VISVESVARAYA TECHNOLOGICAL UNIVERSITY

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A Mini Project Report on

Aptitude Assessment

Submitted in partial fulfillment of the requirements as a part of the Web Technology and its Application Laboratory for the award of degree of

Bachelor of Engineering

in

Computer Science and Engineering

Submitted by

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2018 – 2019

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CERTIFICATE

This is to certify that the mini project report entitled **Aptitude Assessment** has been successfully completed by **Ajaykumar Majukar (2KL15CS005)** in partial fulfillment of the requirements as a part of the **Web Technology and it's Applications** Laboratory for the award of the degree of **Bachelor of Engineering in Computer Science and Engineering** under Visvesvaraya Technological University, Belagavi during academic year **2018 – 2019.** It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The mini project report has been approved as it satisfies the academic requirements as a part of Web Technology and it's application for the said degree.

Faculty Incharge	HOD CSE	Principal

External Viva

Name of the Examiners	Signature with date
1. _____	_____
2. _____	_____

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CERTIFICATE

This is to certify that the mini project report entitled **Aptitude Assessment** has been successfully completed by **Nadeem Nakkashi (2KL15CS040)** in partial fulfillment of the requirements as a part of the **Web Technology and it's Applications** Laboratory for the award of the degree of **Bachelor of Engineering in Computer Science and Engineering** under Visvesvaraya Technological University, Belagavi during academic year **2018 – 2019.** It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The mini project report has been approved as it satisfies the academic requirements as a part of Web Technology and it's application for the said degree.

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2. _____	_____

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ABSTRACT

This project **Aptitude Assessment** is developed on **PHP** and **MySQL.** The main objective for developing this project is to manage aptitude assessment related to different topics.This project provides lots of features to manage in very well manner. It contains a lot of advance modules which makes the back end system very powerful. It also proceeds through a sequence of well-designed forms provider with validations to ensure consistency, reliability and most importantly correctness of information fed into the database.

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INTRODUCTION

1.1 Introduction to Languages:

HTML:

HTML is the standard markup language for creating Web pages.HTML stands for Hyper Text markup Language.HTML describes the structure of Web pages using markup.HTML elements are the building blocks of HTML pages.HTML elements are represented by tags.

HTML tags

HTML tags label pieces of content such as "heading", "paragraph", "table", and so on.

HTML Documents

All HTML documents must start with a document type declaration: <!DOCTYPE html>.The HTML document itself begins with <html> and ends with </html>.The visible part of the HTML document is between <body> and </body>.

HTML Elements

An HTML element usually consists of a **start** tag and **end** tag, with the content inserted in between:

<tagname>Content goes here...</tagname>

The HTML Style Attribute

Setting the style of an HTML element, can be done with the style attribute.

HTML Background Color

The background-color property defines the background color for an HTML element.

Styling HTML with CSS

CSS stands for **C**ascading **S**tyle **S**heets.CSS can be added to HTML elements in 3 ways: **Inline** - by using the style attribute in HTML elements. **Internal** - by using a <style> element in the <head> section. **External** - by using an external CSS file.

CSS Fonts

The CSS colour property defines the text colour to be used. The CSS font-family property defines the font to be used. The CSS font-size property defines the text size to be used.

CSS Border

The CSS border property defines a border around an HTML element:

CSS Padding

The CSS padding property defines a padding (space) between the text and the border:

CSS Margin

The CSS margin property defines a margin (space) outside the border:

HTML Links - Hyperlinks

HTML links are hyperlinks.You can click on a link and jump to another document.

Defining an HTML Table

An HTML table is defined with the <table> tag.Each table row is defined with the <tr> tag. A table header is defined with the <th> tag. By default, table headings are bold and centered. A table data/cell is defined with the <td> tag.

PHP:

PHP is an acronym for "PHP: Hypertext Preprocessor".PHP is a widely-used, open source scripting language.PHP scripts are executed on the server

Advantages Of PHP Language

- PHP language has its roots in C and C++. PHP syntax is most similar to C and C++ language syntax. So, programmers find it easy to learn and manipulate.
- MySQL is used with PHP as back-end tool. MySQL is the popular online database and can be interfaced very well with PHP. Therefore, PHP and MySQL are excellent choice for webmasters looking to automate their web sites.
- PHP can run on both UNIX and Windows servers.
- PHP also has powerful output buffering that further increases over the output flow. PHP internally rearranges the buffer so that headers come before contents.
- PHP is dynamic. PHP works in combination of HTML to display dynamic elements on the page. PHP only parses code within its delimiters, such as. Anything outside its delimiters is sent directly to the output and not parsed by PHP.
- PHP can be used with a large number of relational database management systems, runs on all of the most popular web servers and is available for many different operating systems.
- PHP5 a fully object oriented language and its platform independence and speed on Linux server helps to build large and complex web applications.
- So, in general PHP is cheap, secure, fast and reliable for developing web applications

1.2 Database used:

MySQL database:

MySQL is a database system, used for developing web-based software applications.MySQL used for both small and large applications.MySQL is a relational database management system (RDBMS).MySQL is fast reliable and flexible and easy to use. MySQL supports standard SQL (Structured Query Language).MySQL is free to download and use. MySQL was developed by Michael Widenius and David Axmark in 1994.MySQL is presently developed, distributed, and supported by Oracle Corporation.

Create a Database

Create Database statement is used to create a database in MySQL. We have to add the Create Database statement to the mysqli_query() function to execute the command.

Create a Table

Create Table statement is used to create a table in MySQL database. We have to add the Create Table statement to the mysqli_query() function to execute the command. You must select the database before creating tables in the database. To create tables in the database, the data type and maximum length of the field should be defined, e.g., varchar(20).Each table should have a primary key field; a primary key is unique and key value cannot occur twice in one table.

SYSTEM ANALYSIS

2.1 SCOPE OF THE PROJECT

"Aptitude Assessment System" has been designed to computerized the following functions that are performed by the system:

Users signup form

Provide user interface for aptitude test

Users can upload their profile picture

Select category according to thier fielf of interest

Admin interface to Add new questions

Provide accumulative result to the user

2.2 AIM OF PROJECT

Aptitude Assessment System provides the facility to view the catagories, and then to select your favorite subject to give aptitude test.

The objectives of proposed system are:

- ✓ Facilities ease of operation.
- ✓ Ensure data integrity and security.
- ✓ Less manpower.
- ✓ Generate accurate reports.
- ✓ Accurate handling in multiple details of multiple customers.

2.3 Hardware and Software Requirement

SOFTWARE CONFIGURATION

OPERATING PLATFORM	:	WINDOWS 2000/NT/XP/7/8/10
DBMS	:	SQLSERVER 2000
SOFTWARE	:	XAMPP v3.2.2
FRONT END TOOL	:	HTML & CSS

HARDWARE CONFIGURATION

RAM	:	128MB
HARD DISK	:	MINIMUM 20 GB

SYSTEM DESIGN

3.1 ARCHITECTURE DIAGRAM

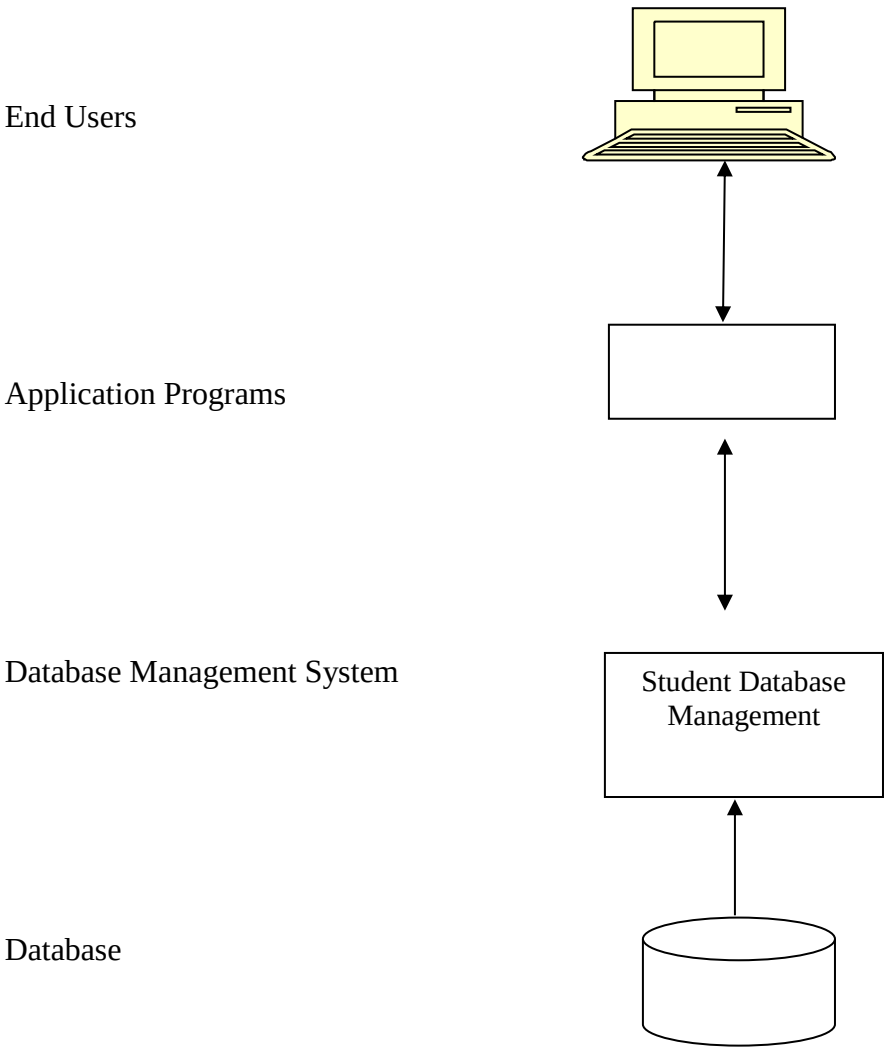

Fig 3.1

3.2 USE-CASE DIAGRAM

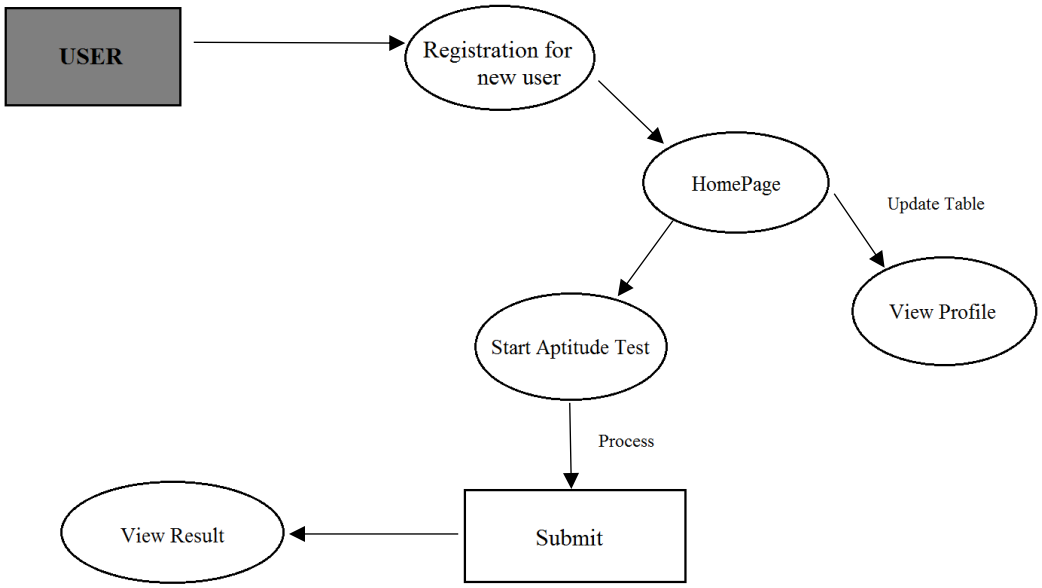

Fig 3.2

3.3 ER Diagram

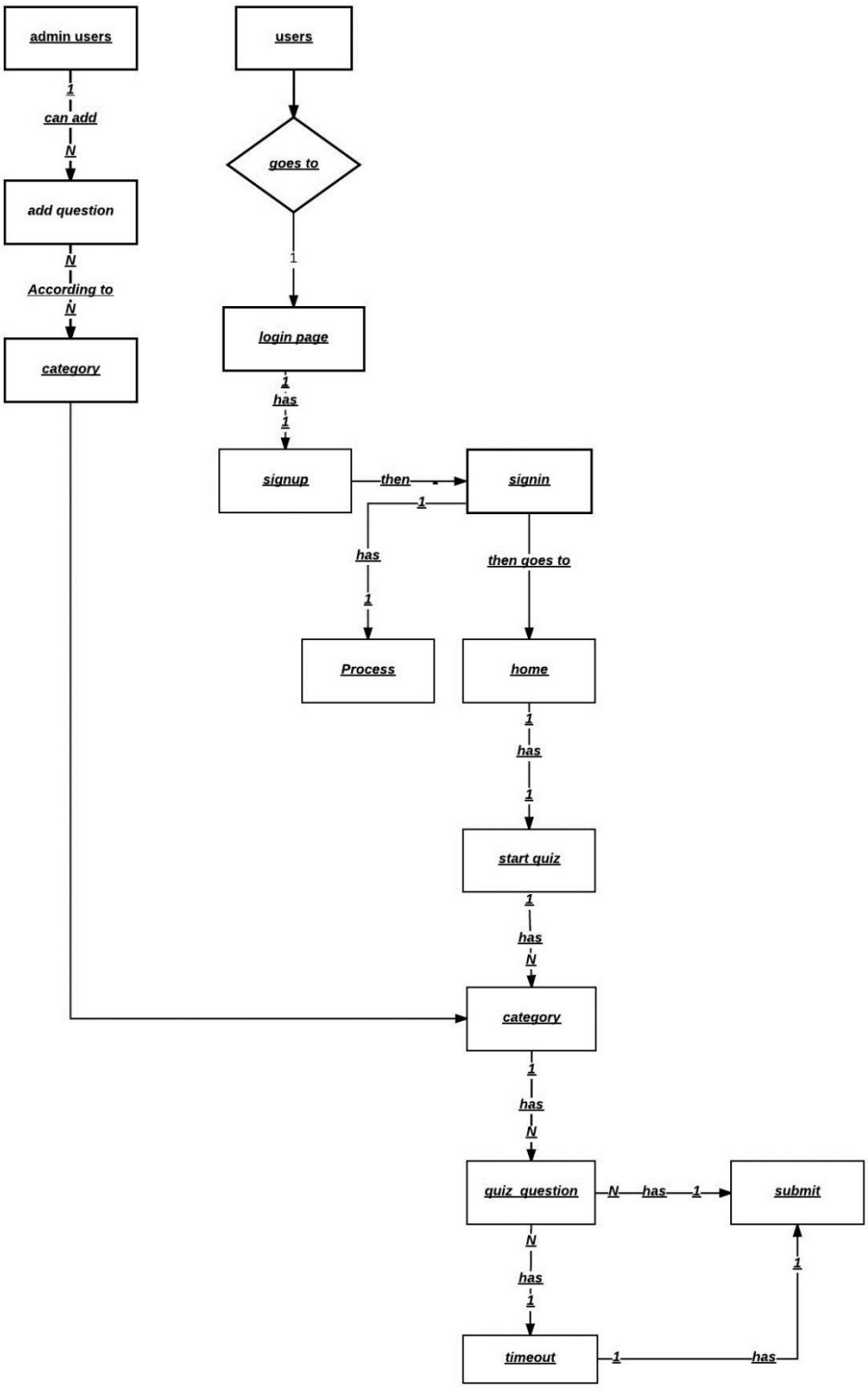

Fig 3.3

IMPLEMENTATION

4.1 DATABASE CONNECTION

```php
<?php
class user{
    public $host="localhost";
    public $username="root";
    public $pass="";
    public $db_name="quiz_oops";
    public $conn;

    public function __construct()
    {
    $this->conn=new mysqli($this->host,$this->username,$this->pass,$this->db_name);
        if($this->conn->connect_errno)
        {
        die("database connection failed".$this->conn->connect_errno);
        }
    }

    public function admin($dataa)
    {
        $this->conn->query(dataa);
    }
}

?>
```

Fig 4.1

HOST : localhost

USERNAME : root

PASSWORD : “”

DATABASE NAME : quiz_oops

4.2 MODULES EXPLANATION

TIMER

```
function timeout()
{
    var hours=Math.floor(timeLeft/3600);
    var minute=Math.floor((timeLeft-(hours*60*60)-30)/60);
    var second=timeLeft%60;
    var hrs=checktime(hours);
    var mint=checktime(minute);
    var sec=checktime(second);
    if(timeLeft<=0)
    {
        clearTimeout(tm);
        document.getElementById("form1").submit();
    }
    else
    {

        document.getElementById("time").innerHTML=hrs+":"+mint+":"+sec;
    }
    timeLeft--;
    var tm= setTimeout(function(){timeout()},1000);
}
function checktime(msg)
{
    if(msg<10)
    {
        msg="0"+msg;
    }
    return msg;
}
```

Fig 4.2

SIGN-IN

```php
<?php
include "class.php";
extract($_POST);
if(isset($login))
{
    $select="select email,password from register where email='$e' and password='$p'";
    if($obj->login($select))
    {
        $_SESSION['email']=$e;
        $obj->url(".php?msg=run");
    }
    else
    {
        $obj->url("index.php?err=error");
    }
}

?>
```

Fig 4.3

QUESTIONS

```php
public function qus_show($qus)
{
    //echo $qus;
     $query=$this->conn->query("select * from questions where cat_id='$qus'");
    while($row=$query->fetch_array(MYSQLI_ASSOC))
    {
        $this->qus[]=$row;
    }
    return $this->qus;
}
```

Fig 4.4

RESULT

```
public function answer($data)
{
    $ans=implode("",$data);
    $right=0;
    $wrong=0;
    $no_answer=0;
    $query=$this->conn->query("select id,ans from questions where cat_id='".$_SESSION['cat']."'");
    while($qust=$query->fetch_array(MYSQLI_ASSOC))
    {
        if($qust['ans']==$_POST[$qust['id']])
        {
            $right++;
        }
        elseif($_POST[$qust['id']]=="no_attempt")
        {
            $no_answer++;
        }
        else
        {
            $wrong++;
        }
    }
    $array=array();
    $array['right']=$right;
    $array['wrong']=$wrong;
    $array['no_answer']=$no_answer;
    return $array;

}
```

Fig 4.5

4.3 TABLE DESCRIPTION

Database: quiz_oops, Table: category

Column	Type	Null
id	int(4)	No
cat_name	varchar(40)	No

Database: quiz_oops, Table: questions

Column	Type	Null
id	int(11)	No
question	varchar(100)	No
ans1	varchar(80)	No
ans2	varchar(80)	No
ans3	varchar(80)	No
ans4	varchar(80)	No
ans	int(4)	No
cat_id	int(4)	No

Database: quiz_oops, Table: register

Column	Type	Null
id	int(11)	No
name	varchar(30)	No
email	varchar(30)	No
number	bigint(12)	No
password	varchar(255)	No
img	varchar(50)	No

Database: quiz_oops, Table: signup

Column	Type	Null
id	int(11)	No
name	varchar(30)	No
email	varchar(50)	No
pass	varchar(225)	No
img	varchar(225)	No

4.4 SOFTWARE TESTING

Software testing is the process of evaluation a software item to detect differences between given input and expected output. Also to assess the feature of A software item. Testing assesses the quality of the product. Software testing is a process that should be done during the development process. In other words software testing is a verification and validation process.

Verification

Verification is the process to make sure the product satisfies the conditions imposed at the start of the development phase. In other words, to make sure the product behaves the way we want it to.

Validation

Validation is the process to make sure the product satisfies the specified requirements at the end of the development phase. In other words, to make sure the product is built as per customer requirements.

Testing goes side by side with the implementation that is aimed at ensuring that the system works accurately and efficiently before the live operation is performed .The common view of testing held by the user is process of executing a program with explicit intention of handling errors. The application which has been developed has to be tested to prove its validity. Testing is considered to be the least creative phase of the whole cycle of system design. In the real sense it is the phase, which helps to bring out the creativity of the other phases, and makes it shine.
Fitness Arena was tested using the following two techniques of application testing:

Unit Testing:

- In the line of strategy the entire individuals function and modules were put to test independently
- By following this strategy all the errors in coding were identified and corrected.
- This method was applied in combination with the White Box and Black Box testing
- Technique to find errors in each module.
- The effort of specific combination of data on system operation was tested.
- The following were the testes carried out for Graphical User Interface (GUI).
- It was seen that the pages opens properly based on related menu based commands.

System Testing

We use this testing method. System testing is the testing to ensure that by putting the software in different environments (e.g., Operating Systems) it still works. System testing is done with full system implementation and environment. It falls under the class of black box testing.

Performance Testing

Performance testing is the testing to assess the speed and effectiveness of the system and to make sure it is generating results within a specified time as in performance requirements. It falls under the class of black box testing.

Multi-user System Testing

Database Locking Schemes: Whenever more than one person is accessing a record/s some type of process must be used to prevent the outer users from attempting to update the same record at the same time. This process is a locking scheme. In its simplest form, a locking scheme allows only one user at a time to update information in the database.

DISCUSSION OF THE RESULTS

5.1 SCREENSHOTS

LOGIN PAGE

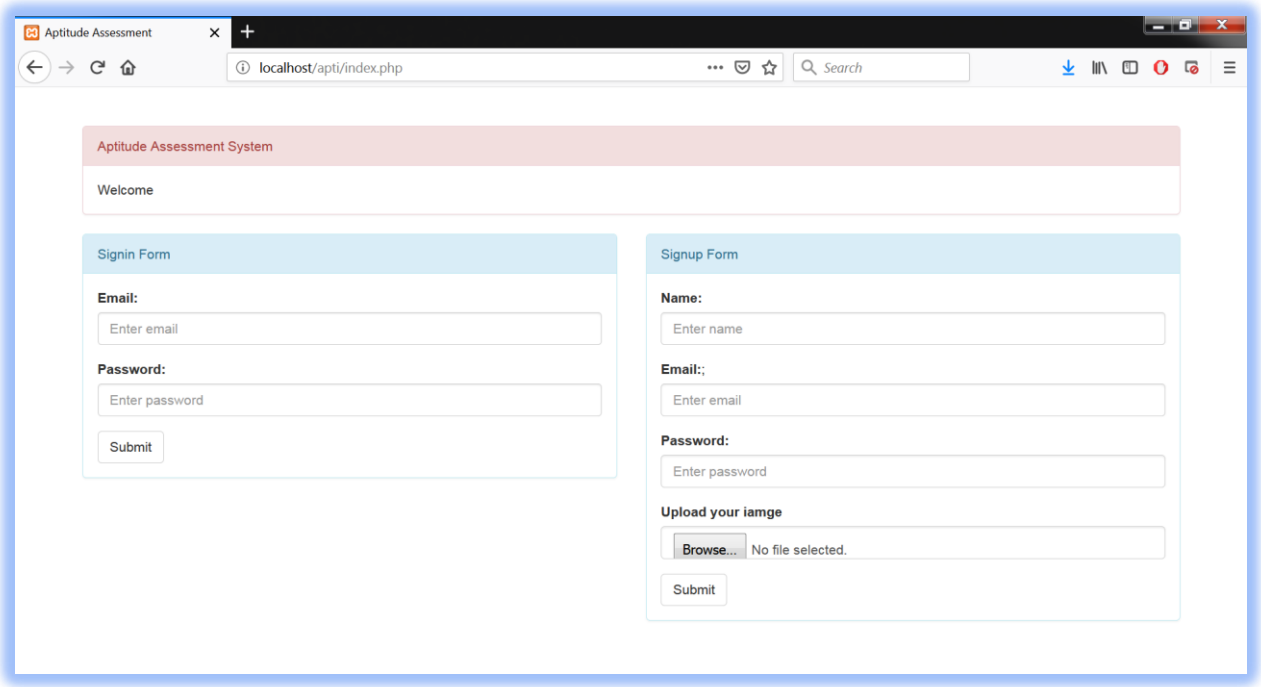

Fig 5.1

HOME PAGE

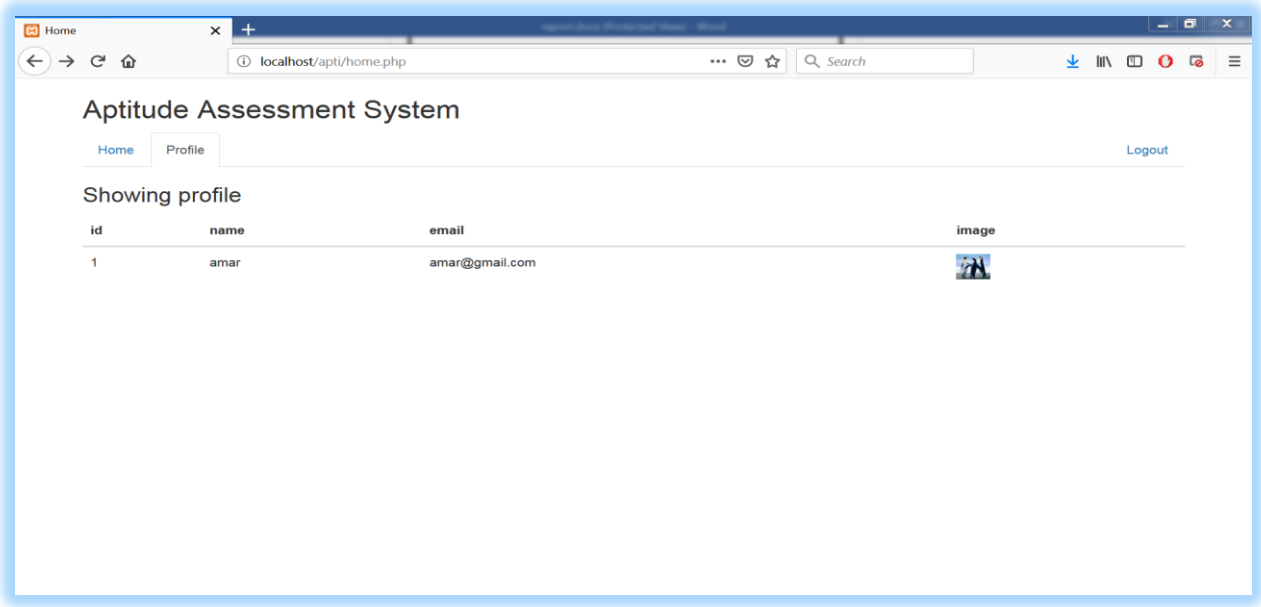

Fig 5.2

APTITUDE TEST PAGE

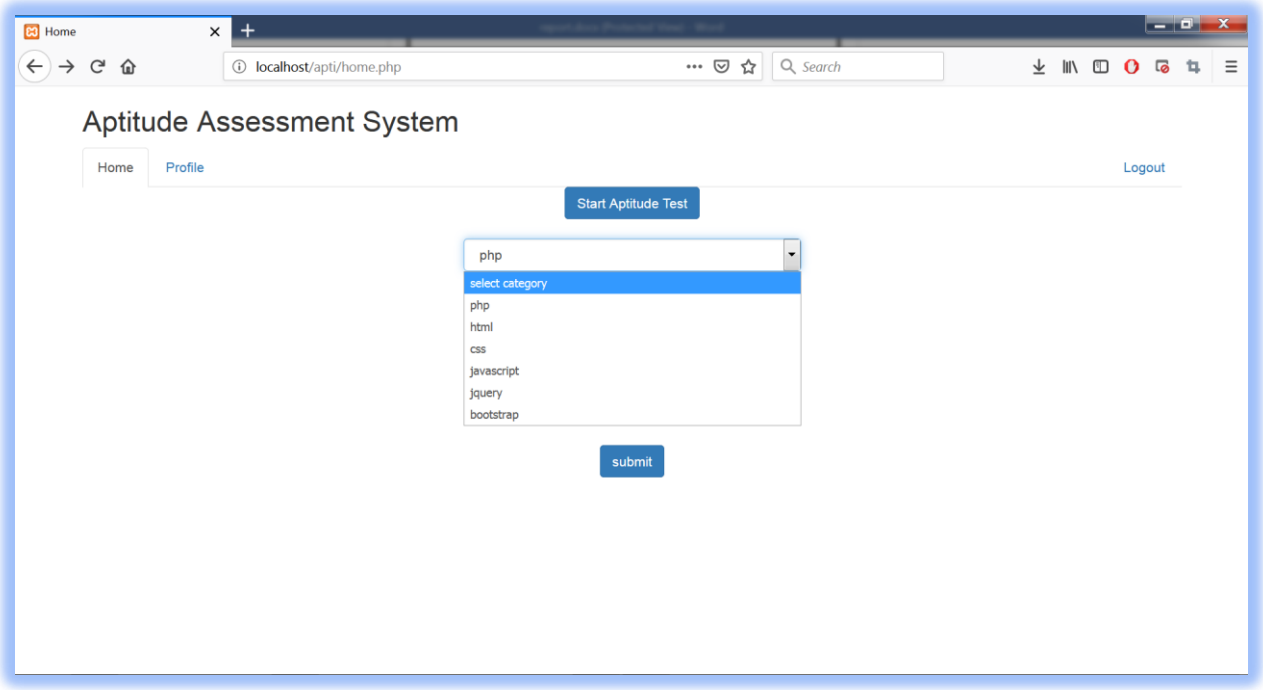

Fig 5.3

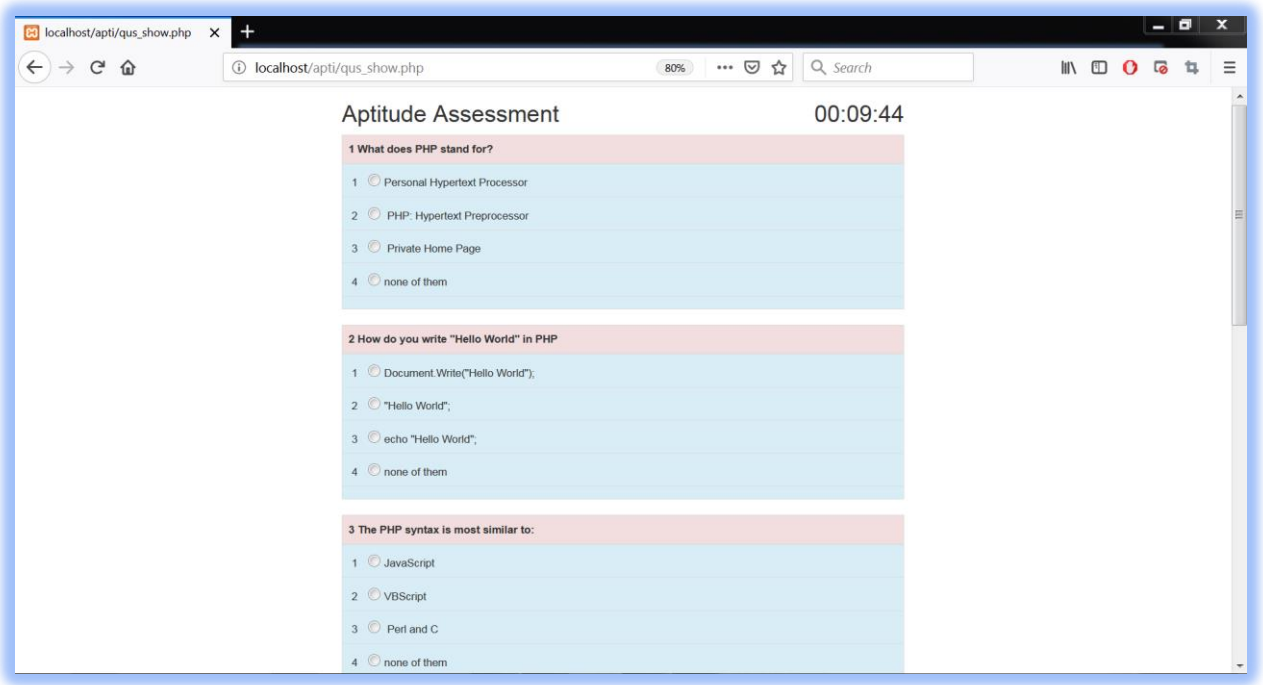

Fig 5.4

RESULT PAGE

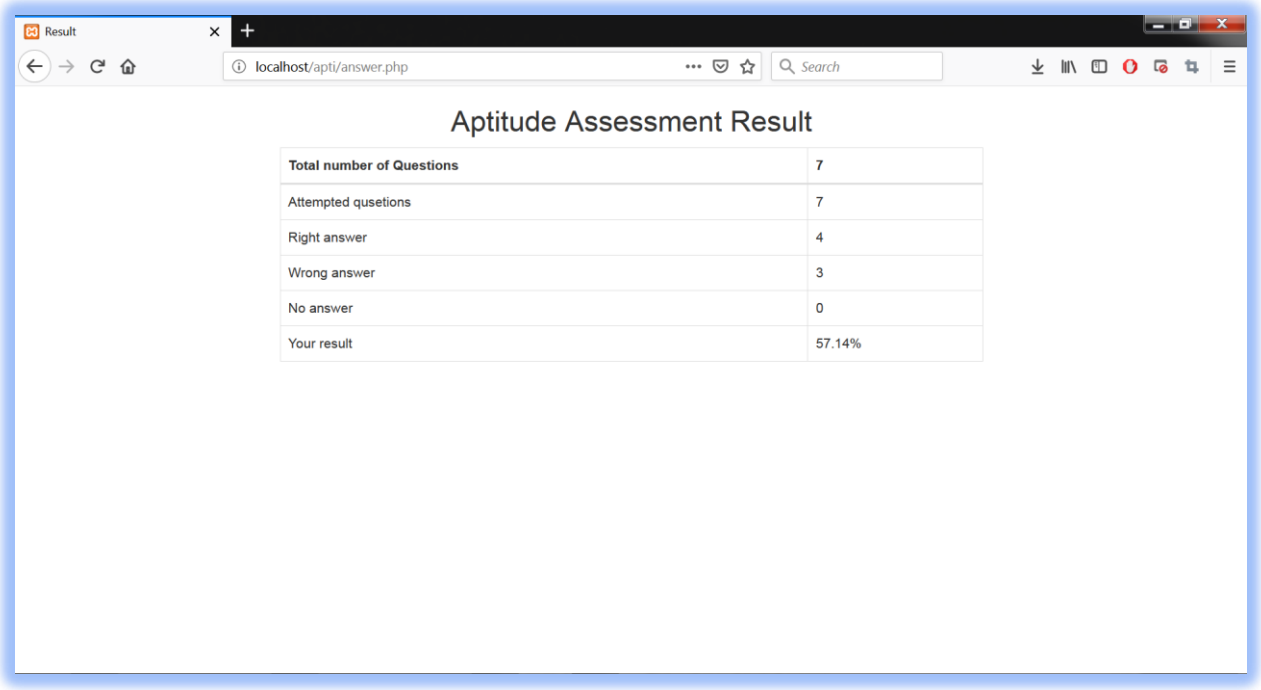

Fig 5.5

ADDING QUESTIONS PANEL

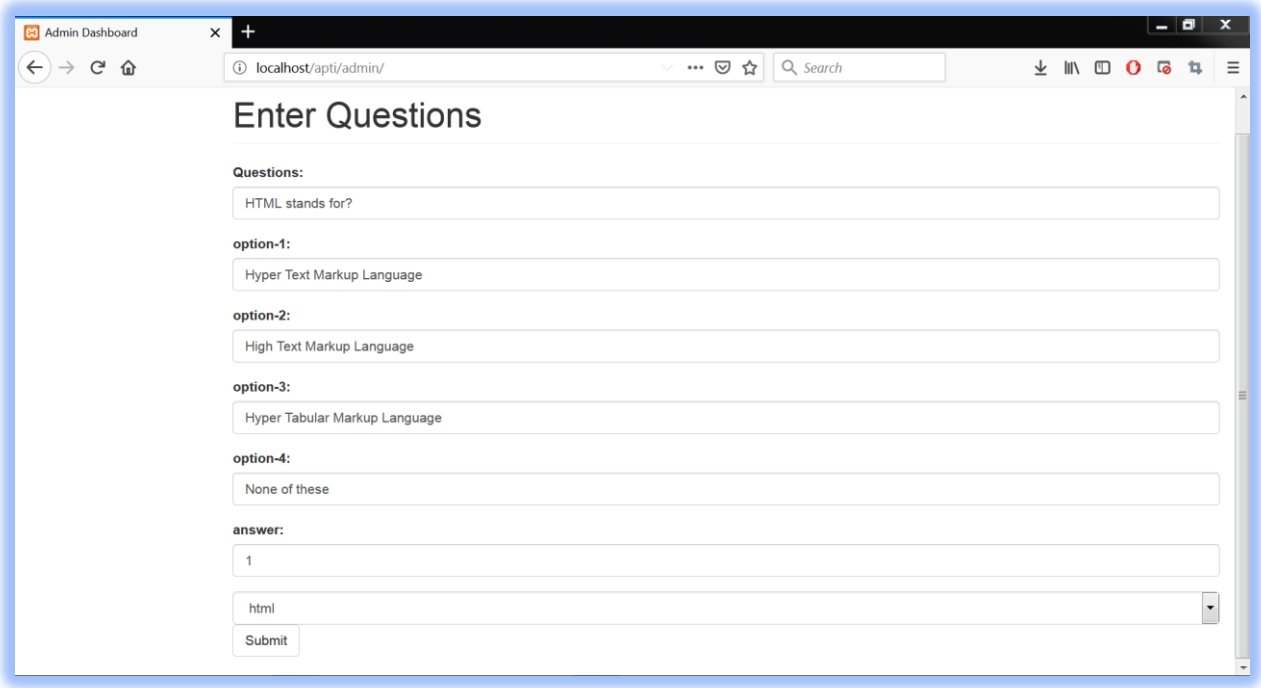

Fig 5.6

CONCLUSION

Aptitude Assessment System provides the facility to view the catagories, and then to select your favorite subject to give quiz online.

- ✓ The project has been appreciated by all the users in the organization.
- ✓ It is easy to use, since it uses the **GUI** provided in the user dialog.
- ✓ User friendly screens are provided.
- ✓ The usage of software increases the efficiency, decreases the effort.
- ✓ It has been efficiently employed as a project management mechanism.

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