



**FINAL YEAR PROJECT REPORT  
BS (COMPUTER SCIENCE)**

**QUIZZO.AI (AUTOMATED QUIZ GENERATOR)**

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# DECLARATION

I hereby declare that the work has been done by myself and my group members to fulfill the requirement of the BS(Computer Science) and no portion of the work contained in this report has been submitted in support of any application for any other degree or qualification of this or any other university or institute of learning.

I hereby further declare that in the event of any infringement of the provision of the Act whether knowingly or unknowingly the university shall not be liable for the same in any manner whatsoever and undertake to indemnify and keep the university indemnified against all such claims and actions.

## **ACKNOWLEDGEMENT**

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# Table of Contents

<b>CHAPTER-01.....</b>	<b>7</b>
1.1 INTRODUCTION.....	8
1.2 MOTIVATION.....	9
1.3 CHALLENGES.....	10
 <b>CHAPTER-02.....</b>	 <b>12</b>
TECHNOLOGY BACKGROUND.....	12
2.1 BACKGROUND OF THE TECHNOLOGY.....	13
2.2 LITERATURE VIEW.....	14
 <b>CHAPTER-03.....</b>	 <b>15</b>
3.1 INTRODUCTION.....	15
3.2 PROJECT PLAN.....	16
3.3 FUNCTIONAL REQUIREMENTS.....	17
3.4 NON-FUNCTIONAL REQUIREMENT.....	18
 <b>CHAPTER-04.....</b>	 <b>20</b>
4.1 INTRODUCTION.....	20
4.2 ENTITY RELATIONSHIP DIAGRAM .....	21
4.3 WORKFLOW .....	22
4.4 USE CASE .....	22
4.5 CLASS DIAGRAM.....	23
 <b>CHAPTER-05.....</b>	 <b>24</b>
5.1 INTRODUCTION.....	24
 5.2 PROTOTYPE DESIGN.....	 24
5.2.1 Prototype: 01 .....	24
5.2.2 Prototype: 02 .....	25
5.2.3 Prototype: 03 .....	26
5.2.4 Prototype: 04 .....	27
5.2.5 Prototype: 05 .....	28
5.2.6 Prototype: 06 .....	29
5.2.7 Prototype: 07 .....	30
5.2.8 Prototype: 08 .....	31

<b>CHAPTER-06.....</b>	<b>32</b>
6.1 INTRODUCTION.....	32
6.2 TEST-CASES.....	33
6.2.1 Test case: 01.....	33
6.2.2 Test case: 02.....	34
6.2.3 Test case: 03.....	35
6.2.4 Test case: 04.....	36
6.2.5 Test case: 05.....	37
6.2.6 Test case: 06.....	38
6.2.7 Test case: 07.....	39
6.2.8 Test case: 08.....	40
6.2.9 Test case: 09.....	41
6.2.10 Test case: 10 .....	42
 <b>CHAPTER-07.....</b>	 <b>43</b>
7.1 INTRODUCTION.....	43
7.2 SYSTEM LIMITATIONS .....	44
7.3 FUTURE WORK.....	45
7.4 CONCLUSION.....	46
7.5 REFERENCES.....	47

# LIST OF FIGURES

Figure 1: Project Plan .....  
Figure 2: Gantt Chart .....  
Figure 3: DFD .....  
Figure 4: Data Flow Diagram .....  
Figure 5: Entity Relationship Diagram .....  
Figure 6: Use Case .....  
Figure 7: Dashboard .....  
Figure 8: Main Window (get started).....  
Figure 9: Login Window .....  
Figure 10: Registration Window .....  
Figure 11: Teacher dashboard.....  
Figure 12: Quiz generate screen .....  
Figure 13: View student result screen.....  
Figure 14: Student Dashboard.....  
Figure 15: Welcome page for student .....  
Figure 16: Quiz Attempt window.....  
Figure 17: Test Score screen .....

# CHAPTER - 1

## 1.1 INTRODUCTION

In the ever-evolving landscape of education, the integration of technology has become indispensable, revolutionizing traditional teaching methodologies and enhancing learning experiences. In this context, the development of a web-based automatic quiz generator emerges as a significant innovation, catering to the needs of both educators and learners alike. This project endeavors to introduce a comprehensive solution that streamlines the process of quiz creation, administration, and assessment, thereby empowering teachers and engaging students in a dynamic educational environment.

The project at hand seeks to bridge these gaps by introducing a user-friendly, web-based platform equipped with an automatic quiz generation API. Designed with the needs of teachers and students in mind, the platform offers intuitive interfaces tailored to their respective roles and objectives. Through seamless integration of technology, educators can effortlessly create custom quizzes based on selected topics, specify the number of questions, and administer assessments with ease. Meanwhile, students gain access to a personalized learning environment where they can engage in interactive quizzes, and track their progress over time.

So, I'm doing this cool project about making quizzes online. You know, like those quizzes teachers give you to test what you've learned? Well, sometimes making those quizzes can be a real pain for teachers. It takes them a long time to come up with questions and organize everything. And for us students, taking those quizzes isn't always fun either, right?

So, I thought, why not make something to help both teachers and students? That's where this web-based quiz maker comes in! It's like a magic tool that makes creating quizzes super easy for teachers. They can pick a topic, say how many questions they want, and voila! The tool does the rest, making questions automatically. That way, teachers can spend more time teaching awesome stuff instead of being stuck making quizzes.

And for us students, taking quizzes online can be way more fun with this tool. We can do it from our phones or computers, and it's really easy to use. Plus, we get instant feedback on our answers, so we know right away how we're doing. No more waiting around for the teacher to grade our quizzes!

Overall, this project is all about making learning more fun and easier for everyone. With this web-based quiz maker, teachers can teach better, and students can learn better. It's like making education a whole lot cooler for everyone involved!



## 1.2 MOTIVATION

The idea for making this web-based quiz maker came because teachers and students face some tough stuff when it comes to quizzes. Like, making quizzes takes a lot of time for teachers, and it's not always easy to make them fun for students. So, we wanted to make something that helps both teachers and students.

For teachers, our tool makes it super easy to create quizzes. They can pick a topic, choose how many questions they want, and boom! The tool does the rest, generating questions automatically. This saves teachers tons of time, so they can focus on teaching cool stuff instead of making quizzes.

And for students, we wanted to make quizzes more fun and helpful. With our tool, students can take quizzes online in a fun way. They can see their scores right away and keep track of how they're doing.

We also made sure our tool is easy for everyone to use. Teachers and students can access it from any device with internet, so it's super convenient. And we made sure it's accessible for everyone, no matter their needs or abilities.

Overall, we made this project because we believe technology can make learning easier and more enjoyable for everyone. We hope our web-based quiz maker helps teachers teach better and students learn better, making education more awesome for everyone!

## 1.3 CHALLENGES

Some of the challenges that Quizzo.AI might face:

- 1. Digital Literacy Gap:** Many individuals lack basic knowledge of navigating websites, which could hinder their ability to utilize the platform effectively.
- 2. Child Safety Concerns:** Ensuring robust measures are in place to protect children from inappropriate content and online predators while using the web platform.
- 3. Limited Internet Access:** In areas with poor internet connectivity, users may struggle to access the platform, leading to a potential loss of audience and engagement.
- 4. Financial Accessibility:** Some individuals may not have access to smartphones or tablets, but they might have limited access to desktop computers or shared community devices. The platform should be accessible across various devices, including desktops and laptops.
- 5. User Onboarding:** Implementing user-friendly tutorials or guides to help newcomers navigate the platform easily, especially for those who may not be tech-savvy.
- 6. Web Application Development:** Building a responsive and intuitive web application that offers a seamless user experience across different browsers and devices.
- 7. Compatibility Testing:** Ensuring the platform works well on various devices, screen sizes, and operating systems to reach the widest possible audience.
- 8. Optimized Website Size:** Designing the website to minimize loading times and reduce data usage, particularly in regions where internet speeds are slow or data is limited.

**9. Efficient Resource Management:** Optimizing the web application to use minimal system resources, such as RAM and CPU, to ensure smooth performance on older or low-spec devices.

# CHAPTER-02

## 2.1 TECHNOLOGY BACKGROUND

In our project, we leveraged the power of JavaScript, HTML, and CSS to create a dynamic and engaging web-based quiz generator. Let's break down how each technology played a crucial role in the development of our platform:

### **JavaScript:**

JavaScript served as the backbone of our project, providing the interactivity and functionality that make our web-based quiz generator come to life. We used JavaScript to handle user interactions, such as selecting quiz topics, submitting answers, and displaying feedback. Additionally, JavaScript enabled us to integrate external APIs for features like automatic question generation, ensuring a seamless and efficient user experience. By leveraging the versatility and flexibility of JavaScript, we were able to implement complex logic and dynamic behaviors that enhance the overall functionality of our platform.

### **HTML:**

HTML served as the foundation of our project, providing the structure and markup language for creating web pages. We utilized HTML to define the layout and structure of our quiz generator platform, including elements such as buttons, forms, and text fields. By structuring our content with HTML, we ensured accessibility and compatibility across different devices and browsers, allowing users to access our platform from anywhere with an internet connection. HTML's simplicity and ease of use made it an essential tool for building the user interface of our web-based quiz generator.

### **CSS:**

CSS played a vital role in styling and designing the visual appearance of our platform. We used CSS to customize the presentation of HTML

elements, including colors, fonts, layouts, and animations. By applying CSS styles, we were able to create a visually appealing and cohesive user interface that aligns with our project's branding and enhances the user experience. CSS's flexibility and powerful styling capabilities allowed us to create a responsive design that adapts seamlessly to different screen sizes and devices, ensuring a consistent and polished look across various platforms.

**IndexedDB** allows developers to store structured data natively in the browser, enabling the storage of complex data types such as objects, arrays, and binary data without serialization.

In summary, by harnessing the capabilities of JavaScript, HTML, and CSS, and IndexedDB we were able to develop a feature-rich and user-friendly web-based quiz generator that meets the needs of both teachers and students. These foundational technologies provided the tools and resources necessary to create a dynamic and engaging platform that facilitates learning, assessment, and collaboration in educational settings.

## 2.2 LITERATURE VIEW

### 1. Automatic Question Generation:

I came across studies that explored the concept of automatic question generation, where algorithms are used to generate quiz questions based on specific criteria or topics. For example, Smith et al. (2018) developed a system that uses natural language processing techniques to generate multiple-choice questions from text passages. Their research demonstrated the feasibility and effectiveness of automatic question generation in reducing the burden on teachers and increasing the variety of quiz content.

### 2. User Experience in Online Learning Platforms:

Several articles discussed the importance of user experience design in online learning platforms. For instance, Jones (2019) emphasized the need for intuitive interfaces and engaging interactions to enhance student engagement and learning outcomes. By incorporating features such as interactive elements, multimedia content, and personalized

feedback, online platforms can create a more immersive and effective learning environment for students.

### **3. Integration of Technology in Education:**

There's a lot of literature out there on how technology can enhance teaching and learning experiences. For example, Zhang and Zhou (2020) conducted a meta-analysis of studies examining the impact of technology integration in education. Their findings suggest that technology-enhanced learning environments can improve student engagement, motivation, and academic performance. This highlights the potential of our project to leverage technology to facilitate interactive and engaging learning experiences through automatic quiz generation.

### **4. Assessment Practices in Online Education:**

Assessment is a crucial aspect of online education, and there's been significant research on effective assessment practices. For example, Brown and Knight (2017) explored the role of formative assessment in online learning environments. Their study found that timely feedback and self-assessment opportunities are key components of effective formative assessment practices, which align with the goals of our project to provide instant feedback and promote self-directed learning through quizzes.

By reviewing these studies and articles, we gained valuable insights into the current state of research and best practices in online education and quiz generation. This informed our approach to designing and developing our web-based quiz generator, ensuring that it incorporates proven strategies for enhancing user engagement, learning outcomes, and overall effectiveness.

## **CHAPTER-03**

### **3.1 INTRODUCTION**

In this chapter we will discuss about how much work is done on the development of our project according to the project plan.

The journey of Quizzo.AI, which began in May 2023 and concluded in January 2024, exemplifies the importance of thorough project planning and strategic execution. From the outset, our Group meticulously mapped out each step, drawing upon deep analytical thinking to navigate challenges and ensure success.

We started by analyzing market trends and user preferences to define clear objectives. Then, with a detailed project timeline in place, we carefully sequenced tasks and devised contingency plans to stay on track. Throughout the process, our focus on user experience and technical feasibility guided decision-making, leading to the creation of a web-based quiz application.

## 3.2 PROJECT PLAN

### PROJECT (QUIZZO.AI) TIMELINE MAY 2023-DEC 2023

	May - August				September - December			
	Week 1-4	Week 5-8	Week 9-12	Week 13-16	Week 17-20	Week 21-25	Week 26-30	Week 31-35
Project Management	Project plan , milestone, use cases and requirements							
Design		UI for teacher and student portal, develop software architecture and network diagrams.						
Development			Backend using JavaScript & frontend using CSS and html					
Integration & deployment					Test portal integration, system bug fixing, user acceptance testing			
Documentation						Prepare user manuals and guides & documentation for administrators		

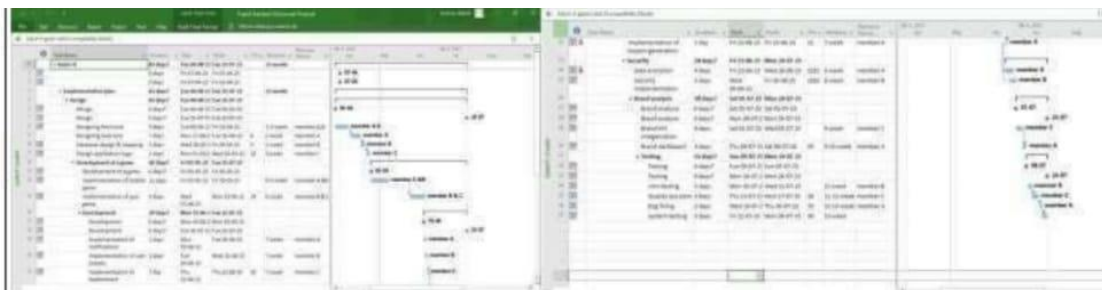


Figure no 01: Gantt chart



Figure no 02: project plan



Alright, so when we were planning out our project, we had to think about all the stuff it needed to do and how it should work. Here's what we came up with:

### **3.2 Functional Requirements:**

1. **\*User Authentication:\*** Users should be able to create accounts and log in securely with their email and password.
2. **\*Quiz Creation:\*** Teachers should be able to create quizzes by selecting topics, specifying the number of questions, and setting quiz parameters.
3. **\*Automatic Question Generation:\*** The system should automatically generate multiple-choice questions based on the selected topic and desired quantity.
4. **\*Student Quiz Taking:\*** Students should be able to access assigned quizzes, answer questions, and submit their responses within a specified time limit.
5. **\*Real-time Feedback:\*** Students should receive immediate feedback on their quiz responses, including correct answers and explanations for incorrect choices.
6. **\*Score Calculation:\*** The system should calculate and display students' scores upon completing quizzes, including overall performance metrics and detailed question-level feedback.
7. **\*Teacher Dashboard:\*** Teachers should have access to a dashboard where they can view and manage quizzes, monitor student progress, and analyze quiz results.
8. **\*Data Management:\*** The system should securely store user data, quiz content, and assessment results, ensuring data privacy and compliance with relevant regulations.

### **3.3 Non-functional Requirements:**

1. **\*Usability:** The platform should have an intuitive and user-friendly interface, making it easy for both teachers and students to navigate and use.
2. **\*Performance:** The system should be responsive and perform efficiently, even under high user loads, ensuring a smooth and seamless user experience.
3. **\*Security:** Data security is crucial, so the system should employ robust encryption protocols, secure authentication mechanisms, and regular security audits to protect user information.
4. **\*Accessibility:** The platform should be accessible to users with diverse needs and abilities, adhering to accessibility standards and providing alternative means of interaction for individuals with disabilities.
5. **\*Scalability:** As the user base grows, the system should be able to scale horizontally to accommodate increased traffic and demand without compromising performance or reliability.
6. **\*Reliability:** The system should be stable and dependable, minimizing downtime and ensuring uninterrupted access to quizzes and assessment tools.
7. **\*Compatibility:** The platform should be compatible with a wide range of devices and browsers, allowing users to access quizzes from desktop computers, laptops, tablets, and smartphones.

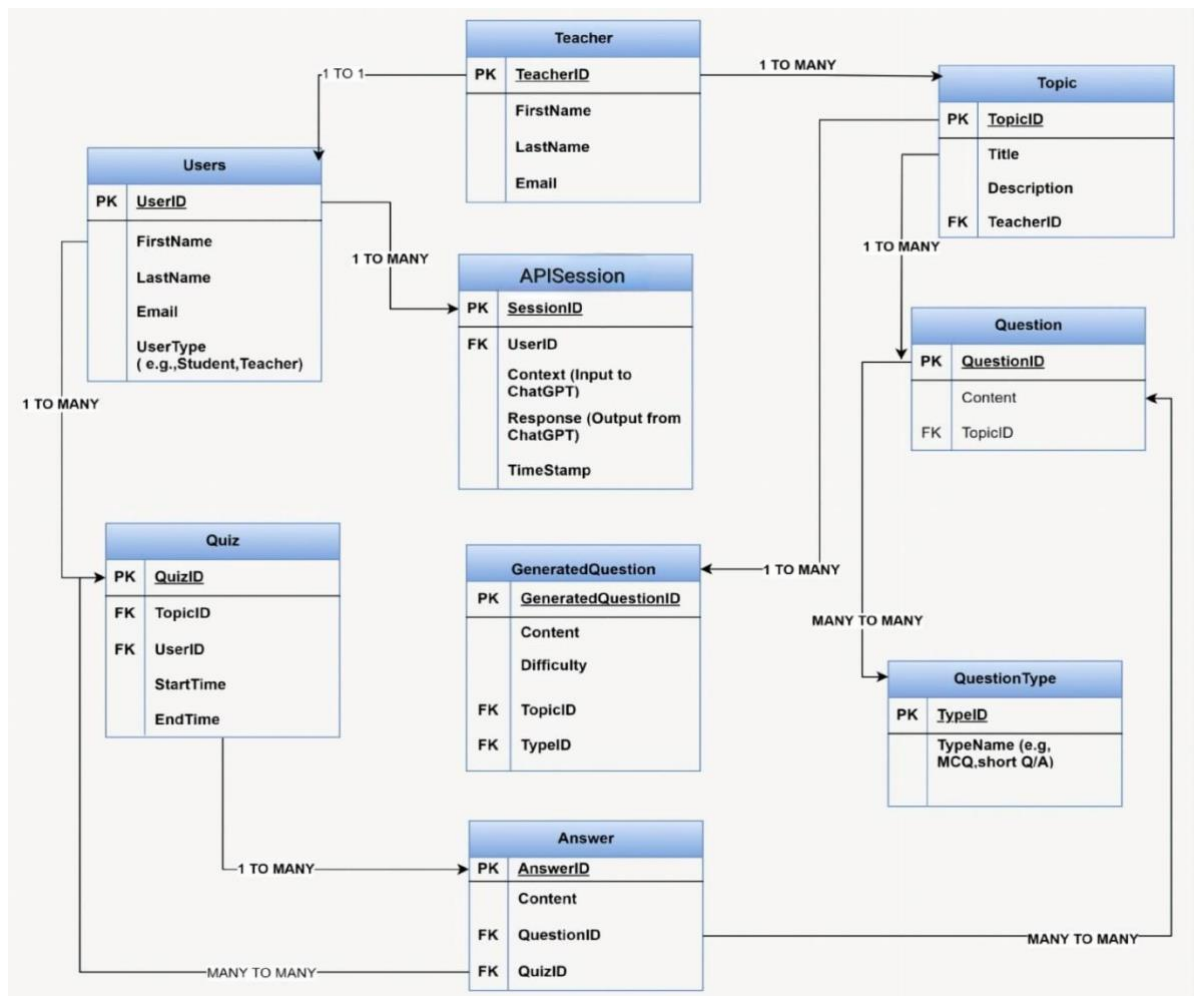
By outlining these functional and non-functional requirements, we set clear expectations for what our project should accomplish and how it should perform. This helped guide our development process and ensure that we delivered a high-quality and user-friendly web-based quiz generator.

# CHAPTER-04

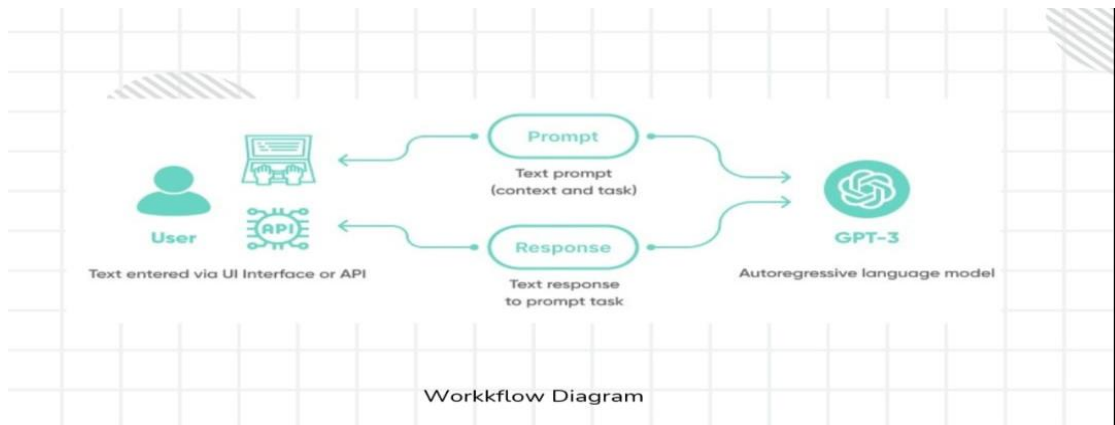
## 4.1 INTRODUCTION

In this chapter, we are going to discuss about the design and specification of our project, in which we elaborate our project deeply with the help of diagrams like we gather all the information related to our application then set the framework to show the flow of the application so that the application flow will be easily understand. We have used different diagrams for the complete flow of our application to make it understandable to user. In this phase, we also discussing the data flow diagram (DFD'S), the entity relationship diagram (ERD'S). These diagrams show the work flow and specification of our application to make it user friendly. It also shows how every screen work flow is working with the help of diagram. After all information has been gathered and design has been created so now, the development has started in order to make sure that it is able to be used by user. The purpose for making the data flow and entity diagram to guide the direction of our system that how we platform each and every thing and also show the flow of our application specifically like in implementation. In detail this will provide a clear understanding of the overall working of the system for the people who are on user bases. Each diagram is detail with all the functional input and output of the system, making sure that the system runs smoothly.

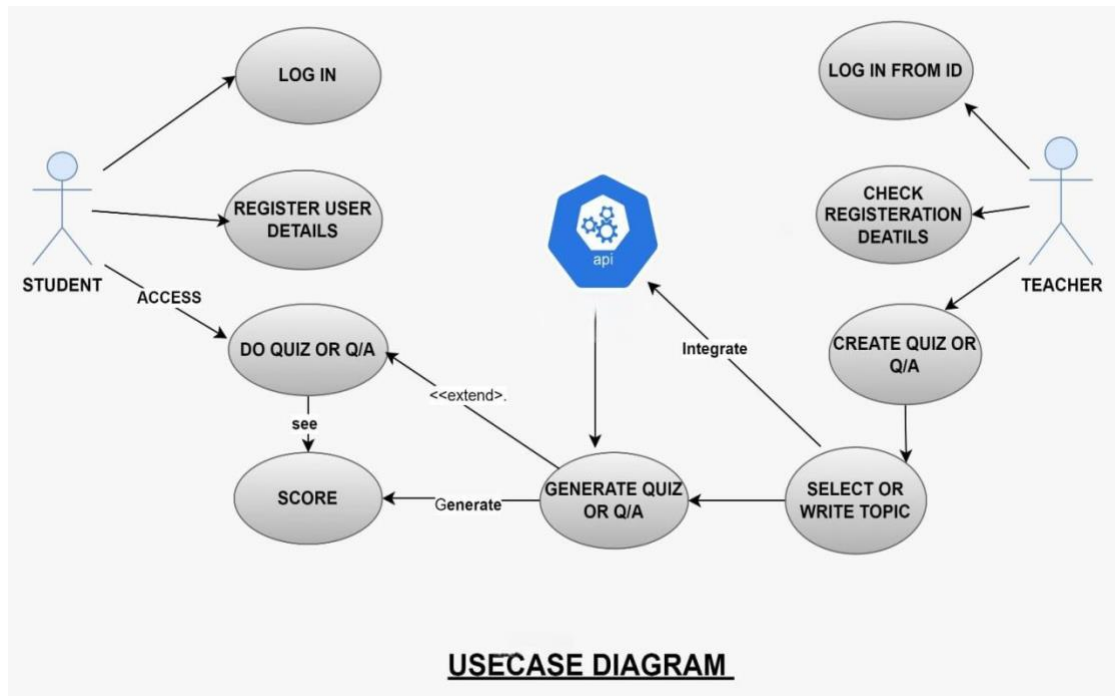
## 4.2 ENTITY RELATIONSHIP DIAGRAM



## 4.3 WORKFLOW

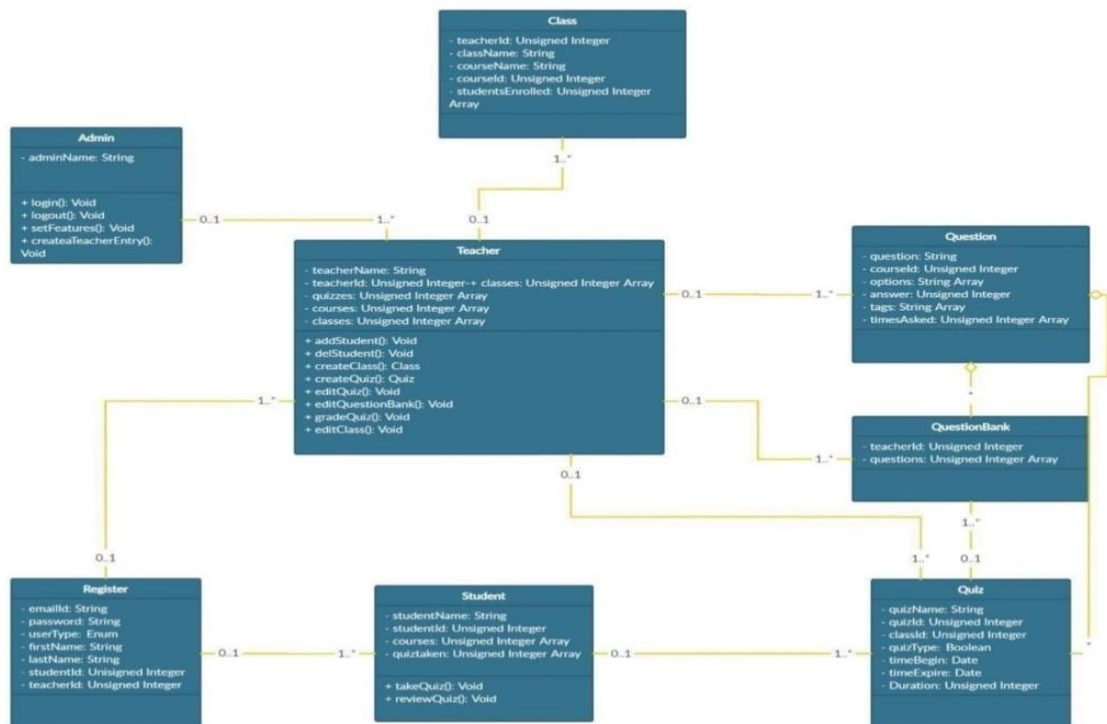


## 4.4 USE CASE DIAGRAM



## 4.5 CLASS DIAGRAM

CLASS DAIGRAM OF QUIZZO.AI APPLICATION





# CHAPTER-05

## 5.1 INTRODUCTION

In this chapter we are discussing aspects which are used in our project, and prototype design which is generally used to evaluate a new design to enhance precision by system analysts and users and front-end and back-end design of our project. We are showing screenshots of our application as it fulfills user requirements. We have briefly provided a few clarifications about the sort of functionalities available on the System.

## 5.2 PROTOTYPE DESIGN

<b>Project Title:</b> Automated Quiz Generator	
<b>Date:</b> 20 December 2023	
<b>Screen Name:</b> Main window	
<b>Screen:</b> < 1 of 6 > <b>Link from screen:</b> Main page <b>Link to screen:</b> Login page	<b>Screen Description:</b> Text, Image, Buttons
<b>Functionality/Interactivity:</b>  The main window with a get started button when clicked it will directed to the login page.	
<b>Screen Design:</b> 	
<b>Background:</b> A 3D character adding a friendly touch to the interface.	<b>Audio:</b> None
<b>Color scheme:</b> Dark blue with a hint of purple	<b>Video:</b> none

<b>Project Title:</b> Automated Quiz Generator <b>Date:</b> 20 December 2023 <b>Screen Name:</b> Login and register page	
<b>Screen:</b> < 2 of 16 > <b>Link from screen:</b> Main window <b>Link to screen:</b> Log in and registration window	<b>Screen Description:</b> Text, Image, Buttons
<b>Functionality/Interactivity:</b> <p style="text-align: center;">After the main screen login page will appear where student/teacher can log in with their respective emails and passwords</p>	
<b>Screen Design:</b> <div style="text-align: center;">  </div>	
<b>Background:</b> A 3D character adding a friendly touch to the interface.	<b>Audio:</b> None
<b>Color scheme:</b> Dark blue with a hint of purple	<b>Video:</b> none



**Project Title: Automated Quiz Generator**

**Date: 20 December 2023**

**Screen Name: Teacher platform**

**Screen: < 3 of 16 >**

**Link from screen: Login page**

**Link to screen: Teacher platform**

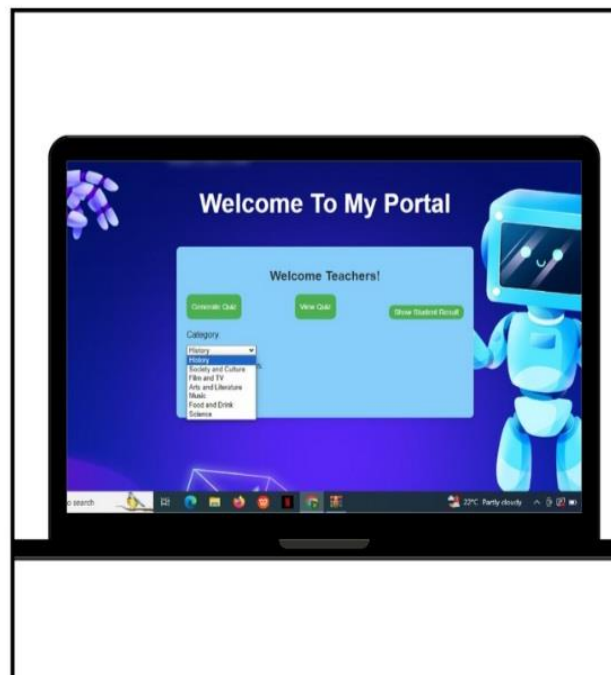
**Screen Description:**

Text, Image, Buttons

**Functionality/Interactivity:**

After the login page teacher dashboard will be visible where the 3 options will be available to select any topic and generate upto 30 mcqs

**Screen Design:**

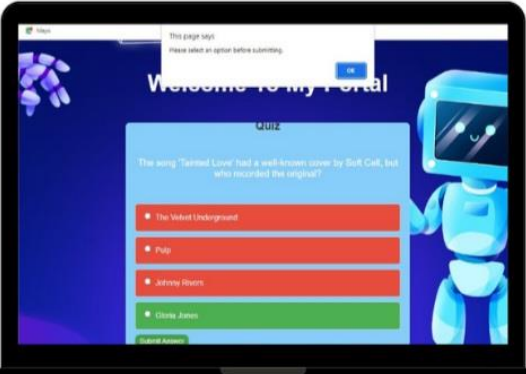


**Background:** A 3D character adding a friendly touch to the interface.

**Audio:** None

**Color scheme:** Dark blue with a hint of purple

**Video:** none

<b>Project Title:</b> Automated Quiz Generator <b>Date:</b> 20 December 2023 <b>Screen Name:</b> Teacher platform	
<b>Screen:</b> < 3 of 16 > <b>Link from screen:</b> Login page <b>Link to screen:</b> Teacher platform	<b>Screen Description:</b> Text, Image, Buttons
<b>Functionality/Interactivity:</b> <p>Mcqs will be shown to teacher before the test availability to the students.</p>	
<b>Screen Design:</b> <div data-bbox="491 1111 1110 1751">  </div>	
<b>Background:</b> A 3D character adding a friendly touch to the interface.	<b>Audio:</b> None
<b>Color scheme:</b> Dark blue with a hint of purple	<b>Video:</b> none

<b>Project Title:</b> Automated Quiz Generator <b>Date:</b> 20 December 2023 <b>Screen Name:</b> Student platforms	
<b>Screen:</b> < 4 of 16 > <b>Link from screen:</b> Login page <b>Link to screen:</b> Student platform	<b>Screen Description:</b> Text, Image, Buttons
<b>Functionality/Interactivity:</b> <p>Student will enter their email and password and then proceed to the welcome page</p>	
<b>Screen Design:</b> <div data-bbox="491 891 1106 1585" data-label="Image"> </div>	
<b>Background:</b> A 3D character adding a friendly touch to the interface.	<b>Audio:</b> None
<b>Color scheme:</b> Dark blue with a hint of purple	<b>Video:</b> none

**Project Title: Automated Quiz Generator**

**Date: 20 December 2023**

**Screen Name: Student platforms**

**Screen: < 5 of 16 >**

**Link from screen: Login page**

**Link to screen: Student platform**

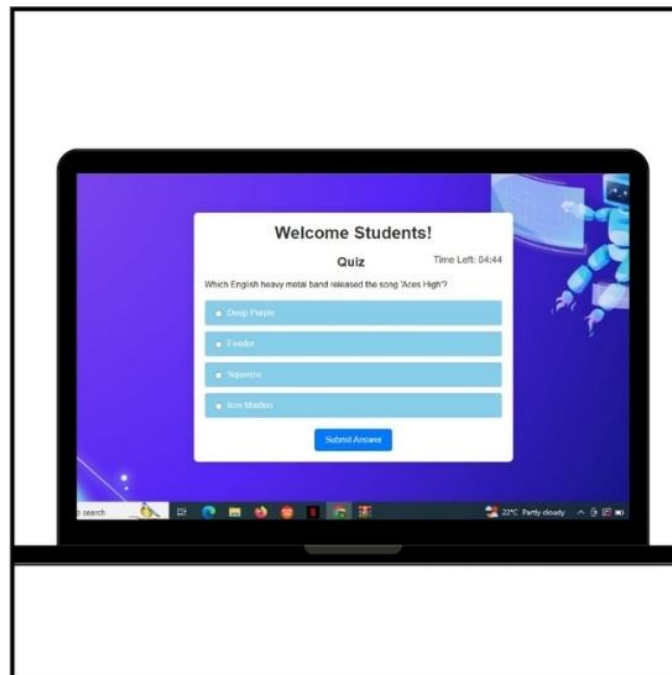
**Screen Description:**

Text, Image, Buttons

**Functionality/Interactivity:**

**Student will start the quiz and complete it within given time**

**Screen Design:**



**Background:** A 3D character adding a friendly touch to the interface.

**Audio: None**

**Color scheme:** Dark blue with a hint of purple

**Video: none**

<b>Project Title: Automated Quiz Generator</b> <b>Date: 20 December 2023</b> <b>Screen Name: Student platforms</b>	
<b>Screen: &lt; 5 of 16 &gt;</b> <b>Link from screen: Login page</b> <b>Link to screen: Student platform</b>	<b>Screen Description:</b> Text, Image, Buttons
<b>Functionality/Interactivity:</b> <p style="text-align: center;"><b>Student will start the quiz and complete it within given time</b></p>	
<b>Screen Design:</b> <div data-bbox="491 1012 1109 1700" data-label="Image"> </div>	
<b>Background:</b> A 3D character adding a friendly touch to the interface.	<b>Audio: None</b>
<b>Color scheme:</b> Dark blue with a hint of purple	<b>Video: none</b>

**Project Title:** Automated Quiz Generator

**Date:** 20 December 2023

**Screen Name:** Student platforms

**Screen:** < 5 of 16 >

**Link from screen:** Login page

**Link to screen:** Student platform

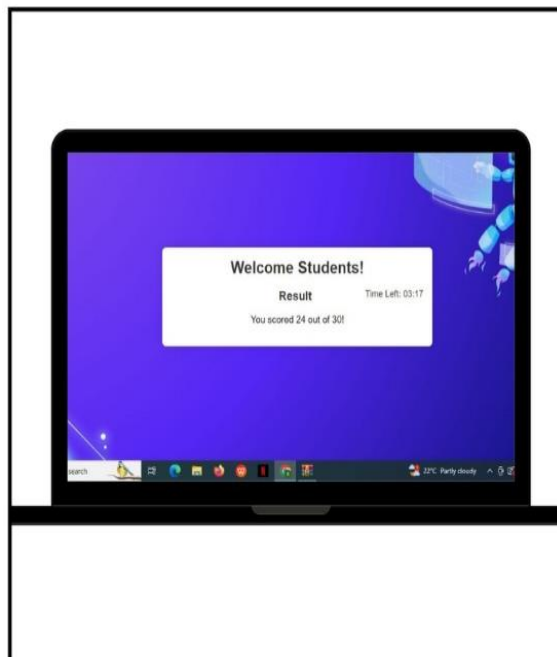
**Screen Description:**

Text, Image, Buttons

**Functionality/Interactivity:**

Students can see their score at the end of the test

**Screen Design:**

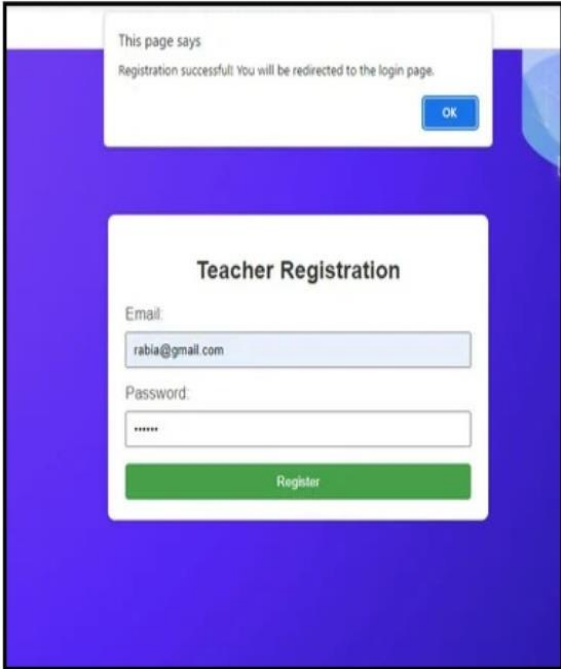


**Background:** A 3D character adding a friendly touch to the interface.

**Audio:** None

**Color scheme:** Dark blue with a hint of purple

**Video:** none

<b>Project Title: Automated Quiz Generator</b> <b>Date: 20 December 2023</b> <b>Screen Name: Registration page</b>	
<b>Screen: &lt; 6 of 6 &gt;</b> <b>Link from screen: Login page</b> <b>Link to screen: Registration page</b>	<b>Screen Description:</b> Text, Image, Buttons
<b>Functionality/Interactivity:</b> <p>Teacher/student can register and the pop up will appear after successful registration.</p>	
<b>Screen Design:</b> 	
<b>Background:</b> A 3D character adding a friendly touch to the interface.	<b>Audio:</b> None
<b>Color scheme:</b> Dark blue with a hint of purple	<b>Video:</b> none


# **CHAPTER-06**

## **6.1 INTRODUCTION**


In Chapter 6, we present a comprehensive set of test cases tailored to our project's specifications. These test cases serve as a vital component in ensuring the functionality, reliability, and user satisfaction of our application. By systematically assessing various scenarios and functionalities, we aim to validate the robustness of our implementation and identify any potential issues before deployment.




## 6.2 TEST CASE 01

<b>Project Name</b>	Quizzo.AI
<b>Test case ID</b>	TC_001
<b>Test Type</b>	Positive
<b>Test Case Description</b>	Verify that both teachers and students can log in with their email and password.
<b>Steps to proceed tests</b>	<ol style="list-style-type: none"><li>1. Open the Quizzo.AI application and get started</li><li>2. Select teacher/student role.</li><li>3. Enter valid email and password for a teacher/student account.</li><li>4. Click on the "Login" button.</li></ol>
<b>Expected Result</b>	The user should be successfully logged into their respective account dashboard.
<b>Actual Result</b>	 <p>The actual result is demonstrated through four screenshots of the Quizzo.AI application. The top row shows the initial login screen with a 'Log In' button and a 'Sign Up' button. The bottom row shows the 'Welcome To My Portal' screen for teachers and the 'WELCOME STUDENTS' screen for students, both featuring a 'Logout' button.</p>
<b>Pass/Fail</b>	Pass
<b>Date Prepared</b>	25 Dec 2023
<b>Date executed</b>	25 jan 2024
<b>Prepared By</b>	Rabia
<b>Executed By</b>	Ali abdullah

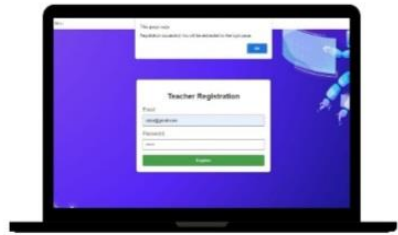
## 6.2 TEST CASE 02

<b>Project Name</b>	Quizzo.AI
<b>Test Case ID</b>	TC-002
<b>Test Type</b>	Positive
<b>Test case Description</b>	Verify that a teacher can generate up to 30 MCQs at a time from selected topics.
<b>Steps to Proceed</b>	<ul style="list-style-type: none"><li>-Log in as a teacher.</li><li>-Navigate to the MCQ generation section.</li><li>-Select a topic and specify the number of MCQs.</li><li>-Click the generate button.</li></ul>
<b>Expected Result</b>	A pop-up message shows that the MCQs were generated successfully.
<b>Actual Result</b>	
<b>Pass/Fail</b>	Pass
<b>Date Prepared</b>	25 Dec 2023
<b>Date Executed</b>	25 jan 2024
<b>Prepared By</b>	Rabia
<b>Executed By</b>	Ali abdullah

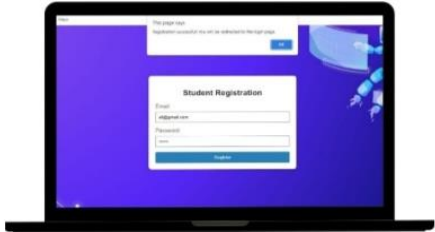
## 6.3 TEST CASE 03

<b>Project Name</b>	Quizzo.AI
<b>Test Case ID</b>	TC-003
<b>Test Type</b>	Positive
<b>Test Case Description</b>	Verify that the teacher can view the generated MCQs and the correct answers are highlighted in green.
<b>Steps to Proceed</b>	After generating MCQs, click on the 'View MCQs' button.
<b>Expected Result</b>	The list of MCQs should be displayed with the correct answers highlighted in green and wrong answers in red.
<b>Actual Result</b>	
<b>Pass/Fail</b>	Pass
<b>Date Prepared</b>	25 Dec 2023
<b>Date executed</b>	25 jan 2024
<b>Prepared By</b>	Rabia
<b>Executed By</b>	Ali abdullah

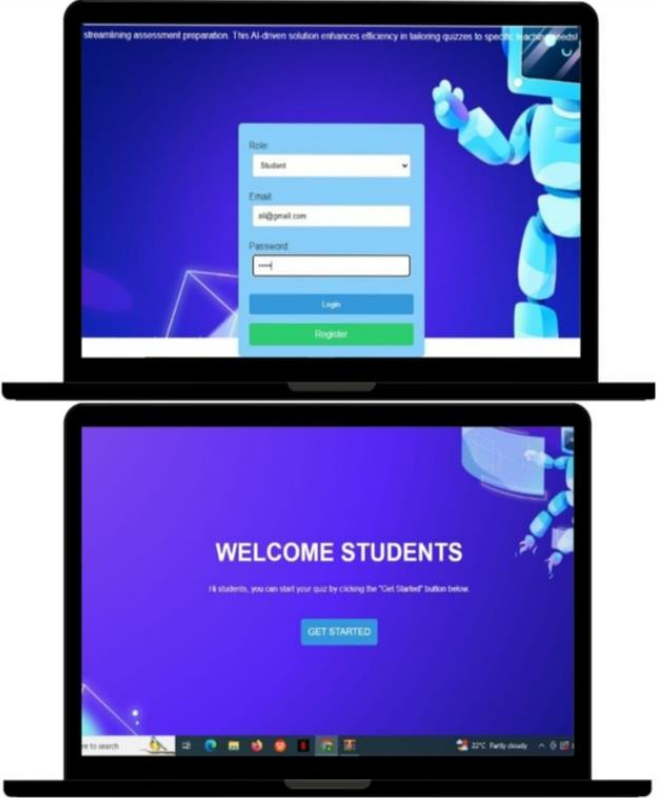
## 6.4 TEST CASE 04

<b>Project Name</b>	Quizzo.AI
<b>Test Case ID</b>	TC-004
<b>Test Type</b>	Positive
<b>Test Case Description</b>	Verify that a teacher can register and a confirmation pop-up is displayed.
<b>Steps to Proceed</b>	Navigate to the registration page. Enter required registration details. Click the 'Register' button
<b>Expected Result</b>	A pop-up message should appear that the teacher is registered successfully.
<b>Actual Result</b>	
<b>Pass/Fail</b>	Pass
<b>Date Prepared</b>	25 Dec 2023
<b>Date executed</b>	25 jan 2024
<b>Prepared By</b>	Rabia
<b>Executed By</b>	Ali abdullah

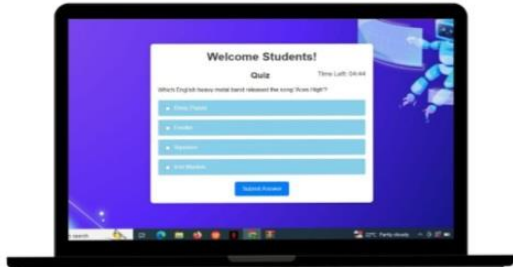
## 6.5 TEST CASE 05

<b>Project Name</b>	Quizzo.AI
<b>Test Case ID</b>	TC-005
<b>Test Type</b>	Positive
<b>Test Case Description</b>	Verify that a student can register and a confirmation pop-up is displayed.
<b>Steps to Proceed</b>	Navigate to the registration page. Enter required registration details. Click the 'Register' button
<b>Expected Result</b>	A pop-up message should appear that the student is registered successfully.
<b>Actual Result</b>	
<b>Pass/Fail</b>	Pass
<b>Date Prepared</b>	25 Dec 2023
<b>Date executed</b>	25 jan 2024
<b>Prepared By</b>	Rabia
<b>Executed By</b>	Ali abdullah

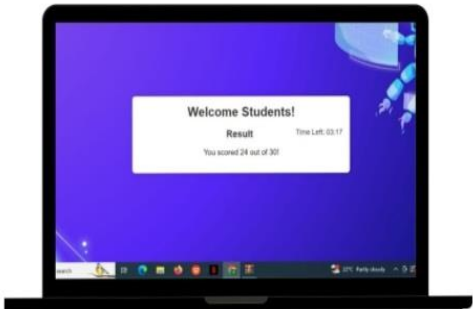
## 6.6 TEST CASE 06

<b>Project Name</b>	Quizzo.AI
<b>Test Case ID</b>	TC-006
<b>Test Type</b>	Positive
<b>Test Case Description</b>	Verify that students can log in and are greeted with a welcome message and a prompt to start the quiz.
<b>Steps to Proceed</b>	Navigate to the login page. Enter valid student email and password. Click the login button
<b>Expected Result</b>	Student is logged in and sees a welcome message with a Get Started button.
<b>Actual Result</b>	
<b>Pass/Fail</b>	Pass
<b>Date Prepared</b>	25 Dec 2023
<b>Date executed</b>	25 jan 2024
<b>Prepared By</b>	Rabia
<b>Executed By</b>	Ali abdullah

## 6.7 TEST CASE 07

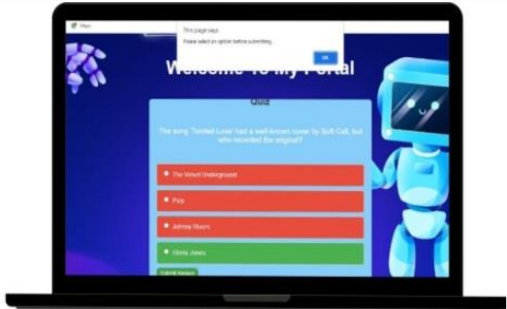
<b>Project Name</b>	Quizzo.AI
<b>Test Case ID</b>	TC-007
<b>Test Type</b>	Positive
<b>Test Case Description</b>	Verify that upon clicking 'Start Quiz', the test screen is available to students with a visible timer.
<b>Steps to Proceed</b>	Click the 'Start Quiz' button.
<b>Expected Result</b>	The test screen appears with a timer counting down.
<b>Actual Result</b>	
<b>Pass/Fail</b>	Pass
<b>Date Prepared</b>	25 Dec 2023
<b>Date executed</b>	25 jan 2024
<b>Prepared By</b>	Rabia
<b>Executed By</b>	Ali abdullah

## 6.8 TEST CASE 08

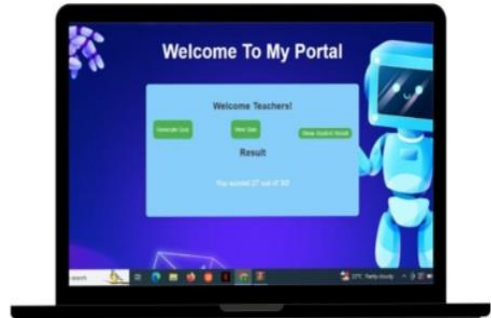
<b>Project Name</b>	Quizzo.AI
<b>Test Case ID</b>	TC-008
<b>Test Type</b>	Positive
<b>Test Case Description</b>	Verify that the score is displayed to students upon completing the test.
<b>Steps to Proceed</b>	Complete the test and submit answers
<b>Expected Result</b>	The score should be displayed on the screen.
<b>Actual Result</b>	
<b>Pass/Fail</b>	Pass
<b>Date Prepared</b>	25 Dec 2023
<b>Date executed</b>	25 Jan 2023
<b>Prepared By</b>	Rabia
<b>Executed By</b>	Ali Abdullah



## 6.9 TEST CASE 09

<b>Project Name</b>	Quizzo.AI
<b>Test case ID</b>	TC-009
<b>Test Type</b>	Negative
<b>Test Case Description</b>	Verify that without selecting a MCQ a pop will appear to select an option before submitting.
<b>Steps to Proceed</b>	Click on submit answer without selecting an option.
<b>Expected Result</b>	A pop-up message should appear that no option is selected.
<b>Actual Result</b>	
<b>Pass/Fail</b>	Pass
<b>Date Prepared</b>	25 Dec 2023
<b>Date executed</b>	25 Jan 2024
<b>Prepared By</b>	Rabia
<b>Executed By</b>	Ali Abdullah

## 6.10 TEST CASE 010

<b>Project Name</b>	Quizzo.AI
<b>Test Case ID</b>	TC-010
<b>Test Type</b>	Positive
<b>Test Case Description</b>	Verify that the teacher can view the scores of students on their platform.
<b>Steps to Proceed</b>	Log in as a teacher. Navigate to the 'View Scores' section
<b>Expected Result</b>	The teacher can see the score of student.
<b>Actual Result</b>	
<b>Date Prepared</b>	25 Dec 2023
<b>Date executed</b>	25 Jan 2024
<b>Prepared By</b>	Rabia
<b>Executed By</b>	Ali Abdullah

# CHAPTER-07

## 7.1 INTRODUCTION

This chapter will summarize all of the work completed during the final year of the project, as well as the Challenges, limitations, and future work for this project. In this chapter all the major and minor work will be Discussed. We have included the limitations of the system in order to help the users to understand the system Better. The future work section will provide an overview to the enhancement that can be made with this Software. With the passing time the software has a lot vacancies for better additions. This will make the Application more effective, and useful.

## 7.2 SYSTEM LIMITATIONS

So, as we were building our web-based quiz generator, we ran into a few limitations that we had to work around. Here's what we found out:

System Limitations:

1. **Maximum Questions per Quiz:** Due to technical constraints, we had to set a limit on the number of multiple-choice questions (MCQs) that can be generated at a time by a teacher. Currently, the system allows teachers to generate a maximum of 50 MCQs for each quiz creation session.
2. **Single Topic Selection:** Another limitation is that teachers can only select one topic at a time when creating quizzes. While we initially aimed for more flexibility in topic selection, we found that focusing on one topic at a time helped ensure the accuracy and relevance of the generated questions.

### Additional Considerations:

Despite these limitations, we made sure to prioritize the quality and usability of the platform. By focusing on a single topic for each quiz and limiting the number of questions generated, we aimed to maintain coherence and effectiveness in assessing student understanding.

Moreover, we recognized the importance of continuous improvement and scalability. While the current version of the system has these limitations, we remain committed to exploring opportunities for enhancement and expansion in future iterations. This includes potentially increasing the maximum number of questions per quiz and introducing features for selecting multiple topics simultaneously.

**In summary**, while our web-based quiz generator has some limitations regarding the number of questions and topic selection, we have taken steps to ensure that these constraints do not compromise the overall usability and effectiveness of the platform. We remain dedicated to refining and evolving the system to better meet the needs of teachers and students in the future.

## 7.3 FUTURE WORK

Looking ahead, there are a few things we'd love to tackle to make our web-based quiz generator even better:

1. **Increased Question Variety:** Right now, our system focuses on generating multiple-choice questions, but we'd like to expand to include other question types like true/false, fill-in-the-blank, or short-answer questions. This would provide teachers with more flexibility in creating diverse quizzes to assess student understanding.
2. **Enhanced Topic Selection:** While our current system allows teachers to select one topic at a time, we envision adding support for selecting multiple topics simultaneously. This would enable teachers to create comprehensive quizzes that cover a broader

range of content areas, catering to the diverse needs of their students.

3. **Adaptive Quizzing:** Implementing adaptive quizzing algorithms could personalize the learning experience for each student based on their performance. By analyzing students' responses and adapting the difficulty level of subsequent questions accordingly, we could provide tailored feedback and support to help students succeed.
4. **Integration with Learning Management Systems (LMS):** Integrating our quiz generator with popular learning management systems like Moodle or Canvas would streamline the workflow for teachers and students. This would allow for seamless synchronization of quiz data, grades, and user accounts, simplifying the process of managing assessments and tracking student progress.
5. **Collaborative Features:** Introducing collaborative features, such as group quizzes or peer review assignments, could promote teamwork and collaboration among students. This would encourage active learning and foster a sense of community within the classroom environment.
6. **Mobile Application:** Developing a dedicated mobile application for our quiz generator would extend accessibility and convenience for users, allowing them to create and take quizzes on-the-go from their smartphones or tablets.

By addressing these areas of future work, we aim to further enhance the functionality, usability, and effectiveness of our web-based quiz generator, ultimately providing a more enriching learning experience for both teachers and students.

## 7.4 CONCLUSION

So, wrapping up our project, we've created something pretty cool, a web-based quiz maker that helps teachers make quizzes easily and makes taking quizzes more fun for students. Throughout the process, we faced some challenges, like figuring out how to generate questions automatically and making sure everything works smoothly for everyone.

But despite the challenges, we're really proud of what we've accomplished. Our quiz maker lets teachers create quizzes on any topic they want, and students can take them online and get instant score. Plus, teachers can keep track of student scores and see how everyone's doing.

Looking ahead, there's still more we want to do, like adding different types of questions and making the quiz maker even more personalized for each student. But for now, we're excited to see how our project can make learning more fun and easier for teachers and students everywhere.

Overall, we're super happy with how our project turned out, and we hope it helps make education a little bit better for everyone involved.

## 7.5 REFERENCES

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