Task 2 Developing the solution Test plans and logs

Test Ref.	Type of Test	Purpose of Test	Expected Outcome	Test Data
1	Functional test	To test if the application takes in all the register data and records it in the Database (Learner)	On click of the submit button the data is posted to the database and the user is redirected to the login page.	Form Data: `LearnerFullname`, `LearnerDateOfBirth`, `LearnerGender`, `LearnerEmail`, `LearnerPhoneNumber`, `LearnerUsername`, `LearnerPassword`, `LearnerClass`

Test Ref.	Type of Test	Purpose of Test	Expected Outcome	Test Data
2	Functional test	To test if the application takes in all the register data and records it in the Database (Learner)	On click of the submit button the data is posted to the database and the user is redirected to the login page.	Form Data: `LearnerFullname`, `LearnerDateOfBirth`, `LearnerGender`, `LearnerEmail`, `LearnerPhoneNumber`, `LearnerUsername`, `LearnerPassword`, `LearnerClass`

Test Ref.	Type of Test	Purpose of Test	Expected Outcome	Test Data
3	Functional test	To test if program can login a user that has signed up (Learner)	Login details compared to ones in the database already.	Form Data: `LearnerUsername, LearnerPassword.`

Test Ref.	Type of Test	Purpose of Test	Expected Outcome	Test Data
4	Functional test	To test if program can login a user that has signed up (Learner).	Login details should be compared to the ones in the database already and login if details correct.	Form Data: `LearnerUsername, LearnerPassword.`

Test Ref.	Type of Test	Purpose of Test	Expected Outcome	Test Data
5	Functional Test	To test what the application does when incorrect data is submitted in the login page (learner + tutor)	IT should navigate to an error page informing the user of what they need to do.	Form Data: `LearnerUsername, LearnerPassword.`

Test Ref.	Type of Test	Purpose of Test	Expected Outcome	Test Data
6	Functional test	To test if the session is around on all of the pages once logged in.	I have included session start () at the top of my document on all relevant pages after login so it should be there.	Check all pages for a visible session and its relevant data (f12 and check network cookie/session area).

Test Ref.	Type of Test	Purpose of Test	Expected Outcome	Test Data
7	Functional test	To test if the correct data is displayed for the user logged in (Learner).	The session started should provide enough information for the queries I have written to draw the correct data out for each user.	Form Data: `LearnerUsername, LearnerPassword.`

Test Ref.	Type of Test	Purpose of Test	Expected Outcome	Test Data
8	Functional Test	To test if the correct data is displayed for the user logged in (Tutor).	The session started should provide enough information for the queries I have written to draw the correct data out for each user.	Form Data: `LearnerUsername, LearnerPassword.`

Test Ref.	Type of Test	Purpose of Test	Expected Outcome	Test Data
9	Functional Test	Learner Courses are different depending on the class value. (Checking the logical operation).	IF a learner class is 1 then they see A1 content, IF a learner class is 2 they see A2 Content, IF a learner class is 3 they can see A3.	Learner Class and the if statement in the maths, English and science redirect pages.

Test Ref.	Type of Test	Purpose of Test	Expected Outcome	Test Data
10	Functional Test	Test if the progress bar values on the tutor view of students are drawing in the correct values.	The progress bars will use values from the database and will represent 1 student each. They are in a table, so the student and progress bar are in the same row.	Quiz Result

Test Ref.	Type of Test	Purpose of Test	Expected Outcome	Test Data
11	Functional Test	Test incorrect or missing data in the register forms.	Should redirect to an error page.	Email – ed.com (no@) Age – eeeee Etc.

Test Ref.	Type of Test	Purpose of Test	Expected Outcome	Test Data
12	Usability – non functional	An easy-to-use program that is fast and efficient.	Should be useable and very quick. /Responsive as it is not a large program that uses lots of resources.	N/A

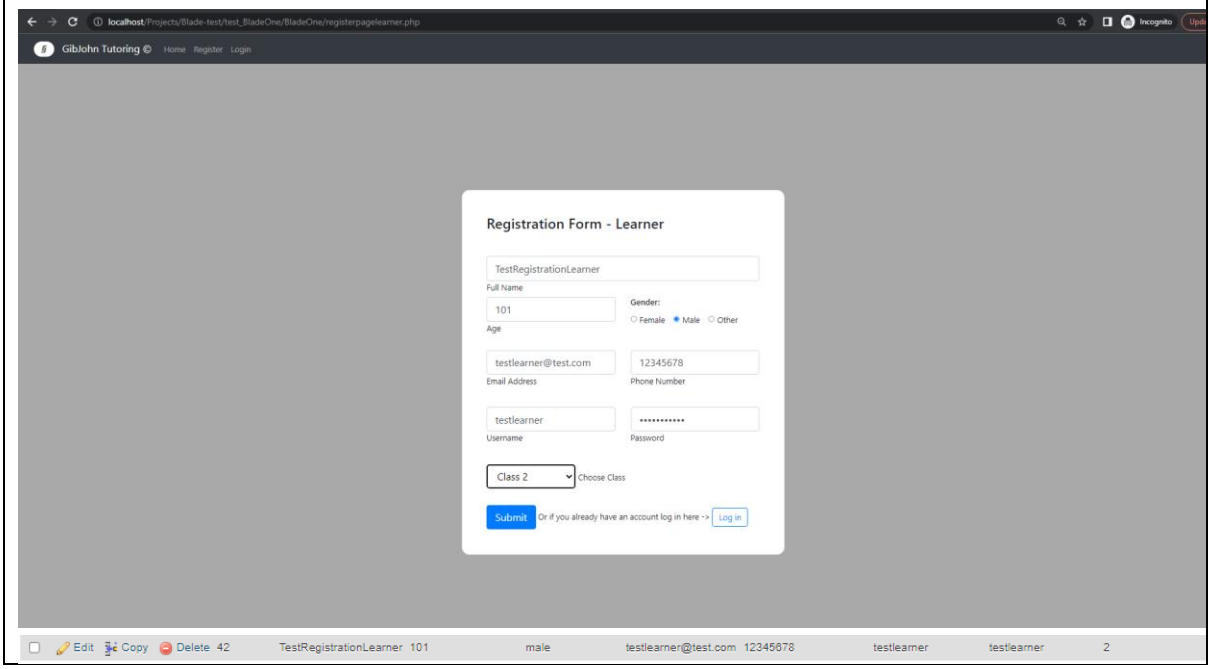
Test Ref.	Type of Test	Purpose of Test	Expected Outcome	Test Data
13	Non-Functional	The program should have a professional looking interface that follows good user interface and experience principles.	The interface is greyscale which should be readable for most users and the user interface should keep a consistent format across all the pages. Templating will help with this.	N/A

Test Ref.	Type of Test	Purpose of Test	Expected Outcome	Test Data
14	Functional	To test if the application can be used the same on mobile devices and smaller devices than the average 24-inch computer screen.	The bootstrap should automatically size adjust depending on the size. Not entirely sure of what every page will look like.	N/A

Test Ref.	Type of Test	Purpose of Test	Expected Outcome	Test Data
15	Functional	Test if the applications templates work and extend the different relevant sections.	The templates should be filled with header footer and content sections. Non views can generate html and the echo just prints out the webpages in views.	@extends('app') @section('content') @endsection

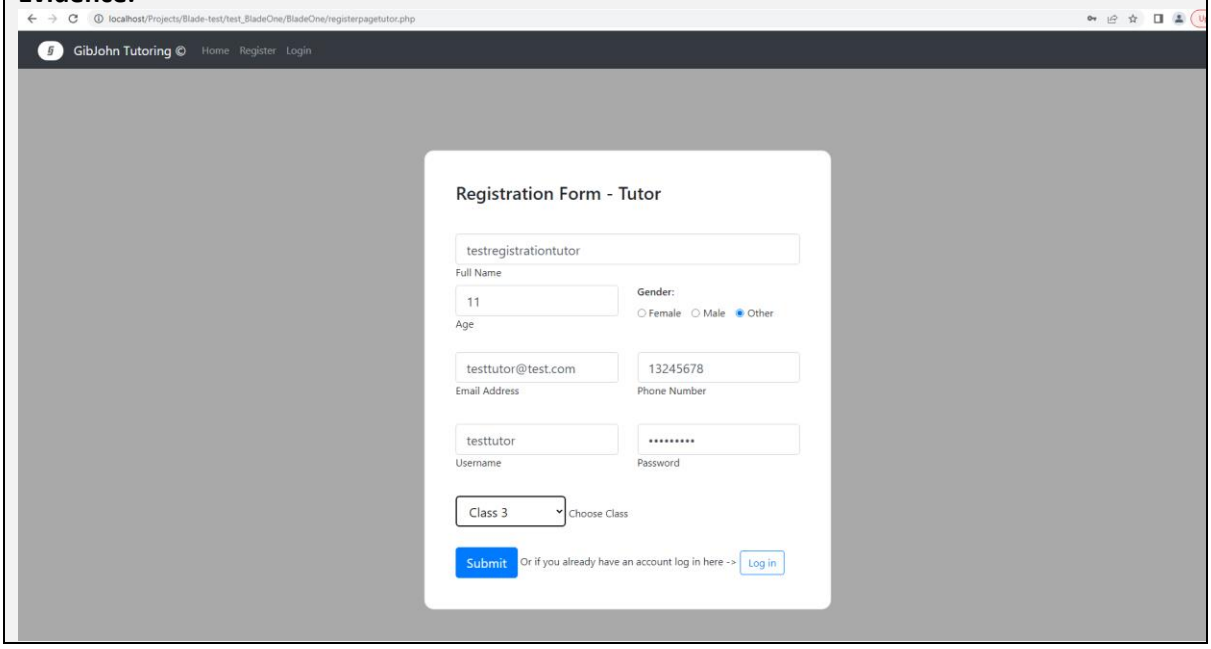
Testing Logs

Test Reference:	1	**Name of Tester:**	Ed	**Date of Test:**	29/03/2022
Purpose of Test:	To test if the application takes in all the register data and records it in the Database (Learner)				
Test Type:	Functional TEST				
Test Data:	Form Data: `LearnerFullname, LearnerDateOfBirth, LearnerGender, LearnerEmail, LearnerPhoneNumber, LearnerUsername, LearnerPassword, LearnerClass`				
Expected Outcome:	On click of the submit button the data is posted to the database and the user is redirected to the login page.				
Actual Outcome:	As Expected.				
Pass/Fail/Skipped:	PASS				
Comments and/or Recommendations:	N/A				
Evidence:					



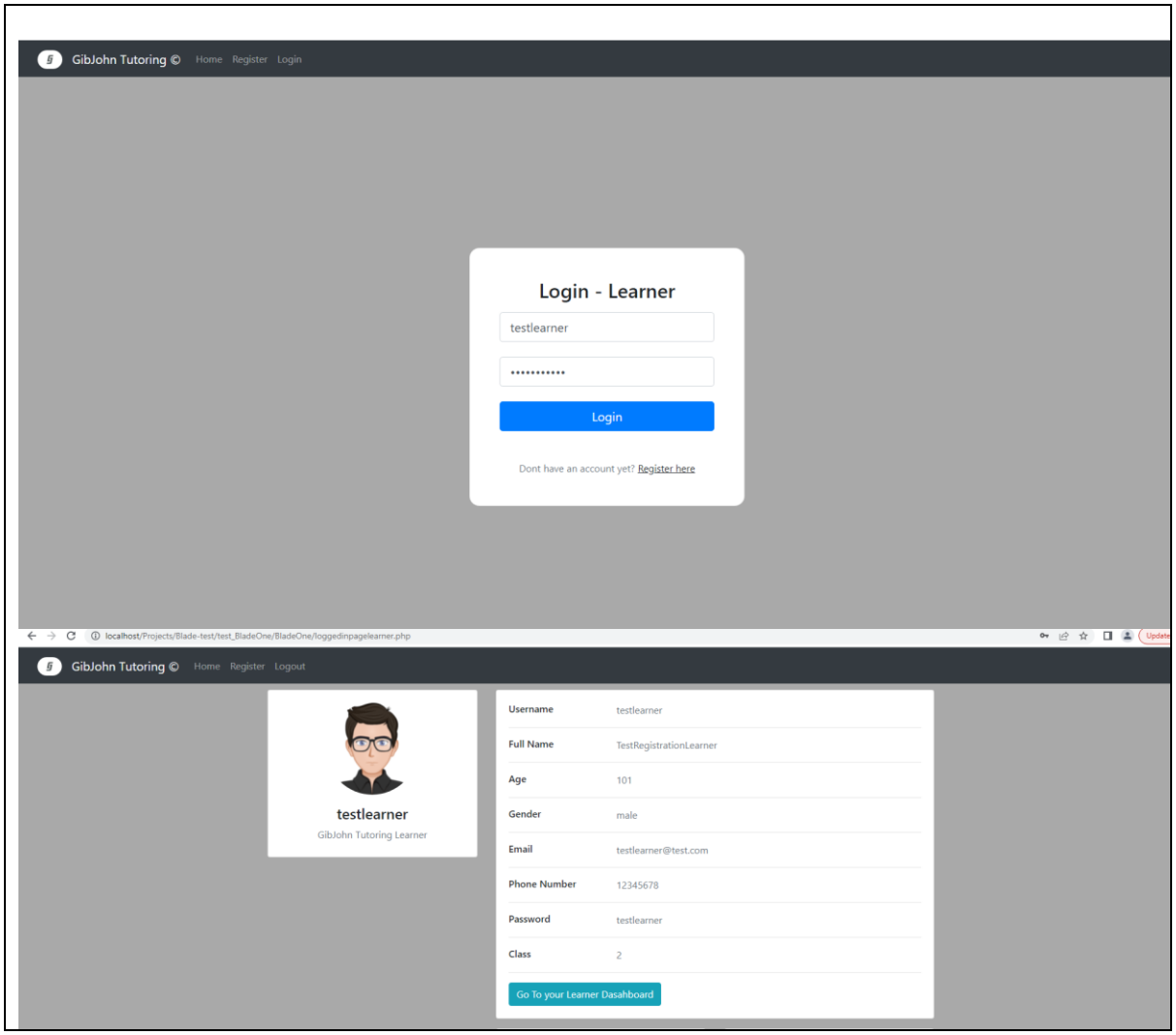
Test Reference:	2	Name of Tester:	Ed	Date of Test:	29/03/2022
Purpose of Test:	To test if the application takes in all the register data and records it in the Database (Tutor)				
Test Type:	Functional test				
Test Data:	Form Data: `LearnerFullname, LearnerDateOfBirth, LearnerGender, LearnerEmail, LearnerPhoneNumber, LearnerUsername, LearnerPassword, LearnerClass`				
Expected Outcome:	On click of the submit button the data is posted to the database and the user is redirected to the login page.				
Actual Outcome:	As Expected.				
Pass/Fail/Skipped:	PASS				
Comments and/or Recommendations:	N/A				

Evidence:

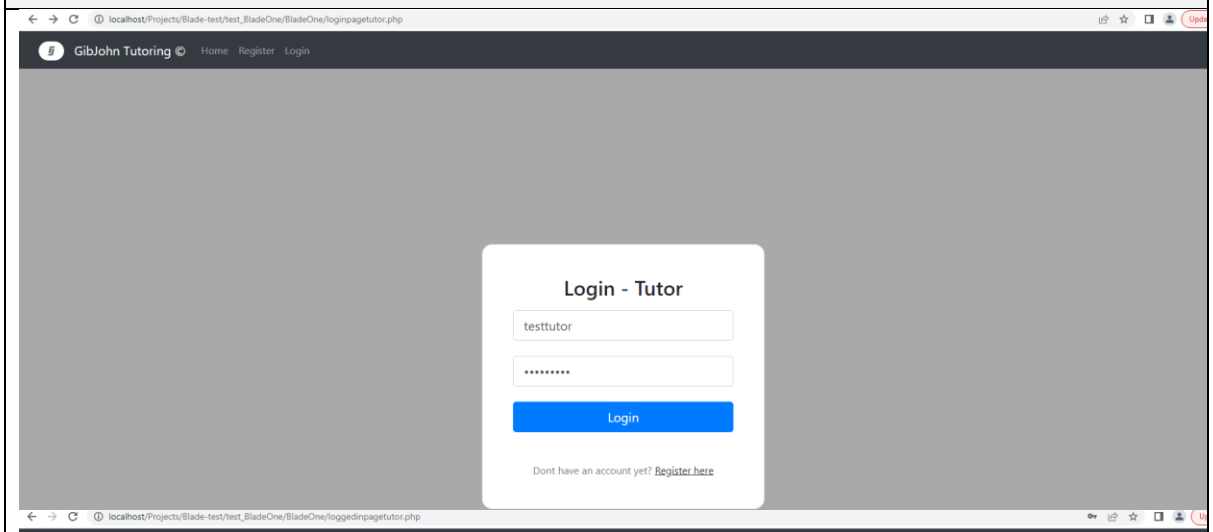


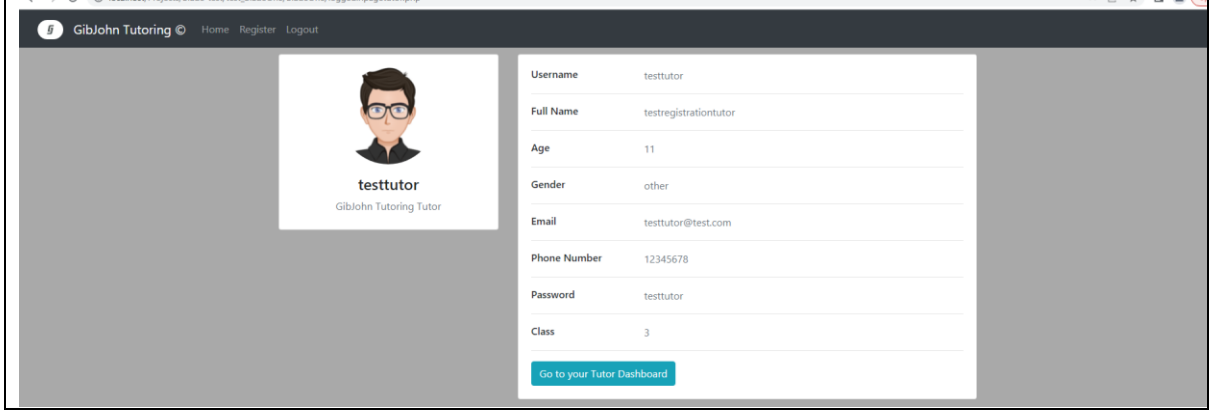
Edit	Copy	Delete	6	testregistrationtutor	11	other	testtutor@test.com	12345678	testtutor	testtutor	3

Test Reference:	3	**Name of Tester:**	Ed	**Date of Test:**	29/03/2022
Purpose of Test:	To test if program can login a user that has signed up (Learner)				
Test Type:	Functional test				
Test Data:	Form Data: `LearnerUsername, LearnerPassword.`				
Expected Outcome:	Login details compared to ones in the database already and the user is logged in				
Actual Outcome:	As Expected – All works.				
Pass/Fail/Skipped:	PASS				
Comments and/or Recommendations:					
Evidence:					


GibJohn Tutoring ©
Home
Register
Login
Login - Learner
testlearner
Login
Dont have an account yet? Register here
localhost/Projects/Blade-test/test_BladeOne/BladeOne/loggedinpagelearner.php
GibJohn Tutoring ©
Home
Register
Logout
testlearner
GibJohn Tutoring Learner
Username
testlearner
Full Name
TestRegistrationLearner
Age
101
Gender
male
Email
testlearner@test.com
Phone Number
12345678
Password
testlearner
Class
2
Go To your Learner Dasahboard

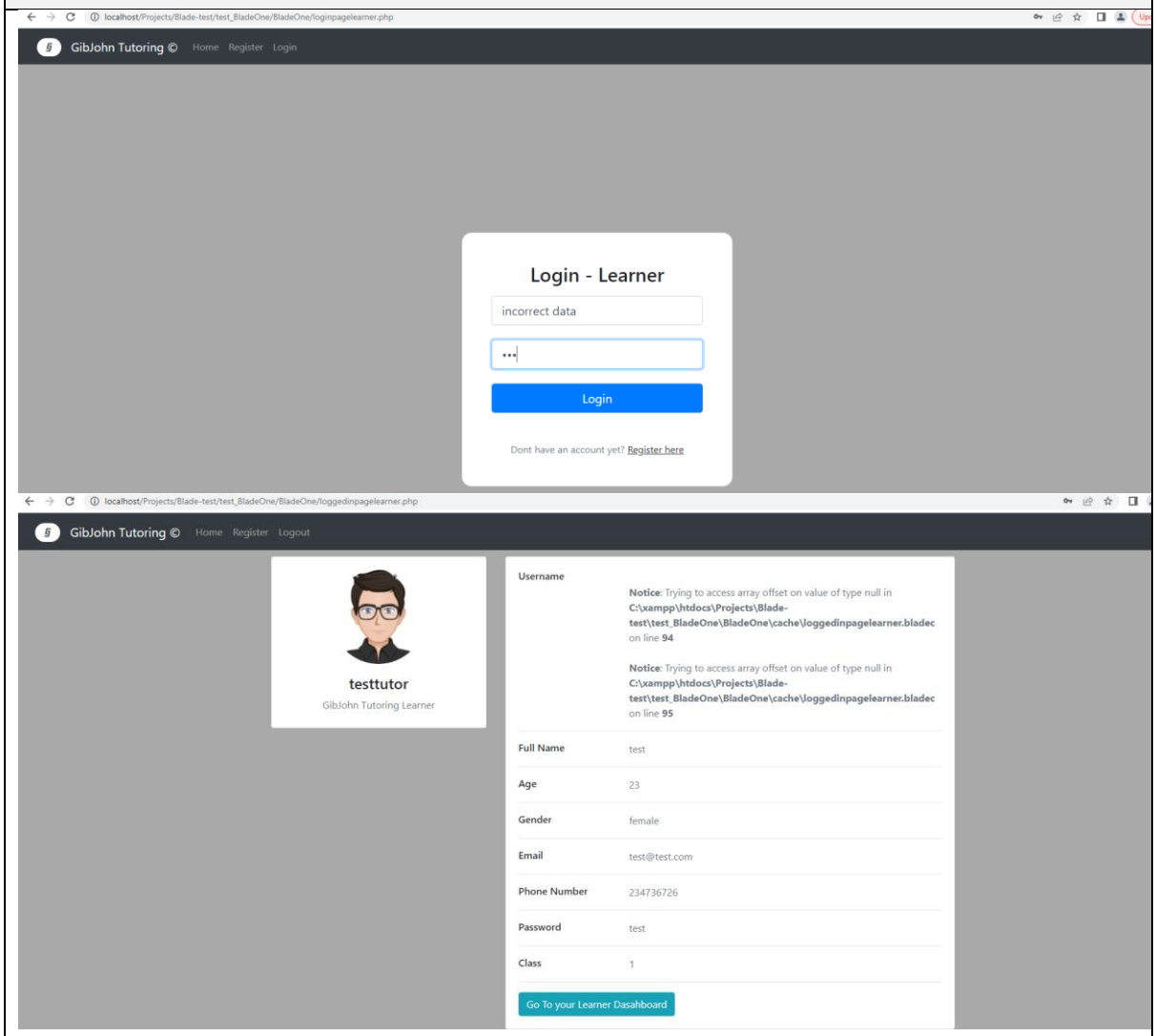
Test Reference:	4	**Name of Tester:**	Ed	**Date of Test:**	29/03/2022
Purpose of Test:	To test if program can login a user that has signed up (Tutor).				
Test Type:	Functional				
Test Data:	Form Data: `LearnerUsername, LearnerPassword.`				
Expected Outcome:	Login details should be compared to the ones in the database already and login if details correct.				
Actual Outcome:	As Expected – all working				
Pass/Fail/Skipped:	PASS				
Comments and/or Recommendations:	N/A				
Evidence:					





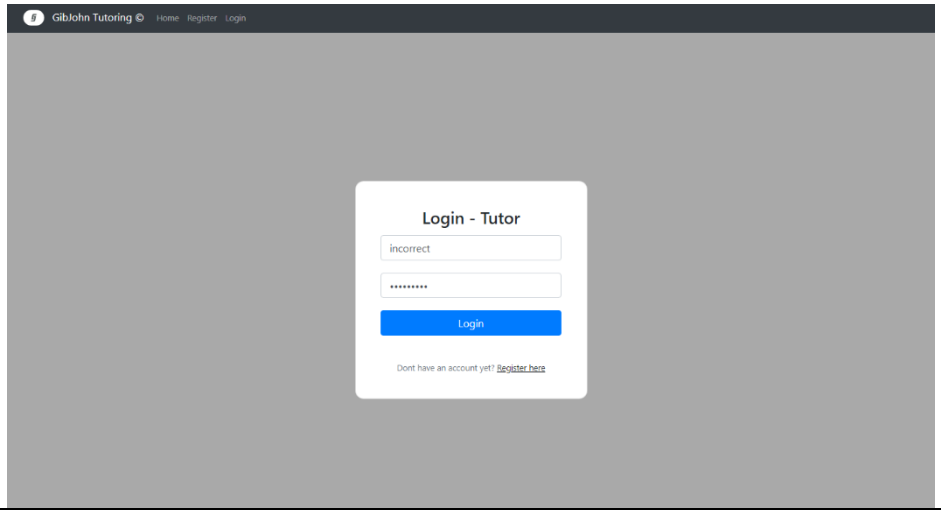
Test Reference:	5	**Name of Tester:**	Ed	**Date of Test:**	29/03/2022
Purpose of Test:	To test what the application does when incorrect data is submitted in the login page (learner + tutor)				
Test Type:	Functional				
Test Data:	Form Data: `LearnerUsername, LearnerPassword`				
Expected Outcome:	It should navigate to an error page informing the user of what they need to do.				
Actual Outcome:	For the Learner it proceeds to the learner details screen and does not error for some unknown reason. Somehow it logs in. I think the session in this case had not been ended. For the tutor it redirects to a page where it says incorrect name or password.				
Pass/Fail/Skipped:	Fail				
Comments and/or Recommendations:	Need to end the previous user session and add the redirect to error page for the learner.				

Evidence:



localhost/Projects/Blade-test/test_BladeOne/BladeOne/php/logintutor.php

Incorrect username and/or password!

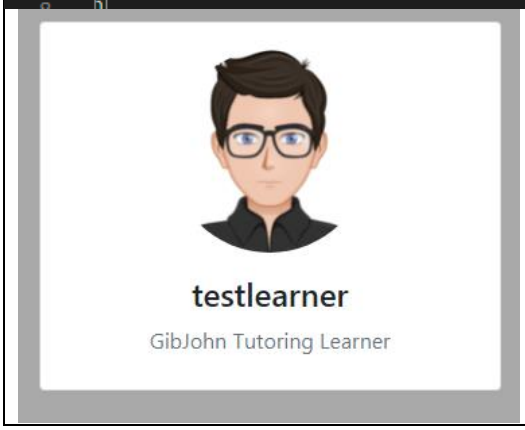


Test Reference:	6	**Name of Tester:**	Ed	**Date of Test:**	29/03/2022
Purpose of Test:	To test if the session is around on all of the pages once logged in.				
Test Type:	Functional – White Box testing				
Test Data:	Check all pages for a visible session and its relevant data (f12 and check network cookie/session area).				
Expected Outcome:	I have included session start () at the top of my document on all relevant pages after login so it should be there.				
Actual Outcome:	The Session is available over all relevant webpages once logged in. This will work wherever Session_start is, up until the session is ended/destroyed.				
Pass/Fail/Skipped:	PASS				
Comments and/or Recommendations:	N/A				
Evidence:					

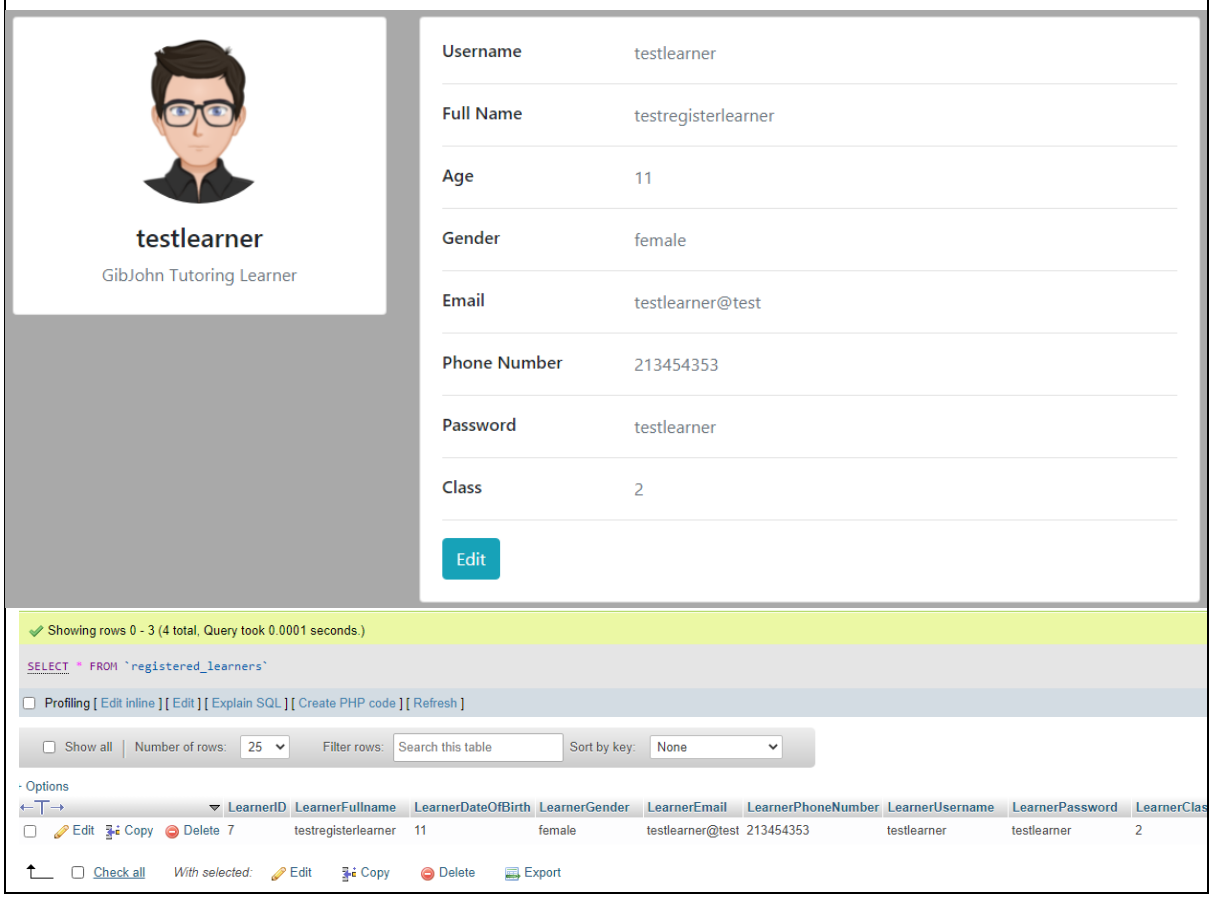
```php
if ($_POST['password'] === $password) {
    // Verification success! User has logged-in!
    // Create sessions, so we know the user is logged in,= it acts like cookies but remembers a bit the data on the server.
    session_regenerate_id();
    $_SESSION['loggedin'] = TRUE;
    $_SESSION['name'] = $_POST['username'];
    $_SESSION['id'] = $id;
```

views > loggedinpagelearner.blade.php

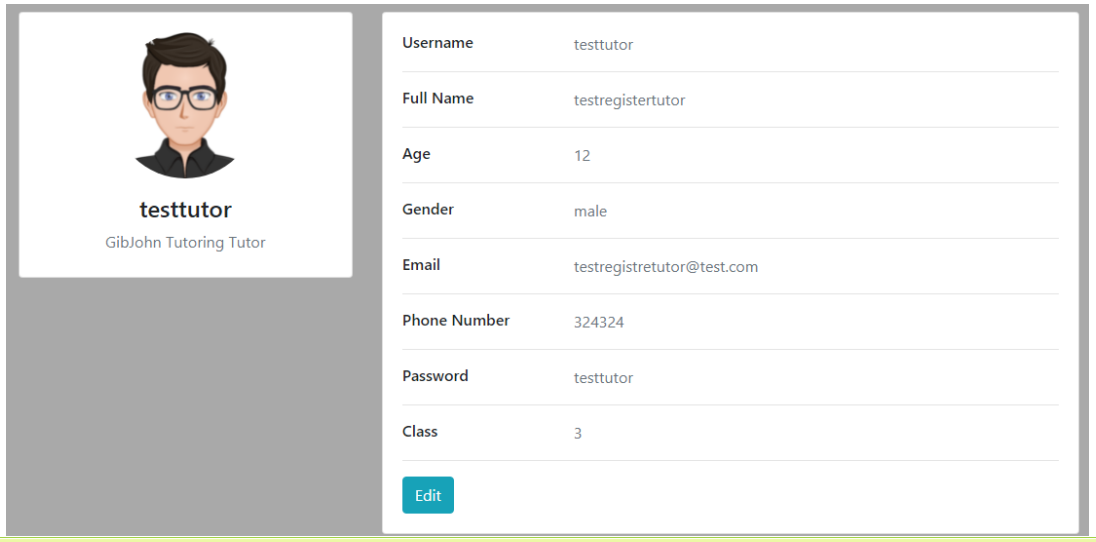
```php
<?php
// We need to use sessions, so you should always start sessions using th
session_start();
// If the user is not logged in redirect to the login page...
if (!isset($_SESSION['loggedin'])) {
  //header('Location: index.html');
  exit;
```



Test Reference:	7	Name of Tester:	Ed	Date of Test:	29/03/2022
Purpose of Test:	To test if the correct data is displayed for the user logged in (Learner).				
Test Type:	Functional – Whitebox				
Test Data:	Form Data: `LearnerFullname, LearnerDateOfBirth, LearnerGender, LearnerEmail, LearnerPhoneNumber, LearnerUsername, LearnerPassword, LearnerClass`				
Expected Outcome:	The session started should provide enough information for the queries I have written to draw the correct data out for each user.				
Actual Outcome:	The correct data for the learner view comes out of the database. I have included an image of the database data and the front end view of the process for for the user.				
Pass/Fail/Skipped:	PASS				
Comments and/or Recommendations:					
Evidence:					



Test Reference:	8	Name of Tester:	Ed	Date of Test:	29/03/2022
Purpose of Test:	To test if the correct data is displayed for the user logged in (Tutor).				
Test Type:	Functional - WhiteBox				
Test Data:	Form Data: `LearnerFullname, LearnerDateOfBirth, LearnerGender, LearnerEmail, LearnerPhoneNumber, LearnerUsername, LearnerPassword, LearnerClass`				
Expected Outcome:	The session started should provide enough information for the queries I have written to draw the correct data out for each user. Should display all data listed correctly for the user.				
Actual Outcome:	It does as expected - correct data is being drawn out of the database.				
Pass/Fail/Skipped:	PASS				
Comments and/or Recommendations:					
Evidence:					



Showing rows 0 - 0 (1 total, Query took 0.0001 seconds.)

```
SELECT * FROM `registered_tutors`
```

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all | Number of rows: 25 Filter rows: Search this table

+ Options

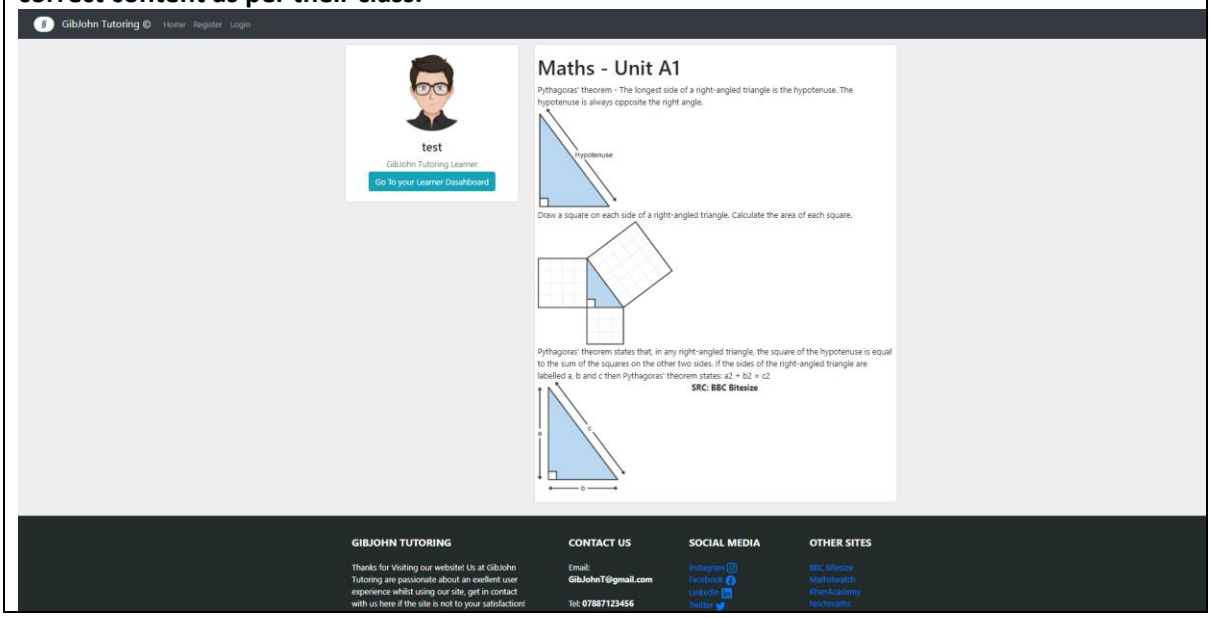
	TutorID	TutorFullname	TutorDateOfBirth	TutorGender	TutorEmail	TutorPhoneNumber	TutorUsername	TutorPassword	TutorClass
Edit Copy Delete	6	testregistertutor	12	male	testregistretutor@test.com	324324	testtutor	testtutor	3

Test Reference:	9	**Name of Tester:**	Ed	**Date of Test:**	29/03/2022
Purpose of Test:	Learner Courses are shown different content depending on the class value. (Checking the logical operation).				
Test Type:	Functional – White Box				
Test Data:	Learner Class and the if statement in the maths, English and science redirect pages.				
Expected Outcome:	If a learner class is 1 then they see A1 content, IF a learner class is 2, they see A2 Content, IF a learner class is 3 they can see A3.				
Actual Outcome:	The content displayed is correct for all learners.				
Pass/Fail/Skipped:	PASS				
Comments and/or Recommendations:	If more content is added then you need to make separate redirect pages, with the same logic as the code below.				

Evidence:

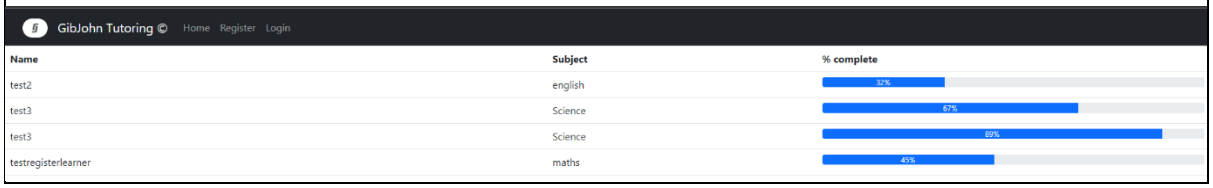
```
// this is the actual logic behind it - just if and elseif statements.
if($lc == "1"){
  header("Location:/Projects/Blade-test/test_BladeOne/BladeOne/maths1learner.php");
} else if($lc == "2") {
  header("Location:/Projects/Blade-test/test_BladeOne/BladeOne/maths2learner.php");
} else {
header("Location:/Projects/Blade-test/test_BladeOne/BladeOne/maths3learner.php");
}
```

Learner class of 1 sees A1 of courses. This is the same for science and English. The learners see correct content as per their class.



Test Reference:	10	Name of Tester:	Ed	Date of Test:	29/03/2022
Purpose of Test:	Test if the progress bar values on the tutor view of students are drawing in the correct values.				
Test Type:	Functional - Whitebox				
Test Data:	Quiz Result				
Expected Outcome:	The progress bars will use values from the database and will represent 1 student each. They are in a table, so the student and progress bar are in the same row.				
Actual Outcome:	They do. The table shows all learners and how many quizzes each one did with the progress bars.				
Pass/Fail/Skipped:	PASS				
Comments and/or Recommendations:	Could add more data and see how it copes but this is enough to get the gist of it. Also, as this is not a fully coded feature its purely developmental.				
Evidence:					

student progress. The code and images for reference is shown below.



Showing rows 0 - 2 (3 total, Query took 0.0002 seconds.)

```
SELECT * FROM `registered_learners`
```

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all | Number of rows: 25 Filter rows: Search this table Sort by key: None

+ Options

	LearnerID	LearnerFullname	LearnerDateOfBirth	LearnerGender	LearnerEmail	LearnerPhoneNumber	LearnerUsername	LearnerPassword	LearnerClass
Edit Copy Delete	1	testregisterlearner	11	female	testlearner@test	213454353	testlearner	testlearner	2
Edit Copy Delete	2	test2	32	male	test2@test.com	93425834	test2	test2	2
Edit Copy Delete	3	test3	23	male	test3@test.com	7873242	test3	test3	1

Showing rows 0 - 3 (4 total, Query took 0.0003 seconds.)

```
SELECT * FROM `quiz_results`
```

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all | Number of rows: 25 Filter rows: Search this table Sort by key:

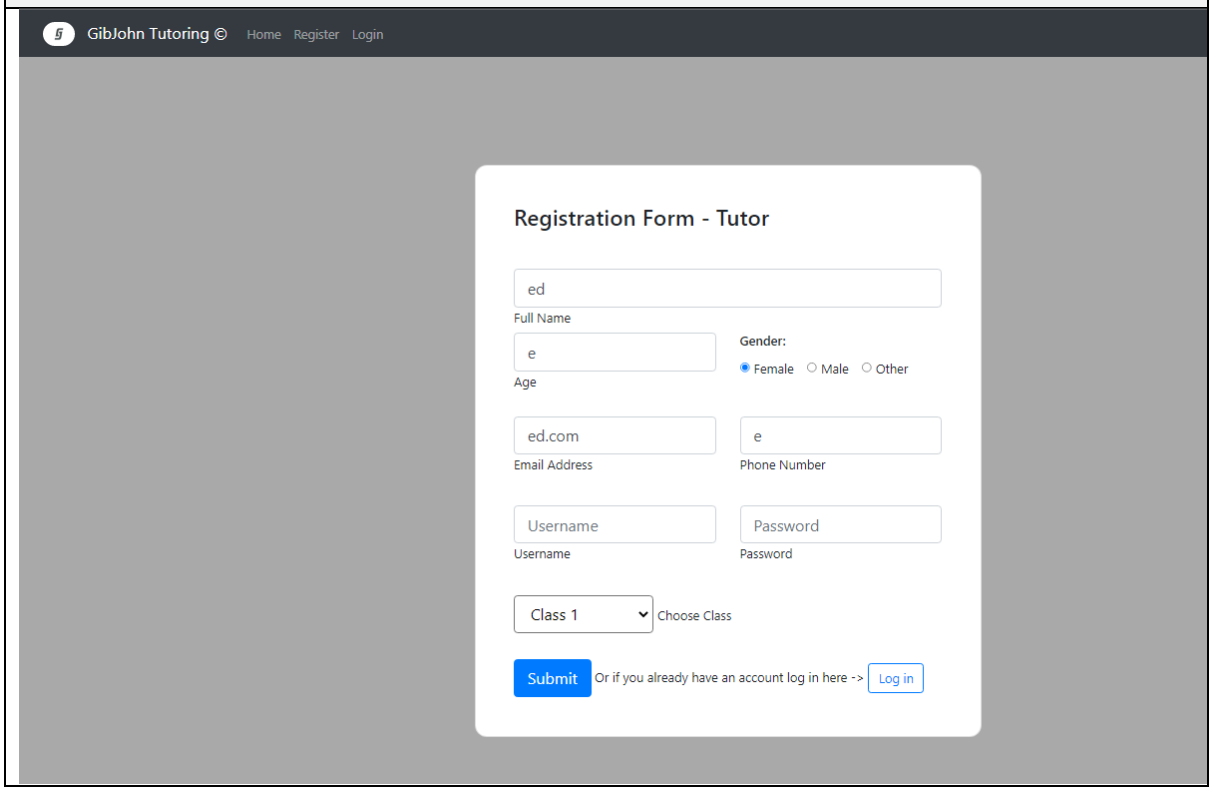
+ Options

	Quiz_ID	Learner_ID	Quiz_Description	Quiz_Score
Edit Copy Delete	1	1	maths	45%
Edit Copy Delete	2	2	english	32%
Edit Copy Delete	3	3	Science	67%
Edit Copy Delete	4	3	Science	89%

```
$sql = "

SELECT
registered_tutors.TutorID, registered_tutors.TutorFullname, registered_learners.LearnerFullname, quiz_results.Quiz_Description, quiz_results.Quiz_Scor
from
registered_tutors
left join registered_learners on registered_learners.LearnerClass
left join quiz_results on quiz_results.Learner_ID = registered_learners.LearnerID
where
registered_tutors.TutorID = 1

order by registered_learners.LearnerFullname;

";
```

The query is explained in the pages above.

Test Reference:	11	**Name of Tester:**	Ed	**Date of Test:**	02/02/2022
Purpose of Test:	Test incorrect or missing data in the register forms.				
Test Type:	Functional - Whitebox				
Test Data:	Email – ed.com (no@) Age – e				
Expected Outcome:	Should redirect to an error page.				
Actual Outcome:	Works correctly, outputs a relevant message and the program does not crash etc. It's a built in pre-programmed response – really efficient as the form will not submit until at least the age and email address are validated.				
Pass/Fail/Skipped:	PASS				
Comments and/or Recommendations:	For the next version I would program in red outlines on fields that remain empty and make it impossible for the form to submit until data is filled in.				
Evidence:					



Registration Form - Tutor

ed

Full Name

e

Age

Please enter a number.

Gender:

Female Male Other

ed.com

Email Address

e

Phone Number

Username

Username

Password

Password

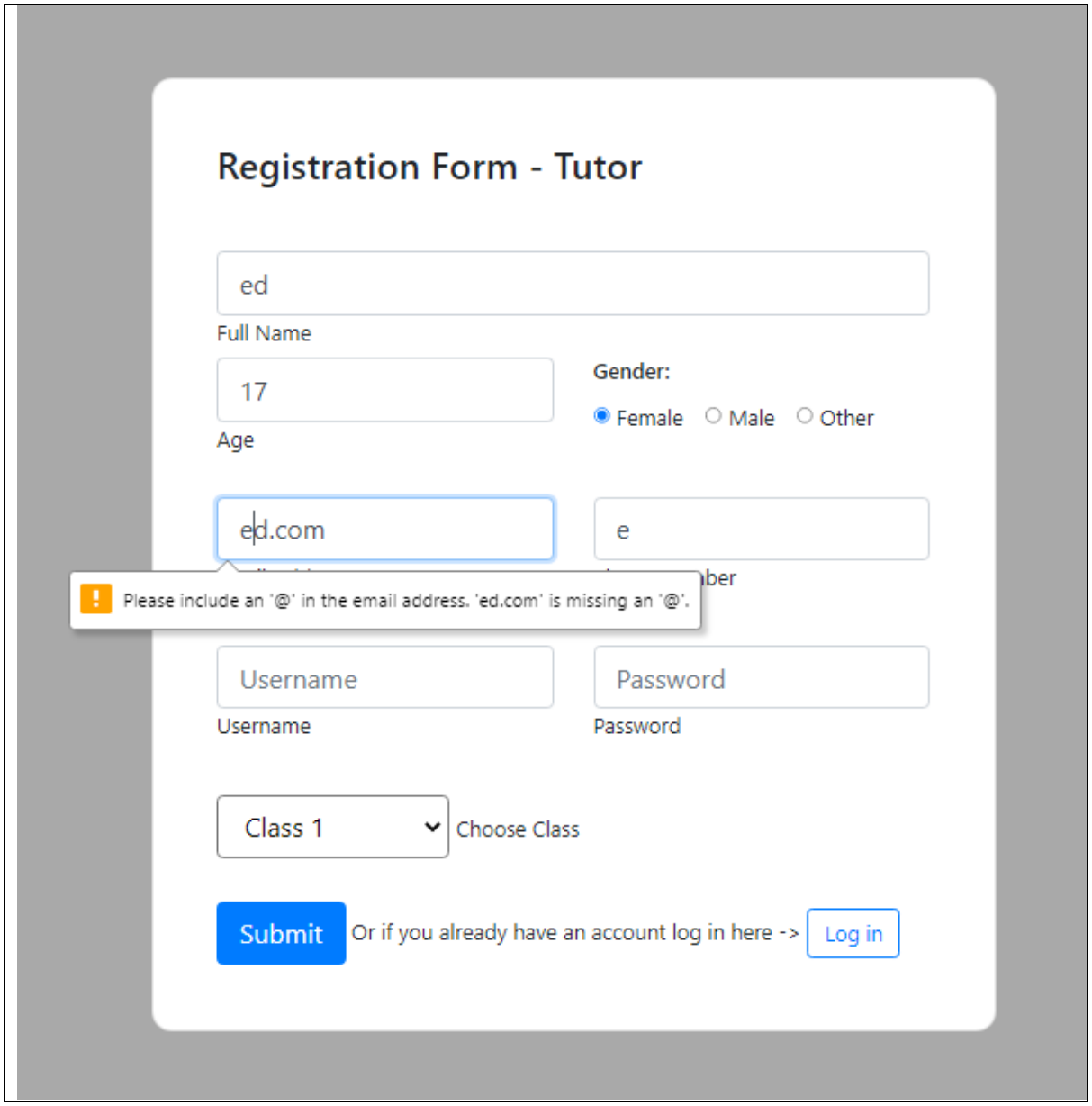
Class 1

Choose Class

Submit

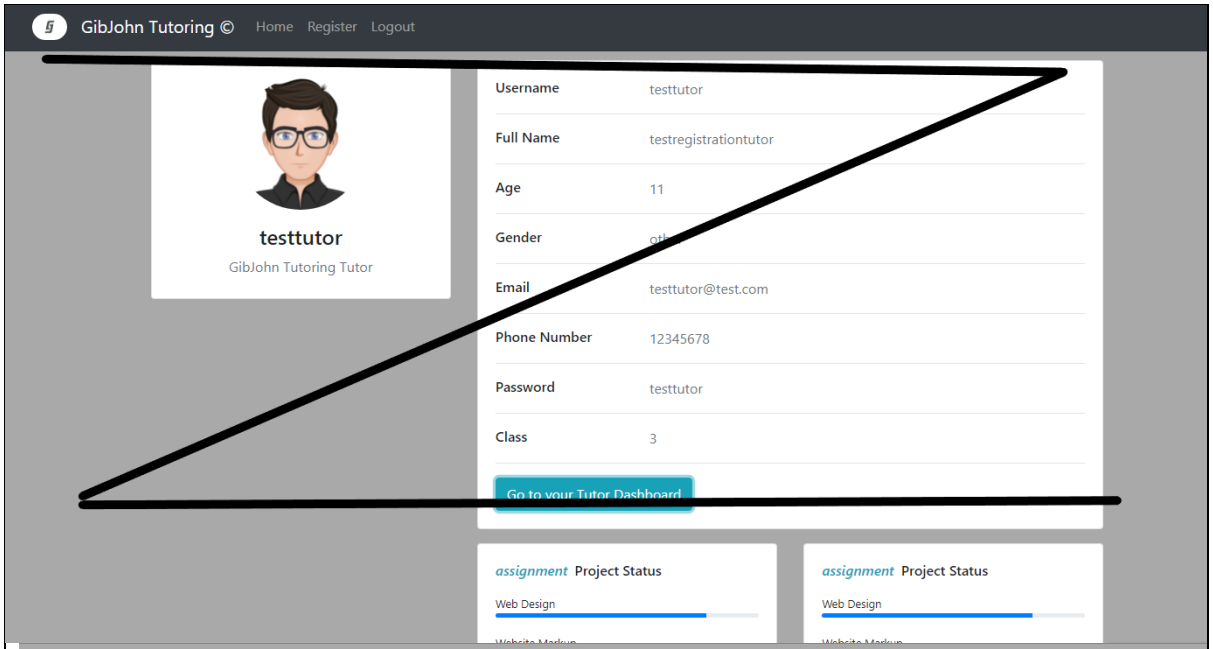
Or if you already have an account log in here ->

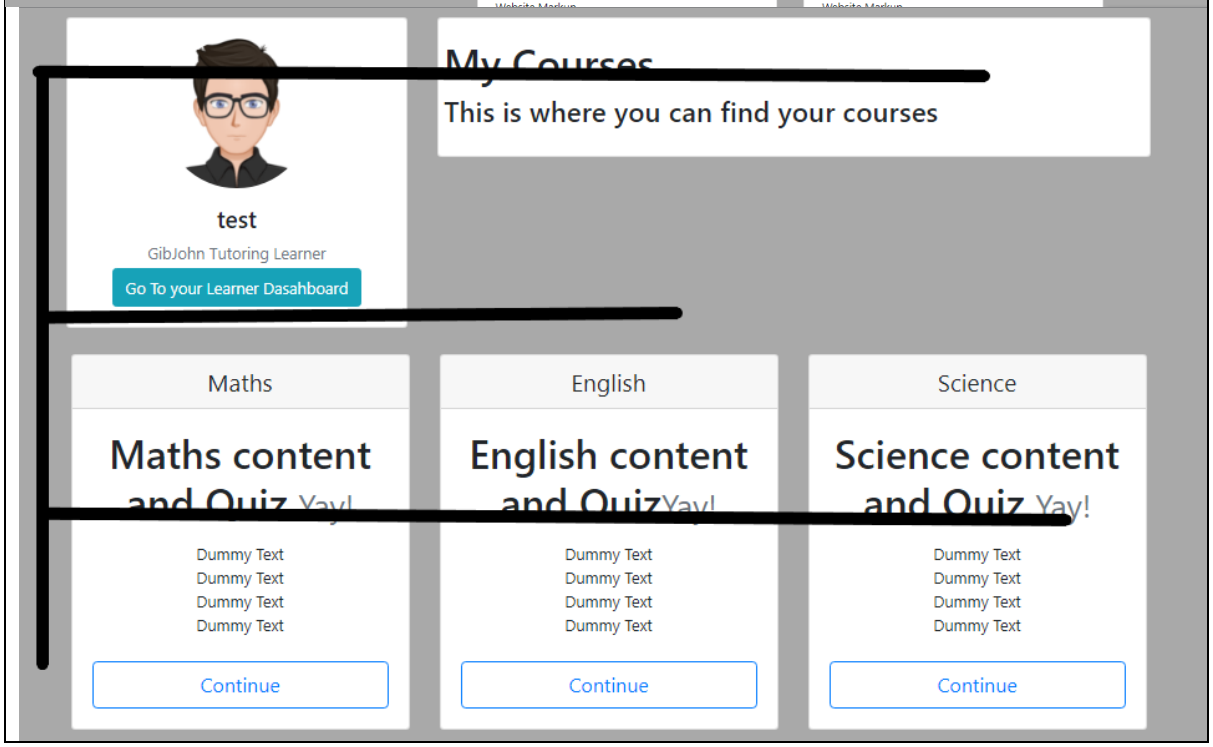
Log in


Registration Form - Tutor
ed
Full Name
17
Age
Gender:
Female
Male
Other
ed.com
e
Please include an '@' in the email address. 'ed.com' is missing an '@'.
Username
Password
Username
Password
Class 1
Choose Class
Submit
Or if you already have an account log in here ->
Log in

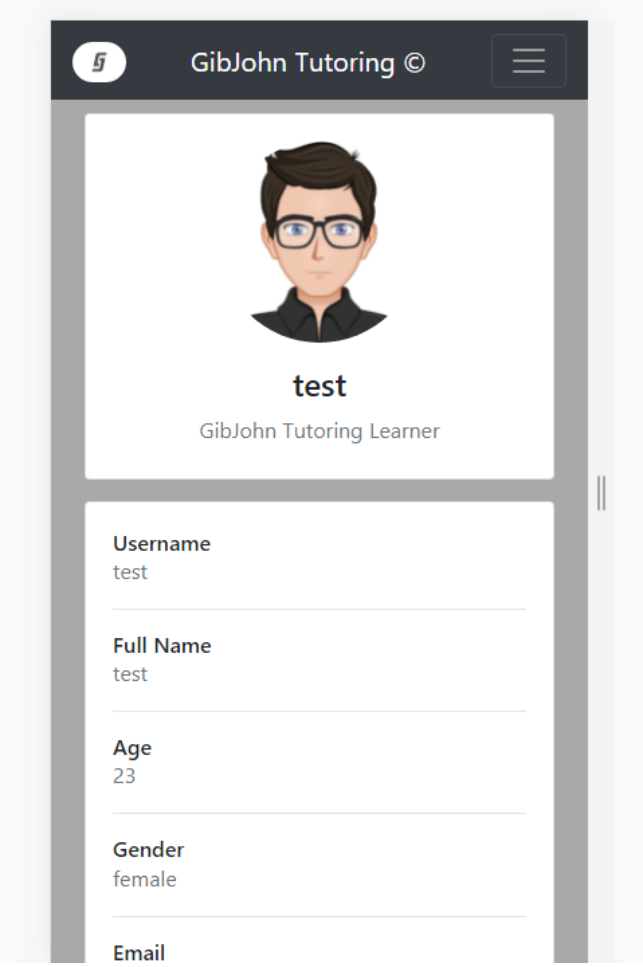
Test Reference:	12	**Name of Tester:**	Ed	**Date of Test:**	29/03/2022
Purpose of Test:	An easy-to-use program that is fast and efficient.				
Test Type:	Usability, non-functional - Blackbox				
Test Data:	N/A				
Expected Outcome:	Should be useable and very quick. /Responsive as it is not a large program that uses lots of resources.				
Actual Outcome:	Application responds very quickly and with no delay – this is probably because its runoff my own Apache web server and not open to the world wide web – it may run differently outside of my testing environment. You can test this by getting an accurate testing model of the live environment and seeing how it works, sadly I don't have access to those facilities.				
Pass/Fail/Skipped:	PASS				
Comments and/or Recommendations:	This is a usability test so for me it may be acceptable, however it may fail in someone else's opinion.				
Evidence:					
N/A					

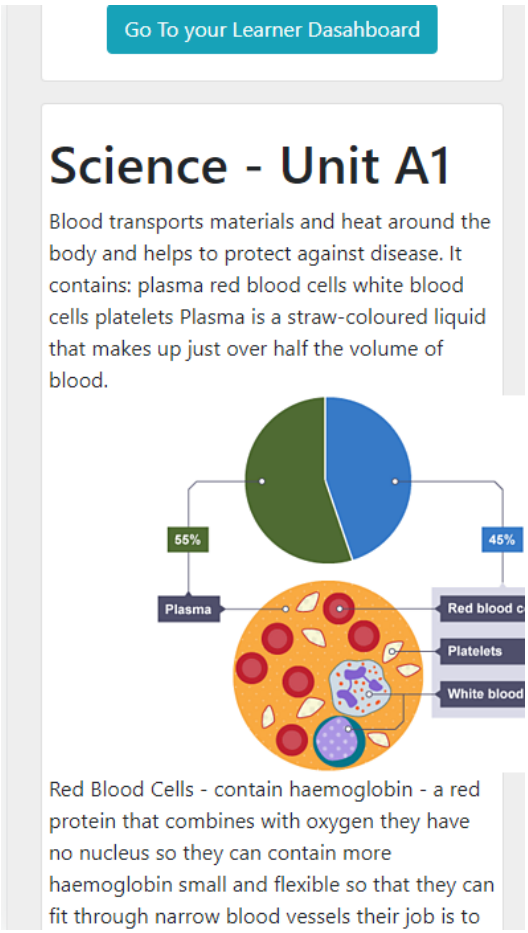
Test Reference:	13	**Name of Tester:**	Ed	**Date of Test:**	29/03/2022
Purpose of Test:	The program should have a professional looking interface that follows good user interface and experience principles.				
Test Type:	Non-functional – Usability Black Box.				
Test Data:	N/A				
Expected Outcome:	The interface is greyscale which should be readable for most users and the user interface should keep a consistent format across all the pages. Templating will help with this.				
Actual Outcome:	The colour scheme and interface remain consistent across all webpages, with the user interface following either the Z or F pattern.				
Pass/Fail/Skipped:	PASS				
Comments and/or Recommendations:	This is a usability test so for me it may be acceptable, however it may fail in someone else's opinion. This is a non-functional requirement that will differ from person to person.				
Evidence:					


GibJohn Tutoring ©
Home
Register
Logout
testtutor
GibJohn Tutoring Tutor
Username
testtutor
Full Name
testregistrationtutor
Age
11
Gender
Email
testtutor@test.com
Phone Number
12345678
Password
testtutor
Class
3
Go to your Tutor Dashboard
assignment Project Status
Web Design
assignment Project Status
Web Design


test
GibJohn Tutoring Learner
Go To your Learner Dasahboard
My Courses
This is where you can find your courses
Maths
Maths content and Quiz Yay!
Dummy Text
Dummy Text
Dummy Text
Dummy Text
Continue
English
English content and Quiz Yay!
Dummy Text
Dummy Text
Dummy Text
Dummy Text
Continue
Science
Science content and Quiz Yay!
Dummy Text
Dummy Text
Dummy Text
Dummy Text
Continue

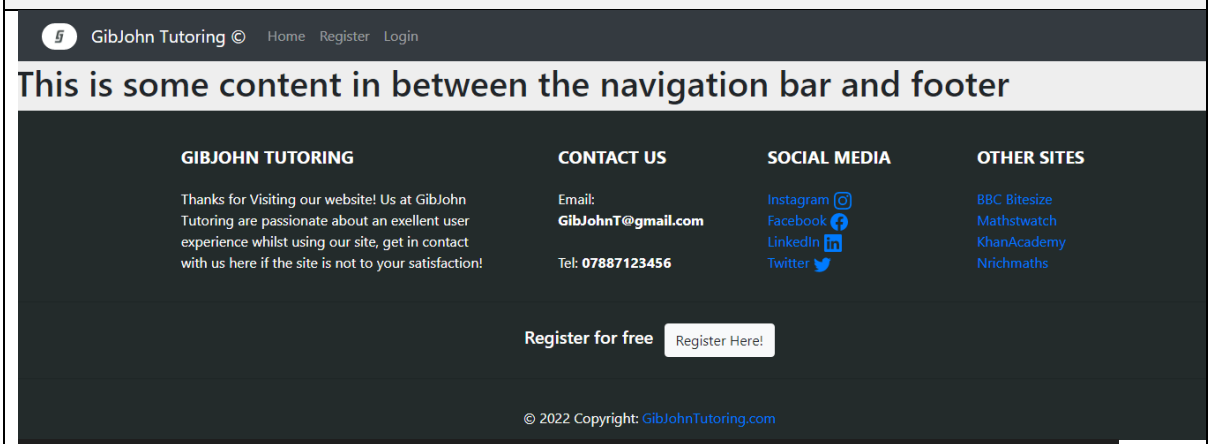
Test Reference:	14	Name of Tester:	Ed	Date of Test:	29/03/2022
Purpose of Test:	To test if the application can be used the same on mobile devices and smaller devices than the average 24-inch computer screen.				
Test Type:	Functional				
Test Data:	N/A				
Expected Outcome:	The bootstrap should automatically size adjust depending on the size. Not entirely sure of what every page will look like.				
Actual Outcome:	As Expected, the Bootstrap automatically adjusts to fit the screen size. Looks very professional.				
Pass/Fail/Skipped:	PASS				
Comments and/or Recommendations:	The images on certain content pages overlap the containers – this isn't a problem as you can scroll across to view them properly				
Evidence:					





Test Reference:	15	Name of Tester:	Ed	Date of Test:	29/03/2022
Purpose of Test:	Test if the applications templates work and extend the different relevant sections.				
Test Type:	Functional				
Test Data:	@extends('app') @section('content') @endsection				
Expected Outcome:	The templates should be filled with header footer and content sections. Non views can generate html and the echo just prints out the webpages in views.				
Actual Outcome:	The templates work – This is due to Blade which has been useful for me through this entire project. It was tough to set up, but once its working its very helpful.				
Pass/Fail/Skipped:	PASS				
Comments and/or Recommendations:					

Evidence:




```
1  @extends('app')
2
3
4
5  @section('content')
6
7  <h1> This is some content in between the navigation bar and footer </h1>
8
9  @endsection
```

```
@section('sidebar')
<nav class="navbar navbar-expand-sm navbar-dark bg-dark">
  <div class="container-fluid">
  <a class="navbar-brand" href="#">
      <img src="gibjohn.png" alt="Avatar Logo" style="width:40px;" class="rounded-pill">
    </a>
    <a class="navbar-brand" href="javascript:void(0)">GibJohn Tutoring &copy;</a>
    <button class="navbar-toggler" type="button" data-bs-toggle="collapse" data-bs-target="#mynavbar">
      <span class="navbar-toggler-icon"></span>
    </button>
    <div class="collapse navbar-collapse" id="mynavbar">
      <ul class="navbar-nav me-auto">
        <li class="nav-item">
          <a class="nav-link" href="test.php">Home</a>
        </li>
        <li class="nav-item">
          <a class="nav-link" href="registerpage.php">Register</a>
        </li>
        <li class="nav-item">
          <a class="nav-link" href="loginpage.php">Login</a>
        </li>
      </ul>
    </div>
  </div>
</nav>


@show



@yield('content')



@section('footer')
```

Testing Evaluation

<u>Fitness-for-purpose of the program</u>

The application is not fit for purpose due to it not meeting all required requirements on the specification, also when including the fact that the application did not pass all tests which were based off the user requirements. Certain aspects of the program were not even coded/implemented, which shows that it needs some more development time to get the entire application working at a basic level with all options functional. At that point it would be tested and should pass the tests that failed for me when I tested. I have tried my best to develop the application within the 30-hour time period, however, there have always been errors and setbacks. I have explained why required aspects have unfortunately not been included. All websites have been referenced.

Recommendations with justification

Some things I picked up on were not major fails or an easy pass. The application either worked or it did not. Some could be improved upon.

Some examples:

- Test Reference 12 and 13 – These are both non-functional usability tests which mean that they are opinion based and most likely are slightly biased as I'm testing something I have developed. If another user was to test the application, they will probably have a different opinion to mine.

Change Request evaluation

I did not feel the need to carry out change requests as I am not going to be producing a second version. I have explained when and where I would have implemented missing content.

Overall testing evaluation

I think I tested everything at an acceptable level and did my best. However, I should have gone into more detail in certain parts. However, I did test the entirety of what I had produced with both white and black box testing. This as a bare minimum either makes an application fit for purpose or not. This testing phase concluded that the application overall is not fit for purpose and requires more attention in order to pass and become fit for purpose.