

Development of E-learning Applications with Automatic Assessment Features



By

DAMEYANTI YOLANDA NAIBAHO

001202000042

A Final Project

Submitted to the Faculty of Computing

President University

In Partial Completion of the Demands

for the Degree of Sarjana Komputer

Cikarang, Bekasi, Indonesia

April 2024

TURNITIN CHECK RESULT

Development of E-learning Applications with Automatic Assessment Features.docx

ORIGINALITY REPORT

14%

SIMILARITY INDEX

12%

INTERNET SOURCES

0%

PUBLICATIONS

11%

STUDENT PAPERS

PRIMARY SOURCES

1

Submitted to President University

Student Paper

5%

2

repository.president.ac.id

Internet Source

5%

3

Submitted to KDU College Sdn Bhd

Student Paper

1%

4

www.coursehero.com

Internet Source

<1%

5

Submitted to American University in Cairo

Student Paper

<1%

6

Submitted to Chartered Institute of Personnel Management CIPM

Student Paper

<1%

7

Submitted to Southampton Solent University

Student Paper

<1%

8

myfik.unisza.edu.my

Internet Source

<1%

dspace.daffodilvarsity.edu.bd:8080

GPT CHECK RESULT

Report generated by © **GPTZero**

Version 2024-11-11-base

Document Title: **Document - 09/12/2024**

Author: **Anonymous**

We are moderately confident this text is **human generated**

Classification	Probability Breakdown	Plagiarism Scan
<div><div>human</div><div>10% probability AI generated</div><div>moderately confident</div></div>	<div><div>human</div>90%<div>mixed</div>0%<div>ai</div>10%</div>	<div><div>?</div><div>Plagiarism scan not activated</div></div>

ABSTRACT

Goal:

If a teacher is absent and the school's learning time is restricted, the educational process will inevitably be disrupted. To address this, innovative concepts and techniques have been introduced to supplement traditional classroom-based teaching methods. One such modern approach is e-learning. E-learning facilitates the distribution of teaching materials via the internet, enabling teachers to provide instruction without being physically present in the classroom, thus optimizing limited classroom time.

In developing this e-learning system, the Waterfall method was employed for information system development, utilizing PHP for scripting and MySQL for data retention. This online course platform enhances the process of learning by making it greater effectiveness, allowing teachers to easily share materials with students, and enabling students to access these resources effortlessly. Additionally, the e-learning website supports the administration of multiple-choice exams and the submission of assignments.

Benefit:

The benefit of the proposed work is to enable educators and learners to streamline the assessment process and enhance the effectiveness of online learning experiences. By incorporating automatic assessment features into the e-learning application, learners can receive timely feedback on their progress, while educators can save time on grading tasks and focus more on guiding and supporting learners.

Method:

The approach utilized to achieve the project goal is by leveraging machine learning algorithms for automatic assessment, integrating natural language processing techniques for analyzing text-based responses, and implementing adaptive assessment mechanisms for personalized feedback delivery.

TABLE OF CONTENTS

ABSTRACT	8
DEDICATION	9
ACKNOWLEDGEMENT	10
TABLE OF CONTENTS	11
CHAPTER I	13
INTRODUCTION	13
1.1 Background	13
1.2 Problem Statement	14
1.3 Objectives	15
1.4 Scope and Limitations	15
1.5 Project Methodology	16
1.6 Final Project Outline	17
CHAPTER II	19
LITERATURE REVIEW	19
CHAPTER III	20
SYSTEM ANALYSIS	20
3.2 Function Analysis	21
3.3 Use Case Diagram	22
3.4 Use Case Narrative	22
3.5 Swim Lane Diagram	24
3.5.1 Swim Lane Diagram for Home Page	24
3.5.2 Swim Lane Diagram for Login Page	24
3.5.3 Swim Lane Diagram for Main Menu Page	25
3.5.3 Swim Lane Diagram for Course Page	26
3.6 Hardware and Software Requirement	26
3.6.1 Hardware Requirement	26
3.6.2 Software Requirement	27
CHAPTER IV	28
SYSTEM DESIGN	28
4.1 User Interface Design	28
4.1.1 Main Menu	28
4.1.2 Login Page	29
4.1.3 User Menu	30
4.2 Class Diagram	31
CHAPTER V	32
SYSTEM IMPLEMENTATION	32
5.1 User Interface	32
5.1.1 Home Page	32
5.1.2 Login Page	33
5.1.3 Create Account	33
5.1.4 Course Page	34

5.1.5 Ask Question to Expert.....	34
5.1.6 Manage Profile Page	35
5.2 Application Details.....	35
5.2.1 Home Page.....	35
5.2.2 Login Page.....	36
5.2.3 Create Account	36
5.2.4 Course Page.....	37
5.2.5 Ask Question to Expert	37
5.2.6 Manage Profile Page.....	38
CHAPTER VI.....	39
SYSTEM TESTING	39
6.1 Testing Environment	39
6.1.1 Main Menu Interface Testing Scenario.....	39
6.2 Testing Summary.....	40
CHAPTER VII.....	41
CONCLUSION AND FUTURE WORKS.....	41
7.1 Conclusion.....	41
7.2 Future Works	41
REFERENCES.....	43