

A

Project Report

on

Online Test Creator

In partial fulfilment of Post Graduate course

in

Master of Science (Computer Applications) – I

(Semester -II)

CSA4212 Computer Applications Project - I

Submitted By

Aditya Sunil Pandit 21573
Piyush Kirtikishor Dixit 21595

Department of Computer Science

Fergusson College (Autonomous), Pune-411004

(2021 – 2022)



**Deccan Education Society's
Fergusson College (Autonomous), Pune
Department of Computer Science
(CSA4212) Computer Applications Project-I**

CERTIFICATE

This is to certify that Mr. Aditya Sunil Pandit Roll No. 21573, has satisfactorily completed the project work entitled “Online Test Creator” towards the partial fulfilment of M.Sc. (Computer Applications), Semester II during the academic year 2021-22.

Place: Pune

Date: / /2022

Mrs. Talluri Sreelalitha
Internal Guide

Dr. Kavita A. Khobragade
Head, Computer Science Department

Internal Examiner

External Examiner

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1. Introduction

1.1 Existing System

The existing system involves grading the test manually which is quite strenuous as well as time consuming. A lot of hardcopies are being generated to develop the long test series in the existing system. A lot of space is required to maintain the hard copies. As all the processes are done manually so the maintenance of record is very difficult for the staffs. The chances of missing and searching the record are very high and hectic. Checking the test manually can also be error prone.

1.2 Need of the System

The proposed system 'Online Test Creator' is used to conduct online examination by which it eliminates the drawbacks of the traditional system that are used to conduct and evaluate the test. The student can give exams with the login credentials provided by the admin through the mail in the given time. The system will display results as soon as the exam finishes and stores it in the database. The proposed system can be operated by user who are categorized as:

- **Admin:** One who has special privilege to create an exam for a specific course and can enter questions regarding it. The admin can add students for the exam and view the list of students that appears for the exam with their marks.
- **Student:** They are the ones who get login credentials from the admin through mail to appear for the exam. Once they logged into the system, they can start the exam and view the result when the exam finishes.

1.3 Overview of the project

The online test creator is flexible and provides users an easier and a better way to create online exams with proper results. The proposed system consists of following modules and functionalities:

- **Admin Login:** This module helps the admin to do successful login.
- **Course:** This module helps the admin to add/delete different courses.
- **Examination:** This module helps the admin to add/delete examination details for courses.
- **Question Paper:** This module helps the admin to add/delete Questions for a particular examination.
- **Student:** This module helps the admin to add/delete students for examination.
- **Student Login:** This module helps the student to do successful login.
- **Exam:** This module helps the student to appear for exams.
- **Result:** This module helps admin to view the result of students who appeared for the exam and students can view the result for the exam they have appeared.

2. Analysis

2.1 Feasibility Study

2.1.1 Technical Feasibility

The proposed system is a website that can be developed using open source softwares with the help of HTML, CSS, PHP, MySQL which is freely available, and which can be downloaded from the Internet. Therefore, the proposed system is technically feasible.

2.1.2 Economical Feasibility

The proposed system can be developed using open-source software which is freely available and free of cost. The designed system can be used on browsers like Google Chrome, Mozilla Firefox etc. So, no cost is charged from the user. Therefore, the proposed system is economically feasible.

2.1.3 Operational Feasibility

The student need not undergo any training since it is designed in a user-friendly manner in a systematic approach. Therefore, the proposed system is operationally feasible.

2.2 Hardware and Software requirements

2.2.1 Hardware Requirements

- RAM: Minimum 4 GB
- HDD capacity: Minimum 500 GB
- Desktop or Laptop 64-bit

2.2.2 Software Requirements

- Operating System: Windows 8 or higher version.
- Web Browsers: Google Chrome, Mozilla Firefox etc.
- Backend: MySQL
- Frontend: HTML, CSS, JavaScript, AJAX
- Server-side-scripting language: PHP
- Web server: XAMPP

3. Design

3.1 Database Table Designing

Table: admin

Field	Type	Null	Key	Default	Extra
id	int(11)	NO	PRI	NULL	
admin_username	varchar(100)	NO		NULL	
admin_password	varchar(100)	NO		NULL	

Table: course

Field	Type	Null	Key	Default	Extra
cou_id	int(11)	NO	PRI	NULL	auto_increment
cou_name	varchar(100)	NO		NULL	
cou_created	timestamp	NO		current_timestamp()	on update current_timestamp()
id	int(11)	NO	MUL	1	

Table: examination

Field	Type	Null	Key	Default	Extra
exam_id	int(11)	NO	PRI	NULL	auto_increment
cou_id	int(11)	NO	MUL	NULL	
ex_title	varchar(100)	NO		NULL	
ex_time_limit	varchar(100)	NO		NULL	
ex_date	date	NO		NULL	
ex_description	varchar(100)	NO		NULL	
ex_created	timestamp	NO		current_timestamp()	on update current_timestamp()
ex_questlimit_display	int(11)	NO		NULL	
ex_start_time	time	NO		NULL	

Table: student

Field	Type	Null	Key	Default	Extra
stud_id	int(11)	NO	PRI	NULL	auto_increment
cou_id	int(11)	NO	MUL	NULL	
stud_fullname	varchar(100)	NO		NULL	
stud_email	varchar(100)	NO		NULL	
stud_password	varchar(100)	NO		NULL	
stud_status	varchar(20)	NO		active	
id	int(11)	NO	MUL	1	

Table: question_paper

Field	Type	Null	Key	Default	Extra
eqt_id	int(11)	NO	PRI	NULL	auto_increment
exam_id	int(11)	NO	MUL	NULL	
exam_question	varchar(1000)	NO		NULL	
exam_ch1	varchar(1000)	NO		NULL	
exam_ch2	varchar(1000)	NO		NULL	
exam_ch3	varchar(1000)	NO		NULL	
exam_ch4	varchar(1000)	NO		NULL	
exam_answer	varchar(1000)	NO		NULL	

Table: student_answer

Field	Type	Null	Key	Default	Extra
exans_id	int(11)	NO	PRI	NULL	auto_increment
stud_id	int(11)	NO	MUL	NULL	
exam_id	int(11)	NO	MUL	NULL	
eqt_id	int(11)	NO	MUL	NULL	
exans_answer	varchar(1000)	NO		NULL	

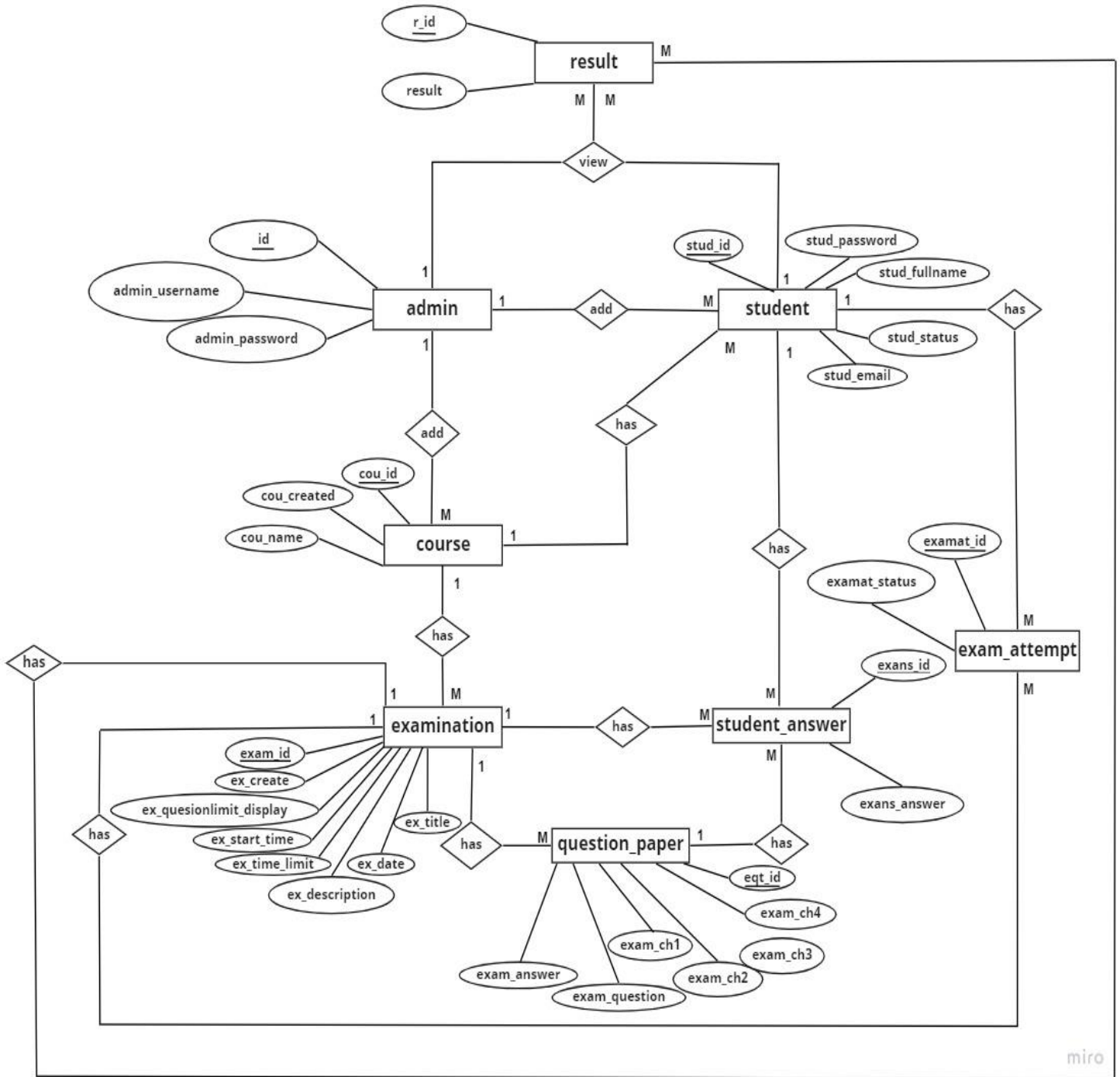
Table: exam_attempt

Field	Type	Null	Key	Default	Extra
examat_id	int(11)	NO	PRI	<i>NULL</i>	auto_increment
stud_id	int(11)	NO	MUL	<i>NULL</i>	
exam_id	int(11)	NO	MUL	<i>NULL</i>	
examat_status	varchar(100)	NO		<i>NULL</i>	

Table: result

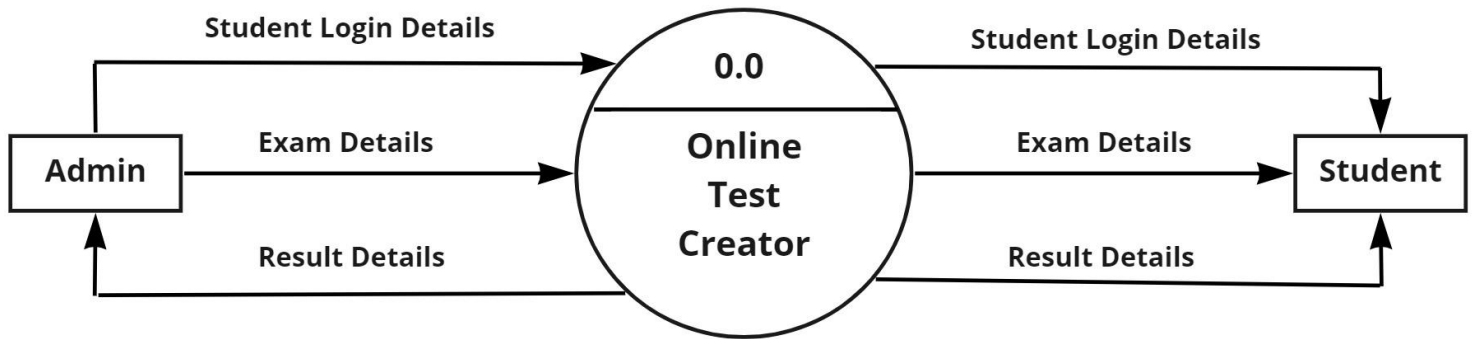
Field	Type	Null	Key	Default	Extra
r_id	int(11)	NO	PRI	<i>NULL</i>	auto_increment
stud_id	int(11)	NO	MUL	<i>NULL</i>	
exam_id	int(11)	NO	MUL	<i>NULL</i>	
result	varchar(1000)	NO		<i>NULL</i>	
id	int(11)	NO	MUL	1	

Entity Relationship Diagram



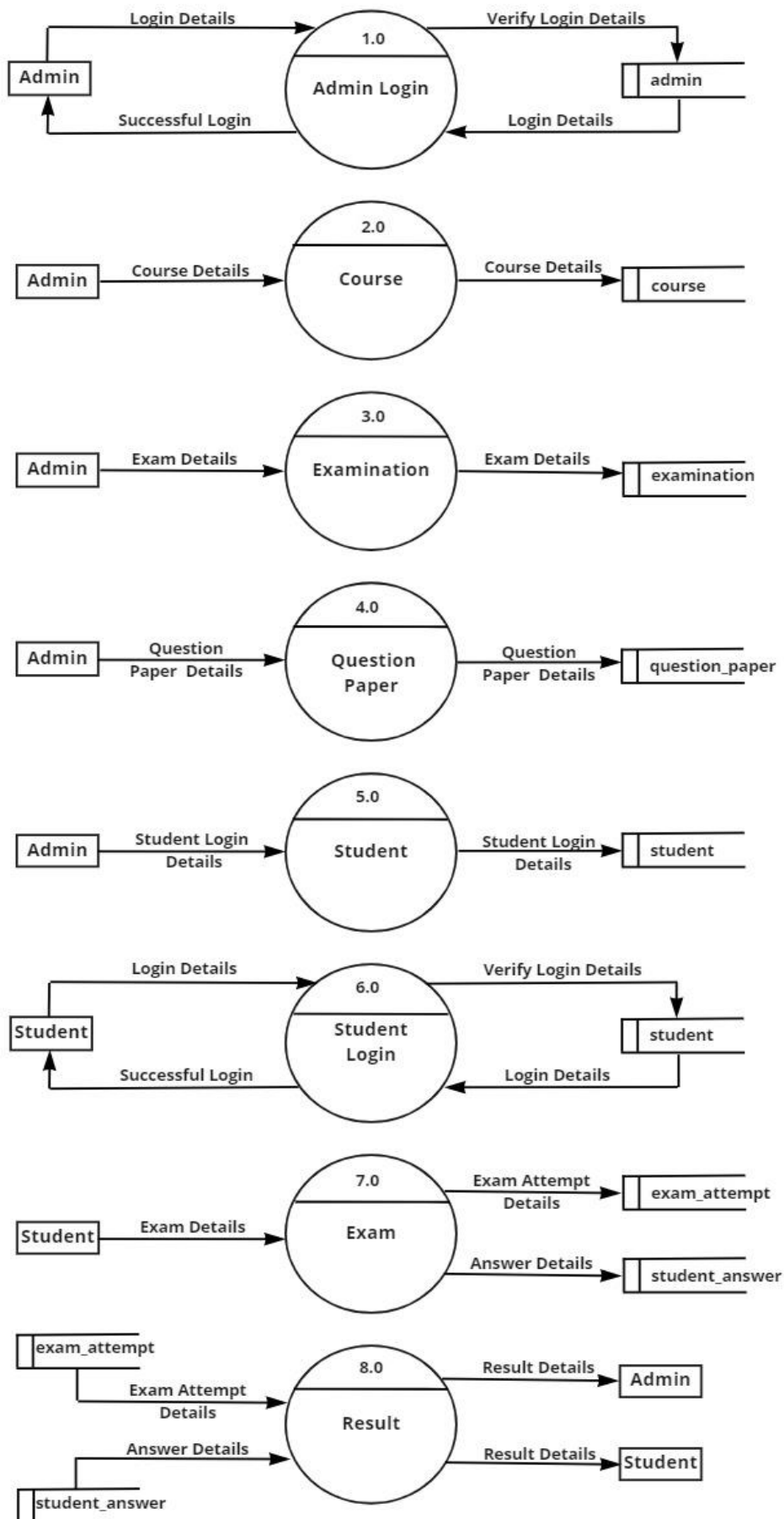
3.2 Data Flow Diagrams

Zero level Data Flow Diagram for Online Test Creator



miro

First Level DFD Data Flow Diagram for Online Test Creator

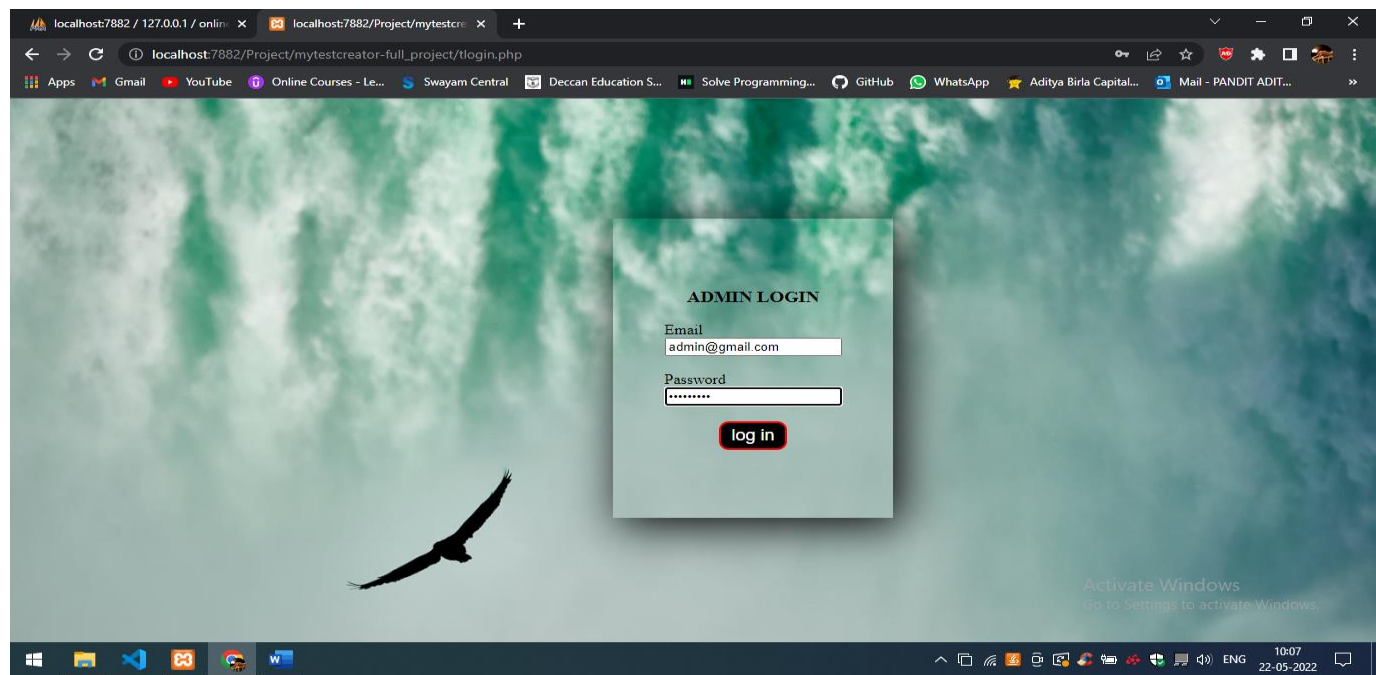


miro

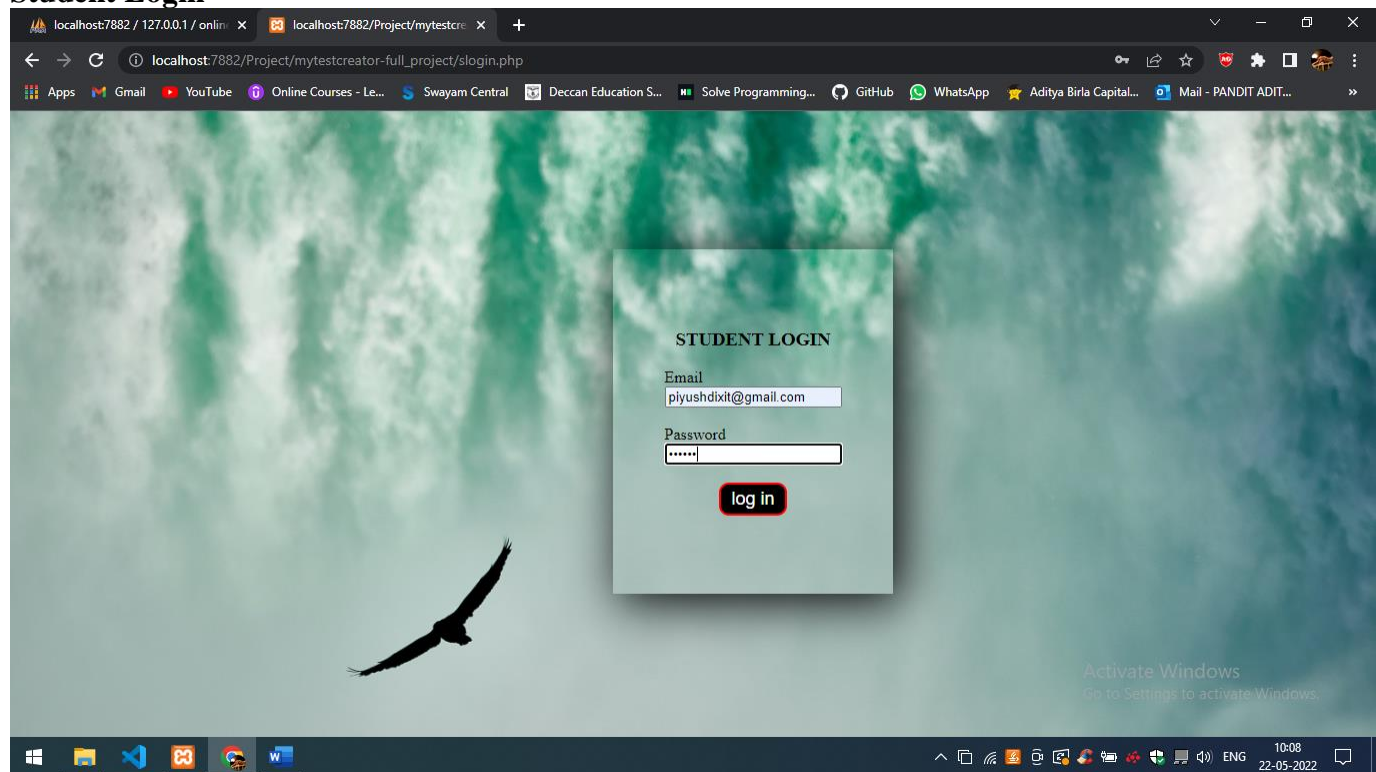
3.3 Input/Output Screens

Input Screens

Admin Login



Student Login



Add course

The screenshot shows a web browser window with the URL `localhost:7882/Project/mytestcreator-full_project/course.php`. The application has a teal sidebar with the title 'ONLINE TEST CREATOR' and a search bar. The sidebar menu includes 'Course', 'Exam', 'Student', and 'Results'. The main content area displays a form titled 'COURSE NAME'. The form contains a text input field labeled 'Course Name' with the value 'CSA4104 DBMS' and a red 'submit' button. An 'Activate Windows' watermark is visible in the bottom right corner of the main content area.

ONLINE TEST CREATOR

Search

COURSE NAME

Course Name
CSA4104 DBMS

submit

Activate Windows
Go to Settings to activate Windows.

Exam Form

The screenshot shows a web browser window with the URL `localhost:7882/Project/mytestcreator-full_project/addexam.php`. The application has a teal sidebar with the title 'ONLINE TEST CREATOR' and a search bar. The sidebar menu includes 'Course', 'Exam', 'Student', and 'Results'. The main content area displays a form titled 'Exam Form'. The form contains several fields: 'Exam Title' (Online CE-2 Test), 'Course Name' (CSA4104 DBMS), 'EXAM DATE' (22-05-2022), 'START TIME' (12:00), 'Exam Duration' (5), 'No. of Questions' (5), and 'Exam Description' (This is online MCQ test). An 'Activate Windows' watermark is visible in the bottom right corner of the main content area.

ONLINE TEST CREATOR

Search

Exam Form

Exam Title
Online CE-2 Test

Course Name
CSA4104 DBMS

EXAM DATE
22-05-2022

START TIME
12:00

Exam Duration
5

No. of Questions
5

Exam Description
This is online MCQ test

Activate Windows
Go to Settings to activate Windows.

Question Form

The screenshot shows the 'Question Form' page of the 'ONLINE TEST CREATOR' application. The left sidebar contains a menu with 'Course', 'Exam', 'Student', and 'Results'. The main content area displays a warning message: '0/5 questions added in exam.If questions added are less than questions specified in exam than exam will not be displayed to student!!!'. Below this, the 'Question Form' is shown with the following fields: 'Exam Question' (text input with 'What is DBA?'), 'Option 1' (text input with 'Database Administrator'), 'Option 2' (text input with 'Database Admin'), 'Option 3' (text input with 'Database Advisor'), 'Option 4' (text input with 'Database Analyst'), and 'Correct Answer' (text input with 'Database Administrator'). A red 'submit' button is at the bottom right. The browser's address bar shows 'localhost:7882/Project/mytestcreator-full_project/addQuest.php?vid=21'. The Windows taskbar at the bottom shows the time as 10:13 on 22-05-2022.

ONLINE TEST CREATOR

Search

0/5 questions added in exam.If questions added are less than questions specified in exam than exam will not be displayed to student!!!

Question Form

Exam Question
What is DBA?

Option 1
Database Administrator

Option 2
Database Admin

Option 3
Database Advisor

Option 4
Database Analyst

Correct Answer
Database Administrator

submit

Activate Windows
Go to Settings to activate Windows.

Student Form

The screenshot shows the 'Student Form' page of the 'ONLINE TEST CREATOR' application. The left sidebar contains a menu with 'Course', 'Exam', 'Student', and 'Results'. The main content area displays the 'Student Form' with the following fields: 'NAME' (text input with 'Piyush Dixit'), 'Course Name' (dropdown menu with 'CSA4104 DBMS'), 'MAIL' (text input with 'piyushdixit@gmail.com'), and 'PASSWORD' (password input with '*****'). A red 'submit' button is at the bottom right. The browser's address bar shows 'localhost:7882/Project/mytestcreator-full_project/addstudent.php?id=130'. The Windows taskbar at the bottom shows the time as 10:47 on 22-05-2022.

ONLINE TEST CREATOR

Search

Student Form

NAME
Piyush Dixit

Course Name
CSA4104 DBMS

MAIL
piyushdixit@gmail.com

PASSWORD

submit

Activate Windows
Go to Settings to activate Windows.

Output Screens

Course details

The screenshot shows the 'ONLINE TEST CREATOR' application interface. The left sidebar contains links for 'Course', 'Exam', 'Student', and 'Results'. The main content area is titled 'Overview' and features a button labeled 'add course' and a link 'click here to add'. Below this is a 'recent activity' section with a table listing courses.

S.No	Course Name	Course Created On	Operations
1	CSA4101 Operating System	2022-05-18 09:28:30	Edit Delete
2	CSA4104 DBMS	2022-05-18 09:28:17	Edit Delete

At the bottom right, there is a watermark that says 'Activate Windows Go to Settings to activate Windows.'

Exam details

The screenshot shows the 'ONLINE TEST CREATOR' application interface for the 'Exam' section. The left sidebar contains links for 'Course', 'Exam', 'Student', and 'Results'. The main content area is titled 'Overview' and features a button labeled 'add exam' and a link 'click here to add'. Below this is a 'recent activity' section with a table listing exams.

S.No	Course Name	EXAM TITLE	EXAM DATE	START TIME	EXAM DURATION	NO. OF QUESTIONS	EXAM DESCRIPTION	CREATED ON	Operations	Add Questions
1	CSA4104 DBMS	MCQ Test	2022-05-18	10:00:00	5	5	This is online MCQ test	2022-05-18 09:32:09	Edit Delete	view

At the bottom right, there is a watermark that says 'Activate Windows Go to Settings to activate Windows.'

Questions details

ONLINE TEST CREATOR

Course

Exam

Student

Results

Search

Overview

add Question

click here to add

recent activity

5/5 questions added!!!!No more than specified questions can be added.If you want to add more questions increase the question no count

S.No	EXAM NAME	QUESTION	OPT 1	OPT 2	OPT 3	OPT 4	ANS	OPERATION
1	MCQ Test	What is DBA?	Database Administrator	Database Admin	Data Advisor	Data Analyst	Database Administrator	<a>Edit <a>Delete
2	MCQ Test	What is DDL?	Data Demand Language	Data Definition Language	Data Diverse Language	Data Domain Language	Data Definition Language	<a>Edit <a>Delete

WhatsApp

Document

localhost:7882/Project/mytestcreator-full_project/viewQuest.php

Apps Gmail YouTube Online Courses - Le... Swayam Central Deccan Education S... Solve Programming... GitHub WhatsApp Aditya Birla Capital... Mail - PANDIT ADIT...

09:37 18-05-2022

Student details

ONLINE TEST CREATOR

Course

Exam

Student

Results

Search

Overview

Add Student

click here to add

recent activity

SR. NO.	STUDENT NAME	COURSE NAME	EMAIL	PASSWORD	STATUS	OPERATIONS
1	Piyush Dixit	CSA4104 DBMS	piyushdixit@gmail.com	piyush123	active	<a>edit <a>delete

localhost:7882 / 127.0.0.1 / online

Document

localhost:7882/Project/mytestcreator-full_project/student.php

Apps Gmail YouTube Online Courses - Le... Swayam Central Deccan Education S... Solve Programming... GitHub WhatsApp Aditya Birla Capital... Mail - PANDIT ADIT...

10:47 22-05-2022

Examination details

The screenshot shows a web browser window with the URL `localhost:7882/Project/mytestcreator-full_project/sexam.php?id=19`. The page features a red timer bar at the top displaying **4:44**. Below the timer, the exam title is "EXAM TITLE : MCQ Test" and "CSA4104 DBMS Test". The questions are as follows:

1.) What is DBA?

- ☐ Database Administrator
- ☐ Database Admin
- ☐ Data Advisor
- ☐ Data Analyst

2.) What is DDL?

- ☐ Data Demand Language
- ☐ Data Definition Language

An "Activate Windows" watermark is visible in the bottom right corner of the page.

Result details

The screenshot shows a web browser window with the URL `localhost:7882/Project/mytestcreator-full_project/result.php`. The page has a teal sidebar with the text "STUDENT DASHBOARD" and a search bar. The main content area displays "recent activity" with a table of exam results.

S.No	Course Name	EXAM TITLE	TOTAL QUESTIONS	QUESTIONS ATTEMPTED	CORRECT ANSWER	MARKS
1	CSA4104 DBMS	MCQ Test	5	4	3	(3/5)*100= 60

An "Activate Windows" watermark is visible in the bottom right corner of the page.

4. Testing

4.1 Importance of testing

In projects, testing is a way to make sure that the requirements under a project are fulfilled accurately and it is risk free from manual errors, system environment issues, coding issues, deadlock, crashes, performance, security etc. Testing also helps to make our product better by knowing and understanding the risks associated with it. Risks can be related to User experience, Usability, Functionality etc. Some of the factors that state the importance of testing:

- It produces a defect-free product/software.
- It ensures that the customer/end-user is satisfied. It ensures all the requirements are met.
- It ensures the proper working of all the functionalities of an application/software/product.
- It makes sure that the system is reliable.
- It ensures that the software/product works as expected.
- It ensures security and safety. It ensures a good performance of the system.
- It improves the quality of the product. The risks associated with the product/software are reduced and in turn the loss is also reduced.

4.2 Types of testing

Unit Testing

Unit testing operates on individual modules in which the smallest testable parts are run independently and perform the required test of the project. It was carried to validate that each unit of the software code performs as expected. Unit tests isolate a section of code and verify its corrections.

Validation Testing

It gives the confirmation that the product meets its intended use and the needs of its users. It was carried out to confirm that all functional and performance specifications were satisfied or not by presenting the result after the test is carried out.

4.3 Test cases

Test case ID	Feature	Description	Steps to execute	Expected Result	PASS/FAIL
TC001	Login for registered users	Check whether the user can login with valid input.	1) Enter valid username and password in the respective fields. 2) Click on the login button.	Successful login and dashboard will be displayed.	PASS
TC002	Add a new exam in the system.	Check whether the user can add exam details.	1) Enter the exam details in respective fields. 2) Click on the submit button.	Exam Created successfully.	PASS
TC002	Add questions for exam in the system	Check whether the user can add question details.	Enter the question and options details in respective field.	All the questions added successfully and warning will be displayed no more than specified questions can be added further	PASS
TC002	User exam attempt	Check whether the user can start the exam at a given time.	Click on the start button.	Exam question page will be displayed.	PASS
TC005	Logout	Check whether the user can logout from the system.	Click on the logout icon.	User logged out from the system and redirected to the home page successfully.	PASS

5. Reports

Marks sheet

The screenshot shows a web browser window with the URL `localhost:7882/Project/mytestcreator-full_project/areult.php`. The browser's address bar and tabs are visible at the top. The web application has a dark teal sidebar on the left with the title "ONLINE TEST CREATOR" and a menu with items: "Course", "Exam", "Student", and "Results". The main content area has a search bar and a "recent activity" section. This section contains a table with the following data:

S.No	STUDENT NAME	Course Name	EXAM TITLE	TOTAL QUESTIONS	QUESTIONS ATTEMPTED	CORRECT ANSWER	MARKS
1	Piyush Dixit	CSA4104 DBMS	MCQ Test	5	4	3	$(3/5) \times 100 = 60$

At the bottom of the main content area, there is a message: "Activate Windows Go to Settings to activate Windows." The Windows taskbar is visible at the very bottom of the screen.

6. Drawbacks and limitations

- The functionality of registration for students was not included. For every exam admin should send login details to the students which is time consuming.
- Students cannot download the results.
- Students cannot apply for multiple courses. Every time the admin will add students to the course which is again time consuming.
- Huge chances of cheating in the exam as the microphone and camera are not accessed from the student side.

7. Future enhancement and conclusion

7.1 Future Enhancement

- The functionality of registration for students can help students to get registered into a system which will reduce the task at admin side.
- Students can download the result in the form of PDF which will help them to keep future records.
- Users can provide feedback about the system which will help to improvise the system in a better way.
- System will provide better supervision techniques like accessing the student side camera and microphone or live proctoring mechanism.

7.2 Conclusion

The Online test creator is a user-friendly system, which is very easy and convenient to use. The system is developed to make the process of exam giving and evaluation easy. The system is complete in the sense that it is operational, and it is tested by entering data and getting the reports in proper order.

8. Bibliography

Books: HTML5 Black Book by Dreamtech Press publications

Website References:

- <https://www.w3schools.com>
- <https://www.javapoint.com/>
- <https://www.stackoverflow.com/>
- <https://www.youtube.com/>