reports

Generate reports

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**SOFTWARE DESCRIPTION**

**PHP**

**PHP** is a server-side scripting language designed for web development but also used as a general-purpose programming language. 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 backronym *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 system 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, leaving the canonical PHP interpreter as a *de facto* standard. Since 2014 work has gone on to create a formal PHP specification

PHP started out as a small open source project that evolved as more and more people found out how useful it was. Ramus Lerdorf unleashed the first version of PHP way back in 1994.

•PHP is a recursive acronym for "PHP: Hypertext Preprocessor".

•PHP is a server side scripting language that is embedded in HTML. It is used to manage dynamic content, databases, session tracking, even build entire ecommerce sites.

•It is integrated with a number of popular databases, including MySQL, PostgreSQL,Oracle, Sybase, Informix, and Microsoft SQL Server.

•PHP is pleasingly zippy in its execution, especially when compiled as an Apache module on the Unix side. The MySQL server, once started, executes even very complex queries with huge result sets in record setting time.

•PHP supports a large number of major protocols such as POP3, IMAP, and LDAP. PHP4 added support for Java and distributed object architectures (COM and CORBA), making n-tier development a possibility for the first time.

•PHP is forgiving: PHP language tries to be as forgiving as possible.

•PHP Syntax is C-like

**Environment Setup:**

In order to develop and run PHP Web pages, three vital components need to be installed on your computer system.

**WebServer**- PHP will work with virtually all Web Server software, including Microsoft's Internet Information Server (IIS) but then most often used is freely available Apache Server. Download Apache for free here: http://httpd.apache.org/download.cg

**Database**- PHP will work with virtually all database software, including Oracle and Sybase but most commonly used is freely available MySQL database. Download MySQL for free here: http://www.mysql.com/downloads/index.html

**PHP Parser**- In order to process PHP script instructions, a parser must be installed to generate HTML output that can be sent to the Web Browser. This tutorial will guide you how to install PHP parser on your computer.

The PHP interpreter only executes PHP code within its delimiters. Anything outside its delimiters is not processed by PHP, although non-PHP text is still subject to control structures described in PHP code. The most common delimiters are *<?php* to open and *?>* to close PHP sections. The shortened form *<?* also exists. This short delimiter makes script files less portable, since support for them can be disabled in the local PHP configuration and it is therefore discouraged. However, there is no recommendation against the use of the echo short tag *<?=*. Prior to PHP 5.4.0, this short syntax for *echo()* only works with the *short\_open\_tag* configuration setting enabled, while for PHP 5.4.0 and later it is always available. The purpose of all these delimiters is to separate PHP code from non-PHP content, such as JavaScript code or HTML markup.

The first form of delimiters, *<?php* and *?>*, in XHTML and other XML documents, creates correctly formed XML processing instructions. This means that the resulting mixture of PHP code and other markup in the server-side file is itself well-formed XML.

Variables are prefixed with a dollar symbol, and a type does not need to be specified in advance. PHP 5 introduced *type hinting* that allows functions to force their parameters to be objects of a specific class, arrays, interfaces or callback functions. However, before PHP 7.0, type hints could not be used with scalar types such as integer or string.

Unlike function and class names, variable names are case sensitive. Both double-quoted ("") and here doc strings provide the ability to interpolate a variable's value into the string. PHP treats newlines as whitespace in the manner of a free-form language, and statements are terminated by a semicolon. PHP has three types of comment syntax: /\* \*/ marks block and inline comments; // as well as # are used for one-line comments. The echo statement is one of several facilities PHP provides to output text, *e.g.*, to a web browser.

In terms of keywords and language syntax, PHP is similar to the C style syntax. *if* conditions, *for* and *while* loops, and function returns are similar in syntax to languages such as C, C++, PHP, Java and Perl.

**Data types**

PHP stores whole numbers in a platform-dependent range, either a 64-bit or 32-bit signed integer equivalent to the C-language long type. Unsigned integers are converted to signed values in certain situations; this behavior is different from other programming languages.Integer variables can be assigned using decimal (positive and negative), octal, hexadecimal, and binary notations.

Floating point numbers are also stored in a platform-specific range. They can be specified using floating point notation, or two forms of scientific notation. PHP has a native Boolean type that is similar to the native Boolean types in Java and C++. Using the Boolean type conversion rules, non-zero values are interpreted as true and zero as false, as in Perl and C++.[

The null data type represents a variable that has no value; NULL is the only allowed value for this data type.

Variables of the "resource" type represent references to resources from external sources. These are typically created by functions from a particular extension, and can only be processed by functions from the same extension; examples include file, image, and database resources.

Arrays can contain elements of any type that PHP can handle, including resources, objects, and even other arrays. Order is preserved in lists of values and in hashes with both keys and values, and the two can be intermingled. PHP also supports strings, which can be used with single quotes, double quotes, nowdoc or heredoc syntax.

The Standard PHP Library (SPL) attempts to solve standard problems and implements efficient data access interfaces and classes.

### Functions

PHP defines a large array of functions in the core language and many are also available in various extensions; these functions are well documented in the online PHP documentation. However, the built-in library has a wide variety of naming conventions and associated inconsistencies, as described under history above.

In lieu of function pointers, functions in PHP can be referenced by a string containing their name. In this manner, normal PHP functions can be used, for example, as callbacks or within function tables. User-defined functions may be created at any time without being prototyped. Functions may be defined inside code blocks, permitting a run-time decision as to whether or not a function should be defined. There is a function\_exists function that determines whether a function with a given name has already been defined. Function calls must use parentheses, with the exception of zero-argument class constructor functions called with the PHP operator *new*, in which case parentheses are optional.

Until PHP 5.3, support for anonymous functions and closures did not exist in PHP. While create\_function() exists since PHP 4.0.1, it is merely a thin wrapper around eval() that allows normal PHP functions to be created during program execution.PHP 5.3 added syntax to define an anonymous function or "closure"which can capture variables from the surrounding scope:

function getAdder($x) {

return function($y) use ($x) {

return $x + $y;

};

}

$adder = getAdder(8);

echo $adder(2); // prints "10"

In the example above, getAdder() function creates a closure using passed argument $x (the keyword use imports a variable from the lexical context), which takes an additional argument $y, and returns the created closure to the caller. Such a function is a first-class object, meaning that it can be stored in a variable, passed as a parameter to other functions, etc

Unusually for a dynamically typed language, PHP supports type declarations on function parameters, which are enforced at runtime. This has been supported for classes and interfaces since PHP 5.0, for arrays since PHP 5.1, for "callables" since PHP 5.4, and scalar (integer, float, string and boolean) types since PHP 7.0.PHP 7.0 also has type declarations for function return types, expressed by placing the type name after the list of parameters, preceded by a colon.For example, the getAdder function from the earlier example could be annotated with types like so in PHP 7:

function getAdder(int $x): \Closure {

return function(int $y) use ($x) : int {

return $x + $y;

};

}

$adder = getAdder(8);

echo $adder(2); // prints "10"

echo $adder(null); // throws an exception because an incorrect type was passed

$adder = getAdder([]); // would also throw an exception

By default, scalar type declarations follow weak typing principles. So, for example, if a parameter's type is int, PHP would allow not only integers, but also convertible numeric strings, floats or booleans to be passed to that function, and would convert them. However, PHP 7 has a "strict typing" mode which, when used, disallows such conversions for function calls and returns within a file.

### Objects

Basic object-oriented programming functionality was added in PHP 3 and improved in PHP 4. This allowed for PHP to gain further abstraction, making creative tasks easier for programmers using the language. Object handling was completely rewritten for PHP 5, expanding the feature set and enhancing performance. In previous versions of PHP, objects were handled like value types. The drawback of this method was that code had to make heavy use of PHP's "reference" variables if it wanted to modify an object it was passed rather than creating a copy of it. In the new approach, objects are referenced by handle, and not by value.

PHP 5 introduced private and protected member variables and methods, along with abstract classes, final classes, abstract methods, and final methods. It also introduced a standard way of declaring constructors and destructors, similar to that of other object-oriented languages such as C++, and a standard exception handling model. Furthermore, PHP 5 added interfaces and allowed for multiple interfaces to be implemented. There are special interfaces that allow objects to interact with the runtime system. Objects implementing Array Access can be used with array syntax and objects implementing Iterator or Iterator Aggregate can be used with the foreach language construct. There is no virtual table feature in the engine, so static variables are bound with a name instead of a reference at compile time.

If the developer creates a copy of an object using the reserved word clone, the Zend engine will check whether a \_\_clone() method has been defined. If not, it will call a default \_\_clone() which will copy the object's properties. If a \_\_clone() method is defined, then it will be responsible for setting the necessary properties in the created object. For convenience, the engine will supply a function that imports the properties of the source object, so the programmer can start with a by-value replica of the source object and only override properties that need to be changed.

The following is a basic example of object-oriented programming in PHP:

class Person

{

public $firstName;

public $lastName;

public function \_\_construct($firstName, $lastName = '') { // optional second argument

$this->firstName = $firstName;

$this->lastName = $lastName;

}

public function greet() {

return 'Hello, my name is ' . $this->firstName .

(($this->lastName != '') ? (' ' . $this->lastName) : '') . '.';

}

public static function staticGreet($firstName, $lastName) {

return 'Hello, my name is ' . $firstName . ' ' . $lastName . '.';

}

}

$he = new Person('John', 'Smith');

$she = new Person('Sally', 'Davis');

$other = new Person('iAmine');

echo $he->greet(); // prints "Hello, my name is John Smith."

echo '<br />';

echo $she->greet(); // prints "Hello, my name is Sally Davis."

echo '<br />';

echo $other->greet(); // prints "Hello, my name is iAmine."

echo '<br />';

echo Person::staticGreet('Jane', 'Doe'); // prints "Hello, my name is Jane Doe."

The visibility of PHP properties and methods is defined using the keywords public, private, and protected. The default is public, if only var is used; var is a synonym for public. Items declared public can be accessed everywhere. protected limits access to inherited classes (and to the class that defines the item). private limits visibility only to the class that defines the item.Objects of the same type have access to each other's private and protected members even though they are not the same instance. PHP's member visibility features have sometimes been described as "highly useful." However, they have also sometimes been described as "at best irrelevant and at worst positively harmful."

**Implementations**

The original, only complete and most widely used PHP implementation is powered by the Zend Engine and known simply as PHP. To disambiguate it from other implementations, it is sometimes unofficially referred to as "Zend PHP". The Zend Engine compiles PHP source code on-the-fly into an internal format that it can execute, thus it works as an interpreter.It is also the "reference implementation" of PHP, as PHP has no formal specification, and so the semantics of Zend PHP define the semantics of PHP itself. Due to the complex and nuanced semantics of PHP, defined by how Zend works, it is difficult for competing implementations to offer complete compatibility.

PHP's single-request-per-script-execution model, and the fact the Zend Engine is an interpreter, leads to inefficiency; as a result, various products have been developed to help improve PHP performance. In order to speed up execution time and not have to compile the PHP source code every time the web page is accessed, PHP scripts can also be deployed in the PHP engine's internal format by using an opcode cache, which works by caching the compiled form of a PHP script (opcodes) in shared memory to avoid the overhead of parsing and compiling the code every time the script runs. An opcode cache, Zend Opcache, is built into PHP since version 5.5.Another example of a widely used opcode cache is the Alternative PHP Cache (APC), which is available as a PECL extension.

While Zend PHP is still the most popular implementation, several other implementations have been developed. Some of these are compilers or support JIT compilation, and hence offer performance benefits over Zend PHP at the expense of lacking full PHP compatibility. Alternative implementations include the following:

* HipHop Virtual Machine (HHVM) – developed at Facebook and available as open source, it converts PHP code into a high-level bytecode (commonly known as an intermediate language), which is then translated into x86-64 machine code dynamically at runtime by a just-in-time (JIT) compiler, resulting in up to 6× performance improvements.
* Parrot – a virtual machine designed to run dynamic languages efficiently; Pipp transforms the PHP source code into the Parrot intermediate representation, which is then translated into the Parrot's bytecode and executed by the virtual machine.
* Phalanger – compiles PHP into Common Intermediate Language (CIL) bytecode
* HipHop – developed at Facebook and available as open source, it transforms the PHP scripts into C++ code and then compiles the resulting code, reducing the server load up to 50%. In early 2013, Facebook deprecated it in favor of HHVM due to multiple reasons, including deployment difficulties and lack of support for the whole PHP language, including the create\_function() and eval() constructs.

**JAVASCRIPT**

A scripting language developed by Netscape to enable Web authors to design interactive sites. Although it shares many of the features and structures of the full Java language, it was developed independently. JavaScript can interact with HTML source code, enabling Web authors to spice up their sites with dynamic content. JavaScript is endorsed by a number of software companies and is an open language that anyone can use without purchasing a license. It is supported by recent browsers from Netscape and Microsoft, though Internet Explorer supports only a subset, which Microsoft calls [Jscript](http://www.webopedia.com/TERM/J/JScript.html)

What is JavaScript?

•It is a programming language.

•It is an interpreted language.

•It is object-based programming.

•It is widely used and supported

•It is accessible to the beginner

**Uses of JavaScript**

•Use it to add multimedia elements With JavaScript you can show, hide, change, resize images, and create image rollovers. You can create scrolling text across the status bar.

•Create pages dynamically Based on the user's choices, the date, or otherexternal data, JavaScript can produce pages that are customized to the user.

•Interact with the user It can do some processing of forms and can validate user input when the user submits the form.

**Writing JavaScript**

JavaScript code is typically embedded in the HTML, to be interpreted and

run by the client's browser. Here are some tips to remember when writing

JavaScript commands.

•JavaScript code is case sensitive

•White space between words and tabs are ignored

•Line breaks are ignored except within a statement

•JavaScript statements end with a semi- colon ;

**Implementing JavaScript**

There are three ways to add JavaScript commands to your Web Pages.

•Embedding code

•Inline code

•External file

**External File**

You can use the SRC attribute of the <SCRIPT> tag to call JavaScript code from an external text file. This is useful if you have a lot of code or you want to run it from several pages, because any number of pages can call the same external JavaScript file. The text file itself contains no HTML tags. It is call by the following tag:

<SCRIPT SRC="filename.js">

</SCRIPT>

Programming Basics

Programmers use variables to store values. A variable can hold several types of data. In JavaScript you don't have to declare a variable's data type before using it. Any variable can hold any JavaScript data type, including:

•String data

•Numbers

•Boolean values (T/F)

**Variable Names**

There are rules and conventions in naming variables in any programming language. It is good practice to use descriptive names for variables. The following are the JavaScript rules:

•The variable name must start with a letter or an underscore. firstName or \_myName

•You can use numbers in a variable name, but not as the first character.

name01 or tuition$

•You can't use space to separate characters. userName not user Name

•Capitalize the first letter of every word except the first salesTax or userFirstName.

**Functions**

With functions, you can give a name to a whole block of code, allowing you to reference it from anywhere in yourprogram. JavaScript has built-in functions for several predefined operations. Here are three some functions.

•alert("message")

•confirm("message")

•prompt("message")

**User-Defined Functions**

With user-defined functions, you can name a block of code and call it when

you need it. You define a function in the HEAD section of a web page. It is

defined with the functionkeyword, followed by the function name and any

arguments.

function functionName(argument)

{

statements

}

**XAMPP**

**What is XAMPP?**

XAMPP is an open-source web server package that works on various platforms. It is actually an acronym with X meaning “cross” platform, A for Apache HTTP server, M for MySQL, P for PHP, and P for Perl. XAMPP was designed to help webpage developers, programmers, and designers check and review their work using their computers even without connection to the web or internet. So, basically XAMPP may be used to stand as pages for the internet even without connection to it. It can also be used to create and configure with databases written in MySQL and/or SQLite. And since XAMPP is designed as a cross-platform server package, it is available for a variety of operating systems and platforms like Microsoft Windows, Mac OS X, Linux, and Solaris. To use XAMPP, only one zip, exe or tar file is needed. Users just need to download this file and run the application. There is also not much configuration and tinkering to be done in terms of settings and its components. The XAMPP package is also updated on a regular basis to synchronize with the updates made on the different platforms involved in the package like Apache, PHP, Perl, and MySQL.

Aside from being cross-platform, XAMPP is also a freeware. This means users on different operating systems can download this server package free of charge. Not to mention that there is no configuration necessary to setup the system. After downloading and extracting the free application, users can immediately use XAMPP. Users also do not have to worry on removing the application. If XAMPP is not needed by the user anymore, removing it should not present any problem. One just needs to delete the XAMPP directory and all the files concerning this server package will be deleted. Or if XAMPP was installed using the Windows installer version, one just needs to go to the “uninstall” feature of the operating system to get rid of the server package.

**CSS**

**Cascading Style Sheets** (**CSS**) 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 interfaces written in HTML and XHTML, the language can be applied to any XML 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 webpages, user interfaces for web applications, and user interfaces for many mobile applications.

* CSS is designed primarily to enable the separation of document content from document presentation, including aspects such as the layout, 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.
* This separation of formatting and content makes it possible to present the same markup page in different styles for different rendering methods, such as on-screen, in print, by voice (when read out by a speech-based browser or screen reader) and on Braille-based, tactile devices. It can also be used to display the web page differently depending on the screen size or device on which it is being viewed. Readers can also specify a different style sheet, such as a CSS file stored on their own computer, to override the one the author has specified.
* Changes to the [graphic design](https://en.wikipedia.org/wiki/Graphic_design) of a document (or hundreds of documents) can be applied quickly and easily, by editing a few lines in the CSS file they use, rather than by changing markup in the documents.
* The CSS specification describes 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 results are predictable.

**APACHE**

Apache is the most popular Web server software. It enables a computer to host one or more websites that can be accessed over the Internet using a Web browser. The first version of Apache was released in 1995 by the Apache Group. In 1999, the Apache Group became the Apache Software Foundation, a non-profit organization that currently maintains the development of the Apache Web server software.

Apache's popularity in the Web hosting market is largely because it is open source and free to use. Therefore, Web hosting companies can offer Apache-based Web hosting solutions at minimal costs. Other server software, such as Windows Server, requires a commercial license. Apache also supports multiple platforms, including Linux, Windows, and Macintosh operating systems. Since many Linux distributions are also open-source, the Linux/Apache combination has become the most popular Web hosting configuration.

Apache can host static websites, as well as dynamic websites that use server-side scripting languages, such as PHP, Python, or Perl. Support for these and other languages is implemented through modules, or installation packages that are added to the standard Apache installation. Apache also supports other modules, which offer advanced security options, file management tools, and other features. Most Apache installations include a URL rewriting module called "mod\_rewrite," which has become a common way for webmasters to create custom URLs.

While the Apache Web server software is commonly referred to as just "Apache," it is technically called "Apache HTTP Server," since the software serves webpages over the HTTP protocol. When Apache is running, its process name is "httpd," which is short for "HTTP daemon."

**Apache Open Office:**

Apache Open Office is the leading open-source office software suite for word processing, spreadsheets, presentations, graphics, databases and more. It is available in many languages and works on all common computers. It stores all your data in an international open standard format and can also read and write files from other common office software packages. It can be downloaded and used completely free of charge for any purpose.

**MYSQL**

MySQL is an open source relational database management system (RDBMS) based on Structured Query Language (SQL).

MySQL runs on virtually all platforms, including Linux, UNIX, and Windows. Although it can be used in a wide range of applications, MySQL is most often associated with web-based applications and online publishing and is an important component of an open source enterprise stack called LAMP. LAMP is a Web development platform that uses Linux as the operating system, Apache as the Web server, MySQL as the relational database management system and PHP as the object-oriented scripting language. (Sometimes Perl or Python is used instead of PHP.)

MySQL, which was originally conceived by the Swedish company MySQL AB, was acquired by Oracle in 2008.  Developers can still use MySQL under the GNU General Public License (GPL), but enterprises must obtain a commercial license from Oracle.

Offshoots of MySQL are called forks. They include:

Drizzle – a lightweight open source database management system in development based on MySQL 6.0.

MariaDB – a popular community-developed "drop-in" replacement for MySQL that uses MySQL APIs and commands.

Percona Server with XtraDB– an enhanced version of MySQL known for horizontal scalability.

A MySQL installation provides support for creating databases in it and allows applications to communicate with these databases when correct credentials are given via a database connection. A MySQL database consists of set of data tables. MySQL uses Structured Query Language for its commands (MySQL has also got few non-SQL commands).

We can use SQL to create a database and then create tables in it according to the format we want. Usually in a web application, database and respective data tables are created at installer time. Then data is inserted, fetched, updated and deleted from data tables in the runtime of the application.

**Data Types**

You can see five MySQL data types in the table definition above: **int** for integers, **varchar** for short text, **tinyint** for short integers, **date** for dates, and **text** for long text. In addition to these, MySQL provides some more data types. Choosing the correct data type for each column is important foran optimal database.

**Naming Conventions**

There isn’t a standard naming convention for MySQL. Following are some common conventions.

• All names are lower case (Ex: employee).

• Words are separated by underscore (Ex: first\_name).

• Use singular form (Ex: employee, not employees).

**Database Operations**

MySQL allows all four CRUD (Create, Read, Update, Delete) operations. Often you would see these operations as Insert, Select, Update, and Delete relevant to their SQL statements.

**Storage Engines**

MySQL has several Storage Engines that enable different features on data tables. For example, if you want to automatically delete all the corresponding records in **employee department** table when an employee is deleted from the **employee** table, then you have to use **InnoDB** storage engine (for defining constraints).

**SQL Modes**

MySQL has the ability to run in different SQL modes, enabling different restrictions. For example, at default configuration, you can enter 0000-00-00 for a date field. But if you are running in **Traditional** mode, MySQL will throw an error when you try to insert 0000-00-00 into a date field, since it’s not a valid date. You can set the SQL mode per session (generally for the span of starting and stopping the MySQL server) or set it permanently by configuring the MySQL configuration file (**my.ini** in Windows and **my.cnf** in Mac OS/Linux).

**User Types**

MySQL allows the creation of users and to assigning different privileges for defined users. User credentials are needed when an application needs to make a connection with MySQL and execute operations on a database. Allowing for different privileges makes operations on a database safe. For example, for the same database, you can have one user with all the privileges and another with only viewing privileges.

**Executing Commands**

All SQL commands you type at the MySQL prompt should have a semicolon (;) at their ends. The commands will not run till you enter a semicolon (It’s possible to use **\G** instead of semicolon as explained below).

In addition to the SQL commands, MySQL has its own set of commands. To see these commands, type **help** at the MySQL prompt as below. These commands aren’t required to have a semicolon at the end. After typing a command, hit **Enter** key to execute the command.

mysql> help

**Command-line Pretty Output**

If you find the output of a certain SQL command difficult to read, try **\G** in place of the semicolon

as shown in the following example. This will display the output in a vertical format and remove

surrounding dashed lines.

mysql> SHOW TABLE STATUS FROM company\_db \G

**SHOW TABLE STATUS** command is covered in **Database Commands** chapter.

**Managing MySQL Users**

In MySQL, you can create user accounts²⁵ with different privileges. Privileges can vary from

accessing several databases to accessing only one column in a table.

**Root User**

By default, MySQL has a super user called **root** that has all the privileges. You need to be logged in as **root** to execute many MySQL administrative tasks, including managing users.

**Changing Root Password**

If you didn’t specifically set the **root** password when installing MySQL, most of the times it would

be empty. If the **root** password is empty, make sure to reset it with a proper password for better

security.

In command-line, you can use the following command to change **root** password. Type your preferred password in place of **newpassword**. After hitting the **Enter** key, it will ask you to enter the current password. If the current password is empty, just hit the **Enter** key.

mysqladmin -u root -p password 'newpassword'

**Logging as a User**

Use the following command to log in as **root** user. For logging in as a different user, type that

username in place of **root**. After hitting the **Enter** key, it will ask you to enter the password. After entering the correct password, you would see the MySQL prompt (**mysql>**) where you can enter

MySQL commands.

mysql -u root -p

**MySQL Extension**

This was the first method PHP provided to interact with MySQL. This extension provides a set of built-in functions for connecting and making database queries. If a PHP built-in function starts with term **mysql**, it’s a function of this extension.

For example, the following is the function usedfor connecting to MySQL. mysql\_connect('hostname', 'username', 'password'); MySQL extension only supports features of MySQL versions prior to 4.1.3. You can’t use advanced features of MySQL like Prepared Statements that was introduced after MySQL version 5 with this extension. But since many PHP applications only need to execute CRUD operations, you will still see functions of this extension in use. As of PHP version 5.3, there is no further development in this extension and it is only maintained.

**PHP Data Objects (PDO)**

PDO is a built-in object-oriented database abstraction layer that is available from PHP version 5. It abstracts specific database operations and provides a common interface for interacting with all supported databases. That is, if you use PDO for database operations in your PHP application, you can switch from MySQL to PostgreSQL³⁰ with minimal code changes.

**mysqli\_connect()**

This function is used for connecting to MySQL. Before doing any database operation, you need to connect to MySQL. On success, this function returns a link identifier that you can use in other MySQLi functions. On failure, it will throw an error. Following is how a user named **robin** with password **robin123** needs to connect to a database called **company\_db** at **localhost**. User **robin** should have privileges to access **company\_db**.

$link = mysqli\_connect('localhost', 'robin', 'robin123', 'company\_db');

If your MySQL port is different from the default one (3308), you need to give the port number as the fifth parameter.

USE CASE DIAGRAM

A use case diagram is a type of behavioral diagram defined by the Unified Modeling Language (UML). It purpose is to present a graphical overview of the functionality provided by a system.

Tag details

Settings

# Database

Administrator

Concern details

Job details Exam details

**End user**

CAsE TOOL FOR ANALYSIS

CASE Building Blocks:

## Environment Architecture

## Hardware Platform

## Operating System

## Portability Services

## Integration Framework

CASE Tools

* To test the developed software
* To maintain the implemented software
* To trained the new people in software development
* To get clear idea about software engineering processes

The compilers, editors and debuggers those are available to support most conventional programming languages. Web development tools include to the generation of text, graphics, forms, scripts and other elements of a web page.

UML

**Unified Modeling Language (UML)** is a standardized visual specification language for object modeling. UML is a general-purpose modeling language that includes a graphical notation used to create an abstract model of a system, referred to as a UML model.

User

Concern Details

Exam Details

Job Details

Report

### Maintaining

Commands

**INPUT DESIGN AND OUTPUT DESIGN**

**INPUT DESIGN**

The input design is the link between the information system and the user. It comprises the developing specification and procedures for data preparation and those steps are necessary to put transaction data in to a usable form for processing can be achieved by inspecting the computer to read data from a written or printed document or it can occur by having people keying the data directly into the system. The design of input focuses on controlling the amount of input required, controlling the errors, avoiding delay, avoiding extra steps and keeping the process simple. The input is designed in such a way so that it provides security and ease of use with retaining the privacy. Input Design considered the following things:’

* What data should be given as input?
* How the data should be arranged or coded?
* The dialog to guide the operating personnel in providing input.
* Methods for preparing input validations and steps to follow when error occur.

**OBJECTIVES**

1. Input Design is the process of converting a user-oriented description of the input into a computer-based system. This design is important to avoid errors in the data input process and show the correct direction to the management for getting correct information from the computerized system.

2. It is achieved by creating user-friendly screens for the data entry to handle large volume of data. The goal of designing input is to make data entry easier and to be free from errors. The data entry screen is designed in such a way that all the data manipulates can be performed. It also provides record viewing facilities.

3. When the data is entered it will check for its validity. Data can be entered with the help of screens. Appropriate messages are provided as when needed so that the user will not be in maize of instant. Thus the objective of input design is to create an input layout that is easy to follow

**OUTPUT DESIGN**

A quality output is one, which meets the requirements of the end user and presents the information clearly. In any system results of processing are communicated to the users and to other system through outputs. In output design it is determined how the information is to be displaced for immediate need and also the hard copy output. It is the most important and direct source information to the user. Efficient and intelligent output design improves the system’s relationship to help user decision-making.

1. Designing computer output should proceed in an organized, well thought out manner; the right output must be developed while ensuring that each output element is designed so that people will find the system can use easily and effectively. When analysis design computer output, they should Identify the specific output that is needed to meet the requirements.

2. Select methods for presenting information.

3. Create document, report, or other formats that contain information produced by the system.

The output form of an information system should accomplish one or more of the following objectives.

* Convey information about past activities, current status or projections of the
* Future.
* Signal important events, opportunities, problems, or warnings.
* Trigger an action.
* Confirm an action.

**FEASIBILITY STUDY**

**Technical Feasibility**

All code is written in PHP programming language. PHP has true cross platform development features. The software requirements for the project are minimal. The software PHP is easily available online. The hardware support too is very minimal and is found in almost all systems today. Issues like processor and memory need not be considered since the software requires only the basic configuration and is independent otherwise. Adding to the previous point, the software also requires only less number of processor cycles. Hence it can be concluded that the project is technically feasible.

**Economic Feasibility**

The project can be said to be economically feasible since the resources for producing the software are minimum. The coding language is PHP, which is freely available and can be downloaded from website. As the project doesn’t involve any hardware (pure software), the cost of hardware doesn’t exist: hence it is economically feasible.

**Operation Feasibility**

Since the entire project is coded in php, the platform independency advantage can be used to the fullest. It can be run on any machine irrespective of platform, hardware configuration and other details. If the processor speed of the machine on which it is run, is as high as the order of 2.80 GHz, faster execution rates can be achieved for even high value of bit size.

TESTING STRATEGY

Software testing is a critical element of a software quality assurance and represents the ultimate reviews of specification, design and coding. Testing presents an interesting anomaly for the software. During earlier definition and development phases, it was attempted to build software from an abstract concept to a tangible implementation.

The testing phase involves the testing of the developed system using various test data. Preparation of test data plays a vital roll in the system testing. After the preparing the test data system under study was tested using those test data. While testing the system by using test data, errors were found and corrected by using following testing steps and corrections are also noted for future use.

Thus, a series of testing was performed for the proposed system before the system was ready for the implementation.

Testing Objectives:

There are several rules that can server as testing objectives. They are

* Testing is a process of executing a program with the intent of finding an error.
* A good case is one that has a high probability of finding an undiscovered error.
* A successful test is one that uncovers an undiscovered error.
* If testing is conducted successfully according to the objectives stated above, it will uncover errors in the software. Also testing demonstrates that software functions appear to the working according to specifications that performance requirements appear to have been set.

Types of Testing:

The various types of testing done on the system are:

* Unit Testing
* Integration Testing
* Validation Testing
* Output Testing
* System Testing
* Performance Testing
* User Acceptance Testing

Unit Testing:

Unit testing focuses verification effort on the smallest unit of software design the module. This is also known as module testing. The unit testing is always white box oriented and the step can be contacted in parallel for modules. In this testing each module is found to be working satisfactory as regards to the expected output from the module.

Integration Testing:

Integration testing is a symmetric technique for constructing the program structure while at the same time conducting tests to uncover errors associated with interfacing. The objectives is to take unit tested modules and build a program structure that has been dictated by design.

A set of errors encountered. Correction is difficult because the isolation of causes is complicated by the vast expense of the entire program. Using integrated test plans prepare in the design phase of the system development as guide, the integration testing was carried out. All the errors found in the system were corrected of the next testing steps.

Validation Testing:

All the culmination of integration testing, software is completely assembled as package, interfacing error have been uncovered and corrected and a final series of software tests – the validation testing begins. Validation testing can be defined in many ways, but a simple definition is that validation succeeds when the software functions in a manner that can be reasonably expected by the user/customer. Software validation conformity is followed with the following requirements

* The function or performance characteristics conform to specification and are accepted.
* A deviation from specification uncovered and a deficiency list is created.

Output Testing:

The output generate or displayed by the system under consideration are tested by asking the users about the format required by them. Here, the format is considered into two ways. One is on the screen and the other is printed format.

The output format on the screen is found to be correct as the format was designed in the system design phase according to the user needs. The output testing does not result any correction in the system.

System Testing:

System testing is series of different tests whose primary purpose is to fully exercise the computer based system. Although each test has a different purpose, all the work should verify that all system elements have been properly **integrated and perform allocated functions.**

Performance Testing:

This testing is designed to test the runtime performance of software within the context of an integrated system. This testing occurs throughout all steps in the testing process.

User Acceptance Testing:

User acceptance of the system is the key factor for the success of any system. The system under consideration was tested for the user acceptance by constantly keeping in touch with the prospective system users at the time of developing and making change were ever required. This is done in regard to the following points:

* Input screen design
* Output screen design
* On-line message to guide the user
* Menu-driven system

Format of ad-hoc report and other outputs.

**DIAGRAMS**

**USECASE DIAGRAMS**

****

**CLASS DIAGRAM**



**SEQUENCE DIAGRAM**

****

**COLLOBRATION DIAGRAM**



**COMPONENT DIAGRAM**



**ACTIVITY DIAGRAM**

****

**LEVEL DIAGRAM**

**LEVEL 0:**

User

Server

**LEVEL 1:**

Server

User

Admin

**LEVEL 2:**

Server

User

Admin

**ARCHITECTURE DIAGRAM**

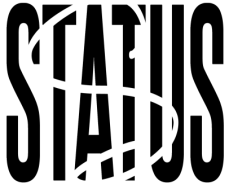




Check schemes

User Login

Form Filling

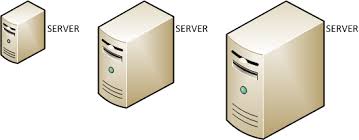
icon-male-check-48.png

Eligibility or not

Check status

Stored





Admin Login

Check form details

Update details



**FUTURE ENHANCEMENT**

This website has also proposed future technology for E-Governance system in tahsildar department with pictorial representation of working of E-Governance with new technology. We have also proposed benefits of clouds with a graph showing how clouds reduce labor cost. These technologies not only provide organization, technical benefits but also provide economical benefits. Email notification for registering schemes.

**CONCLUSION**

With the rapid explosion of internet technology in the world in the last few years there is need to think where we will be and we want to be in the future. With the time grows new technology will come and develop at a rapid pace. E-Governance with open source is very popular in west countries but in India it is still an emerging technology. In this website, they have given a framework and application of **e-governance system for thasildar department** along with a list E-Governance projects run by state and central governments.

**REFERENCES**

* 11th Report of the 2nd Administrative Reforms Committee Report, 2008
* Yadav K.P. Singh 2001 ‘Cover Story: Can Indian Villages be Logged on to Infotech Highway?’, Down to Earth.
* Norris, Pippa 2001, Digital Divide? Civic Engagement, Information Poverty and the Internet in Democratic Societies. Cambridge: Cambridge University Press. Journal of Theoretical and Applied Information Technology © 2005 - 2010 JATIT & LLS. All rights reserved. www.jatit.org 42
* Deepak Ghaisas, 2007, [http:// egovindia.wordpress.com/2007/04/22Nation al-Policy-on-egovernance-required]
* Schware, Robert 2000 ‘Information Technology and Public Sector Management in Developing Countries: Present Status and Future Prospects’, Indian Journal of Public Administration: 411–16.
* Ministry of Information Technology (MIT) 2001 ‘Electronic Governance — A Concept Paper’, Ministry of Information Technology, India. [http://egov.mit.gov.in/]
* Global Campaign for Free Expression, Government of India, 2000 ‘Right to Information, Capacity Building for Quality Government, and Grievances Redress Mechanism in India’, Country Paper presented at the Roundtable Conference on Just and Honest Government, India Habitat Centre, New Delhi, 11 Feb. [http://persmin.nic.in/arpg/conf1.htm]
* Upadhyaya, R. 2000 ‘E-governance and Computer Applications’, Position Paper. Ottawa: International Development Research Center.
* Government of India 2001 E-governance. Ministry of Personnel, Public Grievances and Pensions. [http://persmin.nic.in/arpg/egov1.htm]
* National e-Governance Plan, Ministry of Communication & Information Technology, Government of India
* Automation of Land Records State Government of Karnataka [http://www.revdept-01.kar.nic.in/] Registration Project State Government of Andhra Pradesh, 1996, [http://igrs.ap.gov.in/]
* E-Governance at Regional Transport Offices in Tamil Nadu,2007, National Informatics Centre Tamil Nadu State Centre [http://www.tn.nic.in/tnhome/projectfiles/br ochure-transport.pdf]

**Book references**

1. **Advanced PHP Programming** by Schlossnagle.Sams. Paperback- October 2003.
2. **Beginning PHP, MySQL and Apache**. Wrox Press Ltd. Paperback- 1 June, 2003.
3. **Making Use of PHP** by Appu.John Wiley & Sons Inc. Paperback- 24 July, 2002
4. **PHP and MySQL Web Development** by Luke Welling, Laura Thomson.Sams. Paperback- 30 March, 2001
5. **PHP Bible** by Converse.John Wiley & Sons Inc. Paperback- 4 October, 2002

**Website references**

* www.w3schools.com
* www.tutorialspoint.com
* www.sitepoint.com
* www.homeandlearn.co.uk
* www.codingunit.com