KATHMANDU UNIVERSITY

SCHOOL OF ENGINEERING

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

PROJECT REPORT

GMS

A **Second Year First Semester Project Report** submitted in partial fulfilment of the requirements for COMP.

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CERTIFICATION

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on
GMS

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ABSTRACT

As project, we have come with the development of the website **'Grade Management System (GMS)'**. Managing grade of the student in a proper manner has always been the priority of every educational system worldwide. With the help of **GMS,** faculties and other members who are involved in managing grades of the Post Graduate student of DOCSE of Kathmandu University can access, edit and manage the grades in more convenient, easy and secured manner. **GMS** is developed using HTML, CSS as a frontend development tool while PHP and MYSQL as a backend development tool.

ACKNOWLEDGEMENT

Firstly we are much pleased to conduct the project **'Grade Management System'** . Therefore we would like to thank the DOCSE for providing us an opportunity to work on this project. At most, we would like to thank our project supervisor Mr. Manoj Shakya for guiding, assisting and pointing out our mistakes. He has been helping us in many ways from the day we had started our project. Moreover we are greatful to our project coordinator for beliving the eligibility of our project.We are greatful to our seniors for being with us and for guiding us due to which our project is carried out with mutual coordination among the group members. The contribution and hardwork of our team has brought project to its final stage . We wish to acknowledge all the teachers, seniors and friends who helped directly or indirectly and we express our sincere appreciation for their suggestions. We would like to express our gratitude to CE 2nd Year Students Roshan Adhikari,Anish Byanjankar, Salil Koirala,S ajan Maharjan,Saurav prajapati and Vivek Shakya Batch who initiated this project.

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1. INTRODUCTION

1.1 Background and Objectives

Grade Management System abb. as **GMS** is a cross-platform for the management of the grades for the Department of Computer Science and Engineering priorotised for .PostGraduates.This system is helpful for replacing the orthodox way of knowing the grades by the students.Earlier the students were compelled to know about their grades standing in line or just looking at the reports attached on the notice board,this was really time consuming and ofcourse irritating,but the GMS has revolutionized the method of observing and seeking information of the grades.

GMS empowers the process of managing the grades in more methodic way.The faculties,the students and other users with administrative power can access the grades with just simple click.The connection with the managed and the systematic database makes the search process more faster and convinient.**GMS** can indeed be a sample website for all those educational organization who plan of making their grade management systematic and ofcourse digitalized.

The world is moving forward in the process of digitalization,the educational sector is really important in bringing such change,GMS can be a sample website for many such projects.

1.2 Problems and Possible Solutions

Grades are always important for a student,his/her overall performance of the semester is presented in the form of grades so to make it faster,convinient and managed its important for any educational organization.University is always an example for colleges in the country,in such situation when a University's department brings the system like GMS its a step forward in the field of digitalization. The earlier method of presenting the grades one by one and giving it among the students can be changed to GMS.This system empowers a way of accessing the result from the place we want if we have internet connection setup.Its on web and the access is just away some clicks,the saving of time,faster processing and convinience are all along provided with the GMS.

1.3 Scope and Opportunities

Every educational institute wants a well managed and a well informative grade management technique.After all the grading system of any educational organization defines the management skills and also the productivity of the educational institute.**GMS** empowers the grading in more managed manner,the teacher and the students along with the educational institute get benifited with this kind of platform.In context of Nepal where the digitalization is in its initial phase,GMS can definetely contribute in the process of digitalization.Remember those old days when we had the system of storing datas in register in every government office,but nowadays due to digitalization the register sytem are slowly turning into computers.We often talk about E-Government,the GMS can play a vital role in the process of E-Government.There are thousands of community schools all across the country,when we setup the GMS technology in these kinds of community school,the students information,there performance and even results of alumnis can be easily accessed.This technology determines the overall performance of the educational organization.

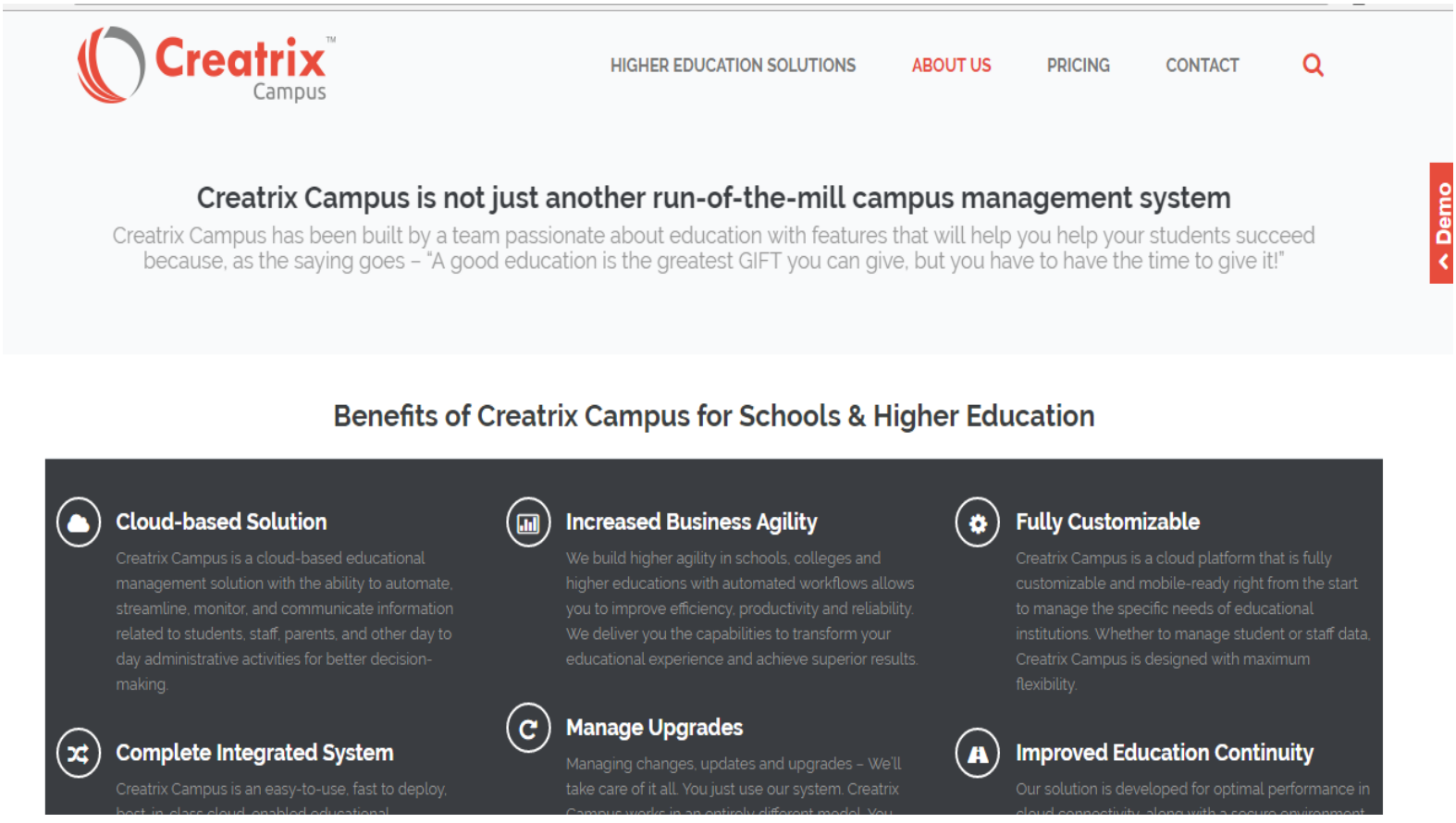
In a nutshell,scoring grades determines the performance of the students while managing the grades,presenting it in a welldefined manner and making further plans with the grades determines the performance of the educational organization.In this way,an educational system can be revolutionized with the help of GMS,and we can definetely say there are enough scopes for this technology.

2. RELATED WORK

We found two websites which are somewhat similar to our GMS in terms of managing academic records

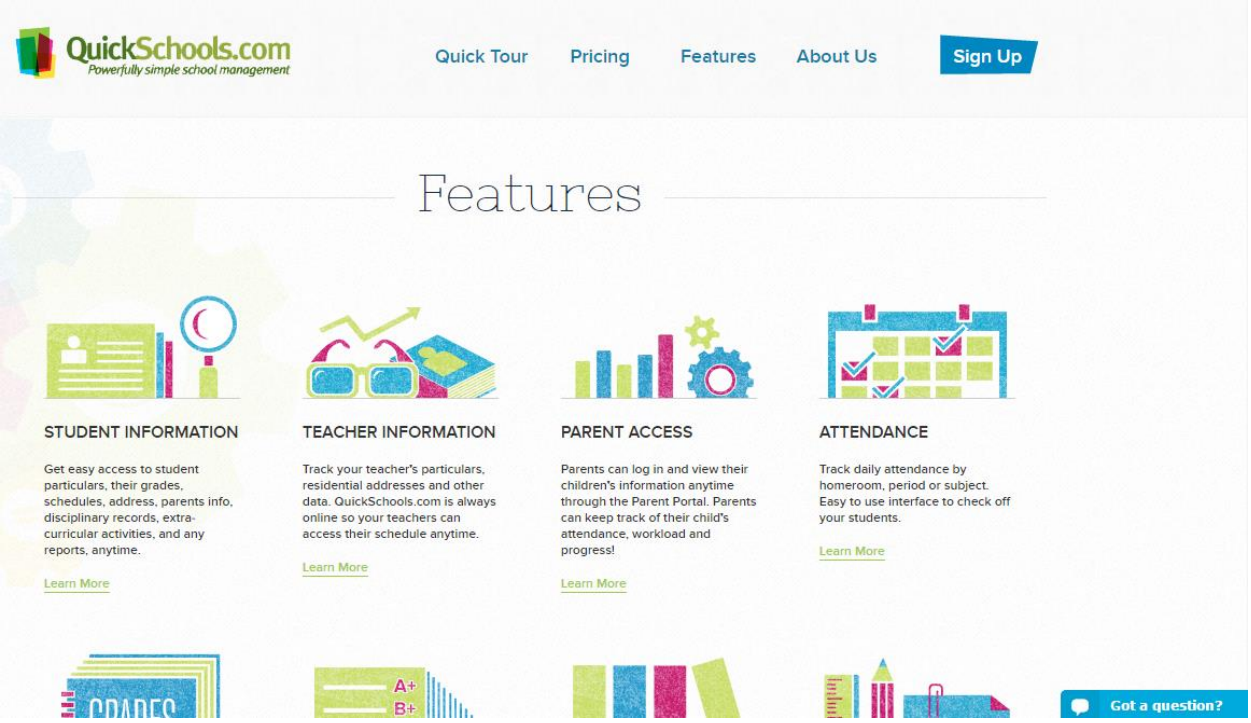
2.1 Creatrix Campus

Creatrix Campus is a cloud-based educational management solution with the ability to automate, streamline, monitor, and communicate information related to students, staff, parents, and other day to day administrative activities for better decision-making



2.2 Quick Schools

Quick Schools is a school management system for the web generation. It is an online gradebook. This is a way for parents to track a child's progress. It is a central location for homework and assignment.



3. SOFTWARE DEVELOPMENT

Software development is the process of computer programming, documenting, testing, and bug fixing involved in creating and maintaining applications and frameworks resulting in a software product.

3.1 System Overview

a. Front-End WEB DEVELOPMENT

We have used HTML – Markup Language to build the framework of the website. As well as , we used CSS- Style Sheet for styling purposes. In order to make the website dynamic we used Java Script Library- jQuery.

b. Back-end web development

The backend of GMS is based upon PHP as scripting language and MYSQL for maintaining database.

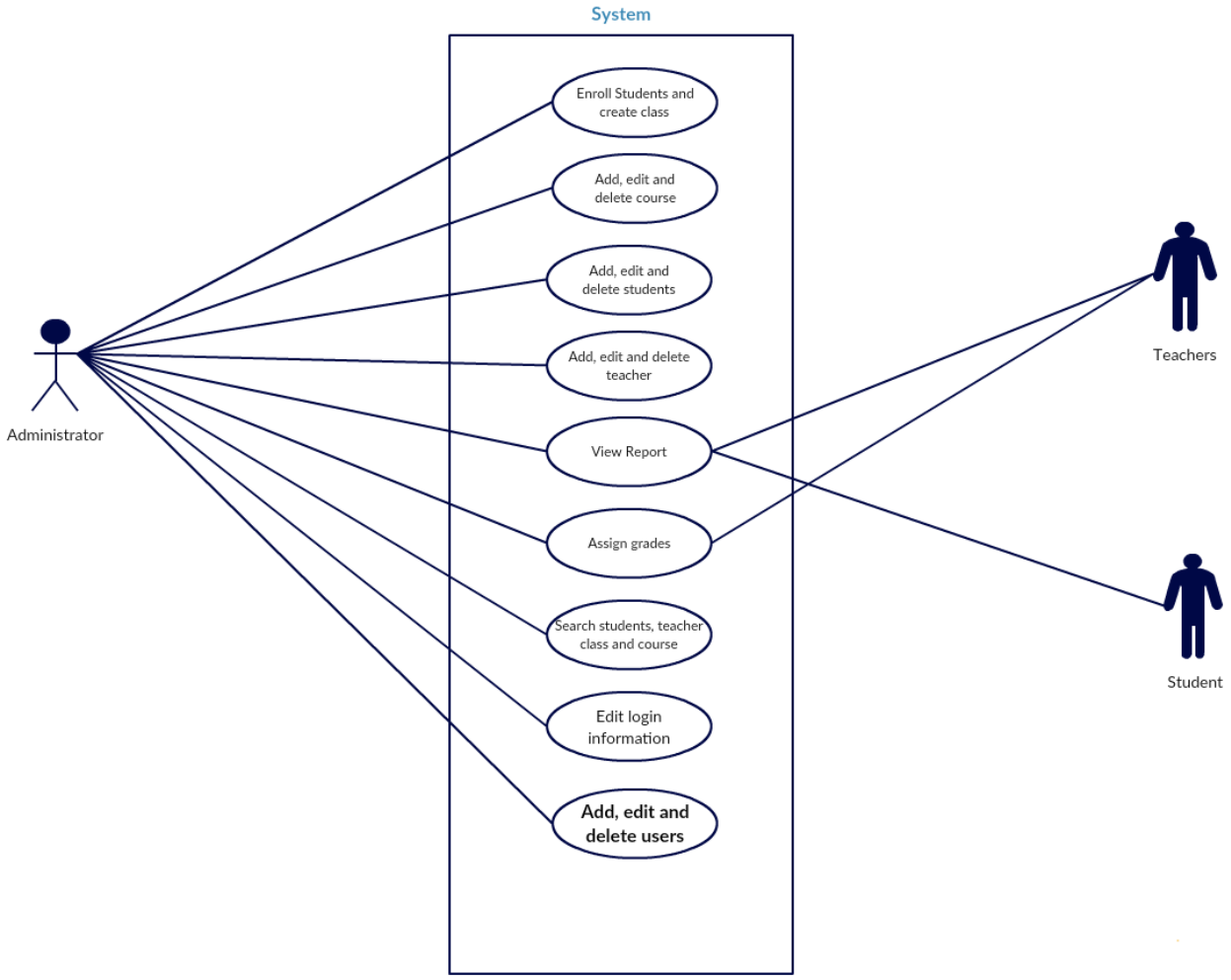
c. Development tools

Brackets and Sublime text were used for text-editing purposes. Whereas XAMPP, LAMP and WAMPP for hosting the website.

d. Interface

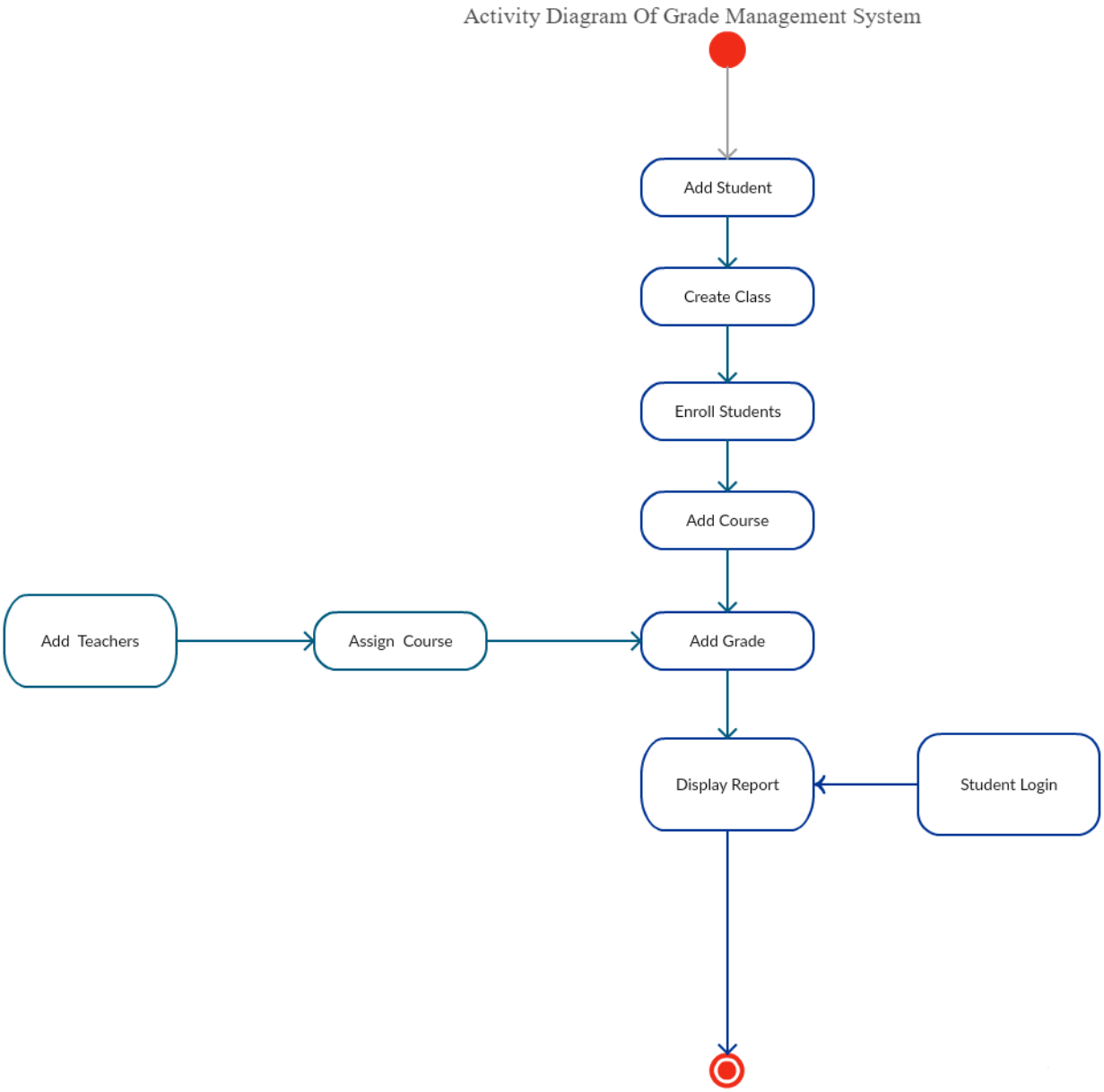
GMS is an web application.

3.2 Use Case Diagram



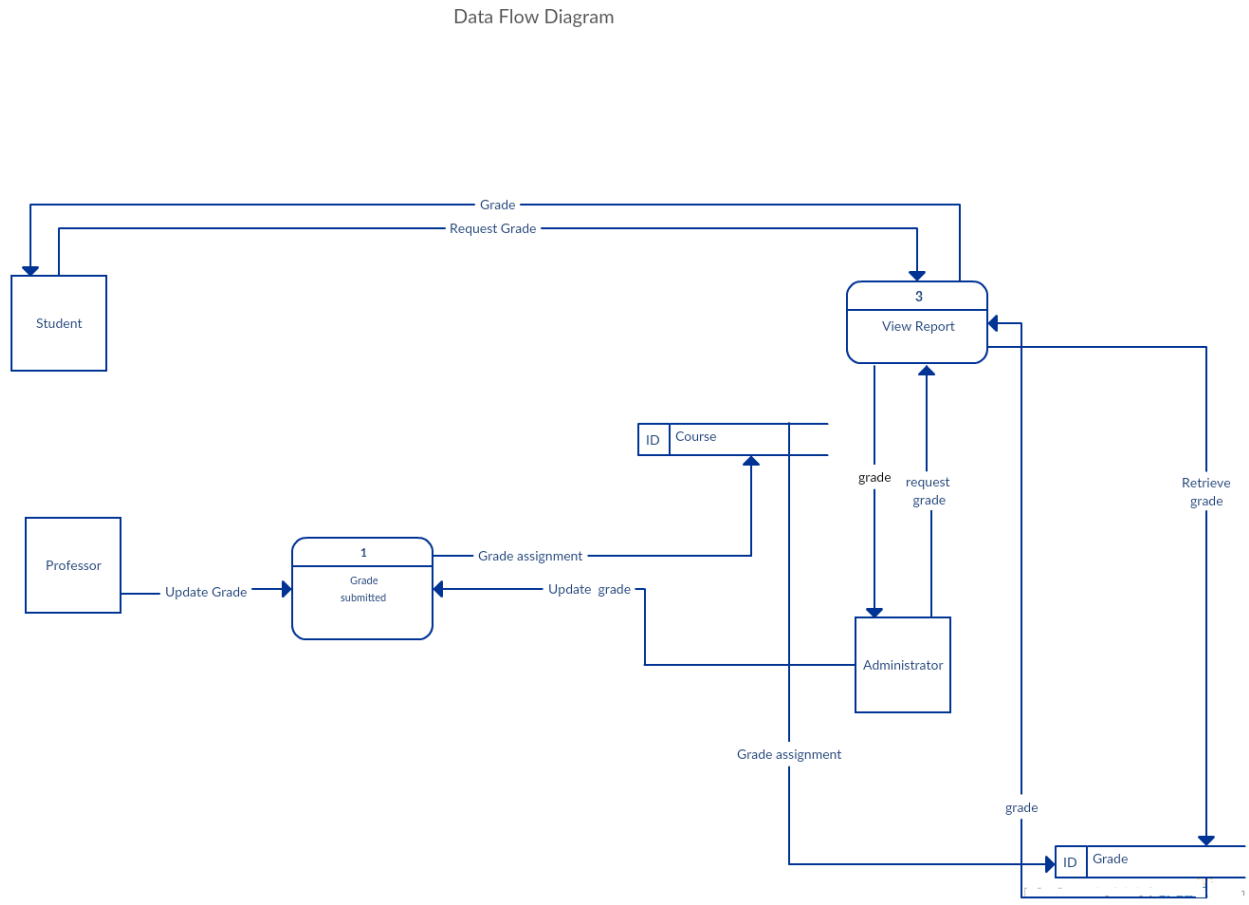
Administrator, Teacher and Student are the three actors in the above given Use Case Diagram. Administrator possess the major access of the system. Whereas Teacher has permission to Assign Grades and Students can only view their reports.

3.3 Activity Diagram



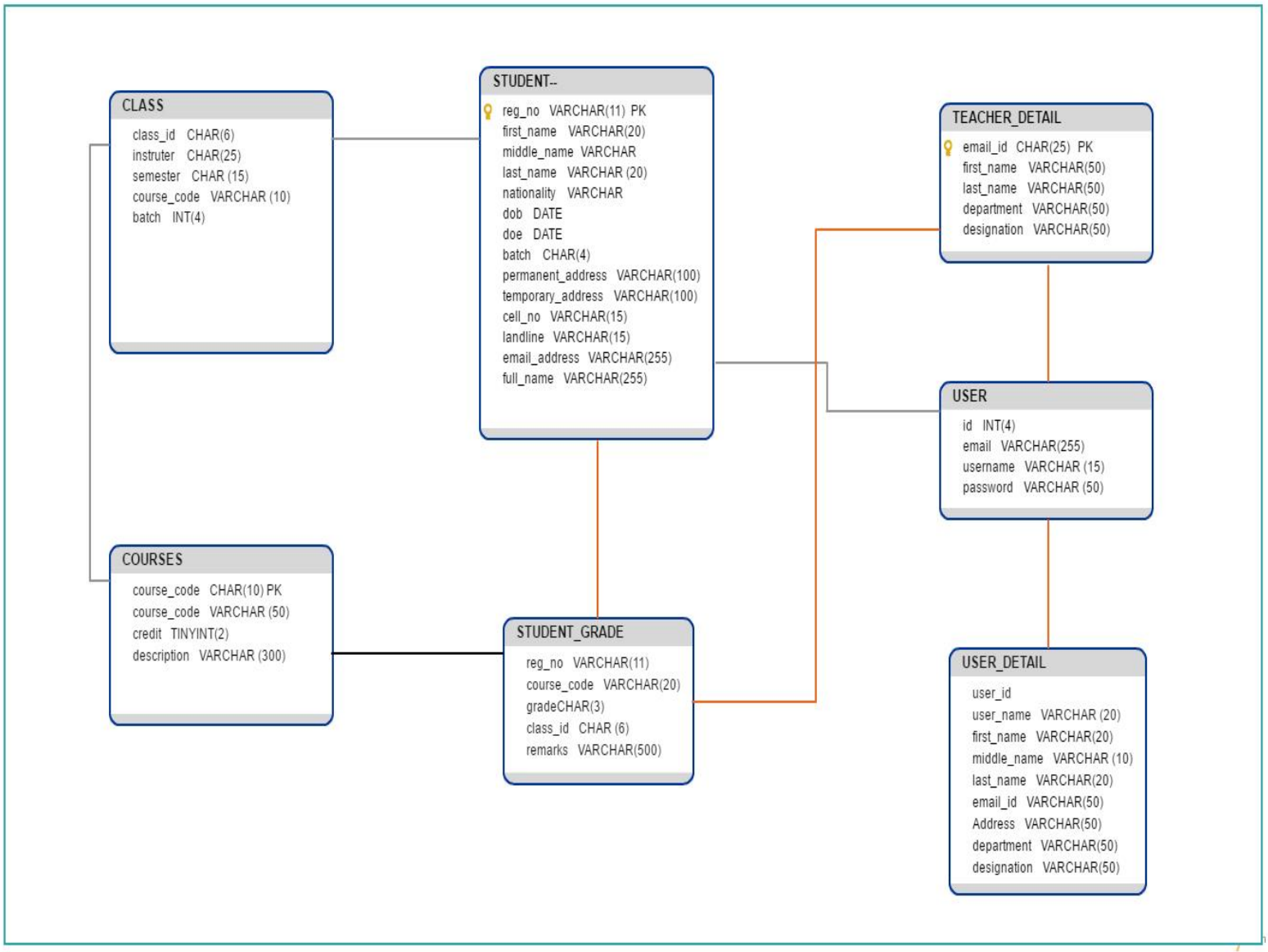
First of all **Teacher** , **Student** and **Courses** are entered into the database by the **Administrator**. Teachers are assigned into different courses where the teacher in turn assigns the grade to the students in their respective courses. Now, the students can view their report.

3.4 Data Flow Diagram



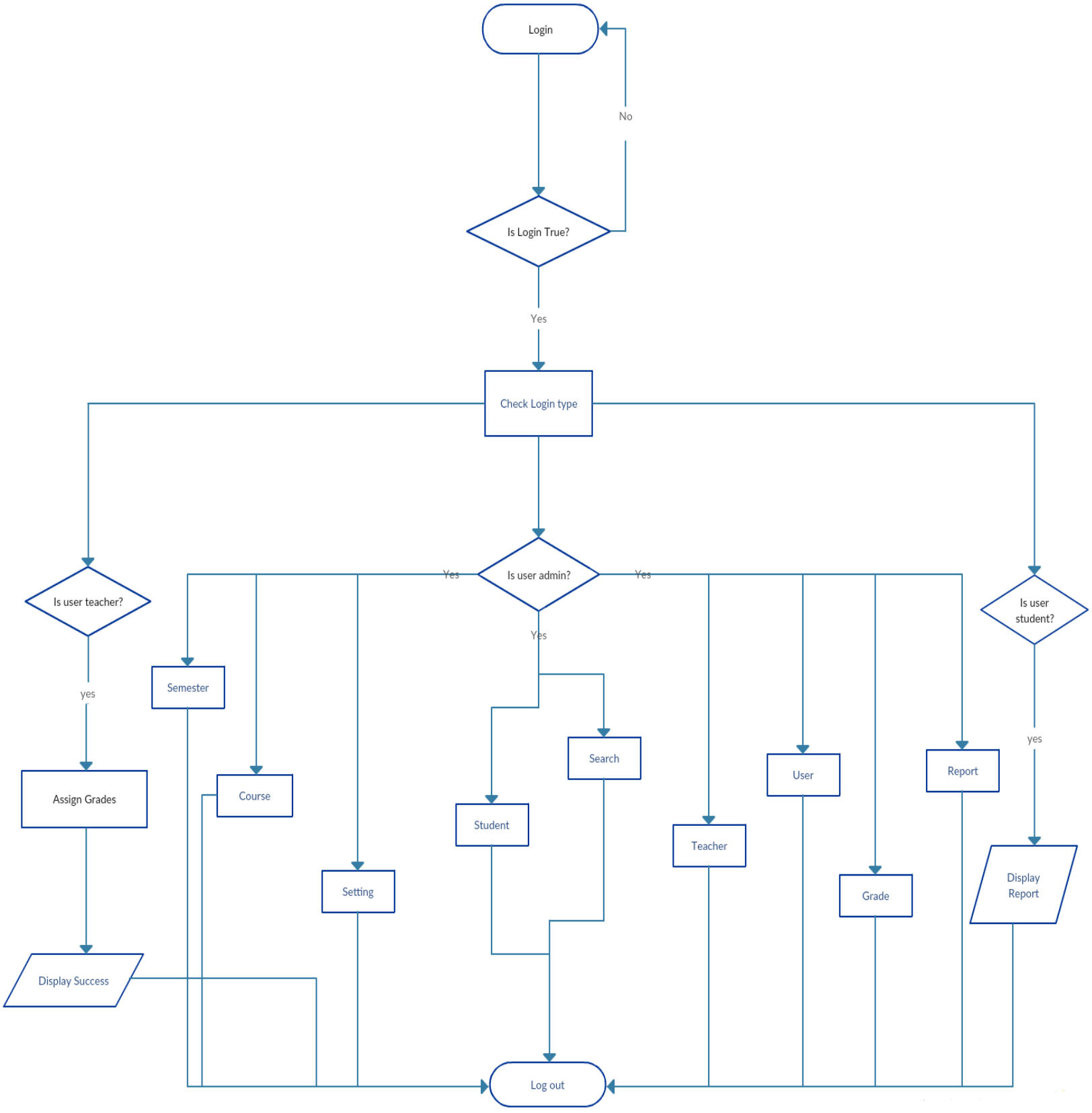
The above mentioned diagram is the Data Flow Diagram for GMS. Information from the users are stored in respective tables of the database. When teacher assign the grade in the certain course, it is updated in the **course** and **grade** tables. When student requests for grade then data is retrieved from grade table by **view report** function.

3.5 Database Diagram



There are seven tables that are stored in database; class, course, student, student_grade, teacher_detail, user and user_detail. The table **class** and **courses** comprises basic information of class such as class id, batch, course code and instructor. The table **student, teacher_detail** and **user_detail** consists all the essential information such as name, address, email address and so on. The table **student_grade** stores information such as registration number, grade, class id and so on. The table **user** stores username and password.

3.6 Working Mechanism Of GMS



4. CONCLUSION AND RECOMMENDATION

4.1 Conclusion

Grade Management System is a website that allows the management of grades of the students in more systematic manner. With this website the access can be allowed to only those who should manage the grades. GMS is a platform for different parties with different authorities i.e. Faculties and Students. Faculties can update, upgrade grades according to their respective subjects and students can view the grades. This can be a sample website to many other educational organization who plan of managing the grades in systematic manner.

4.2 Recommendation

We have developed this application as our project during third semester.This project has turned out to be informative in many ways. Each stage we have learned various things related to Web development,Databases the FrontEnd,the BackEnd development and many Information Technology related things. With the experience of developing the websites like this, we get the information about how the Websites work.In this age of Internet everyone wants to get online,even the small organization wants to get connected with Internet,with the experience of **GMS** we can make websites for many such organization and hence make them connected to this ocean called Internet.

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GANTT CHART

Gantt Chart for our project is shown below :

S.N.	*Task*	*Weeks*											
		1	***2***	***3***	***4***	***5***	***6***	***7***	***8***	***9***	***10***	***11***	***12***
1	***Code Study***												
2	***Requirement Gathering***												
3	***System Design***												
4	***Implementation/Build***												
5	***Code Review and Debugging***												
6	***Documentation***												