E-Learning and Medical Assistance for Physically Impaired People

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ABSTRACT

This application is a web portal which serves deaf children to learn language basics. In fact it is an e-Learning platform that helps deaf children to equip with language basics. It helps them to learn in their own pace as it is done online. The scope of the project is limited to developing web portal application that can work in various devices to support education to deaf children in terms of acquiring language. Sign Language Recognition is a breakthrough for helping deaf-mute people and has been researched for many years. Unfortunately, every research has its own limitations and are still unable to be used commercially. Some of the researches have known to be successful for recognizing sign language, but require an expensive cost to be commercialized.

I. INTRODUCTION

Deaf children have no hearing capacity or hard of hearing. When there is one-tone conversation with deaf child, there is possibility to something through speech or sign as they cannot overhear conversations. They miss many opportunities pertaining to incidental learning by listening to radio, watching TV and listening to a group of people involved in conversations. Thus, they lack background knowledge of different topics and thus they do not have good imagination on different topics as well. When compared with children without hearing problem, deaf children receive very less information in school and home. With respect of learning language there are many factors that affect deaf child include age at which hearing loss occurred (by birth or later age), degree of hearing loss, the quality of language input, parents hearing status, the quantity of language input, early intervention and age of diagnosis. By the time a deaf child enters school, it is essential to have good vocabulary of language and good exposure to basic language skills. Otherwise, it will be very to cope with studies in school. With technology innovations and the emergence of computing or communication trends, it is believed that a web portal that can work in all devices can help deaf children to acquire basic language skills.

II. LITERATURE SURVEY

Development of Learning Software for Deaf: A Sample of Language Learning Material Description

Hearing capacity is given bestowed to humans. The significance is underappreciated in its presence. However, children with hearing loss feel challenges to be faced in learning and moving socially. According to a survey three children out of 1000 are born deaf but generally diagnosed between 2-5 years. Deaf education has come a long way since its inception in 15th century. Most common educational approaches available for deaf children include bilingualbicultural, auditory/oral, and total communication. First

approach uses a sign language, second approach without it, while the third approach combines visual communication and auditory. In this information age, this paper focuses on the use of ICT and web technologies bestowed by Web 2.0 for developing software which can leverage e- Learning process for deaf children. A hybrid approach is incorporated to children with sign language and traditional teaching methods through the use of software.

Deaf children have no hearing capacity or hard of hearing. When there is one-to-one conversation with deaf child, there is possibility to convey something through speech or sign as they cannot overhear conversations. They miss many opportunities pertaining to incidental learning by listening to radio, watching TV and listening to a group of people involved in conversations. Thus, they lack background knowledge of different topics and thus they do not have good imagination on different topics as well. When compared with children without hearing problem, deaf children receive very less information in school and home. With respect of learning language there are many factors that affect deaf child include age at which hearing loss occurred (by birth or later age), degree of hearing loss, the quality of language input, parents' hearing status, the quantity of language input, early intervention and age of diagnosis.
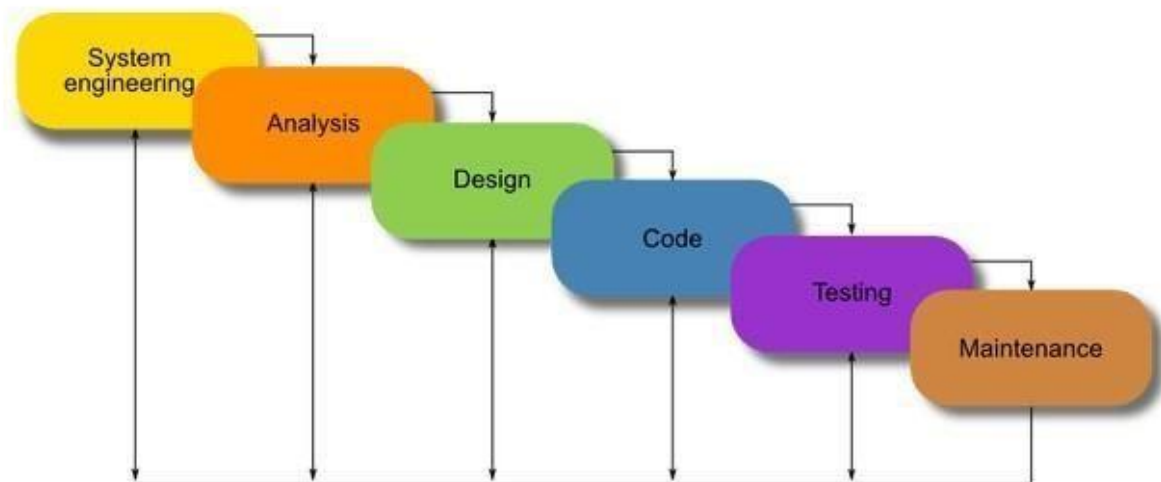
Sign Language Problem and Solutions for Deaf and Dumb People Description
Sign languages are natural languages that use different means of expression for communication in everyday life. More particularly, it is the only means of communication for the hearing impaired. Thus, it provides replacement for speech among deaf and mute people. Several research works are going on sign language in order to make the communication between a deaf person and a normal person easy. Examples of some sign languages are the American Sign Language, the British Sign Language, the native Indian Sign Language, the Japanese Sign Language etc. Generally, the semantic meanings of the language components in all these sign languages differ, but there are signs with a universal syntax. For example, a simple gesture with one hand expressing 'hi' or 'goodbye' has the same meaning all over the world and in all forms of sign languages. Sign languages are natural languages that use different means of expression for communication in everyday life. This paper outlines the current status of sign language and the Deaf community in India, focusing on: a) what is sign language b) what the existing problems c) what actions are being undertaken or planned that hopefully will lead to solutions d) Tools that will be used.

Sign languages convey much of their prosody through non-manual signs. Postures or movements of the body, head, eyebrows, eyes, cheeks, and mouth are used in various combinations to show several categories of information, including lexical distinction, grammatical structure, adjectival or adverbial content, and discourse functions. There are about 70 million deaf people who use sign language as their first language or mother tongue. It is also the first language and mother tongue to many hearing people and some deaf blind people. Each country has one or sometimes two or more sign languages, although different sign languages can share the same linguistic roots in the same way as spoken languages do. Wherever communities of deaf people exist, sign languages develop. Signing is not only used by the deaf, it is also used by people who can hear, but cannot physically speak. While they use space for grammar in a way that spoken languages do not, sign languages show the same linguistic properties and use the same language faculty as do spoken languages. Hundreds of sign languages are in use around the world and are at the cores of local deaf cultures. Some sign languages have obtained some form of legal recognition, while others have no status at all India with its one billion people, is the second most populated country

in the world. It is estimated that there are over a million people who are profoundly deaf and approximately 10 million hard of hearing people, in India. No formal census data are available. These figures are extrapolated from the number of people who are deaf and hard of hearing, in Western nations (1‰ for individuals who are deaf and 10‰ for the hard of hearing). It would be realistic to believe that the actual number of people who are deaf and hard of hearing is much higher, because of poor hygienic conditions and lack of adequate medical services in India. Based on these numbers, one of every five people who are deaf in the world, lives in India.

III. PROCESS MODEL

As you can see through the above figure we chose the WATERFALL MODEL as our process model due to the following reasons-

1. This model is chosen because our requirements are very well known, clear and fixed.
2. Product definition is stable.
3. There are no ambiguous requirements in our project.
4. The project is short.
5. This model is simple and easy to understand and use.
6. It is easy to manage due to the rigidity of the model – each phase has specific deliverables and a review process.
7. In this model, phases are processed and completed one at a time. Phases do not overlap.
8. Waterfall model works well for smaller projects where requirements are very well understood.

IV. SYSTEM DESIGN AND IMPLEMENTATION

i. System Interface Design

A. home page

This web page includes the login buttons and introduction about this application so its helps the user what kind of services are provided by the user for deaf and dumb people.

B. Registration Page

Use: Before visiting the home page, the registration for this application is done so that the every end user database created and we can assign one particular id so its helps them to communicate with the database easily. The given information is stored in this database. **Actor:** End User **Input**: username
Password
Gmail

C. Login page

Use: The login page helps the end user to communicate with other. If the any user wants to get their profile the login   should be necessity so that only data related to them are showed to them.
Input: user name email and password.
Output: if the Email ID and Password are right then he is diverted to landing page else it showcases an Error and asks   to re-enter details.

D. Admin page

 Use: If the Admin of this application want to know how many of them are using this application and the profits related information, or the number of active users for this application is seen by the admin with help of charts. **Actor:** Admin
Input: Add test View consultant
View user

E. Medical service provider

Use: In the doctor profile the doctors can add their information in this application like their contact details etc. this application also helps in maintaining the health report of the children is done correctly. The status of the doctor is also showed in this application.   **Actor**: consultant
Input: Response for user request (approval / disapproval)
Update treatment details
View previous treatment details

F. User profile

This page shows a list of actions that can be performed by the user and check various details about his/her activities.
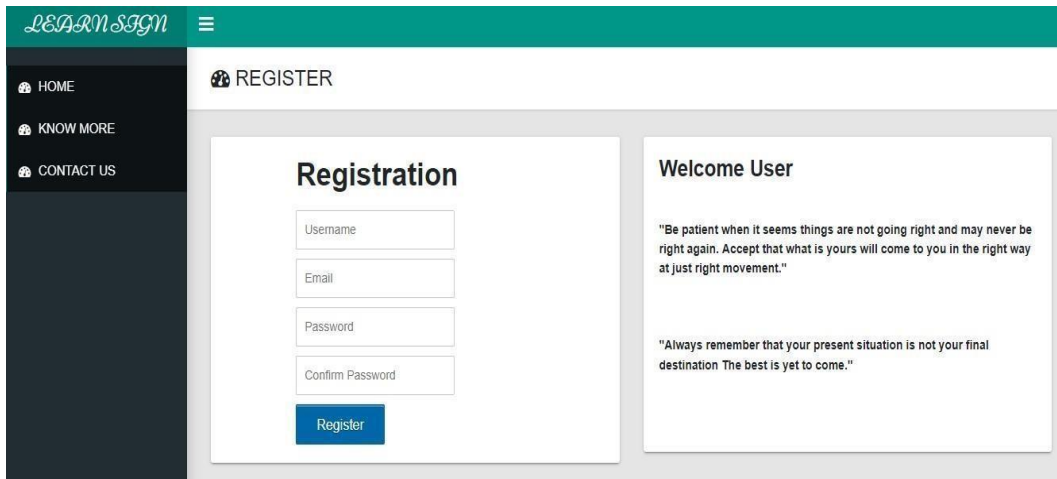
G. Learn sign

In this page it helps user to learn sign language which help them to communicate with their friends. By learning sign language, he can communicate by his own ability without anyone help.

H. Test

In this page it helps user to learn sign language which help them to communicate with their friends. By learning sign language, he can communicate by his own ability without anyone help.

I. Result

This page helps to know the result the test which was attend by the user and help him to improve his ability with the help of result

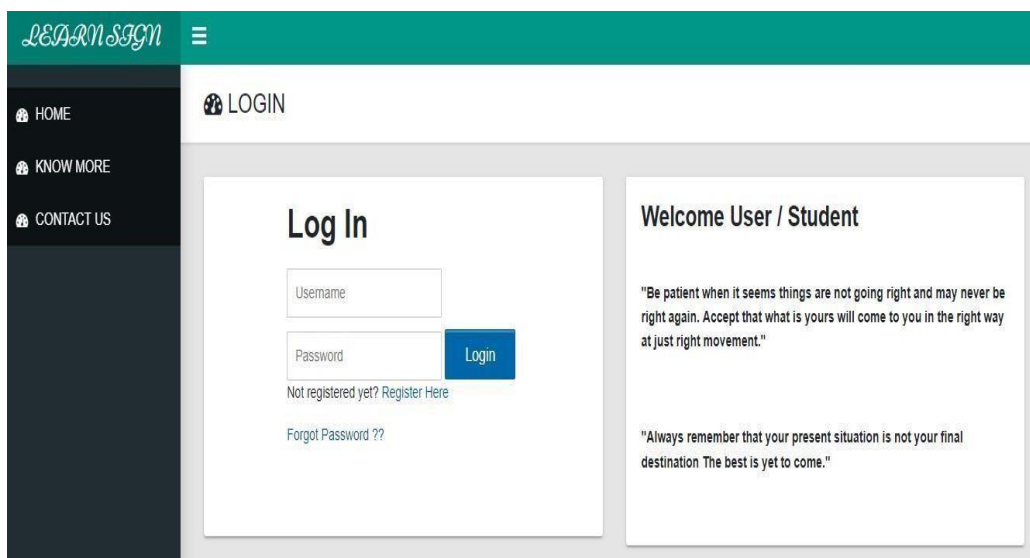## ii. CODE AND UI
Registration page


```
$username = stripslashes($_REQUEST['username']);
$username = mysqli_real_escape_string($con,$username);
$email = stripslashes($_REQUEST['email']);
$email = mysqli_real_escape_string($con,$email);
$password = stripslashes($_REQUEST['password']);
$password = mysqli_real_escape_string($con,$password);
```

Login page

Select Email_Id, password from the User where Email_Id=? And Password=?

If **Email_Id**== NULL or Password=NULL // display error message (please check the form) Else
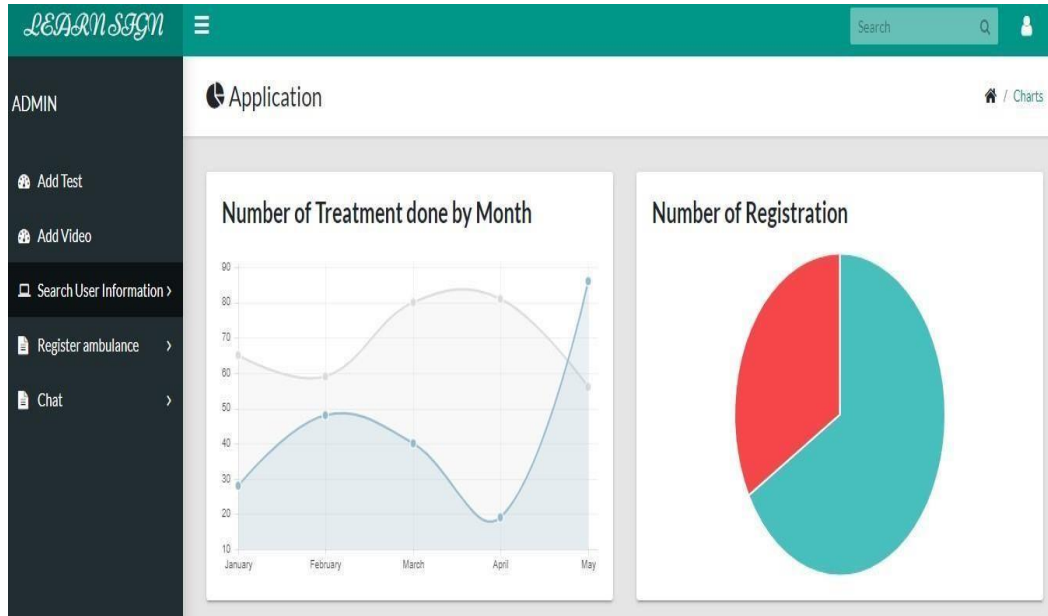
If **Email_Id** = = **Admin** //show the Admin Page

If **Email_Id** = = **Service provider** //show the Service Provider Page

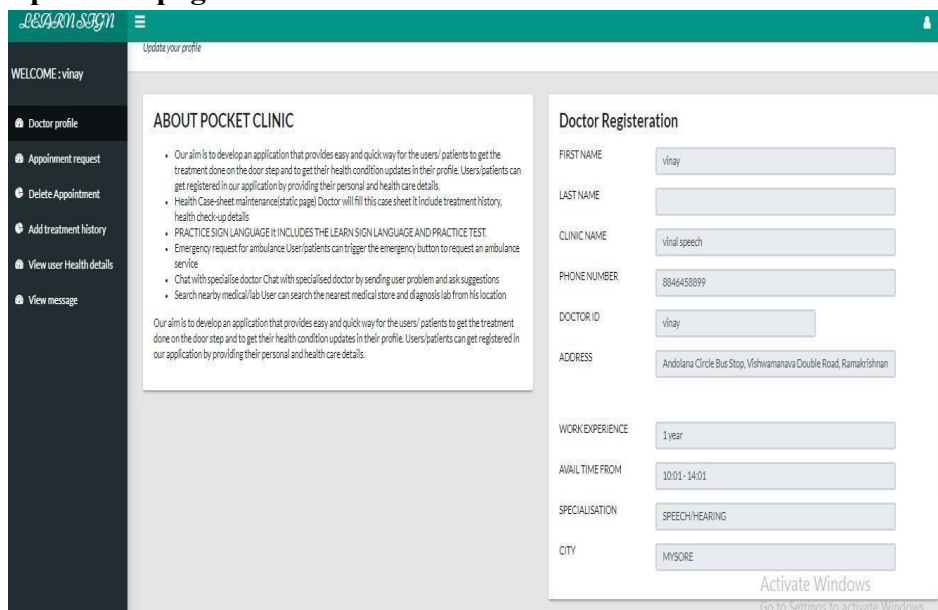If **Email_Id**= = **User**   //show the User Page

If **Email_Id** = = **Consultant** //show the Consultant Page

Admin page


```
$query = "SELECT * FROM `admin` WHERE username='$username' and password='$password'";
$result = mysqli_query($con,$query) or die(mysql_error());
$rows = mysqli_num_rows($result);        if($rows==1){
  $_SESSION['username'] = $username;       header("Location: chartinfo.php"); // Redirect user to index.php
      }else{        echo "<div class='form'><h3>Username/password is incorrect.</h3><br/>Click here to <a href='adminlogin.php'>Login</a></div>";
```
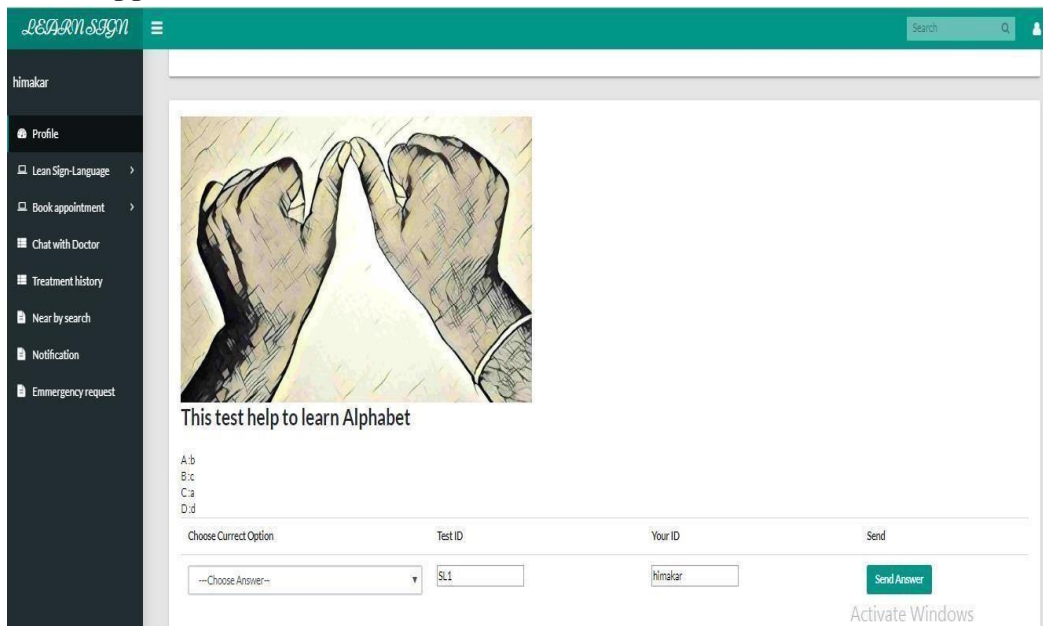
Medical Service provider page

```html
<form action="" method="post" name="doctorlogin">
<input type="text" name="username" placeholder="Username" required />
<input type="password" name="password" placeholder="Password" required />
<input name="submit" type="submit" value="Login" />
</form>
<p>Not registered yet? <a href='doctorregistration.php'>Register Here</a></p>  <p> <a href='dfgp.php'>Forgot password</a></p>
```

Learn sign about application


```php
</head>
 <body class="app sidebar-mini">  <?php  require('db.php');  session_start();
// If form submitted, insert values into the database.
if (isset($_POST['username'])){

$username = stripslashes($_REQUEST['username']); // removes backslashes     $username = mysqli_real_escape_string($con,$username); //escapes special characters in a strinreg
 $password = stripslashes($_REQUEST['password']);
$password = mysqli_real_escape_string($con,$password);

//Checking is user existing in the database or not
$query = "SELECT * FROM `doctor` WHERE username='$username' and password='".md5($password)."'";
$result = mysqli_query($con,$query) or die(mysql_error());
$rows = mysqli_num_rows($result);       if($rows==1){
   $_SESSION['username'] = $username;

   ?>
  <script type="text/javascript">         window.alert("login Succesfully
```

```
");          window.location="doctordashboard.php";
    </script>
  <?php



    }else{      echo "<div class='form'><h3>Username/password is incorrect.</h3><br/>Click here to
<a href='doctorlogin.php'>Login</a></div>";
    }
  }else{

?>
  <!-- Navbar-->
  <header                 class="app-header"><a                 class="app-header__logo"
href="http://localhost/pocketclinic/">LEARN SIGN</a>
    <!-- Sidebar toggle button--><a class="app-sidebar__toggle" href="#" data-toggle="sidebar"></a>
<!-- Navbar Right Menu-->

  </header>
  <!-- Sidebar menu-->

  <div class="app-sidebar__overlay" data-toggle="sidebar"></div>      <aside class="app-sidebar">

    </div>
  <ul class="app-menu">
    <li><a   class="app-menu__item   active"   href="index.php"><i   class="appmenu__icon   fa
fadashboard"></i><span class="appmenu__label">HOME</span></a></li>
    <li><a   class="app-menu__item   active"   href="index.php"><i   class="appmenu__icon   fa
fadashboard"></i><span class="app-menu__label">KNOW MORE</span></a></li
    <li><a   class="app-menu__item   active"   href="index.php"><i   class="appmenu__icon   fa
fadashboard"></i><span class="app-
```

V. ACKNOWLEDGEMENT

In order to properly complete this study on the E learning and medical assistance for physically impaired people application, we would like to convey our gratitude to everyone who helped.

First and foremost, we want to express our gratitude to E learning and medical assistance for physically impaired people creators for coming up with such a ground-breaking programme that has made deaf and dumb people learn so easier.

I also want to thank the research participants who gave so generously of their time and energy to share insightful accounts of how they used the E learning and medical assistance for physically impaired people app.

I sincerely appreciate the significant advice and assistance our academic advisor gave during the research process.

I appreciate the assistance of everyone who helped me finish this research report, whether it was directly or indirectly.

VI. REFERANCES

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