MINIGENIUS

SOFTWARE ENGINEERING

Final Milestone
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Section 1

Testing of the System

1.1 Test Cases Developed

Throughout the whole project we developped different testcases for each and every feature that we developped. These test cases where important to make sure that the system is efficient and fit for purpose. It has to show that it contains limited to no defects.

Test case ID	Test case Name	Requirements	Description	Test priority	Pre-condition	Input or action	Expected output	Sample Input	Sample Output	status	Comments
1	Testing right login email	The user has to enter the right email	It's to test that the email is right	High	N/A	Right email	No error	**"Muhammad@gmail.com"**	Okay	N/A	
2	Testing wrong login email	The user has to enter the right email	It's to test that the email is right	High	N/A	Wrong email	Please enter a correct email			N/A	
3	Testing right login password	The user has to enter the right password corresponding his email.	It's to test that the password is right	High	email is a correct one	Right password	Redirect to the homepage			N/A	
4	Testing wrong login password	The user has to enter the right password corresponding his email.	It's to test that the password is right	High	email is a correct one	wrong password	Please enter a right password			N/A	
5	Clicking on the button without entering credentials	The user has to enter his credentials before submitting	It's to test that the user doesn't get redirected without entering his credentials	Medium	Credentials are correct	No input and a click on login button	Error, please enter credentials			N/A	
6	Testing that the user entered a possible email during configuration	The user has to enter a possible email	It tests that the email isn't taken and is correct	High	N/A	Correct email	No error, the user can continue to enter other information			N/A	

7	Testing that the user will get an error message if he entered a not possible email during configuration	The user has to enter a possible email	It tests that the email isn't taken and is correct	High	N/A	Wrong email	Error, please enter another email			N/A	
8	Testing wrong school entry during configuration	The user has to enter a correct school	It tests that his school is correct	High	N/A	Wrong school	Error, please enter a correct school name			N/A	
9	Testing right school entry during configuration	The user has to enter a correct school	It tests that his school is correct	High	N/A	Correct school name	No error, the user can continue to enter other information			N/A	
10	Testing right birthdate	The user has to enter a correct birthdate	It tests that his birthdate is correct	High	N/A	Correct birthdate	No error, the user can continue to enter other information			N/A	
11	Testing wrong birthdate	The user has to enter a correct birthdate	It tests that his birthdate is correct	High	N/A	Wrong birthdate	Error, please enter a correct birthdate			N/A	
12	Testing that the teacher can view the analytics of the system	The teacher should get right data for each student	To test that the system view the readable correct data for the teacher	High	The teacher should be logged on his webpage	The teacher navigates to the analytics section	Readable data and analytics	N/A	N/A	N/A	N/A
13	Testing the teacher access to every single student	The teacher should be able to view the data of every student	Testing that the teacher can access individual students data	High	The teacher should be logged on his webpage	The teacher should click on the student	Readable data about the student performance	N/A	N/A	N/A	N/A
14	Testing the data privacy of the teacher dashboard	The system should only allow authorized users.	To test that the system doesn't allow any unautho rized	High	N/A	Unauthorized user	Error for the lack of authorization	"NesMa11"	You aren't authorized to view this	N/A	N/A

			user								
15	Testing that the parent can set goals for their child.	The system should allow parents to set goals for their children.	It's to allow the parent to choose the learning goals of their childre n	High	The parent is logged into the system	Enter a certain goal	The goal is set and saved	Improve mathemat ical skills	The goal is set and saved	N / A	N/ A
16	Testing that the parent can view their child's progress towards their goals.	The system should allow the parent to view the progress of his child towards their goals	It's to test the parent can see the progres s of his childre n towards their goals	Mediu m	The parent is logged into the system	Click on progress	The performance of the children towards their goals	N/A	N/A	N / A	N/ A
17	Testing that the parent can update goals for their child.	The system should allow parents to set goals for their children.	It's to test that the system allows the parent to update the learnin g goals of their childre n	High	The parent is logged into the system	Enter a certain goal	The goal is updated and saved	Develop critical thinking skills	The goal is updated and saved	N / A	N/ A
18	Verify that the parent can access the platform's learning resources.	The system should allow the parent to access the learning resources	It's to test that the system allows the parent to access the learnin g resourc	High	The parent is logged into the system	The parent clicks on the learning resources	The resources are opened in front of him	N/A	N/A	N / A	N/ A

			es of their childre n								
19	Verify that the parent can access a comprehensi ve summary of their child's performance	The system should allow the parent to access a summary for the child performa nce	It tests the access of the parent to an informa tive summar y about his child perform ance	High	The parent is logged into the system	The parent clicks on view summary	A summary is generated	N/A	N/A	N / A	N/ A
20	Verifying that the study buddy gives a recommenda tion for the student	The system should allow the student to access the study buddy	It tests the respons e of the study buddy	High	The student is logged into the system and can access the study buddy portal	The student clicks on a certain subject	A response is generated	The user clicks on pointers	An explanatio n about pointers	P a s s	
21	Valid input for learning style question	The survey should accept the right input for this question	Test if the survey accepts the student input and saves it	High	The student should be logged into the system	Select a learning style	The response is saved and the system starts giving the student visual learning resources	Visual	The response is saved and the system starts giving the student visual learning resources	N / A	N/ A
22	Valid input for resources preference	The survey should accept the right input for this question	Test if the survey accepts the student input and saves it	High	The student should be logged into the system	Select a resource preferenc e	Response saved	Quizzes	The response is saved and the system starts giving the student Quizzes	N / A	N/ A

23	Accessibility survey	The system should ask if the user has any needs	The system should accommodate any student needs	High	The parent is logged into the system	Select a need type	Response saved	Dyslexia	The system saves his response	N/A	N/A
24	Communication preference survey	The system should have a survey feature that allows the student to specify how they prefer to communicate with their teacher or classmates.	It's to allow the user to choose his preferred communication method	High	The parent is logged into the system	Enter a certain way	Response saved	Emails	The system saves it and starts sending the user emails	N/A	N/A

1.2 Methodology for Creating Test Cases

Since the whole project was mostly depending on creating prototypes using figma, we assumed that we don't know about the source code. That's why we relied on blackbox testing. We generated testcases for the features developed every sprint having sample input, expected output to make sure that they match. For each feature in every sprint, it had some testcases having their inputs and outputs to make sure everything is working as expected.

Also, we used some white box testing by testing specific parts of the source code of the component that was implemented in a source code that was the study buddy that is integrated with the OpenAI API that has GPT-3 mounted on it. In that case, we were able to look at the source code for that component and write tests specifically for it. The white box testing was simply statement coverage as we went over every part of the code to make sure it's working properly as expected.