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ABSTRACT

SimpliLearn is an Online teaching and learning refers to education that takes place over the Internet through the internet using computer system. The purpose of SimpliLearn is to take Semester Quizzes in an efficient manner and no time wasting for checking the paper.

The main objective of SimpliLearn is to efficiently evaluate the candidate through a fully automated system that not only saves a lot of time but also gives fast results. Teachers can administer quizzes using the SimpliLearn.

The system will show results after the examination is finished. A teacher has control in the question bank and is supposed to make a schedule for the quiz. The system carries out the examination and auto-grading for multiple choice questions which is fed into the system. Administrative control of the whole system is provided.

The main objective of the project is to manage the details of Students, Examinations, Marks, Courses, Papers. It manages all the information about Students, Results, Papers, Students.

The project is totally built at administrative end and thus only the administrator is guaranteed the access. The purpose of the project is to provide a better education experience and build an application program to reduce the manual work for Marks, Courses, Papers.

ACKNOWLEDGMENT

Success will be crowned to people who made it a reality but the people whose constant guidance and encouragement made it possible will be crowned first on the eve of success.

This acknowledgement transcends the reality of formality when we would like to express deep gratitude and respect to all those people behind the screen who guided, inspired and helped us for the completion of our project work.

We consider our self-lucky enough to get such a good project. This project would add as an asset to our profile. We would like to express our thankfulness to our project guide, “Nilesh Shirke sir” for his constant motivation and valuable help through the project work.

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INTRODUCTION

A learning system based on formalized teaching but with the help of electronic resources is known as SimpliLearn. While teaching can be based in or out of the classrooms, the use of computers and the Internet forms the major component of SimpliLearn.

This project aims to create an engaging and informative online course that helps learners achieve the desired learning outcomes, but this is from the macro perspective. From the micro perspective, this project involves the effective coordination of your development team to build the course to standard and launch it.

The Administrator of the system has authority to not only add but also he removes instructor or student. The student can login through proposed computer with their Enrolment studentid matching the details to the student's database, then they can watch the lecture.

SYSTEM ANALYSIS

The Proposed SimpliLearn Hub has the following features.

1. Registration
2. Login (Roles: Admin, Instructor, Student)
 - 2.1 local storage use for login
 - 2.2 forgot password
3. Dashboard (Admin, Instructor, Student)
4. Admin (Dashboard screen) functionalities:
 - 4.1 user management (student and instructors),
 - 4.2 view total revenue,
 - 4.3 view total users (instructor and students) count.
5. Instructor (Dashboard screen) functionalities:
 - 5.1 able to create courses (will have a form)
 - 5.2 able to upload pdf for a topic
 - 5.3 able to upload video for a topic
 - 5.4 able to upload thumbnail for a topic
 - 5.5 view total balance(earning)
 - 5.6 student enrolled counter
6. Student (Dashboard screen) functionality
 - 6.1 register for a free course
 - 6.2 register(purchase) a paid course
 - 6.3 needs to be done payment processing for paid course
 - 6.4 view registered course
 - 6.5 access video lesson of a registered course
 - 6.6 access pdf for a registered course
 - 6.7 course registration mail or order conformation mail

Purpose of the Document

The purpose of this document is to enlist the software requirements and specifications for the “SimpliLearn” which will be very beneficial for student to watchonline lecture.

The proposed system includes the following.

This document is intended for developers, users, testers and project managers for the purpose of understanding the design of systems in terms of different perspectives. Further, this document contains functionalities and characteristics of the system along with the working environment.

It also includes other information related to systems such as external interface requirements, features and other non - functional requirements

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Proposed System

To provide free as well as paid courses in the website from which user (students) can watch the videos and access study materials of relevant course.

- Only accessible after registering to that specific course.
- Students can download the soft copy of study materials.
- Teacher can register as Educator.
- Admin can accept or reject Educator request.
- Also, there will be revenue generation view in both Admin and Educator panel.

The main objective of this system is to provide better convenience to students and educators, and to provide a platform to manage everything at one single place.

SYSTEM REQUIREMENT SPECIFICATION

Overview

We have designed this website with the purpose of allowing the students to study from free as well as paid courses. This site is an attempt to remove the existing flaws in the websites like they have only either free course or paid course. Students are provided the flexibility to choose among different types of courses and facility provided to the faculty for become an instructor.

Study of the system:

In the flexibility of uses this interface has been developed keeping graphics concepts in mind, associated through a browser interface. The GUI's at the top level has been categorized as follows

1. Administrator Interface Design.
2. Educator Interface.
3. Security Authentication.
4. User Interface.

The administrative user interface will maintain the different student and educator, the interface helps the administration with all the access states like which users should access the system and which shouldn't.

User of the system:

1. Administrator
2. Educator
3. Student

Administrator:

1. User management (student and instructors)
2. View total revenue
3. View total users (instruct and students) count

Educator:

1. Create courses
2. Upload video for a topic
3. Upload pdf for a topic
4. View total balance

Student:

1. Register for a free course
2. Register a paid course
3. View registered course
4. access video lesson of a registered course
5. course registration mail or order conformation mail

Security & Authentication:

1. Users Login and Logout
2. Forgot Password.
3. Reset Password Through Email

1. Functional Requirements

Operating Environment:

1.1 Hardware Platform:

- Processor: Above Pentium 4, with clock speed of 2.0 GHz
- RAM: 1GB or Above
- Hard Disk: Free disc space above 1GB

1.2 Software Platform:

- Front End: ReactJS / JSP, HTML, CSS, Bootstrap.
- Back End: MySQL, Spring and Spring Boot Framework, JPA, ASP.NET Core

1.3 Supported Tools:

- MySQL Workbench, Eclipse, STS.
- Web Server: Tomcat 9.0.

J2EE: Java 2 Enterprise Edition is a programming platform part of the Java Platform for Developing and running multitier architecture Java applications, based largely on modular software components running on an application server.

TOMCAT: It's an application server which is mostly used in the web-applications. It implements the Servlet2.5 & JSP2.1 specifications. It's a cross-platform application Server.

ECLIPSE: In computer programming, Eclipse is an integrated development environment (IDE). It contains a base workspace and an extensible plug-in system for customizing the environment. Written mostly in Java, Eclipse can be used to develop applications. By means of various plugins, Eclipse may also be used to develop applications in other programming languages: C, C++, and JavaScript. It can also be used to develop packages for the software Mathematical. Software Requirements Specification for “SimpliLearn” 10 Development environments include the Eclipse Java development tools (JDT) for Java.

SPRING BOOT: Java Spring Boot (Spring Boot) is a tool that makes developing web application and micro services with Spring Framework faster and easier through three core capabilities: Auto configuration. An opinionated approach to configuration. The ability to create standalone applications.

MySQL: MySQL is an open source 'Relational Database Management System' in which all the data are stored in the form of tables. Each table is connected to some other table i.e., has a

relation with another table and this relationship is established through integrity constraints. These tables have columns which represents the attributes of an entity and there are rows of data for each column. This is called the database and is connected to the frontend or user interface with the help of controller. This is a fast and highly scalable database management System.

2. Non- Functional Requirements

2.1 Performance Requirements:-

The system should store all the database records of each instructor and student properly and the application should be available for use 24*7 through the server. Also, the application should be user friendly with a proper user interface which makes it easy for the user to understand. All the options should be present in properly accessible for user convenience

2.2 Safety Requirements:-

All login ids and passwords of the admins, instructor and students should be protected for privacy using whatever constraints required in the database or the application. Admins, instructor, properties and students records are to be backed up securely across database servers. Incase database is hacked by someone, and data is deleted a backup server should be present for such purpose.

2.3 Security Requirements:-

All passwords of the administrators should be protected for privacy using whatever constraints required in the database or the application. Transactions regarding properties should be carried out properly. Only admin will have access rights to the student and instructor data according to the need. The database should be protected from attacks and unauthorized access.

3. Software Quality Attributes

3.1 Availability

The system should run on a variety of operating systems that support the JavaScript language. The system should run on a variety of hardware

3.2 Accessibility

The software will be accessible to admins, builders and users.

3.3 Compatibility

The software will be compatible with multiple platforms.

3.4 Durability:

The software will be tested for working with multiple users.

3.5 Effectiveness

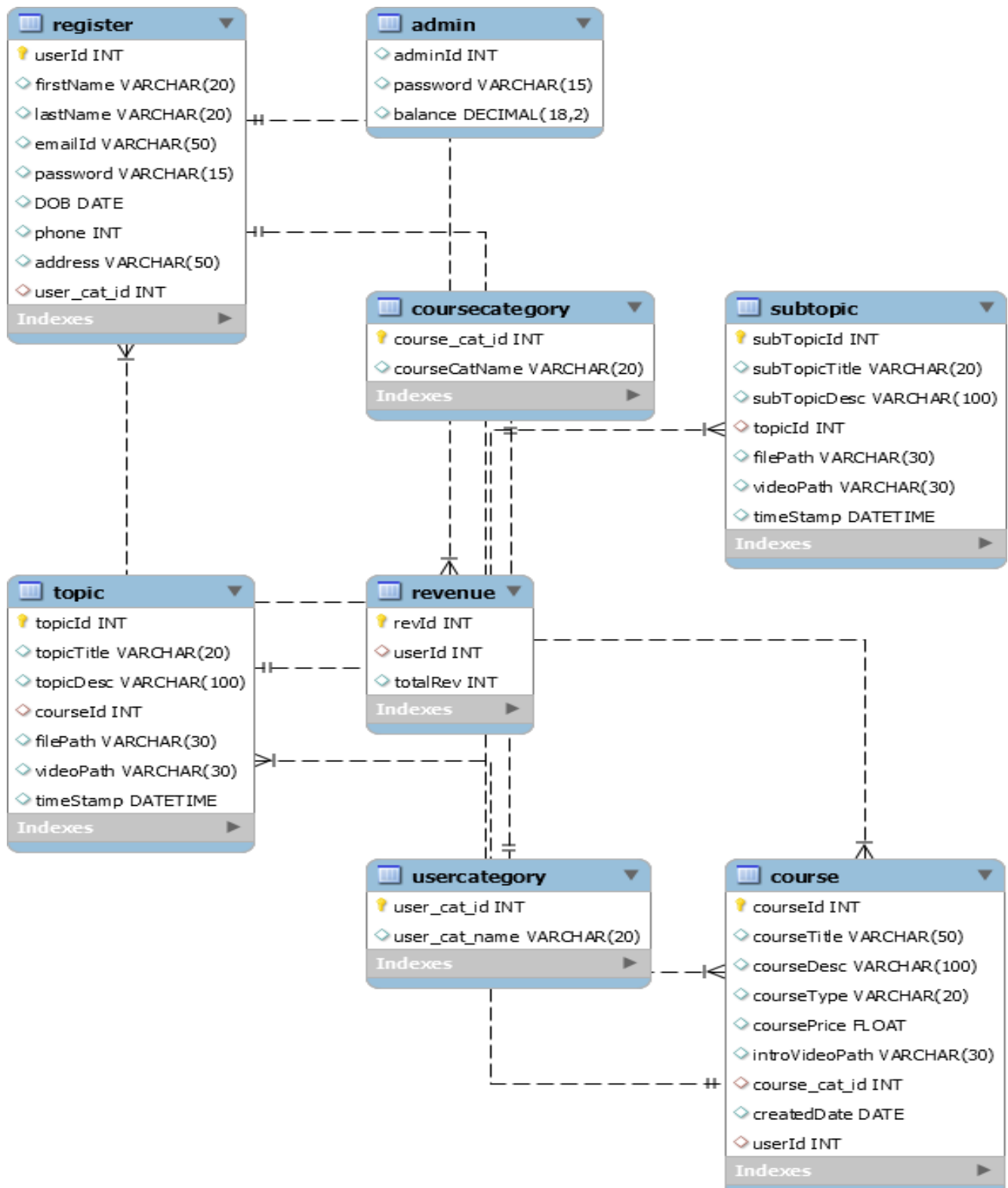
The software will be made to handle operations effectively.

3.6 Maintainability

The system should be easy to maintain. There should be a clear separation between the interface and the business logic code. There should be a clear separation between the data access objects that map the database and the business logic code.

4. System Design

4.1 E-R Diagram



Use Case Diagrams

a. Admin

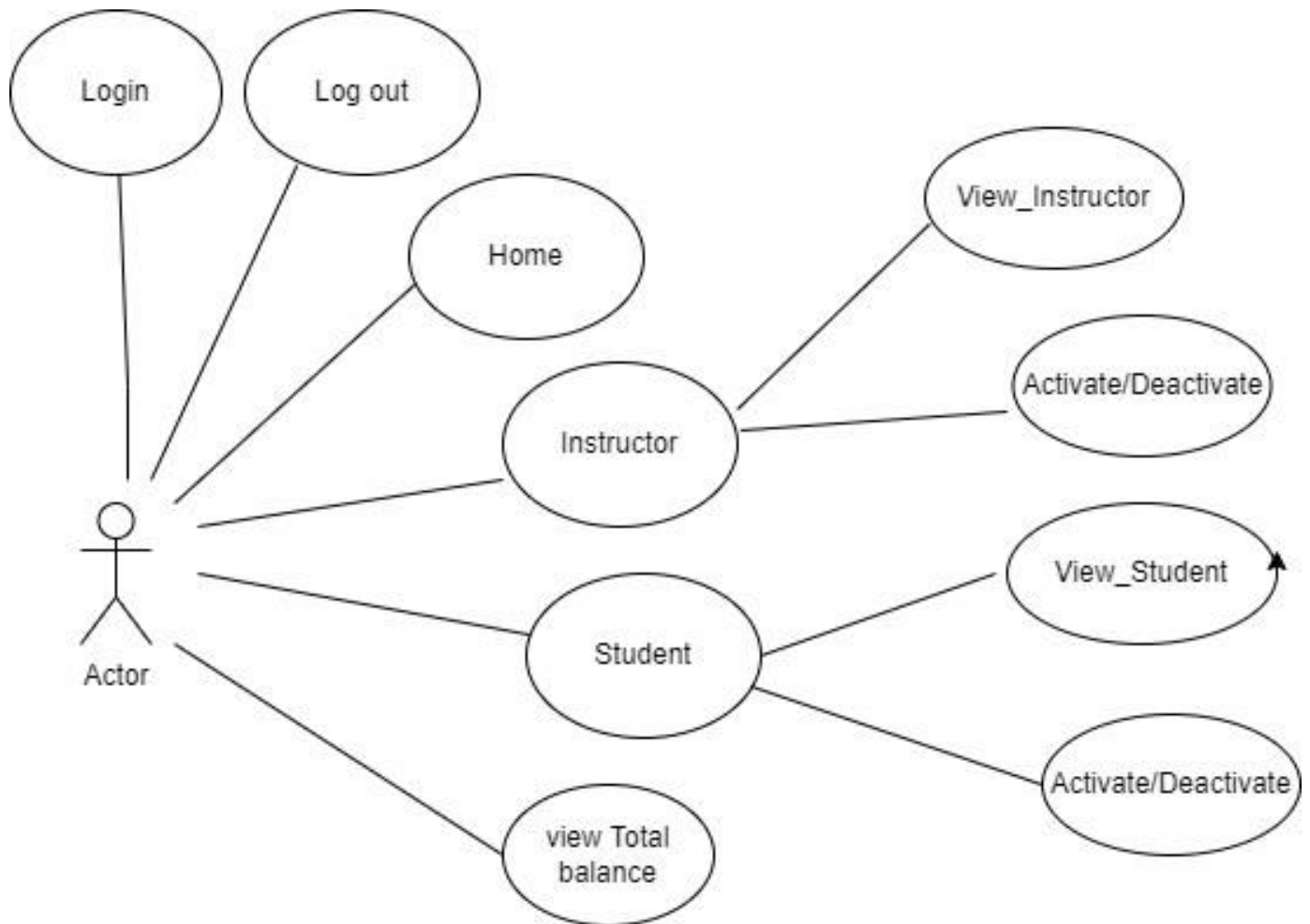


Figure :- Admin Use Case Diagram

b. Student

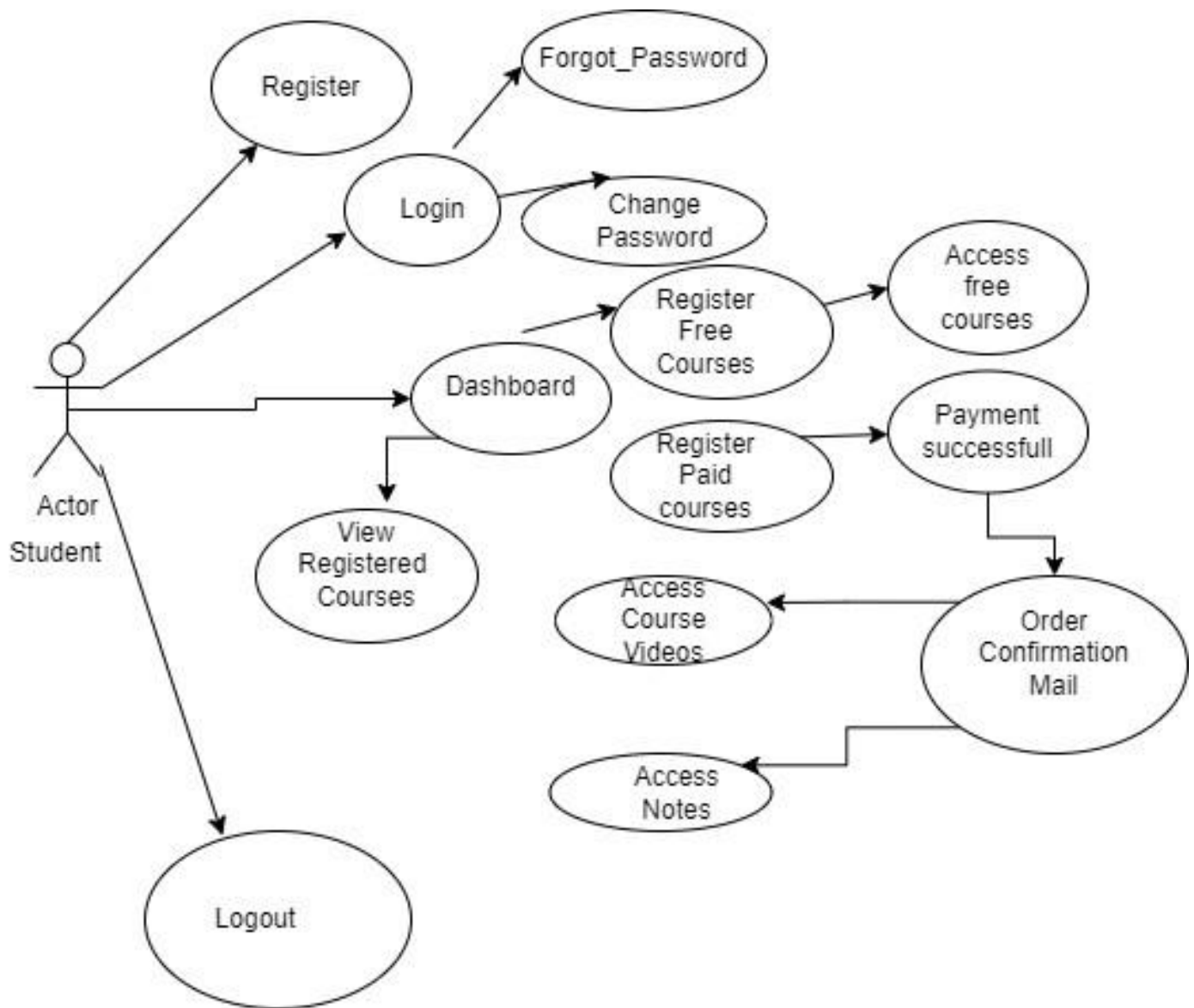


Figure :- Student Use Case Diagram

C. Instructor

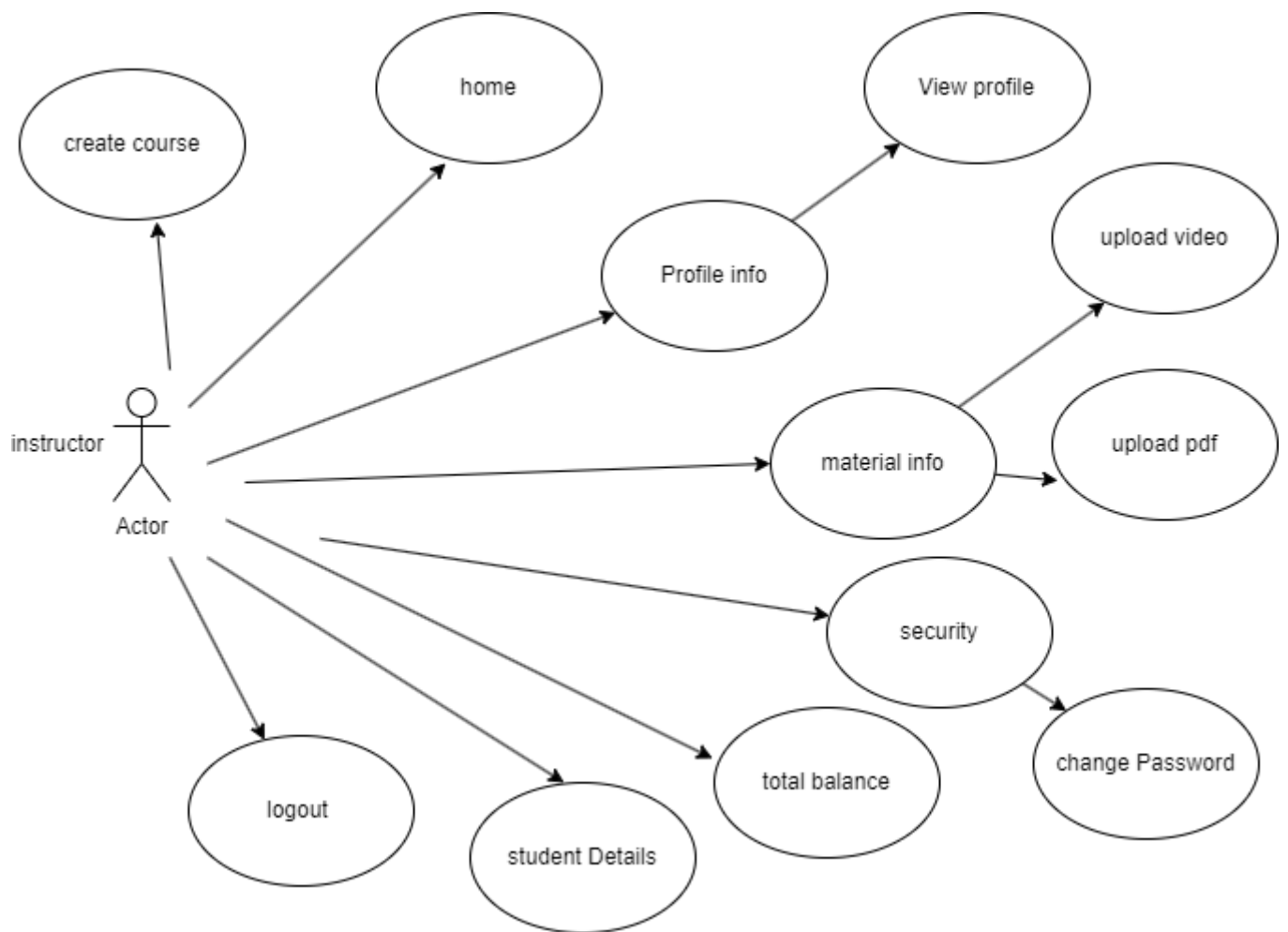


Figure:- Instructor Use Case Diagram



FUTURE SCOPE AND LIMITATIONS

Online learning is a relatively new form of education. Students, through the use of the internet, can easily study their programmers’ via a new instructional medium. SimpliLearn educates people of all different ages; there are no leaps and bounds in the scheduling system rather online learning creates a momentum of flexible academic scenario.

- I18n implementation
- Deployment on net
- Instructor can keep the discussion sessions to resolve students queries.
- Instructor can arrange group meetings and virtual classroom.
- Attendance management.
- Query handling.
- Students will be able to put queries on website.
- Mcq Test.

Conclusion

In culmination, a comparative study between classroom study and online study was carried out. The study was done by examining the findings recorded in books and journals on the applicability online learning to students. The study revealed that, online learning has many benefits as compared to the conventional learning in the classroom environment.

Though online learning has several challenges such as lack of feedback from students and lack of the proper technology to effectively conduct online learning, these limitations can be overcome by upgrading the SimpliLearn systems and the use of online discussion forums and new web-based software's.

In conclusion, online learning is beneficial to the students, tutors and the institution offering these courses. I would therefore recommend that online learning be implemented on all learning institutions and research on how to improve this learning process should be carried out.