



**PRESIDENCY UNIVERSITY**

Private University Estd. in Karnataka State by Act No. 41 of 2013  
Itgalpura, Rajankunte, Yelahanka, Bengaluru - 560064



# A CREATIVE WEB-BASED LEARNING APPLICATION INTEGRATING NOTES, QUIZZES AND GAMES

A PROJECT REPORT

*Submitted by,*

AMINA ZAIBA-20221CSE0365

AMREEN KOWSAR-20221CSE0349

SRUSHTI-20221CSE0371

*Under the guidance of,*

Ms. KALPANA K HARISH

**BACHELOR OF TECHNOLOGY**

IN

**COMPUTER SCIENCE AND ENGINEERING**

**PRESIDENCY UNIVERSITY**

**BENGALURU**

**DECEMBER 2025**



# PRESIDENCY UNIVERSITY

Private University Estd. in Karnataka State by Act No. 41 of 2013  
Itgalpura, Rajankunte, Yelahanka, Bengaluru - 560064



## PRESIDENCY SCHOOL OF COMPUTER SCIENCE AND ENGINEERING

### BONAFIDE CERTIFICATE

Certified that this report "Interactive Smart Education Portal with Aptitude Quizzes and Memory games" is a bonafide work of "AMINA ZAIBA (20221CSE0365), AMREEN KOWSAR (20221CSE0349), SRUSHTI (20221CSE0371)", who have successfully carried out the project work and submitted the report for partial fulfilment of the requirements for the award of the degree of BACHELOR OF TECHNOLOGY in COMPUTER SCIENCE ENGINEERING during 2025-26.

1/12/25

Ms. Kalpana K Harish,  
Assistant Professor,  
Project Guide  
PSCS  
Presidency University

Dr. Jayavadivel Ravi  
Program Project  
Coordinator  
PSCS  
Presidency University

Dr. Sampath A K  
Dr. Geetha A  
School Project  
Coordinators  
PSCS  
Presidency University

Dr. Asif Mohamed H B  
Head of the Department  
PSCS  
Presidency University

bry

NJ8

Dr. Shakkeera L  
Associate Dean  
PSCS  
Presidency University

Dr. Duraipandian N  
Dean  
PSCS & PSIS  
Presidency University

#### Examiners

Sl. no.	Name	Signature	Date
1	Priyanka Jayadev	bry	01/12/2025
2	RAESA RAZEEN	Raeen	01/12/2025

# PRESIDENCY UNIVERSITY

## PRESIDENCY SCHOOL OF COMPUTER SCIENCE AND ENGINEERING

### DECLARATION

We the students of final year B.Tech in COMPUTER SCIENCE ENGINEERING at Presidency University, Bengaluru, named Amina Zaiba , Amreen Kowsar, Srushti, hereby declare that the project work titled “Interactive Smart Education Portal with Aptitude Quizzes and Memory games” has been independently carried out by us and submitted in partial fulfilment for the award of the degree of B.Tech in COMPUTER SCIENCE ENGINEERING, during the academic year of 2025-26. Further, the matter embodied in the project has not been submitted previously by anybody for the award of any Degree or Diploma to any other institution.

Amina Zaiba USN: 20221CSE0365

Amreen Kowsar USN: 20221CSE0349

Srushti USN: 20221CSE0371

PLACE: BENGALURU

DATE: 01/12/2025

## **ACKNOWLEDGEMENT**

For completing this project work, We/I have received the support and the guidance from many people whom I would like to mention with deep sense of gratitude and indebtedness. We extend our gratitude to our beloved **Chancellor, Vice Chancellor, Pro-Vice Chancellor, and Registrar** for their support and encouragement in completion of the project.

I would like to sincerely thank my internal guide **Ms. Kalpana K Harish, Assistant Professor**, Presidency School of Computer Science and Engineering, Presidency University, for her moral support, motivation, timely guidance and encouragement provided to us during the period of our project work.

I am also thankful to **Dr. Asif Mohamed H B, Professor, Head of the Department, Presidency School of Computer Science and Engineering** Presidency University, for his mentorship and encouragement.

We express our cordial thanks to **Dr. Duraipandian N**, Dean PSCS & PSIS, **Dr. Shakkeera L**, Associate Dean, Presidency School of computer Science and Engineering and the Management of Presidency University for providing the required facilities and intellectually stimulating environment that aided in the completion of my project work.

We are grateful to **Dr. Sampath A K, and Dr. Geetha A**, PSCS Project Coordinators, **Dr. Jayavadiel Ravi , Program Project Coordinator**, Presidency School of Computer Science and Engineering, or facilitating problem statements, coordinating reviews, monitoring progress, and providing their valuable support and guidance.

We are also grateful to Teaching and Non-Teaching staff of Presidency School of Computer Science and Engineering and also staff from other departments who have extended their valuable help and cooperation.

**AMINA ZAIBA**

**AMREEN KOWSAR**

**SRUSHTI**

## **Abstract**

Technology has transformed the way students learn, work together, and evaluate their understanding in the current education system. Traditional methods of teaching in the classroom, although helpful, are not flexible and do not fully engage students who are accustomed to interactive and technology-driven environments. Web-based learning platforms have been found to be an answer through their scalability, accessibility, and interaction potential for education. However, most of the existing platforms only handle either content presentation or testing, little combining cognitive skill development and gamification methodologies.

In this research, an innovative web-based learning application that brings together three integral components—notes, quizzes, and cognitive skill games—is introduced under a combined platform. The proposed system is designed to support both students and teachers with customized dashboards and role-based features. Students can register securely, see collaborative notes, participate in time-sensitive quizzes, and unlock cognitive ability games based on quiz performance. Teachers, on the other hand, can register to post lecture notes in PDF or text format, create quizzes with auto-grading, and monitor student progress in real time. This two-dashboard approach not only facilitates teacher-student interaction but also ensures a structured and engaging learning experience.