



[My Little Library]

A Technical Report

Project -3-

Programming & Database Diploma

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Declaration

we declare that this report is our own work and that the work of others is acknowledged and indicated by explicit references.

[February 2021]
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Arabic Abstract

وبعد شهور من العمل، أكملنا الحمد لله على تطوير برنامجنا وهو عبارة عن مكتبة صغيرة تهدف لتعليم الأطفال في قراءة القصص، الأحرف، الأرقام والفصول الأربعة هدفنا هو دعم الأطفال لاستفادة وقتهم في التعلم بطريقة تفاعلية ومنحهم المعلومات التي تجذب انتباه الأطفال من خلال الرسوميات والأصوات والألوان. من ضمن تطويرنا للبرنامج أنشأنا قاعدة بيانات حتى يتمكن المستخدم إنشاء حساب وتسجيل الدخول لتكون له مكتبة الخاصة بحيث يستطيع ان يضع أعجاب على القصة التي يريد ان تكون في سلة أعجبتني، وتمكننا من إضافة العلامة المرجعية عند توقيه في صفحة معينة من قصة بالإضافة الى طرح بعض الأسئلة لاختبار معلوماته من فقرة تعلم. لقد اكتسبنا خلال فترة العمل في البرنامج خبرة جيدة تساعدنا للتطوير والتوسيع والإضافة قدر المستطاع لتلبية متطلبات المستخدمين وفي الختام نأمل ان يعجبك ما قدمناه.

English Abstract

After months of work, we completed the development of our program, which is a small library that aims to teach children to read stories, letters, numbers and four chapters. Our goal is to support children to use their time to learn in an interactive way and to give them information that attracts children's attention through graphics, sounds and colours.

As part of our development of the program, we created a database so that the user can create an account and log in to have his own library so that he can place likes on the story he wants to be in the basket I liked, and we were able to add the reference mark when he stopped on a specific page of the story in addition to asking some questions to test his knowledge from a learning category.

We have gained during the period of work in the program good experience that helps us to develop, expand and add as much as possible to meet the requirements of users. In conclusion, we hope that you like what we have presented

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Abbreviation

Define of all terms and acronyms required to properly interpret the requirements contained within this document.

Hyper Text Mark-up Language (HTML).

Cascading Style sheets (CSS).

Java Script Language.

PHP (Ajax code).

W3school website.

Stakeholder website.

Chapter 1 Introduction

Technology has become important and fundamental in our time and in all areas of work and study. With the increasing demand from parents to teach their children in a technical and fun way, it has become important to have simple and educational program at the same time. So we developed a program called “My Little Library” that is concerned with educating children in a fun way.

1.1 Problem Statement

One of the problems in this generation is the children using an electronic device on a daily basis, without goal which leading to reduces their focus, and distracts them from their attention, so this is a very negative thing for the children and that may reduce their contact with the family.

1.2 Goals and Objectives

Main goal:

Our goal is an electronic library that targets children in the Arabic language

1. Supporting children to make use of their time to learn in an interactive way
2. Giving them information that attracts children's attention through drawings, sounds and colours that are fun for them, which increases their motivation to learn more and verify their understanding
3. the library targeted children from 3-7 years and classified them as two categories:
 - The first category of age 5-3 years' old
 - The second category of age 7 – 6 years' old
4. The library contains three sections (Story World, Learn, Test Yourself) for each age group

1.3 Solution

We help children benefit most of their time, we developed a library helping children to enjoy the computer in their education and we help parents to acquire their children to useful and fun information at the same time, so we developed a web site called “My Little Library”.

1.4 Project Scope

Our library targeted children from 3-7 years and classified them as two categories:

- The first category of age 5-3-year-old the library will learn them with entertaining stories, characters, and numbers, all in voice and entertaining with questions.

Project Template

- The second category of age - 7 – 6k age is more developed in the first classification, so we will be interested in learning for the seasons and animals, their food, and some functional education.
- The program should display a message for any age outside the two specified categories is not allowed to enter the program.
- The program is recorded all the voices for the stories.

Chapter 2 System Requirements

2.1 System user characteristics

The system works on any device that has a browser, and the system targets age groups from 3 to 7 and is concerned with teaching children the Arabic language.

2.2 General system requirements

2.2.1 Functional requirements

2.2.1.1 System requirements:

1. The System shall be able to display two age categories: from (3 to 5) years and from (6 to 7) years for the user to choose from.
2. System shall be able to display the interface (stories, learn, test yourself) for the user to choose from.
3. The system shall be able to perform a user test for each age categories in "Test yourself" option.
4. The system shall be able to create an account for the user.
5. The system shall be able to save the user information that he entered when creating an account in the (Sign-up), in case the user wants to log in.

2.2.1.2 User requirements:

1. The user should be allowed to click on a video of numbers in the (Learn) option and the system will display for the user.
2. The user should be allowed to click any choice in the "Test yourself" option and the system will show the user the result.
3. The user should be allowed to like the story in (stories) option and the system will save it.
4. The user should be allowed to bookmark on specific page in the (Stories) option and the system will save the user placed.

2.2.2 Non-functional requirements

1. users shall be able to use all the system functions without training.
2. Our website provides the Responsive web design.

2.3 Policy and regulation requirements

- 1- it is a policy of the site to have an adult with the child so that he can use the site properly*
- 2- The child must be within the age group from 3 to 7*
- 4- The library works on computers, touch screens and mouse computers specifications, it works in windows 7 professional 32/64 Bit.*

2.4 Security requirements

- 1- When creating a new account, the e-mail and password should not be repeated for the safety of the user's data.*
- 2- The email should be one of Hotmail, Gmail and yahoo.*

Chapter 3 System Analysis

3.1 System use-cases

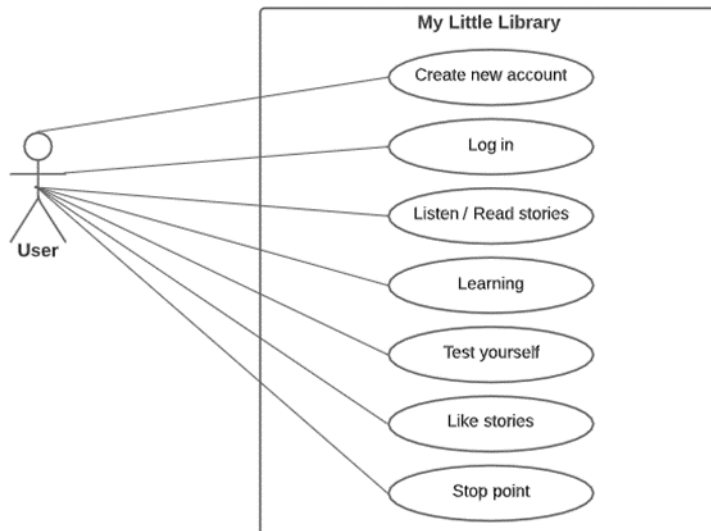


Figure 1. Use case

3.2 Interaction Diagrams

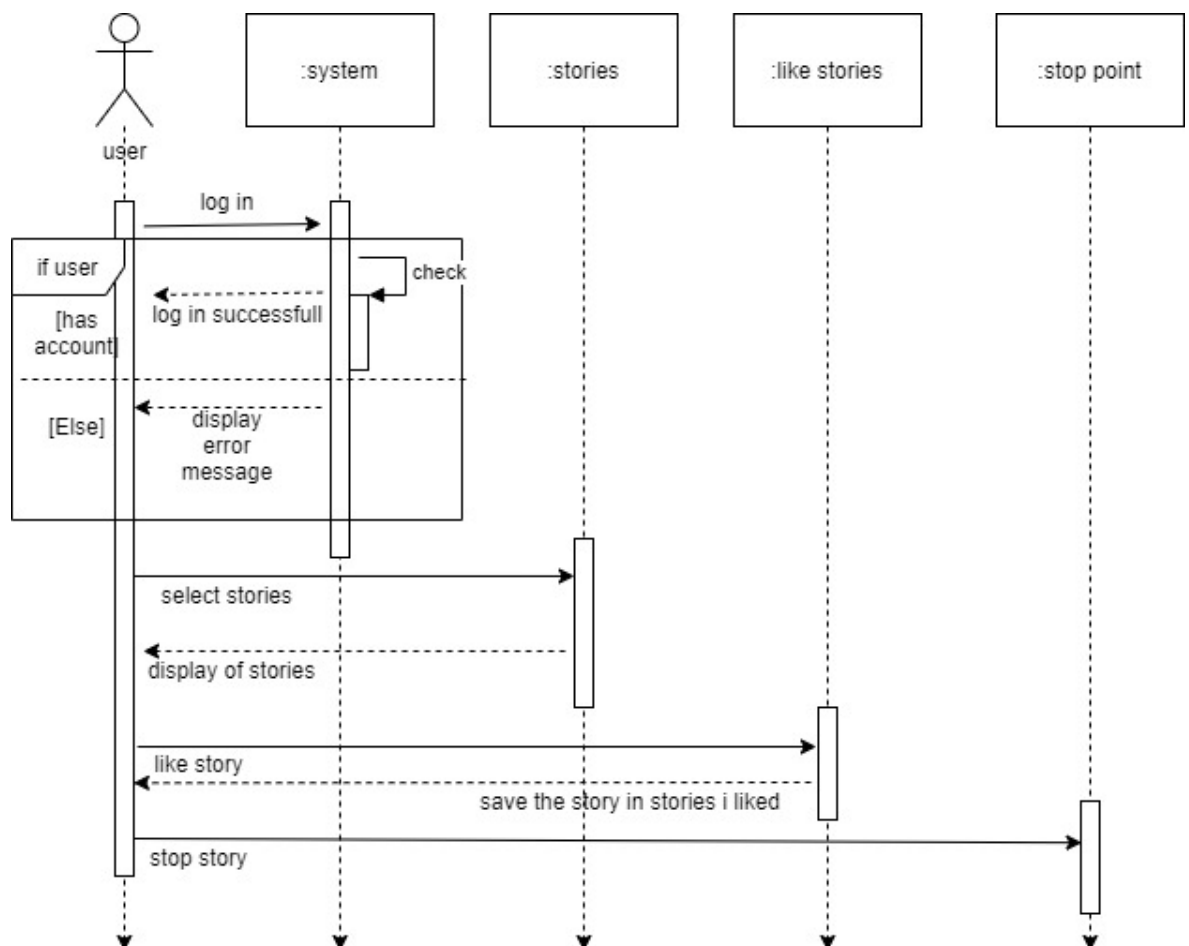


Figure 2. Interaction Diagram

3.3 Class Diagram

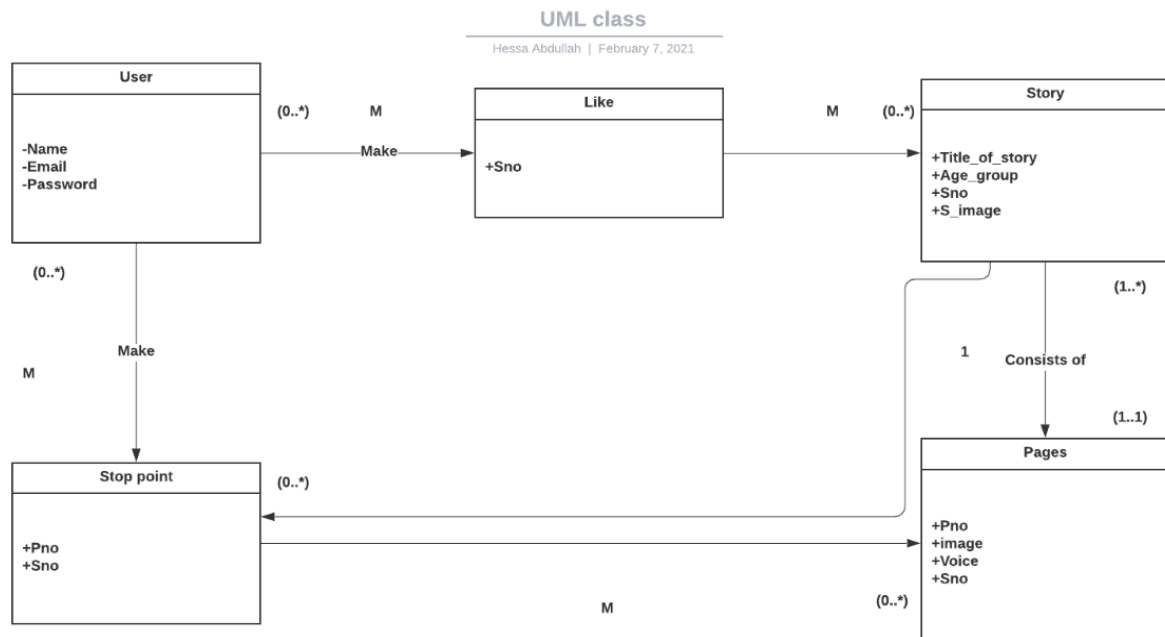


Figure 3. Class Diagram

Chapter 4 System Design

4.1 System Architecture

User Table:

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra
<input type="checkbox"/> 1	userNo	int(50)			No	None		AUTO_INCREMENT
<input type="checkbox"/> 2	email	varchar(150)	utf8mb4_general_ci		No	None		
<input type="checkbox"/> 3	name	varchar(10)	utf8mb4_general_ci		No	None		
<input type="checkbox"/> 4	password	varchar(20)	utf8mb4_general_ci		No	None		

Figure 4. User Table

Story Table:

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra
<input type="checkbox"/> 1	storyNo	int(50)			No	None		AUTO_INCREMENT
<input type="checkbox"/> 2	title	varchar(255)	utf8mb4_general_ci		No	None		
<input type="checkbox"/> 3	age_group	varchar(255)	utf8mb4_general_ci		No	None		
<input type="checkbox"/> 4	storyImage	varchar(255)	utf8mb4_general_ci		No	None		

Figure 5. Story Table

Stop Point Table:

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra
<input type="checkbox"/> 1	storyNo	int(50)			No	None		
<input type="checkbox"/> 2	pageNo	int(50)			No	None		
<input type="checkbox"/> 3	userNo	int(50)			No	None		

Figure 6. Stop Point Table

Page Table:

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra
<input type="checkbox"/> 1	pageNo	int(50)			No	None		AUTO_INCREMENT
<input type="checkbox"/> 2	storyNo	int(50)			No	None		
<input type="checkbox"/> 3	voice	varchar(255)	utf8mb4_general_ci		No	None		
<input type="checkbox"/> 4	image	varchar(255)	utf8mb4_general_ci		No	None		

Figure 7. Page Table

Like Table:

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra
<input type="checkbox"/> 1	storyNo	int(50)			No	None		
<input type="checkbox"/> 2	userNo	int(50)			No	None		

Figure 8. Like Table

Project Template

4.2 Database Design

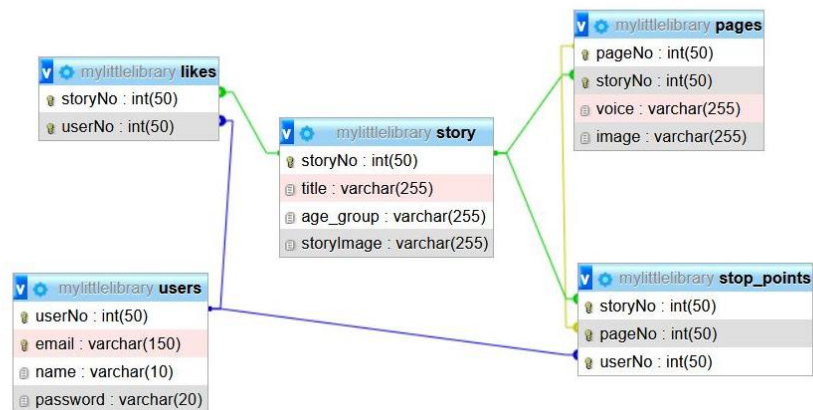


Figure 9. Database Design

4.3 User Interface Prototype

- We designed a logo to suit the taste of the child.
- Symmetrical design for all interfaces.
- The child chooses the age group.
- We designed a bookmark so that the child can read it later.
- The child can put “like” in the stories he like

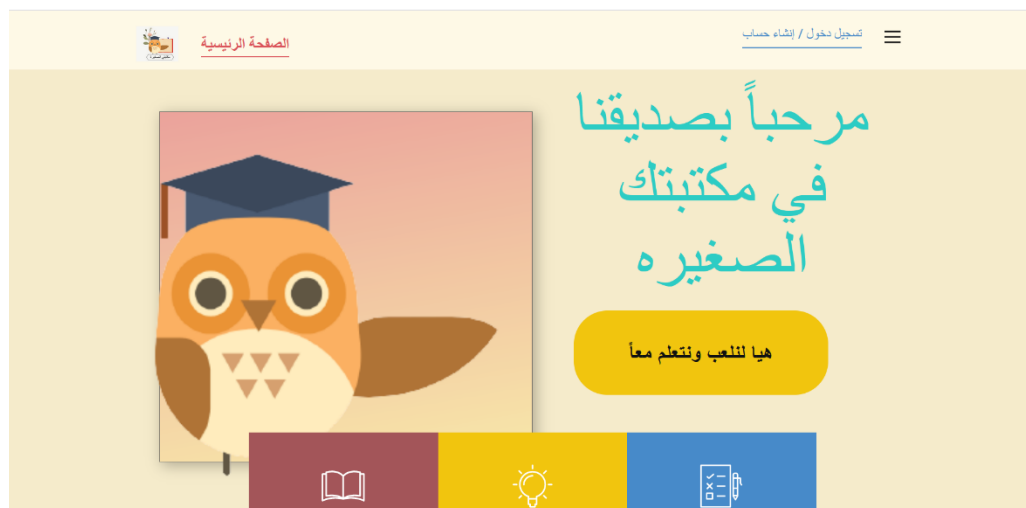


Figure 10. User Interface

This is the user Interface

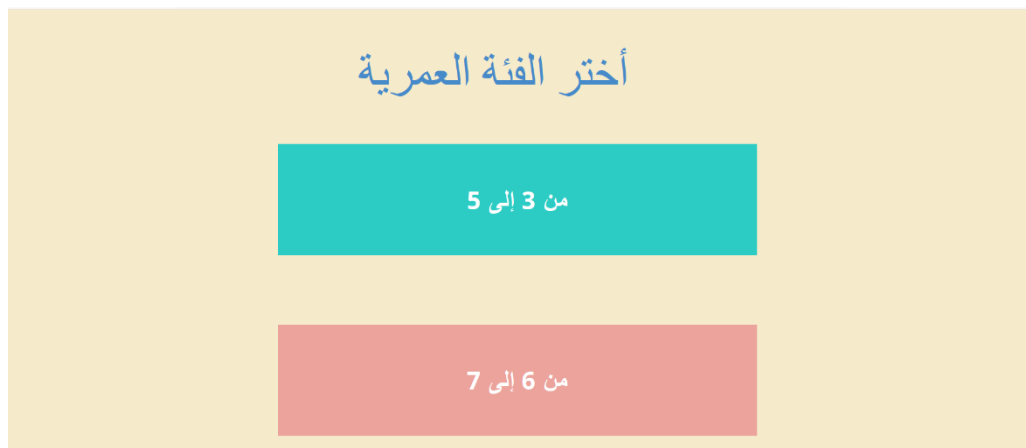


Figure 11. Age Categories

Here when the user chooses the age group, user can also choose where to play



Figure 12. where we going to play today?

Project Template

when user click on "هيا لنلعب ونتعلم معاً"



Figure 13. Learning Interface

User can learn "الارقام" or "الاحرف" for the age group 5 to 3 years old



Figure 15. what we are going to read today?



Figure 14. Story Interface

User can read and "like" the story

Project Template

A picture of the "عالم القصص" interface from the inside



Figure 16. Learning Interface

User can learn "الفصول الاربعة" or "الحيوانات" for the age group 6 to 7 years old



Figure 17. Test yourself Interface

A picture of the "اختبر نفسك" interface from the inside

Project Template

4.4 Algorithms

```
</li>
</ol>
</div>

<audio id="audio_1">
    <source src="season_wav/autumn_season.wav" type="audio/wav">
        Your browser does not support the audio element.
</audio>

<audio id="audio_2">
    <source src="season_wav/spring_season.wav" type="audio/wav">
        Your browser does not support the audio element.
</audio>

<audio id="audio_3">
    <source src="season_wav/winter_season.wav" type="audio/wav">
        Your browser does not support the audio element.
</audio>

<audio id="audio_4">
    <source src="season_wav/summer_season.wav" type="audio/wav">
        Your browser does not support the audio element.
</audio>

<a href="#"><i>تعلم PHP من الصفر حتى الاحتراف</i></a>
</div>
</section>

<footer class="u-clearfix u-custom-color-2 u-footer" id="sec-4769"><div class="u-clearfix u-sheet u-sheet-1">
    <h4 class="u-text u-text-body-alt-color u-text-1">تواصل معنا</h4>
    <h2 class="u-text u-text-white u-text-2">&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&nbsp;&ندعكم</h2>
    <div class="u-align-left u-social-icons u-spacing-10 u-social-icons-1">
        <a class="u-social-url" title="twitter" target="_blank" href="#"></a><span class="u-icon u-icon-circle u-social-icon u-social-twitter u-text-palette-2-light-2 u-icon
```

Figure 18. Algorithms Audio

we use audio tag for adding all the sounds

```

240     <a class="u-social-url" target="_blank" title="Email" href=""><span class="u-icon u-icon-circle u-social-email u-text-palette-2-light-2 u-icon-2">
241 e-4,0-7.2-3.2-27.2-7.2V35.2C20,31.1,23.2,28,27.2,28 M56,52.9128,8-17.8H27.2L56,52.9 M27.2,77.7h57.6V43.5L56,61.3L27.2,43.3V77.7z
242 "></span></a></span>
243     </a>
244   </div>
245 </div></footer>
246 <section class="u-backlink u-clearfix u-grey-80">
247   <a class="u-link" href="https://nicepage.com/website-templates" target="_blank">
248     <span>Website Templates</span>
249   </a>
250   <p class="u-text">
251     <span>created with</span>
252   </p>
253   <a class="u-link" href="https://nicepage.com/html-website-builder" target="_blank">
254     <span>HTML Editor</span>
255   </a>
256 </section>
257
258
259 <script>
260   function stopAllSound () {
261     var sounds = document.getElementsByTagName('audio');
262     for(i=0; i<sounds.length; i++) sounds[i].pause();
263   }
264
265 </script>
266
267 </body>
268 </html>

```

Figure 19. Algorithms Stop Sound

For stop the sound after user pause to the next image

Project Template

```
262 </div>
263
264 <div class="row" style="text-align: center; margin: 5rem;>
265   <div class="col-md-12">
266     <h1>تعلم من خلال مقاطع الفيديو</h1>
267   </div>
268 </div>
269 <div class="row" style="text-align: center;>
270   <div class="col-md-3" style="width: 33.3%; float: left;>
271     <video width="80%" height="240" controls>
272       <source src="number_video/num1.mp4" type="video/mp4">
273       Your browser does not support the video tag.
274     </video>
275     <h3>الرقم 1</h3>
276   </div>
277   <div class="col-md-3" style="width: 33.3%; float: left;>
278     <video width="80%" height="240" controls>
279       <source src="number_video/num2.mp4" type="video/mp4">
280       Your browser does not support the video tag.
281     </video>
282     <h3>الرقم 2</h3>
283   </div>
284   <div class="col-md-3" style="width: 33.3%; float: left;>
285     <video width="80%" height="240" controls>
286       <source src="number_video/num3.mp4" type="video/mp4">
287       Your browser does not support the video tag.
288     </video>
289     <h3>الرقم 3</h3>
290   </div>
291 </div>
292
293
294 <div class="row" style="text-align: center;>
295   <div class="col-md-3" style="width: 33.3%; float: left;>
296     <video width="80%" height="240" controls>
297       <source src="number_video/num4.mp4" type="video/mp4">
298       Your browser does not support the video tag.
299     </video>
300   </div>
301 </div>
```

Figure 20. Algorithms Video

For adding video we use video tag

```
C:\> xampp >htdocs > MyLittleLibrary3 > login.php
45
46 if ( !empty($result) ) {
47
48   if( $row=mysqli_fetch_assoc($result)){
49     // Store data in session variables
50     $_SESSION["loggedin"] = true;
51     $_SESSION["id"] = $row["userid"];
52     $_SESSION["user_name"] = $row["name"];
53
54     $_SESSION['CREATED'] = time();
55     header("location: index.php");
56   }
57   //echo "id: " . $row["id"] . " - Name: " . $row["user_name"] . "<br>";
58
59   $lemail = $lpass = "";
60
61
62
63
64   } else {
65     // Display an error message if password is not valid
66     // $qtitle = $qanswer = "";
67     $lemail = $lpass = "";
68
69     $msg_err = "Error in email or password.";
70     echo $msg_err;
71     //header("location: login.php?error=" . $msg_err);
72   }
73
74   }
75
76   // Close connection
77   $conn->close();
78
79
80 }
81 ?>
```

Figure 21.log in 1 code

Log in 1 code

Project Template

```
C:\> xampp > htdocs > MyLittleLibrary3 > login.php
1 <?php
2 // Initialize the session
3 session_start();
4
5 if (isset($_SESSION['CREATED'])) {
6     if (time() - $_SESSION['CREATED'] > 1800) {
7         // session started more than 30 minutes ago
8         session_unset(); // unset $_SESSION variable for the run-time
9         session_destroy(); // destroy session data in storage
10        header("location: index.php");
11    }
12 }
13
14
15
16 // Include config file
17 require_once "config.php";
18
19 // Define variables and initialize with empty values
20 $email = $pass = "";
21 $email_err = $pass_err = "";
22
23 // Processing form data when form is submitted
24 if ($_SERVER["REQUEST_METHOD"] == "POST") {
25
26     // Check if password is empty
27     if (empty(trim($_POST["name"]))) {
28         $email_err = "Please input email";
29     } else {
30         $email = trim($_POST["name"]);
31     }
32
33     if (empty(trim($_POST["password"]))) {
34         $pass_err = "Please input password.";
35     } else {
36         $pass = trim($_POST["password"]);
37     }
38 }
```

Figure 22. log in 2 code

Log in 2 code

```
C:\> xampp > htdocs > MyLittleLibrary3 > login.php
45
46 if (empty($result) ) {
47
48     if( $row=mysqli_fetch_assoc($result)){
49         // Store data in session variables
50         $_SESSION['loggedin'] = true;
51         $_SESSION['id'] = $row['userho'];
52         $_SESSION['user_name'] = $row['name'];
53
54         $_SESSION['CREATED'] = time();
55     }
56     header("location: index.php");
57 }
58 //echo "Id: " . $row["id"] . " - Name: " . $row["user_name"] . "<br>";
59
60 $email = $pass = "";
61
62
63
64 } else {
65     // Display an error message if password is not valid
66     // $title = $passwer = "";
67     $email = $pass = "";
68
69     $msg_err = "Error in email or password.";
70     echo $msg_err;
71     //header("Location: login.php?error=" . $msg_err);
72 }
73
74
75
76
77 // Close connection
78 $conn->close();
79
80 }
81 ?>
```

Figure 23. log in 3 code

Log in 3 code

Project Template

```
C: > xampp > htdocs > MyLittleLibrary3 > config.php
1  <?php
2  $servername = "localhost";
3  $username = "root";
4  $password = "";
5  $dbname = "mylittlelibrary1";
6
7  // Create connection
8  $conn = new mysqli($servername, $username, $password, $dbname);
9  // Check connection
10 if ($conn->connect_error) {
11     die("Connection failed: " . $conn->connect_error);
12 }
```

Figure 24. Configuration code

Configuration code

```
C: > xampp > htdocs > MyLittleLibrary3 > logout.php
1  <?php
2  // Initialize the session
3  session_start();
4
5  // Unset all of the session variables
6  $_SESSION = array();
7
8  // Destroy the session.
9  session_destroy();
10
11 // Redirect to login page
12 header("location: index.php");
13 exit;
14 ?>
```

Figure 25. Log out code

Log out code

Project Template

```
C:\> xampp > htdocs > MyLittleLibrary3 > delete.php
1  <?php
2  session_start();
3  if(isset($_GET['del']))
4  {
5      require_once("config.php");
6      $id = $_GET['del'];
7      $query = "delete from likes where storyNo = ".$id." and userNo=".$_SESSION['id']."";
8      $result = mysqli_query($conn,$query);
9      if($result)
10     {
11         header("location:index.php");
12     }
13     else
14     {
15         echo ' Please Check Your Query ';
16     }
17 }
18 else
19 {
20 }
21 }
22 }
23 }
24 }
25 >
```

Figure 26. Delete story code

Delete story code

```
C:\> xampp > htdocs > MyLittleLibrary3 > forget.php
1  <?php
2  // Initialize the session
3  session_start();
4
5  if (isset($_SESSION['CREATED'])) {
6      if (time() - $_SESSION['CREATED'] > 1800) {
7          // session started more than 30 minutes ago
8          session_unset(); // unset $_SESSION variable for the run-time
9          session_destroy(); // destroy session data in storage
10         header("location: index.php");
11     }
12 }
13
14
15
16 // Include config file
17 require_once "config.php";
18
19 // Define variables and initialize with empty values
20 $email = $pass = "";
21 $email_err = $pass_err = "";
22
23 // Processing form data when form is submitted
24 if ($_SERVER["REQUEST_METHOD"] == "POST") {
25
26     // Check if password is empty
27     if(empty(trim($_POST["name"]))) {
28         $email_err = "Please input email";
29     } else {
30         $email = trim($_POST["name"]);
31     }
32
33     /*if(empty(trim($_POST["password"]))) {
34         $pass_err = "Please input password.";
35     } else {
36         $pass = trim($_POST["password"]);
37     }*/
38 }
```

Figure 27. Forget password code

Forget password code

Project Template

```
C:\> xampp > htdocs > MyLittleLibrary3 > forget.php
40 $to = $email;
41 $subject = 'Reset Password';
42 $message = 'Your new password is: 123456';
43 $headers = 'From: a.n.ngoutlook.com';
44
45 /*if (mail($to, $subject, $message, $headers))
46 {
47     echo "Message accepted";
48 }
49 else
50 {
51     echo "Error: Message not accepted";
52 }*/
53
54 mail($to, $subject, $message, $headers);
55
56 // Validate credentials
57 if(empty($email_err) && empty($pass_err)){
58     $sql = "UPDATE users SET pass = '$pass' WHERE email = '$email'";
59
60     if ($conn->query($sql) === TRUE) {
61
62         $email = $pass = "";
63         $msg = "تمت إعادة تعيين كلمة المرور بنجاح.";
64         header("location: forget.php?msg=" . $msg);
65
66     } else {
67         $email = $pass = "";
68
69         $msg = "خطأ في إعادة تعيين كلمة المرور، راجع البيانات المدخلة.";
70         header("location: forget.php?msg=" . $msg);
71     }
72
73 }
74
75 // Close connection
76 $conn->close();
```

Figure 28. Forget password 2 code

Forget password 2 code

```
C:\> xampp > htdocs > MyLittleLibrary3 > تسجيل دخول.php
1 <?php
2 // Initialize the session
3 session_start();
4
5 ?>
6
7 <!DOCTYPE html>
8 <html style="font-size: 16px;">
9 <head>
10 <meta name="viewport" content="width=device-width, initial-scale=1.0">
11 <meta charset="utf-8">
12 <meta name="keywords" content="">
13 <meta name="description" content="">
14 <meta name="page_type" content="np-template-header-footer-from-plugin">
15 <title>تسجيل دخول</title>
16 <link rel="stylesheet" href="nicepage.css" media="screen">
17 <link rel="stylesheet" href="تسجيل دخول.css" media="screen">
18 <script class="u-script" type="text/javascript" src="jquery.js" defer=""></script>
19 <script class="u-script" type="text/javascript" src="nicepage.js" defer=""></script>
20 <meta name="generator" content="Nicepage 3.8.0, nicepage.com">
21 <link id="u-theme-google-font" rel="stylesheet" href="https://fonts.googleapis.com/css?family=Roboto:100,100i,300,300i,400,400i,500,500i,700,700i,900,900i|Open+Sans:300,300i,400,400i">
22
23
24
25 <script type="application/ld+json">{
26   "@context": "http://schema.org",
27   "@type": "Organization",
28   "name": "Site1",
29   "url": "index.php",
30   "logo": "images/fcaec3bb-3f49-2341-b356-09a1a4af34a0.png",
31   "sameAs": []
32 }</script>
33 <meta property="og:title" content="تسجيل دخول">
34 <meta property="og:type" content="website">
35 <meta name="theme-color" content="#478ac9">
36 <link rel="canonical" href="index.php">
37 <meta property="og:url" content="index.php">
```

Figure 29. log in code

Project Template

```

C:\xampp\htdocs\MyLibrary> cd 5-3 عالم القصص: index.php
1  <?php
2
3  // Initialize the session
4  session_start();
5  if(isset($_SESSION['id']))
6  {
7      require_once("config.php");
8
9      $query = " select s.storyNo as storyNo,s.title title ,s.storyImage storyImage ,s.age_group from likes join
10      story s on s.storyNo=likes.storyNo where likes.userId=$_SESSION[id]";
11
12      mysqli_set_charset($conn,"utf8");
13      $result = mysqli_query($conn,$query);
14  }else{
15      header("location:index.php");
16  }
17
18  ?>
19
20  <!DOCTYPE html>
21  <html style="font-size: 16px;">
22  <head>
23      <meta name="viewport" content="width=device-width, initial-scale=1.0">
24      <meta charset="utf-8">
25      <meta name="keywords" content="">
26      <meta name="description" content="">
27      <meta name="page_type" content="np-template-header-footer-from-plugin">
28      <title>5-3 عالم القصص</title>
29      <link rel="stylesheet" href="nicepage.css" media="screen">
30      <link rel="stylesheet" href="5-3 عالم القصص.css" media="screen">
31      <script class="u-script" type="text/javascript" src="jquery.js" defer=""></script>
32      <script class="u-script" type="text/javascript" src="nicepage.js" defer=""></script>
33      <meta name="generator" content="Nicepage 3.8.0, nicepage.com">
34      <link id="u-theme-google-font" rel="stylesheet" href="https://fonts.googleapis.com/css?family=Roboto:100,100i,300,300i,400,400i,500,500i,700,700i,900,900i|Open+Sans:3
35
36
37      <script type="text/javascript">
38      function onclick(clicked_id)
39

```

Figure 30. Like story code

Like story code

```
C:\xampp > htcdos > MyLittleLibrary3 > 5-3: اعطني: عالم: القصص: 5-3: اعطني:
34 <link id="u-theme-google-font" rel="stylesheet" href="https://fonts.googleapis.com/css?family=Roboto:100,100i,300,300i,400,400i,500,500i,700,700i,900,900i|Open+Sans:3
35
36
37 <script type="text/javascript">
38 function reply_click(clicked_id)
39 {
40
41
42     var id = clicked_id;
43
44
45
46     // Creating a XHR object
47     let xhr = new XMLHttpRequest();
48     let url = "https://localhost:82/MyLittleLibrary3.6/setlike.php";
49
50     // open a connection
51     xhr.open("POST", url, true);
52
53     // Set the request header i.e. which type of content you are sending
54     xhr.setRequestHeader("Content-Type", "application/json");
55
56     // Create a state change callback
57     xhr.onreadystatechange = function () {
58         if (xhr.readyState === 4 && xhr.status === 200) {
59
60
61
62         }
63     };
64
65     var data = JSON.stringify({ "id": clicked_id });
66     // Sending data with the request
67     xhr.send(data);
68
69 }
70 </script>
```

Figure 31. Like story 2 code

Like story 2 code

Project Template

```
C:\xampp> htdocs> MyLittleLibrary3> أجرب نفسك في الفصل الرابع
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Figure 32. test yourself - the four seasons code

test yourself - the four seasons code

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Figure 33. test yourself - the four seasons 2 code

test yourself - the four seasons 2 code

Chapter 5 System Implementation

We started implementing into the project using Visual Studio Code using the programming language HTML, CSS, JavaScript, PHP and we create our database from XAMPP.

We first started with the database creation so we can connect it to our project and then retrieve, update, and delete the selected data through codes.

Although the site is easy to use, the child needs the presence of an adult to complete the processes of creating an account and log-in.

Main interfaces of the site Interface Create an account, Interface login, choose an interface Age group, interface where will we play today? And interface to learn what is useful.

Chapter 6 System Testing

6.1 Unit testing

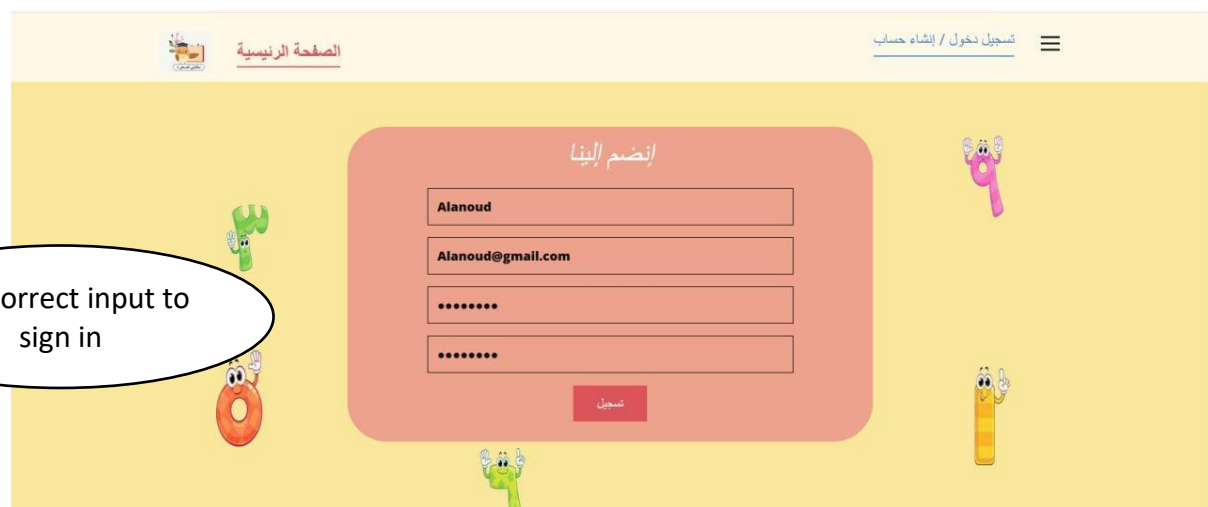
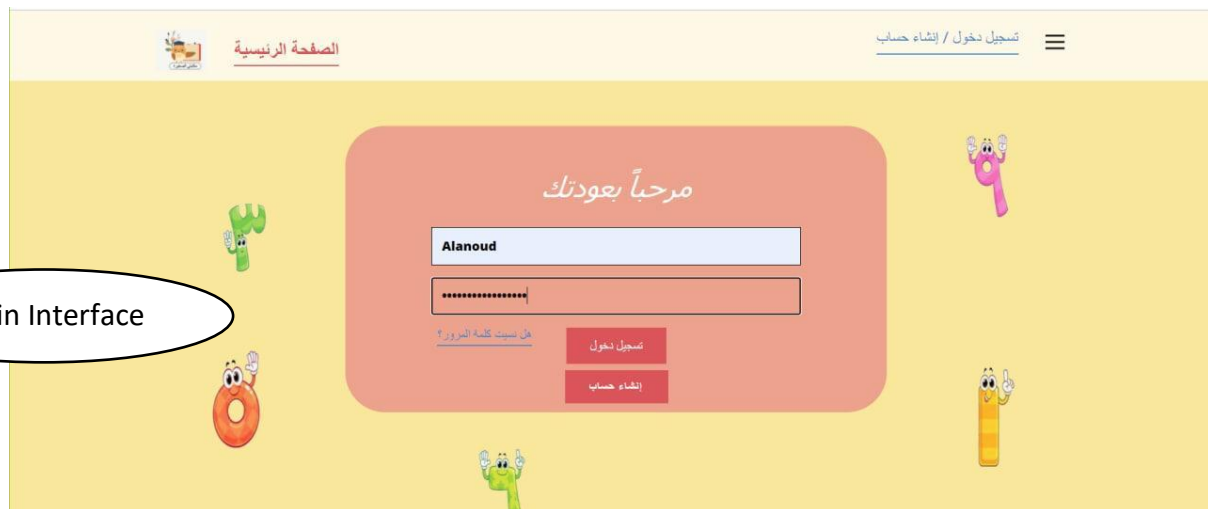
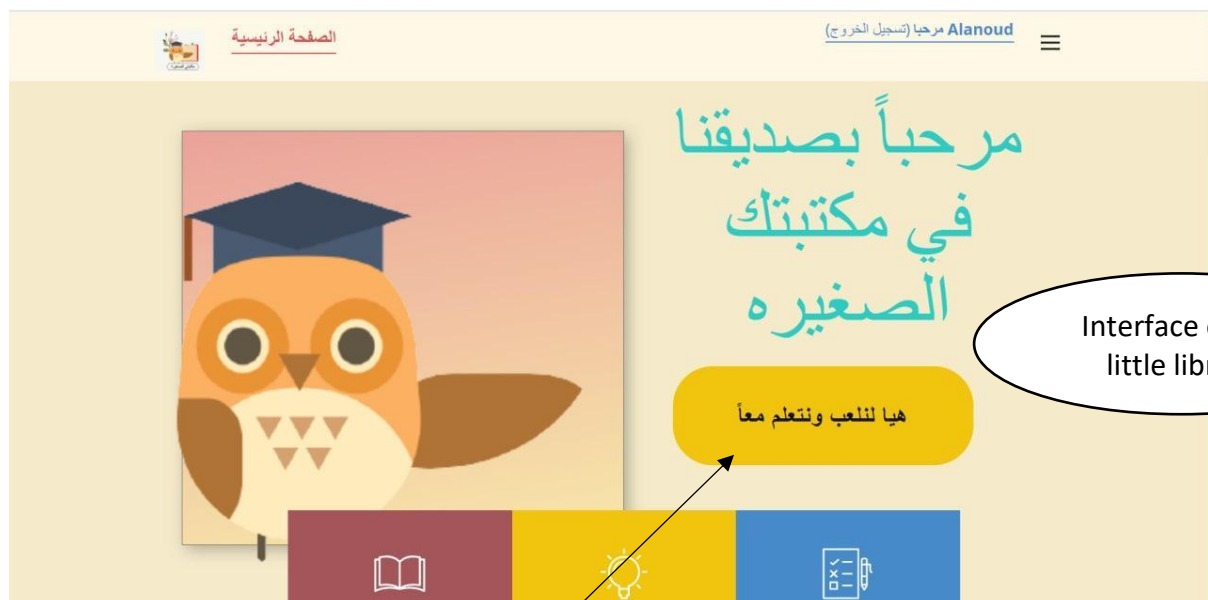


Figure 34. Sign in Interface "correct one"



Log in Interface

Figure 35. Log in Interface



Interface of My little library

When the user clicks on "هيا لنلعب و نتعلم معاً"

Figure 36. Interface of My little library



Figure 37.Interface of the sections



Figure 38.Interface of the age category



Figure 39.Interface of the story in the first category 3-5



Figure 40.Interface of the story in the second category 3-5



Figure 41. Interface of the story content



Figure 42. When the user put like on the story



Figure 43. When the user removes like



Figure 44. When the user put bookmark on the story



Figure 45.Interface of learning sections 3-5



Figure 46.Interface of learning sections 3-5 Numbers



Figure 47.Interface of learning sections 3-5 Letters



Figure 48.Interface of learning sections 6-7



Figure 49.Interface learning of four seasons

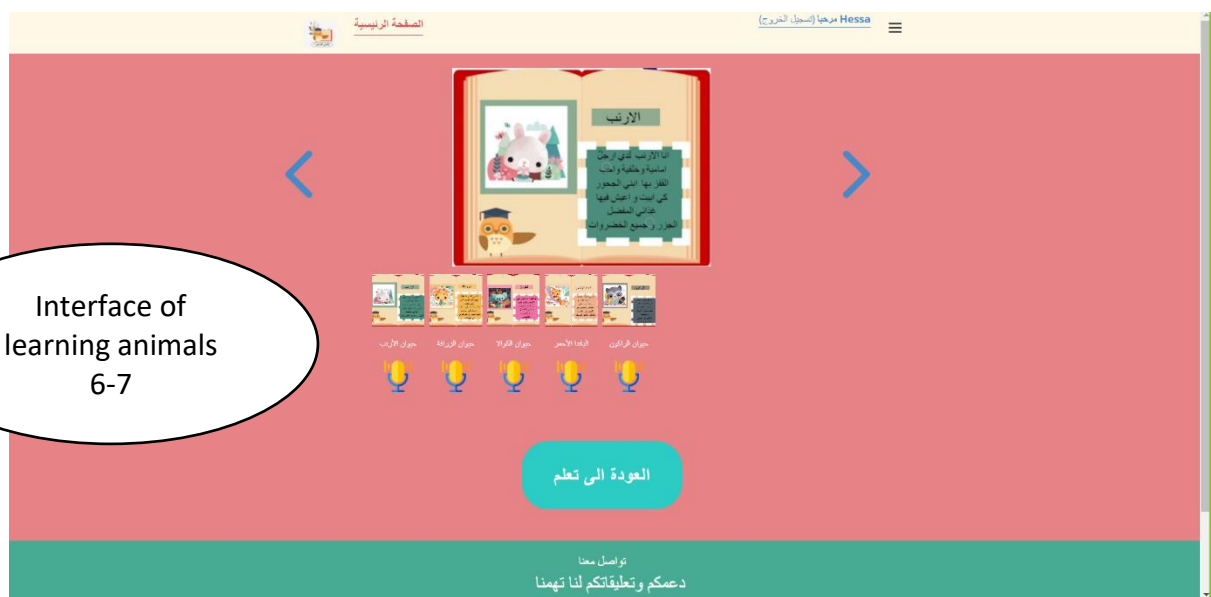


Figure 50.Interface of learning animals



Figure 51.Interface of test yourself sections 3-5



Figure 52.Interface of test yourself sections 3-5 Numbers



Figure 53.Interface of test yourself sections 3-5 Letters



Figure 54.Interface of test yourself sections 6-7



Figure 55.Interface of test yourself sections four season 6-7



Figure 56.Interface of test yourself in animal's section 6-7

6.2 Integration and regression testing

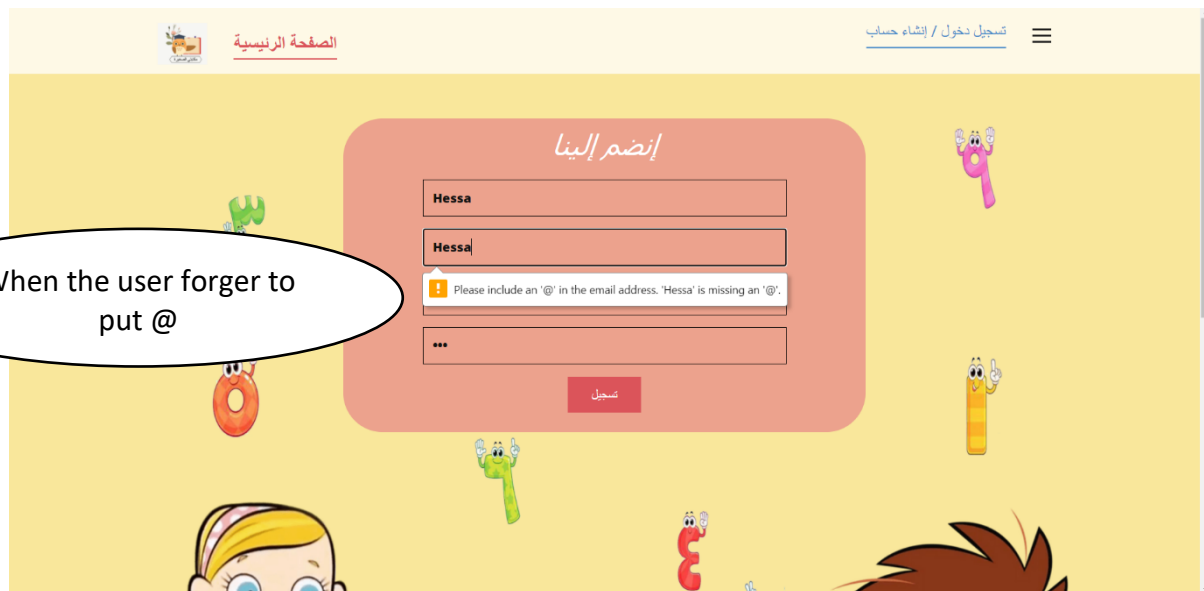


Figure 57. Sign in Interface "Error one"

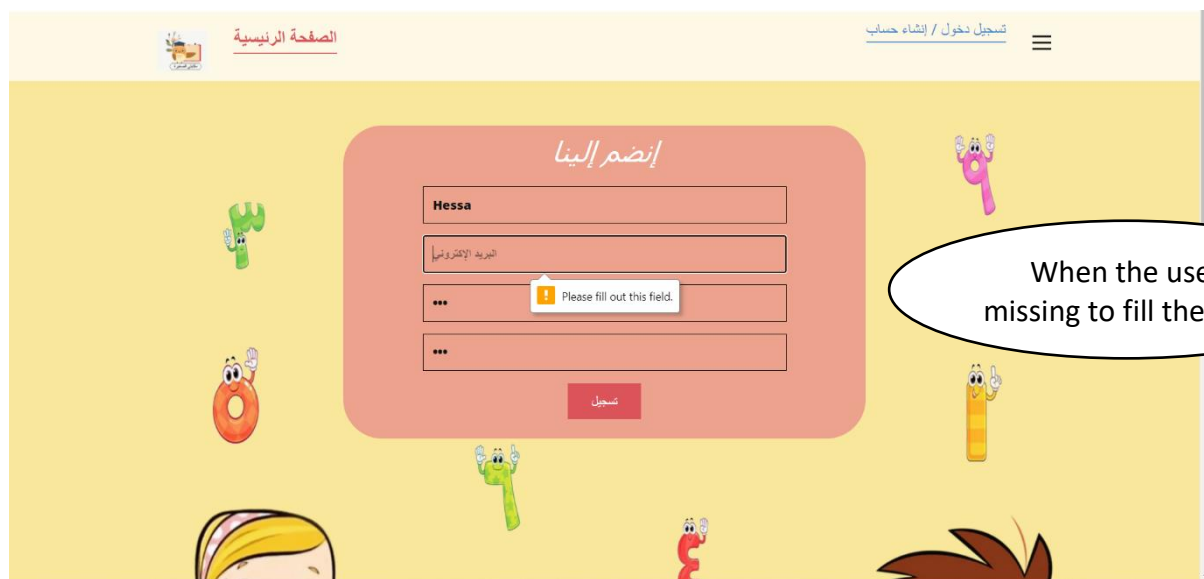


Figure 58. Sign in Interface "Error two"

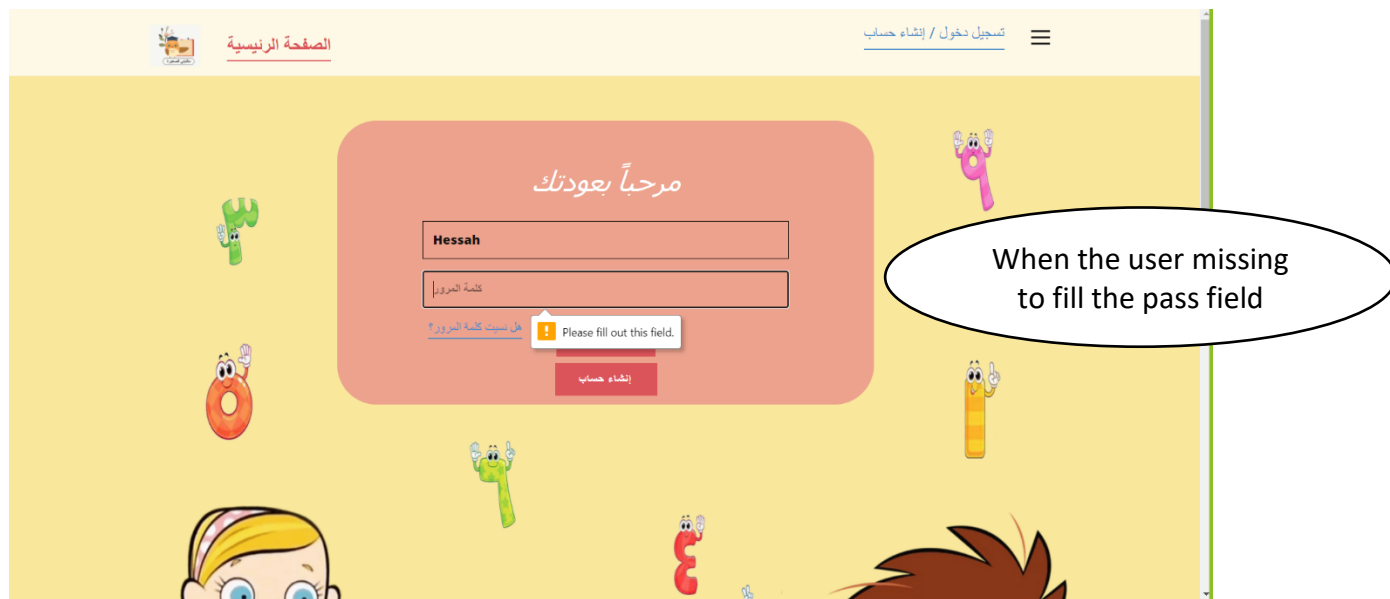


Figure 59. Sign in Interface "Error three"

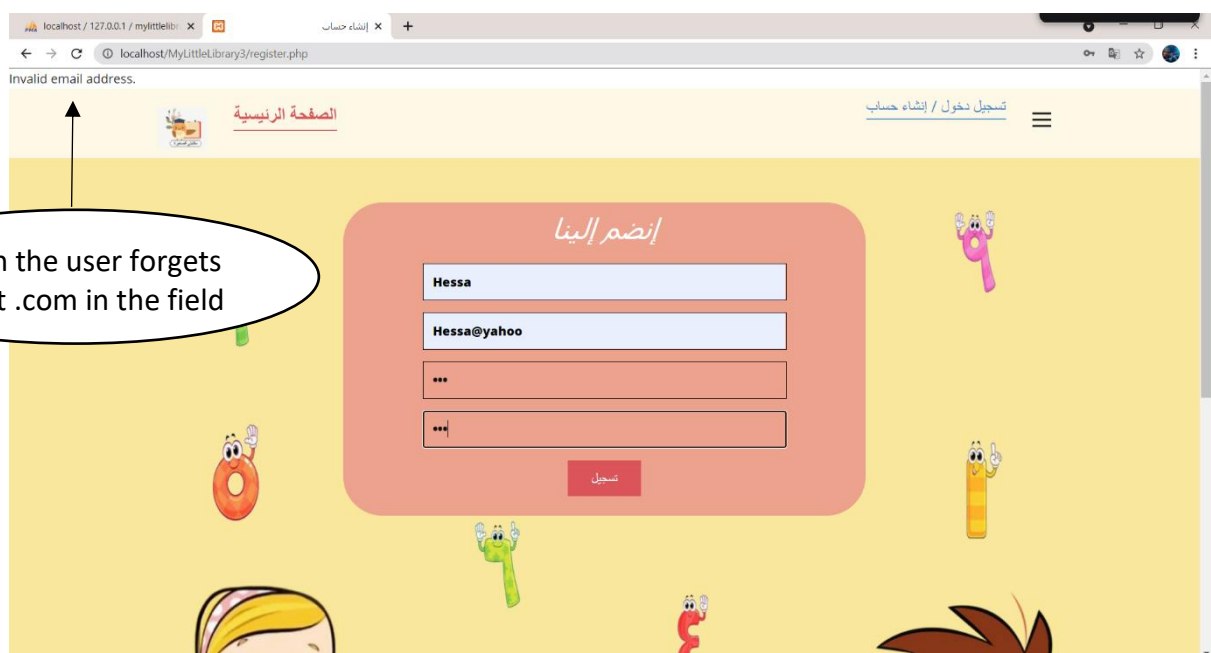


Figure 60. When the user forgets to put .com in the field "Error four"

Project Template

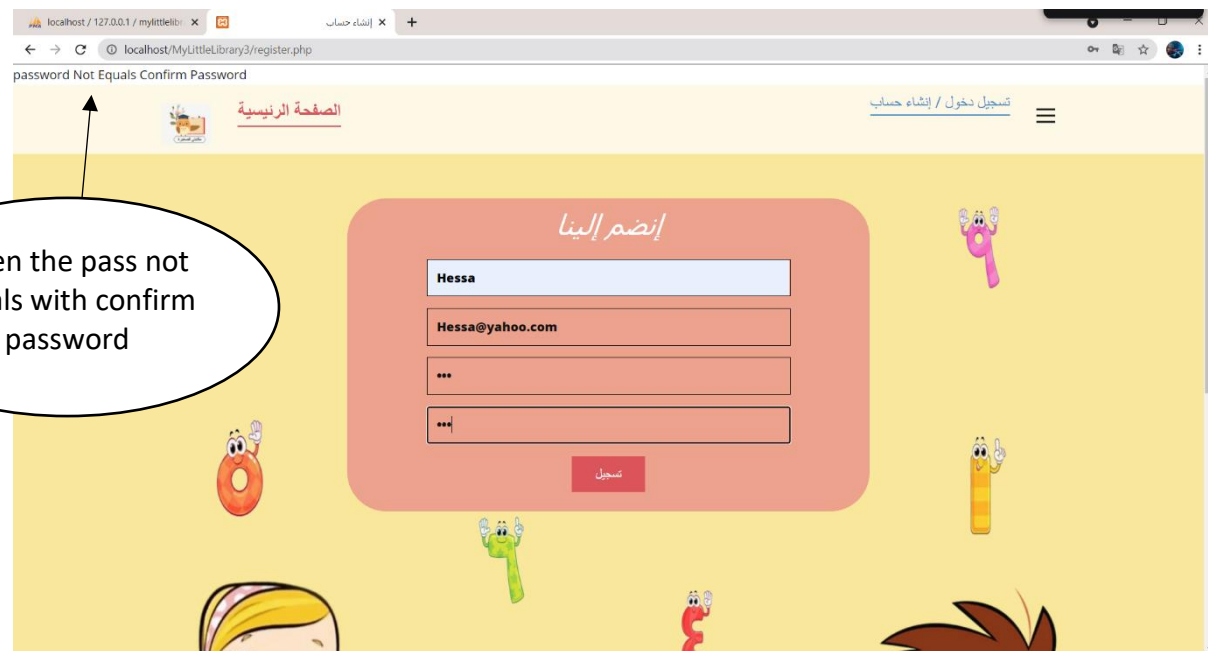


Figure 61. When the pass not equals with confirm password "Error five"

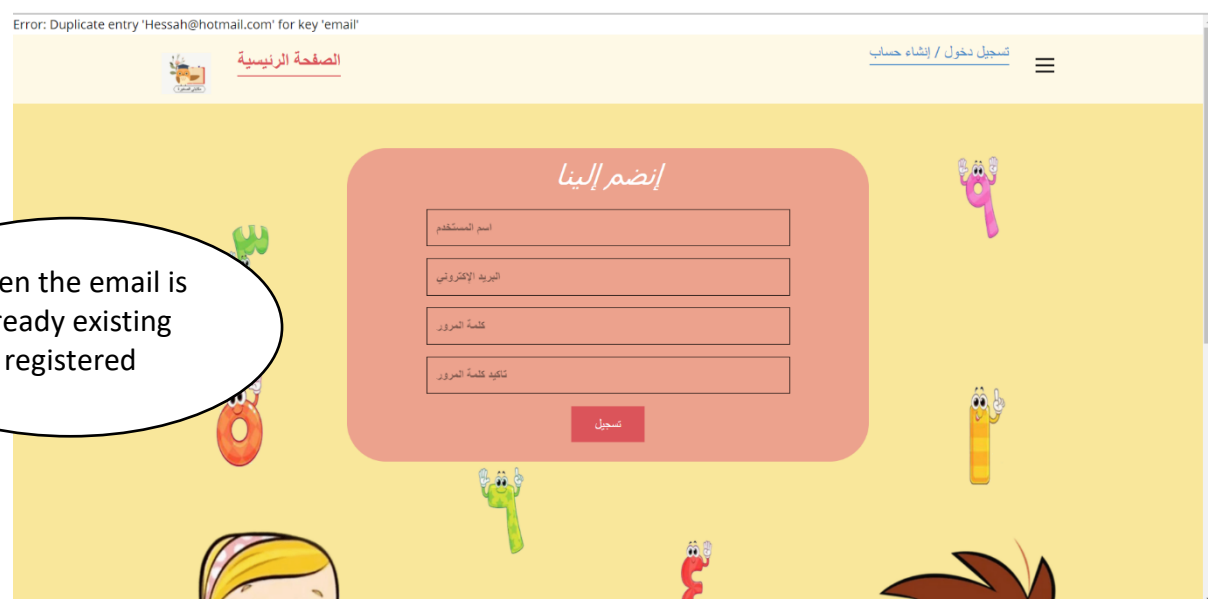


Figure 62. When the email is already existing registered "Error six"

6.3 User acceptance testing

The site has been offered to children to benefit from their comments, as the site is directed towards children, from among them

The comments we encountered from the children, adding sounds to the entire site, and also adding the reference mark and likes to the stories. Their comments were taken into account and worked on the site.

6.4 Test cases

User Registration:

Table 1. User Registration

ID	TEST CASE	USER INPUT	PASS CRITERIA
U_REG_1	User Registration	User select already existing Email	Display message “the email is existing already”
U_REG_2	User Registration	User forgets to enter a particular required field	Display message “please enter all the fields”
U_REG_3	User Registration	User must enter email contain: Gmail, yahoo, Hotmail	Display message “the entrance of the fields is not correct”
U_REG_4	User Registration	User enter all the details successfully	Display message “The account is created”

Login:

Table 2. Login

ID	TEST CASE	USER INPUT	PASS CRITERIA
U_Log_1	User Login	User enter a wrong username or password	Display message “the password or username is not correct”
U_Log_2	User Login	User enter a correct username and password	User logs in successfully

Project Template

U_Log_3	User Login	User forgets to enter a particular required field	Display message “the password or username is not correct”
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Add/ Remove Like:

Table 3. Add/ Remove Like

ID	TEST CASE	USER INPUT	PASS CRITERIA
U_like_1	Story liked in first age category	User will like one of the stories	Display message “the story has been added to the favorite list”
U_like_2	Story liked in second age category	User will like one of the stories	Display message “the story has been added to the favorite list”
U_like_3	Shows all stories that have been liked	User press his favorite list	show his favorite story
U_Remove_like	Show all stories that have been liked to remove like	User press icon remove to remove the story	Story removed

Stop point:

Table 4. Stop Point

ID	TEST CASE	USER INPUT	PASS CRITERIA
U_SP_1	user read one of the stories	User will press the bookmark to stop in the current page to read it later	Display message “the bookmark is added”
U_SP_2	Bookmark sign	User when want to complete the story he press the bookmark	Display the page that he stopped in

Chapter 7 Conclusion

The project is a library in the Arabic language targeting children of the age groups (3-5) and (6.7). Each age group has stories, learning and testing yourself as appropriate for their age. The main results of this project are that the child can spend his time in something fun and useful, we hope in the future, to develop our project by increasing the age groups and also by increasing the scientific material provided by "My Little Library". One of the biggest challenges we face is trying to make the library entertaining and purposeful at the same time and more attractive to a child.

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7.1 Report Organization

The report contains a complete summary of the site, including the languages used in the codes, databases, system analysis and interface design
in chapter1 it describes the problems in general of children.

chapter2 consider what will the site contain of functions.

chapter3 present the system analysis of our website in three drawings: System use-cases, Interaction Diagrams and Class Diagram.

chapter4 it describes the system architecture how the tables store in the database and the Database Design.

chapter 5 talked about the what the website contains and the programming languages that we used.

chapter 6 contains the System Testing which is managed the testing of our software project, also we measured the performance of the website. and we summarized the children's experience of the website and their comments on it.

chapter7 present an explanation of the website in general, shows the main results of the project, the future development of the project
and the challenges we faced while working on the site.