ILLUMINATE

WEB ENG SEMESTER PROJECT DOCUMENTATION

DELIVERABLE: THURSDAY, 8th JANUARY 2015
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About Illuminate

Muslim teens are passing through a crisis of faith right now. There are philosophical questions that they struggle with every day and that go unanswered because they do not have a space at home or Masjid where they can ask all the weird questions comfortably without being judged or labeled as an atheist. To solve this problem using technology, we plan to build Illuminate.

Illuminate is a responsive website that offers a community-driven question-and-answer (Q&A) platform and a knowledge market that allows users to search out the answers alone or together with other Muslims more efficiently.

The two main features are its search engine capability and its discussion forum. The former allows the members to post a question and get videos, articles or blogs in the search result from re-known and authentic Islamic websites. The latter allows the members to post a question and give one another answers. It is a platform where questions can be asked, answers can be searched and shared, mentor-ship can be provided and every member can be helped personally with his struggle. Spam or abusive posts shall be reported and removed.

Muslim teens just do not need speakers; they need counselors and best friends. And Illuminate will provide them just that - a culture around strong friendship & mentor-ship!

Features of the Website

Illuminate provides a Minimalistic Home page presenting only the most essential elements to the user— the Search Bar, the Search and Discuss Buttons, and the top navigation bar — to preserve the purity of purpose and provide clarity.
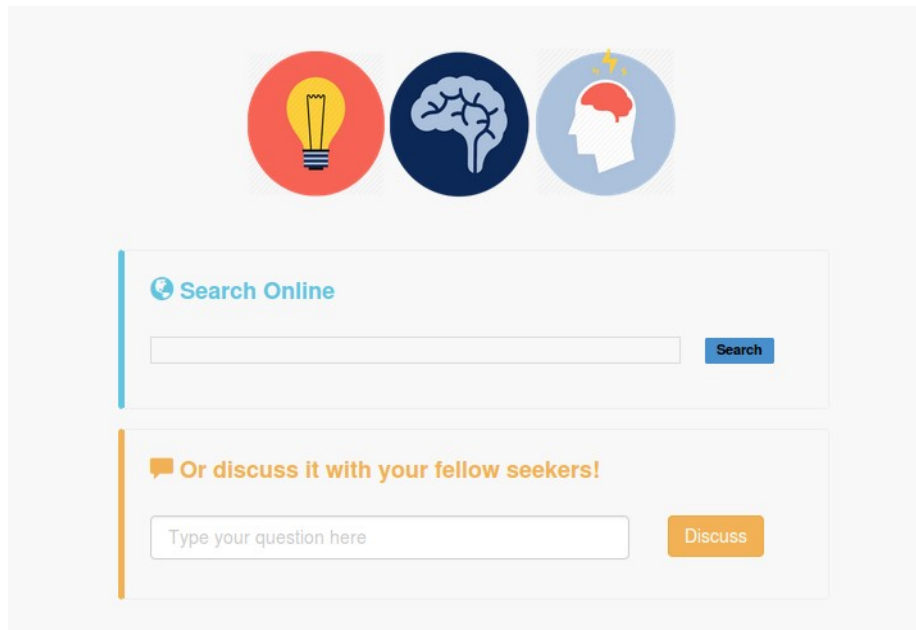

Searching the Web

If the user clicks on the 'Search Button', Content is searched from re-known and authentic Islamic websites and displayed. The search results is categorized into three types, namely articles/blogs, videos/audios and books.
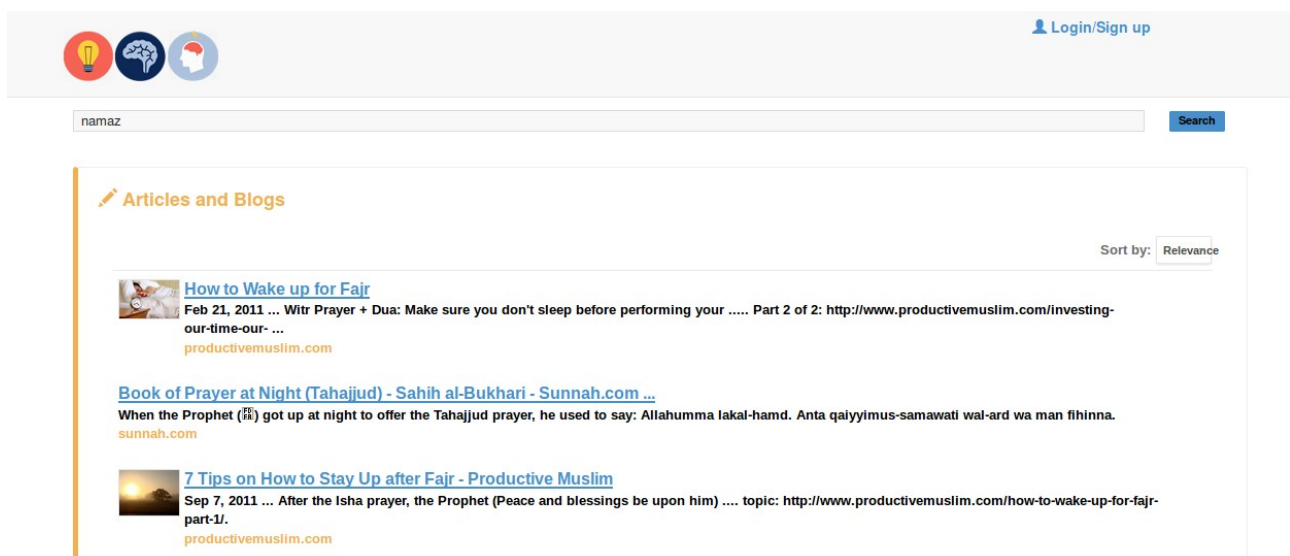
Searching the Discussion Forum

If the user clicks on the Discuss Button, Content is searched from the site forum. The resulting web page displays a list of discussion threads ordered on basis of relevance to the search.
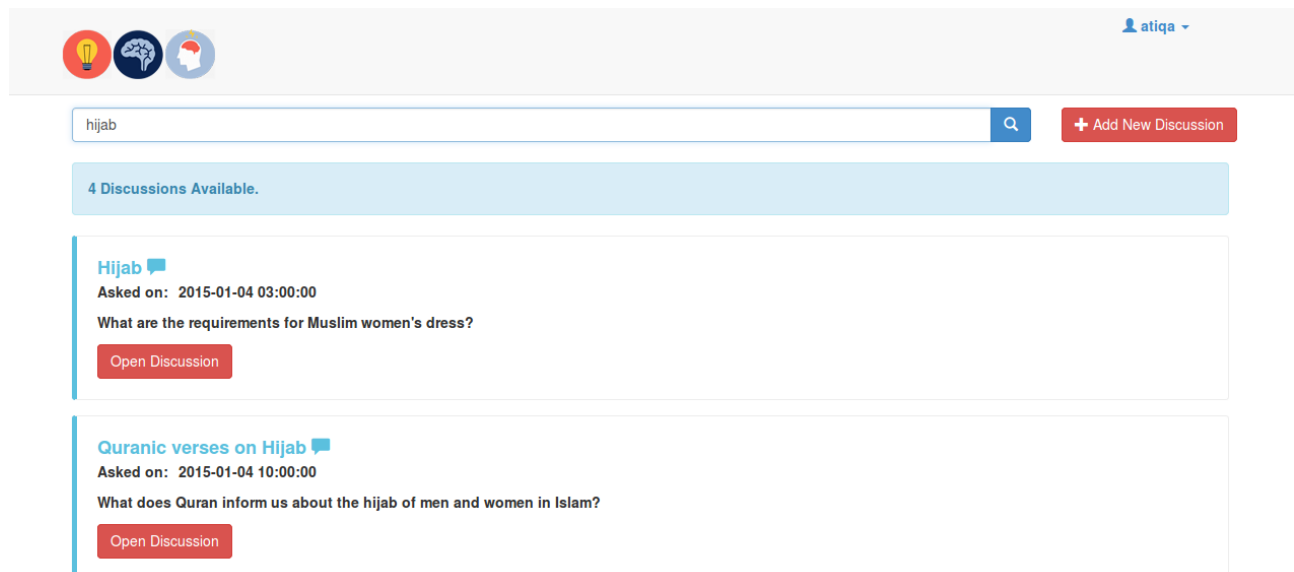
The discussion forum has displays a list of ongoing discussion threads.To read a topic, the user do not have to be registered with the forum. He can click on the title to open a discussion.
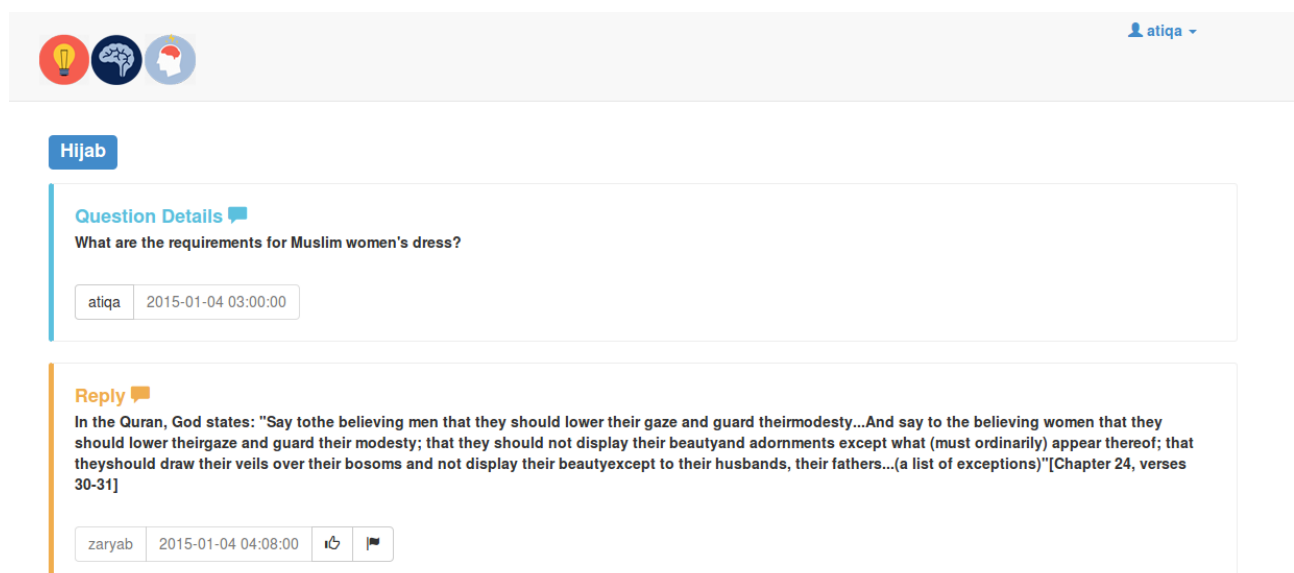
Every thread is defined by the title, the date posted, the author and the opening post called the TS (thread starter) or OP (original post). It is followed by multiple posts where they appear as blocks one after another and can be multiple posts from the same members, even if they are one after the other. Each of these posts is a user-submitted message enclosed into a block containing the user's details and the date and time it was submitted.

Posting a Question on the Discussion Forum

To post a question, the user must be registered with the forum. To start a new topic, the user shall click on the "+ Add New Discussion" button that is only available to logged in users. This presents him with a screen where he must give a title (or subject) of the topic and its details.

Add New Discussion

Type your Question Topic:

Type your Question Details:

Cancel   Submit

Posting a Reply on the Discussion Forum

To post a reply to an existing topic, the user shall click on the Post Reply button. If this button does not appear, it shall mean that the user is not logged in as a member.
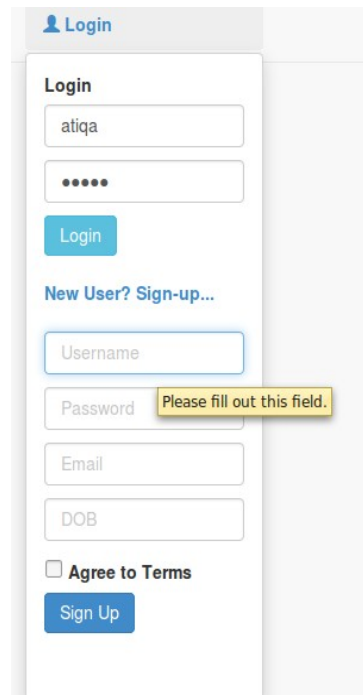
Post a Reply

Type your reply:

Post

The users can edit or delete their own posts. Other users can like or report abuse others' posts.

Signing up

To sign up, the user shall click on the "New user? Sign Up..." link in the login/sign up dropdown and then on Sign Up through the form. He shall be asked to choose a user name (an alias), password, and enter a valid email address. He shall be asked his birth date to determine his age followed by a declaration of the terms of service (other documents may also be present) and a request for agreement to said terms. Entering the email address shall not leave the user open to "spam" as it shall not be shared with other forum users.

Signing In

To login to the site, the user shall click on the Log In/Sign Up button on the nav bar to activate the login box. After login, the Login or Signup link shall turn into the user name. Clicking on the user name shall provide a drop down menu. The user can select the logoff link on this menu to logout.
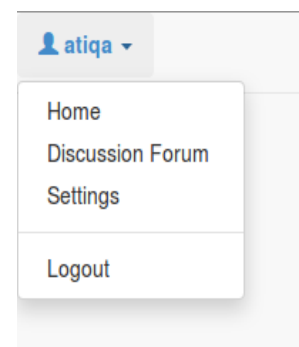
Managing user account

A User Account shall be identified by the chosen user name through which a member carries out activities and contributes. The user can change the account settings by clicking on his user name in the top right corner of the site.

The 'Settings' Option shall allow him to manage his basic account information and change his password. Password changes shall require current password.
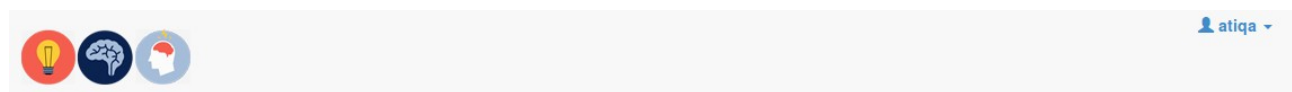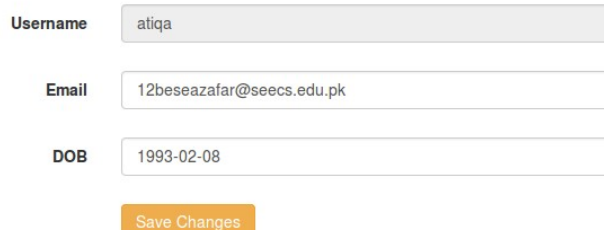
System Diagram

Illuminate is a distributed application that shall implement the Client Server Architecture. A Web Server shall provide the resources and services, i.e. host the website and the database. Many client devices (PC, Laptops, Mobile, and Tablets) shall request these resources using the web browser.

Database

Schema: tb_discuss

#	Name	Type	Collation	Attributes	Null	Default	Extra
1	**ID**	int(11)			No	*None*	AUTO_INCREMENT
2	**topic**	varchar(100)	latin1_swedish_ci		No	*None*	
3	**details**	varchar(50000)	latin1_swedish_ci		No	*None*	
4	**posted_by**	varchar(20)	latin1_swedish_ci		No	*None*	
5	**posted_on**	datetime			No	CURRENT_TIMESTAMP	

Note that the primary key is ID.

Schema: tb_post

#	Name	Type	Collation	Attributes	Null	Default	Extra
1	**ID**	int(11)			No	*None*	AUTO_INCREMENT
2	**D_ID**	int(11)			No	*None*	
3	**reply**	varchar(50000)	latin1_swedish_ci		No	*None*	
4	**posted_by**	varchar(20)	latin1_swedish_ci		No	*None*	
5	**posted_on**	datetime			No	CURRENT_TIMESTAMP	
6	**likes**	int(11)			No	0	
7	**flags**	int(11)			No	0	

Note that the primary key is ID. The D_ID field represents the specific discussion the post is posted at. Here, it is a foreign key of ID field from tb_discuss table.

Schema: tb_user

Note that the primary key is

#	Name	Type	Collation	Attributes	Null	Default
1	**username**	varchar(20)	latin1_swedish_ci		No	*None*
2	**password**	varchar(16)	latin1_swedish_ci		No	*None*
3	**email**	varchar(50)	latin1_swedish_ci		No	*None*
4	**dob**	varchar(30)	latin1_swedish_ci		No	*None*

username.

SQL Queries: Creating tables

CREATE TABLE IF NOT EXISTS `tb_discuss` (
`ID` int(11) NOT NULL,
 `topic` varchar(100) NOT NULL,
 `details` varchar(50000) NOT NULL,
 `posted_by` varchar(20) NOT NULL,
 `posted_on` datetime NOT NULL DEFAULT CURRENT_TIMESTAMP
) ENGINE=InnoDB AUTO_INCREMENT=9 DEFAULT CHARSET=latin1;

CREATE TABLE IF NOT EXISTS `tb_post` (
`ID` int(11) NOT NULL,
 `D_ID` int(11) NOT NULL,
 `reply` varchar(50000) NOT NULL,
 `posted_by` varchar(20) NOT NULL,
 `posted_on` datetime NOT NULL DEFAULT CURRENT_TIMESTAMP,
 `likes` int(11) NOT NULL DEFAULT '0',
 `flags` int(11) NOT NULL DEFAULT '0'
) ENGINE=InnoDB AUTO_INCREMENT=9 DEFAULT CHARSET=latin1;

CREATE TABLE IF NOT EXISTS `tb_user` (
 `username` varchar(20) NOT NULL,
 `password` varchar(16) NOT NULL,
 `email` varchar(50) NOT NULL,
 `dob` varchar(30) NOT NULL
) ENGINE=InnoDB DEFAULT CHARSET=latin1;

SQL Queries: Inserting records
INSERT INTO tb_user (username, password, email, dob) VALUES ('$getuser', '$getpass', '$getemail', '$getdob')

SQL Queries: Updating records
"UPDATE tb_post SET reply = '".mysql_real_escape_string($newinput)."' WHERE ID ='". $post."'";

SQL Queries: Deleting records
"DELETE FROM tb_post WHERE ID ='".$post."'";

SQL Queries: Selecting records
SELECT likes FROM tb_post WHERE ID ='".$post."'"

Note that the complete database has been exported into **localhost.sql**. This file is attached with the submission.

Techonologies used

Responsive Frontend using Bootstrap framework
The Bootstrap framework has been used to develop the front end of the website. This allows it to be responsive. For site behavior, Javascript and Jquery has been used. For styling, CSS has been used. Check style.css in CSS folder.

User Login Sessions using PHP Sessions
The user login functionality has been implemented using PHP Sessions. The code extract is as follows:

```php
<?php
    /*USER SESSION MAINTENANCE*/
    session_start();

    $logged_in = 0;
    $error = 0;
    $success =0;
    $user="";


  //CASE1: User is already logged in -> retrieve username
  if (isset($_SESSION["username"])) {

    $user = $_SESSION['username'];
    $logged_in = 1;
  }

  //CASE2: User logs in -> set username and password
  else if (isset($_POST['login-username']) && isset($_POST['login-password'])) {

    // store the username and password the user entered
    $getuser = $_POST['login-username'];
    $getpassword = $_POST['login-password'];

    // connect database
    mysql_connect("localhost", "root", "") or die(mysql_error());
            mysql_select_db("db_illuminate") or die(mysql_error());

            // fetch username and password from database and authenticate
            $query = "SELECT password FROM tb_user WHERE username = '" .
mysql_real_escape_string($getuser) . "'";
            $result = mysql_query($query) or die(mysql_error());
            $row = mysql_fetch_assoc($result);
            if ($getpassword == $row['password']) {
                $_SESSION['username'] = $getuser;
                $_SESSION['password'] = $getpassword;
                $logged_in = 1;
                $user = $_SESSION['username'];
```

```php
                    }
                else{
                        $error=1;
                }
    }

    //CASE3: User signs in
    else if (isset($_POST['inputUsername'])&&isset($_POST['inputPassword'])
&&isset($_POST['inputEmail']) &&isset($_POST['inputDOB']) ){

        // store the info the user entered
        $getuser = $_POST['inputUsername'];
        $getpass = $_POST['inputPassword'];
        $getemail = $_POST['inputEmail'];
        $getdob = $_POST['inputDOB'];

        // connect database
        mysql_connect("localhost", "root", "") or die(mysql_error());
        mysql_select_db("db_illuminate") or die(mysql_error());

        //insert discussion
        $query = "INSERT INTO tb_user (username, password, email, dob) VALUES
('$getuser', '$getpass', '$getemail', '$getdob')";
        $success = mysql_query($query);
        if ($success) {
            $_SESSION['username'] = $getuser;
            $_SESSION['password'] = $getpassword;
            $logged_in = 1;
            $user = $_SESSION['username'];
        }
    }

    //CASE4: User is not logged in
    else{
        session_destroy();
        $logged_in = 0;
    }

?>
```

Search Engine using Google Custom Search
The Google custom Search has been used to implement the search functionality. The code extract is as follows:

Homepage.php:

```
 <script>
                              (function() {
                                var cx = '001965631677780925692:oape9hsmm0m';
                                var gcse = document.createElement('script');
                                gcse.type = 'text/javascript';
                                gcse.async = true;
                                gcse.src = (document.location.protocol == 'https:' ? 'https:' :
'http:') +
                                    '//www.google.com/cse/cse.js?cx=' + cx;
                                var s = document.getElementsByTagName('script')[0];
                                s.parentNode.insertBefore(gcse, s);
                              })();
</script>
<gcse:searchbox-only
resultsUrl="http://localhost/illuminate/searchresults.php"></gcse:searchbox-only>
```

Searchresults.php
Articles and blogs:
```
<script>
                              (function() {
                                var cx = '001965631677780925692:oape9hsmm0m';
                                var gcse = document.createElement('script');
                                gcse.type = 'text/javascript';
                                gcse.async = true;
                                gcse.src = (document.location.protocol == 'https:' ? 'https:' : 'http:')
+
                                    '//www.google.com/cse/cse.js?cx=' + cx;
                                var s = document.getElementsByTagName('script')[0];
                                s.parentNode.insertBefore(gcse, s);
                              })();
</script>
<gcse:searchresults-only enableImageSearch="false" safeSearch="active"
as_oq="http://www.kalamullah.com/ www.productivemuslim.com
http://www.theyouthclub.org/ www.sunnah.com www.muslimmatters.org
www.sahaba.net"></gcse:searchresults-only>
```

Videos:
```
 <script>
                              (function() {
                                var cx = '001965631677780925692:oape9hsmm0m';
                                var gcse = document.createElement('script');
                                gcse.type = 'text/javascript';
                                gcse.async = true;
                                gcse.src = (document.location.protocol == 'https:' ? 'https:' :
'http:') +
```

```
                      '//www.google.com/cse/cse.js?cx=' + cx;
                    var s = document.getElementsByTagName('script')[0];
                    s.parentNode.insertBefore(gcse, s);
                  })();
</script>
<gcse:searchresults-only defaultToImageSearch="true" disableWebSearch="true"
safeSearch="active" image_as_oq="http://www.islamicline.com/islamicvideos.html
www.dailymotion.com www.metacafe.com www.vimeo.com www.a2youth.com
www.halaltube.com http://www.nakcollection.com/"></gcse:searchresults-only>
```

Books:
```
<script>
                    (function() {
                      var cx = '001965631677780925692:oape9hsmm0m';
                      var gcse = document.createElement('script');
                      gcse.type = 'text/javascript';
                      gcse.async = true;
                      gcse.src = (document.location.protocol == 'https:' ? 'https:' : 'http:')
+
                        '//www.google.com/cse/cse.js?cx=' + cx;
                      var s = document.getElementsByTagName('script')[0];
                      s.parentNode.insertBefore(gcse, s);
                    })();
</script>
<gcse:searchresults-only enableImageSearch="false" safeSearch="active"
as_oq="http://www.kalamullah.com/books.html http://www.truetasawwuf.org/english-
islamic-books/ http://www.islamicline.com/islamicbooks.html www.amazon.com
www.themillions.com www.gutenberg.org www.freebooksy.com www.ebooks.com
http://books.google.com/books/"></gcse:searchresults-only>
```

Team Composition & work division

The team consists of two members, namely Zaryab Khan and Atiqa Zafar. Amongst whom the project development has been divided in the following manner.

Task	Member
User Interface in Bootstrap	Atiqa Zafar
Searching functionality	Zaryab Khan
Login/Sign up Functionality	Zaryab Khan
Discussion Forum Functionality	Atiqa Zafar
Documentation	