

CUSTOMIZING MOODLE CERTIFICATE

MINOR PROJECT REPORT

SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR

THE AWARD OF THE DEGREE OF

BACHELOR OF TECHNOLOGY

Information Technology



Submitted By:

Simrath Kaur (1905561)

Hardeep Kaur (1905421)

Vanshica Goyal (1905432)

Submitted To:

Prof. Harjot Kaur Gill

Assistant Professor

Minor Project Coordinator

Department of Information Technology

Guru Nanak Dev Engineering College,

Ludhiana-141006

Abstract

In this project we will go step-by-step through the whole process of setting up moodle , building and configuring programming assignments Moodle-integrated programming and running environment and allows the teacher to plan and perform both lab activities that require student attendance and assignments for distance courses, without worrying if the required IDE, compiler or operating system version is properly installed at the lab or the student's home “Customize Moodle Certificate” provides us a simple interface for maintenance of student information. It can be used by educational institutes or colleges to maintain the records of students easily. Achieving this objective is difficult using a manual system as the information is scattered, can be redundant and collecting relevant information may be very time consuming. All these problems are solved using this project. The project provides facilities like profile creation of students thus reducing paperwork and automating the record generation process in an educational institution.

ACKNOWLEDGEMENT

WE are highly grateful to the Dr. Sehijpal Singh, Principal, Guru Nanak Dev Engineering College (G NDEC), Ludhiana, for providing this opportunity to carry out the minor project work at Moodle Certificate..

The constant guidance and encouragement received from Dr. Kulvinder Singh Mann, **H.O.D.**, IT Department, GNDEC Ludhiana has been of great help in carrying out the project work and is acknowledged with reverential thanks.

WE would like to express a deep sense of gratitude and thanks profusely to Prof. Ranjodh Kaur, without her wise counsel and able guidance, it would have been impossible to complete the project in this manner.

WE express gratitude to other faculty members of Information Technology Department of GN- DEC for their intellectual support throughout the course of this work.

Finally, WE are indebted to all whosoever have contributed in this report work.

Simrath Kaur

Hardeep Kaur

Vanshica Goyal

List of Figures

- 1 Execution Error.
- 2 Moodle Database Error
- 3 Database schema
- 4 User Interface Design
- 5 Moodle plugins
- 6 Design of Certificate
- 7 Example of the Image
- 8 Moodle Server
- 9 Creation of certificates
- 10 Moodle Database design
- 11 Output of certificate
- 12 Output of vpl _ evaluate.sh

Title page

Abstract
Acknowledgement	ii
List of Figures	iii
List of Tables	iv
Table of Contents	v

Contents

1 Introduction	vi
Introduction to Project Page	vi
Objectives - - - -	vi
Identification / Reorganization of Need	vi
Existing System	1
Proposed System	1
Unique Features of the System	1
2 Requirement Analysis and System Specification	
Feasibility Study - - - - -	
Technical Feasibility:-	
Operational Feasibility:-	
Economical Feasibility:-	
Software Requirement Specification Document which must include the following:	
Expected hurdles	
3 System Design	
.Moodle Certificate Module	
User Interface Design .	
Database Design	
Methodology ..	
4 Implementation, Testing, and Maintenance	
5 Results and Discussions	
6 Conclusion and Future Scope	

1 Introduction

Introduction to Project Page

This report illustrates that how to setup a **Moodle Certificate** - for Moodle activity for fetching grades of student.. Moodle is a learning platform designed to provide educators, administrators and learners with a single robust, secure and integrated system to create personalized learning environment. Achievement of computer programming skills requires a lot of training by means of real program-development assignments. Managing and assess the students submissions for those assignments could be a very complex task. Availability of tools to organize the assignments, receive and storage the submissions, support automatic or semi-automatic assessment and provide feedback could be very helpful.

Project Category

- Internet based
- Application or System Development
- System Administration)

Objectives

1. To create a certificate from the moodle activities I.e. Quiz, Feedback or questionnaires
2. Customizing the fields from the activities on the certificate
3. Issue badges, medals awarded i.e. Elite, Silver and Gold on the certificate.

Identification/Reorganization of Need

Integration of this kind of tools into a Learning Management System is an essential feature in order to improve students performance.

- To provide a very simple development environment in order to smooth the learning curve to the students.
- To be independent of the programming language.

Existing System

It is the easy way to manage grades of student in Moodle. Its features of editing, running and evaluation of quizzes makes learning process for students, and the evaluation task for teachers, easier than ever.

Proposed System

Number of submissions performed by a student is currently not limited, we believe such a feature would be beneficial. We have observed students using Eclipse to generate their quiz, submit their first attempt the quiz and then grades are given to student. The due date and time of a quiz can be recorded, and then generate the certificate according to the marks of student..

1.7 Unique Features of the System

1. The instructor can generate the quiz and students have to attempt the quiz according to the courses.
2. The instructor can make the grade visible to the student, or not. In the latter case, the grade is revealed after the due date.
3. The instructor can control the resources needed by the server.
4. For a given **quiz** activity, the quiz submitted can be those of an individual student, or from a group of students.
5. Evaluation of the students through test and quizzes can also be included in the site through moodle and they come under the various activities provided by moodle..
6. The instructor defines how the student quiz is evaluated and graded. This allows for testing properties of a quiz other than its.

2 Requirement Analysis and System Specification

Feasibility Study

The main objective of the feasibility study is to test the Technical, Operational and Economical feasibility for adding new device and debugging old running device/ system . All system is feasible if they are unlimited resources and in nite time. There are aspects in the feasibility study portion of the preliminary investigation:

Technical Feasibility:-

The technical issue usually raised during the feasibility stage of the investigation includes the following:

- Does the necessary technology exist to do what is suggested?
- Do the proposed equipment have the technical capacity to work properly?
- Are there technical guarantees of accuracy, reliability, ease of access and control?

Operational Feasibility:-

Operational feasibility aspects of the project are to be taken as an important part of the project implementation. Some of the important issues raised are to test the operational feasibility of a project includes the following:

- Is there controlled efficiently?
- Will the system be used and work properly if it is being developed and implemented?
- Will there be any resistance from the user that will undetermined the possible application benefits.

Economical Feasibility:-

In the economic feasibility, the development cost in creating the system is evaluated against the ultimate benefit derived from the new systems. Financial benefits must equal or exceed the costs.

Software Requirement Specification Document which must include the following:

Minimum software required:-

- Win 10 or Ubuntu 18.04
- Xampp
- Moodle

Minimum hardware required:-

- Processor: Intel® Core™ i5-7200U CPU @ 2.50GHz × 4
- Hard-disk: 2GB
- • RAM: 512 MB

Expected hurdles

Moodle updates cause connection errors:-

Error

Error: Database connection failed

It is possible that the database is over loaded or otherwise not running properly.

The site administrator should also check that the database details have been correctly specified in config.php

Figure 2: Moodle Database Error

3 System Design

Design Approach

The design approach of this project is Object Oriented

User Interface Design



Figure: Designing of certificate

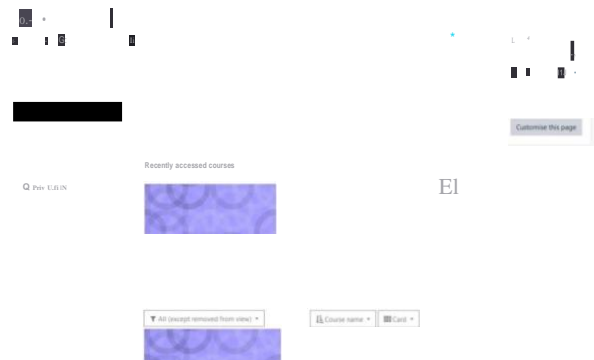


Figure: Example of the Image

Database Schema

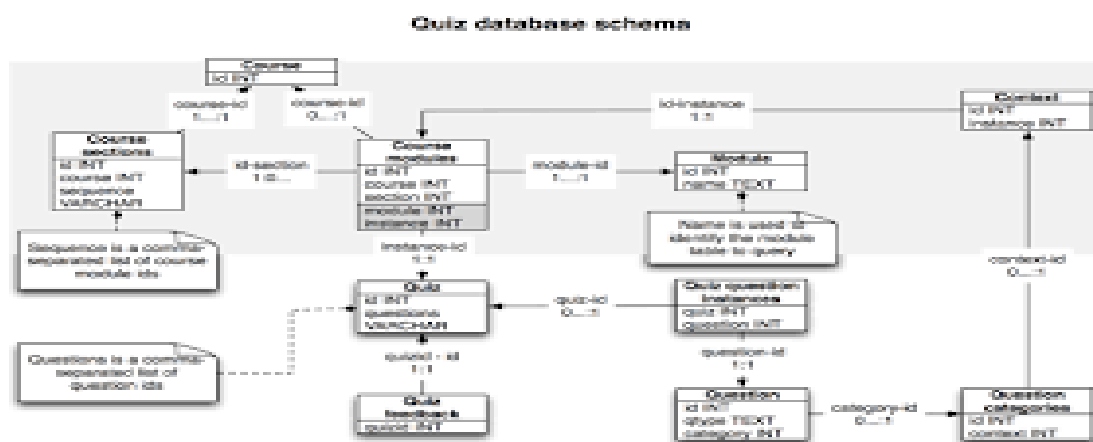


Figure: Database Schema

Moodle Plugins Directory



Figure: Moodle Plugins

Moodle Certificate Module

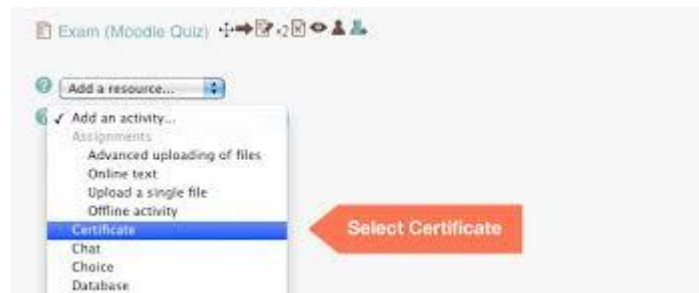


Figure: Moodle Certificate Module

Methodology

Moodle is an open source virtual learning environment that is also known as a course management system. As an open-web application that educators can use to create Web learning portals. In this the back-end code comprises HTML5, CSS, and php. All three types of code are contained in one .html file and can be run solely from this file. One of the advantages of HTML 5 is that it is not necessary to include different types of web languages in a single file:-

- Enable to attempt the quiz in browser.
- Students can interact with the quiz activity..
- To increase the portability of the project by only needing to worry about one project file instead of three
- Allows teachers to generate the quiz and student have to attempt the quiz according to their courses.

4 Implementation, Testing, and Maintenance

Introduction to Languages, IDE's, Tools and Technologies used for Implementation

Tools and Technology used:-

- Win 10 or Ubuntu 18.04
- Xampp
- Moodle
- VPL Plugin

Implementation

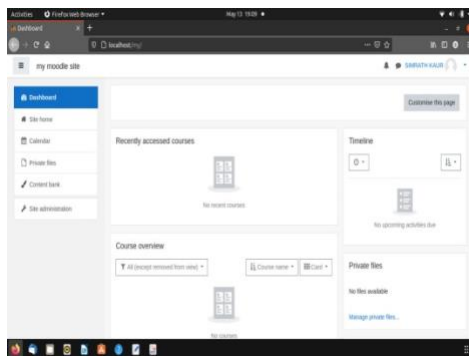


Figure:1

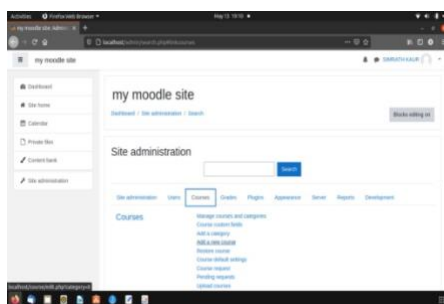


Figure:2

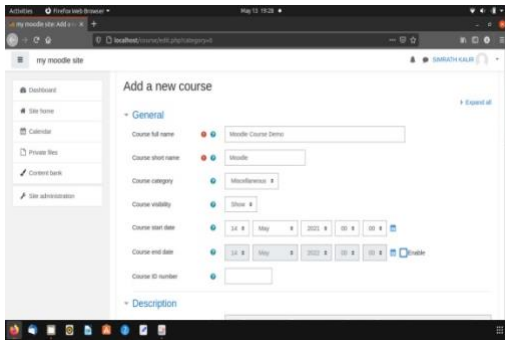


Figure:3

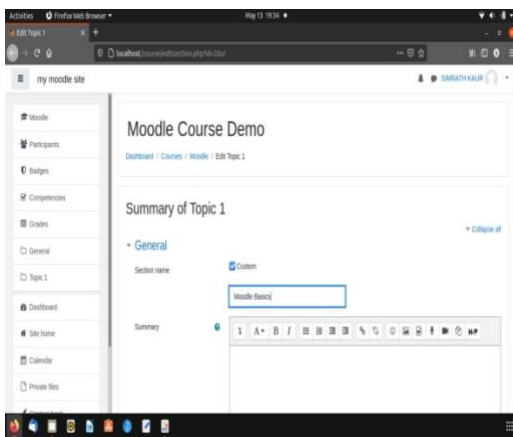


Figure:4

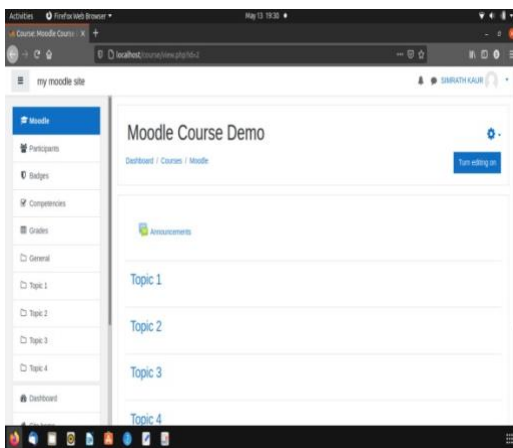


Figure:5

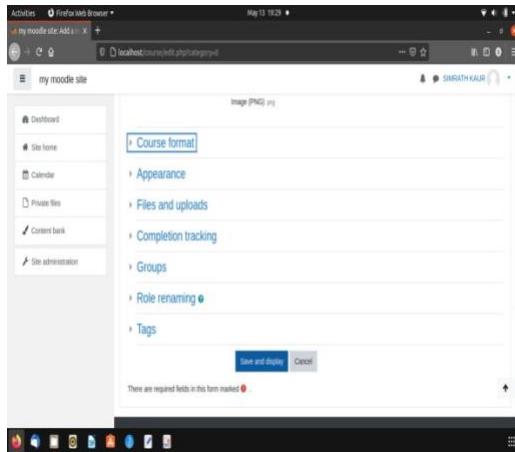


Figure:6

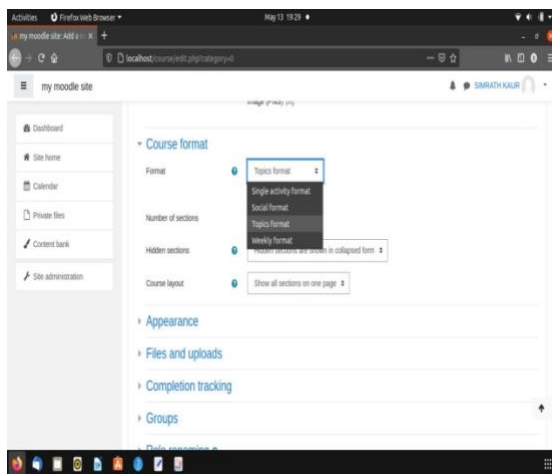


Figure:7

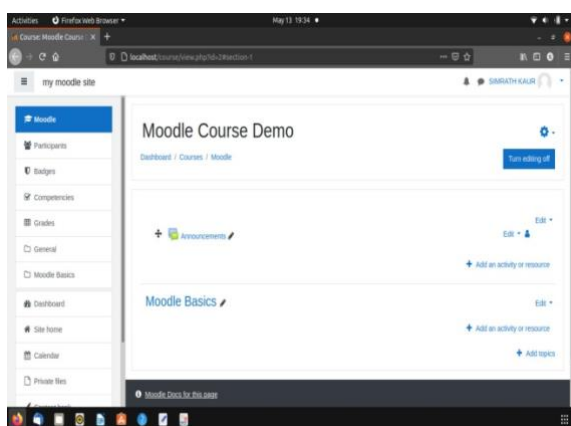


Figure:8

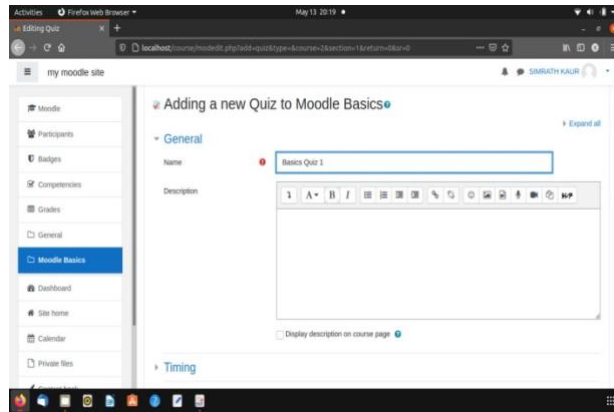


Figure:9

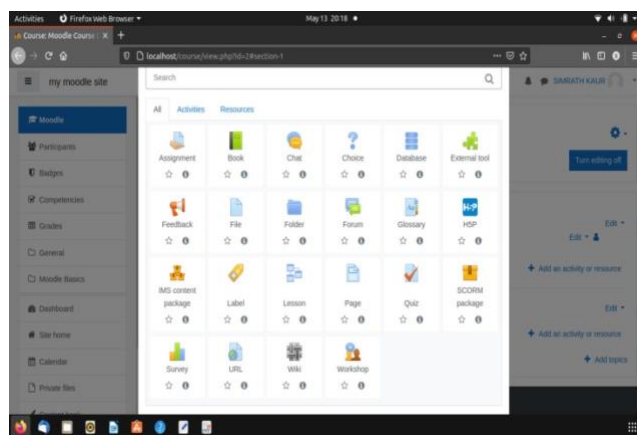


Figure:10

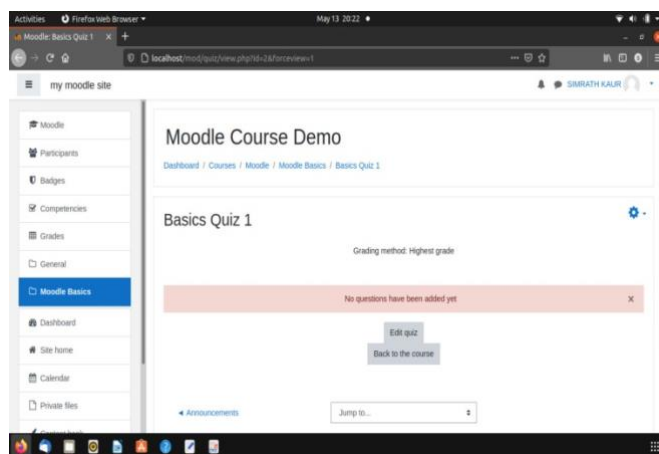


Figure:11

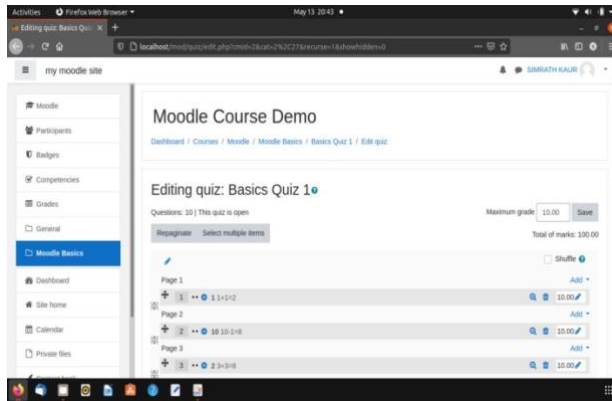


Figure:12

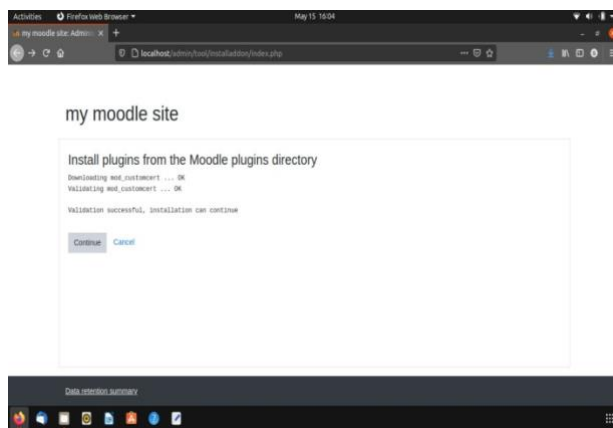


Figure:13

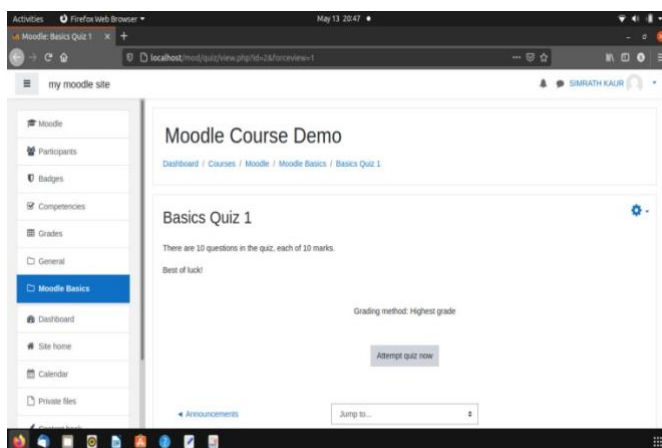


Figure:14

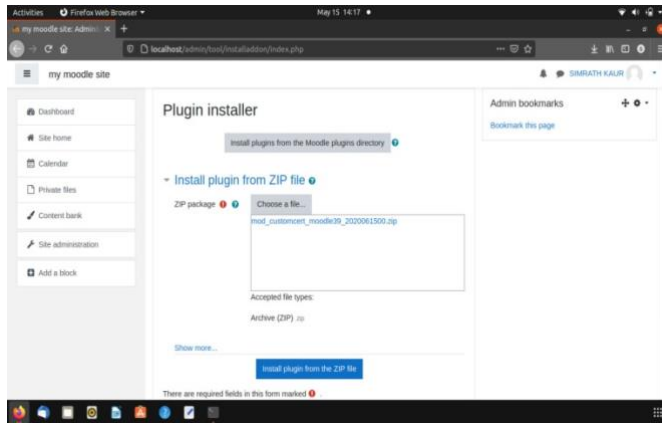


Figure:15

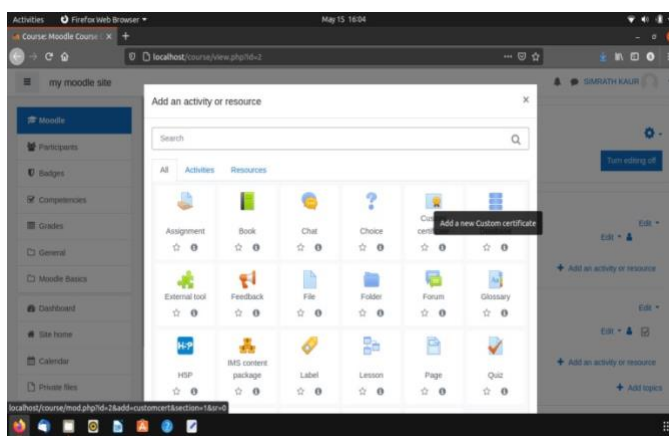


Figure:16

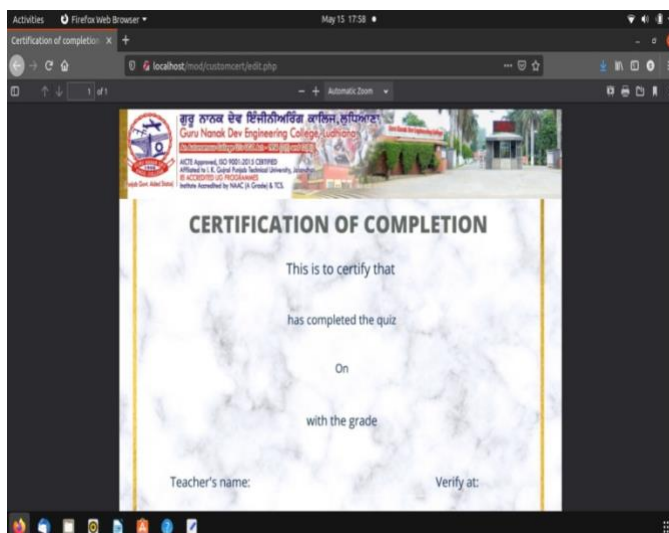
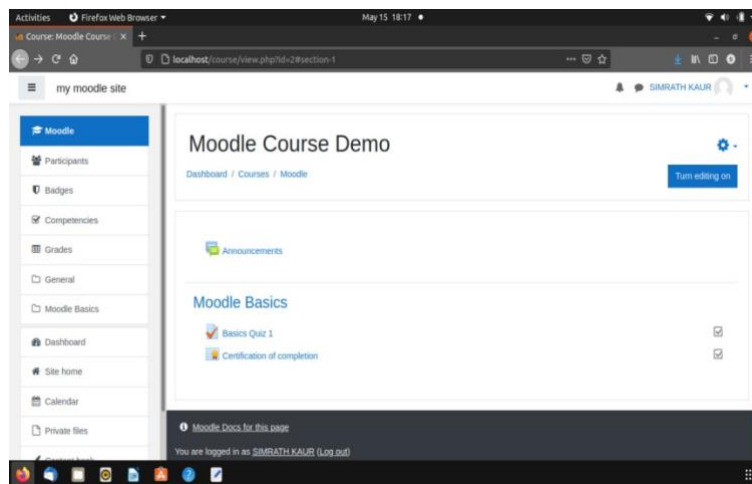
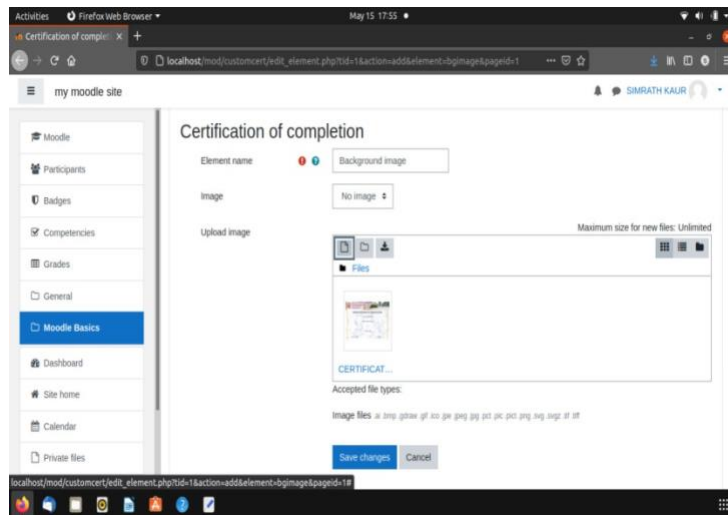


Figure:17



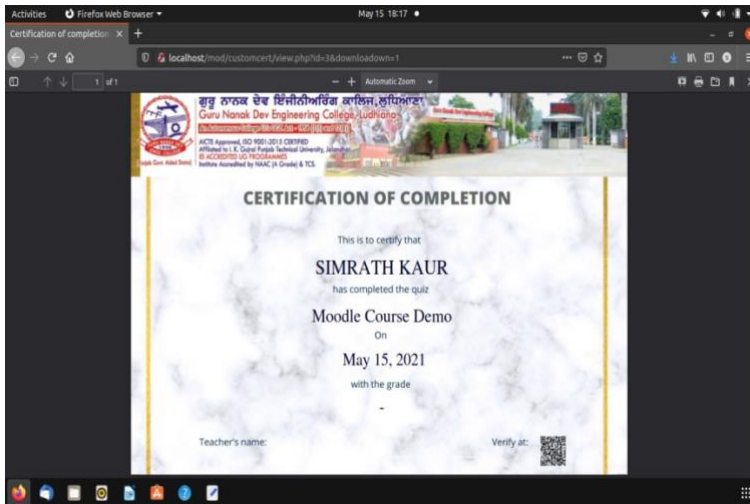


Figure:18

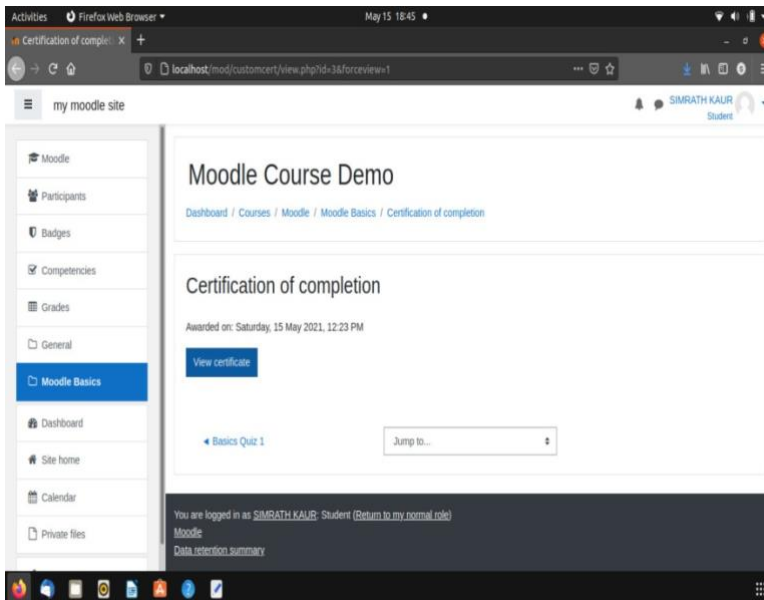


Figure:19



Figure:20

5 Results and Discussions

Number of submissions performed by a student is currently not limited, we believe such a feature would be beneficial. We have observed students using Eclipse to generate their quiz, submit their first attempt the quiz and then grades are given to student. The due date and time of a quiz can be recorded, and then generate the certificate according to the marks of student

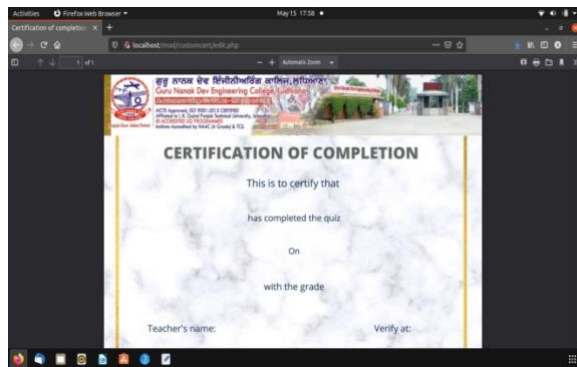


Figure: Output of Certificate

6 Conclusion and Future Scope

The fast increase we see in CS departments nationwide require changing the way we assess programming skills. We have chosen to implement the automated evaluation of student programs in three of our heavily enrolled classes. Our early experience with **Certificate** is positive. The wide array of programming languages , its robustness of implementation, and the flexibility it offers compensate for its complexity of use, and its currently sparse documentation. Teachers have generated for various Quizzes in an effort to share our experience, ideas, and solutions, hoping others can benefit from our experiment.

A major feature of **Certificate** is its capacity to produce complete assessment reports based on grading. Moreover the quiz can be configured in a very flexible way, ranging from simple input-output tests to complex combinations of unit tests, coverage tests or style tests and give certificate according to the grades of student.. Another important feature is the embedded tool to check submissions . It is important because managing large student data is a big problem in academia, moodle will make it easy.

References /Bibliography

- [1] About Moodle . [Online]. Available: [https:// docs.moodle.org / 310/ en/ About_Moodle](https://docs.moodle.org/310/en/About_Moodle), 2020.
- [2] Korbin Brown, “How to install XAMPP on Ubuntu Linux”. [Online].\par Available: <https://linuxconfig.org/how-to-install-xampp-on-ubuntu-linux>, 12 October 2020.
- [3] "https://moodle.org/plugins/mod_customcert"