



E-learning Management System

Guided by
Shri. A.Sivapathi

By
Prasanna Venkatesh Kumar RTV
120070864
III – MCA B

Contents

- Introduction
- Abstract
- Problem Statement
- Use case Diagram
- Specifications of Use Cases
- Class Diagram
- Functional and Non-Functional Requirements

Introduction

The “E-learning Management System” has been developed to override the problems prevailing in the practicing manual system. This software is supported to eliminate and in some cases reduce the hardships faced by this existing system. Moreover this system is designed for the particular need of the company to carry out operations in a smooth and effective manner.

The application is reduced as much as possible to avoid errors while entering the data. It also provides error message while entering invalid data. No formal knowledge is needed for the user to use this system. Thus by this all it proves it is user-friendly. E learning Management System, as described above, can lead to error free, secure, reliable and fast management system. It can assist the user to concentrate on their other activities rather to concentrate on the record keeping. Thus it will help organization in better utilization of resources.

Abstract

- The purpose of E-learning Management System is to automate the existing manual system by the help of computerized equipments and full-fledged computer software, fulfilling their requirements, so that their valuable data/information can be stored for a longer period with easy accessing and manipulation of the same. The required software and hardware are easily available and easy to work with.
- E-learning Management System, as described above, can lead to error free, secure, reliable and fast management system. It can assist the user to concentrate on their other activities rather to concentrate on the record keeping. Thus it will help organization in better utilization of resources. The organization can maintain computerized record without redundant entries. That means that one need not be distracted by information that is not relevant, while being able to reach the information.
- The aim is to automate its existing manual system by the help of computerized equipments and full-fledged computer software, fulfilling their requirements, so that their valuable data/information can be stored for a longer period with easy accessing and manipulation of the same. Basically the project describes how to manage for good performance and better services for the clients.

Business description

The dreams of its founding fathers took shape in 1984 in the form of Shanmugha College of Engineering, In 2001 it was renamed as SHANMUGHA ARTS, SCIENCE, and TECHNOLOGY & RESEARCH ACADEMY (SASTRA). It was the first institution to get the 'Deemed University status' in Tamil Nadu. Srinivasa Ramanujan Center at Kumbakonam is attached to it.

Our programs, infrastructure, teaching-learning, etc., are among the countries finest. SASTRA has always been proactive in its academic planning and believes in gaining the first-mover advantage. As a testimony to this, the Government of India has conferred the University status to SASTRA on April 26, 2001, under section 3 of the UGC Act, 1956. SASTRA is ranked by global ranking agencies such as Times Higher Education. SASTRA has also been re-accredited with Grade 'A' (maximum) by the National Accreditation and Assessment Council (NAAC) a statutory body of U.G.C.

SASTRA offers various undergraduate and postgraduate courses in Engineering, Science, Education, Management, Law and Arts besides various Doctoral programs and has state of the art laboratories, a well-stocked library and one of the best computing facilities. With a sprawling campus having a built-up area of 2, 22,129.02 square meters spread over 232 acres and a vibrant population of over 10,000 students and over 700 teaching faculty have made SASTRA a landmark in the educational map of India.

With an ideal teacher-taught ratio, we strive for academic excellence through personalized attention. The mechanisms established to support and monitor the student's progress assure success and satisfaction. Since its inception, SASTRA has achieved national standing in terms of academic performance, co-curricular and extra-curricular activities and also in its growth and commitment to social service.

The standards of excellence of our programs are reflected in the grades awarded to us by the National Assessment and Accreditation Council and in the success of our students in industry and academia, both in India & abroad.

Problem Statement

Existing System:

In the existing system the exams are done only manually but in proposed system we have to computerize the exams using this application.

- Lack of security of data.
- More man power.
- Time consuming.
- Consumes large volume of pare work.
- Needs manual calculations.
- No direct role for the higher officials.

Proposed System:

The aim of proposed system is to develop a system of improved facilities. The proposed system can overcome all the limitations of the existing system. The system provides proper security and reduces the manual work.

- Security of data.
- Ensure data accuracy's.
- Proper control of the higher officials.
- Minimize manual data entry.
- Minimum time needed for the various processing.
- Greater efficiency.
- Better service.
- User friendliness and interactive.
- Minimum time required.

PROJECT SCHEDULE

Time schedule for various phases :

Project Starting Date : 15.12.2019

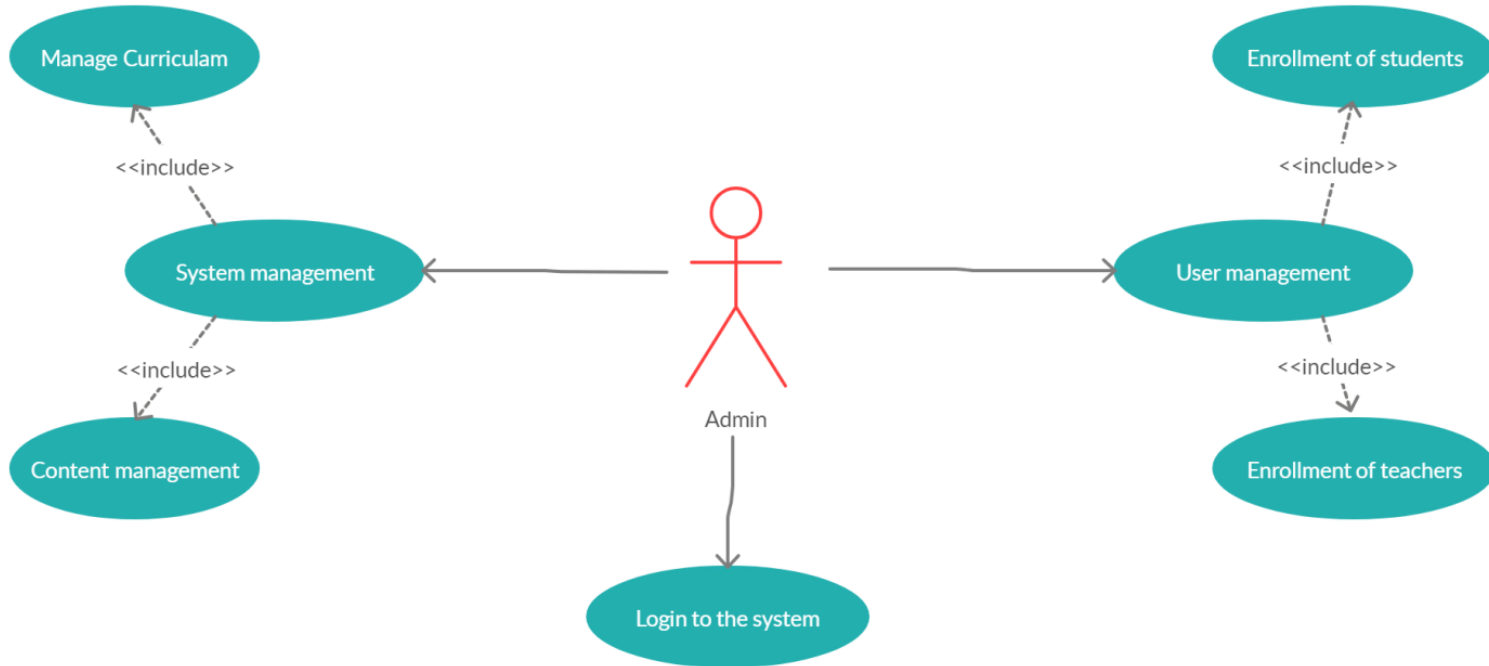
Project Finishing Date : 15.04.2020

<i>Description of the task</i>	<i>No .of days to complete</i>
Software requirements	15
System analysis	15
Design	15
Implementation	45
Testing	15
Deployment	10
Future Plan	5

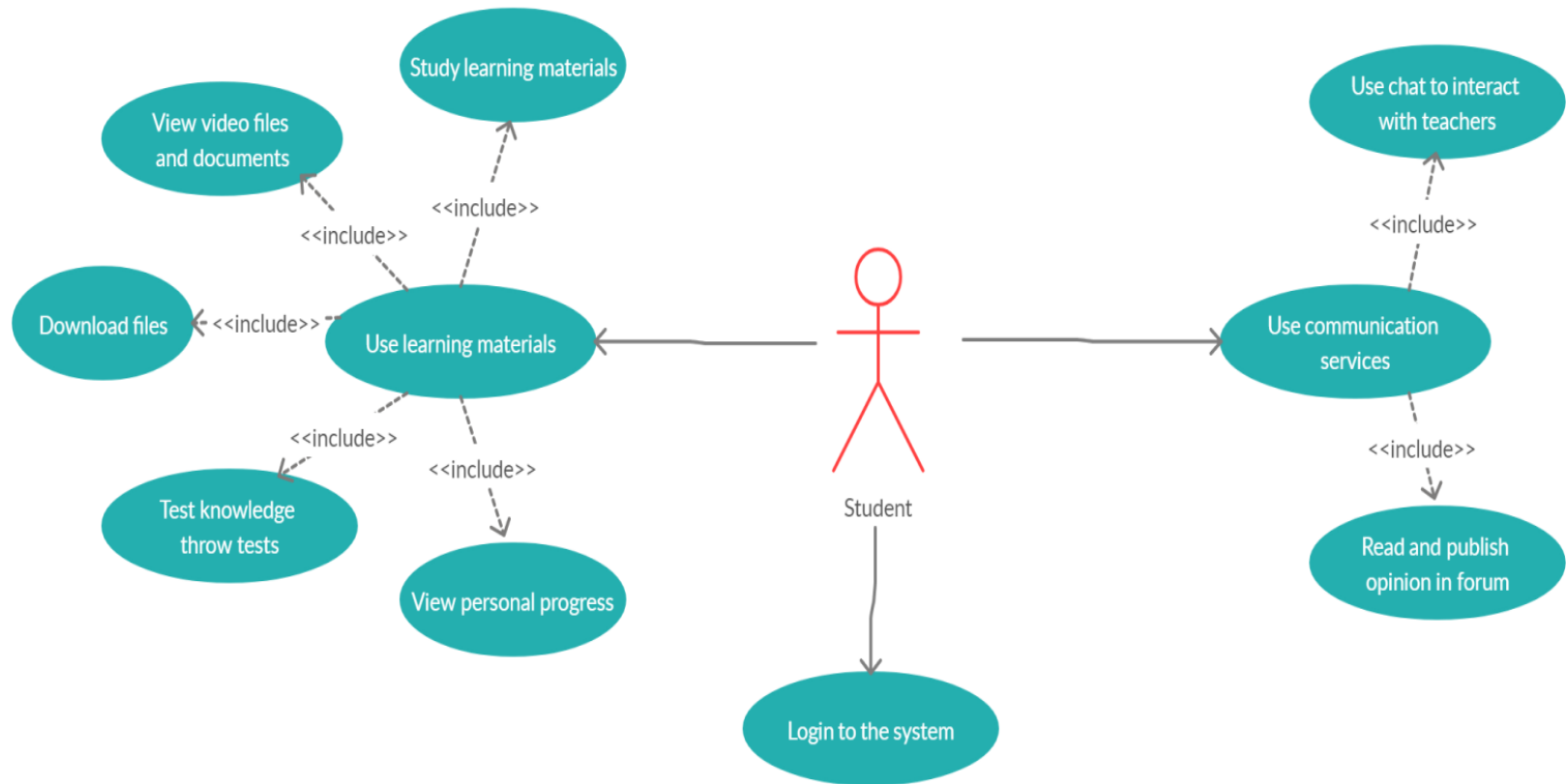
Team members responsibility : 01

USE CASE Diagram

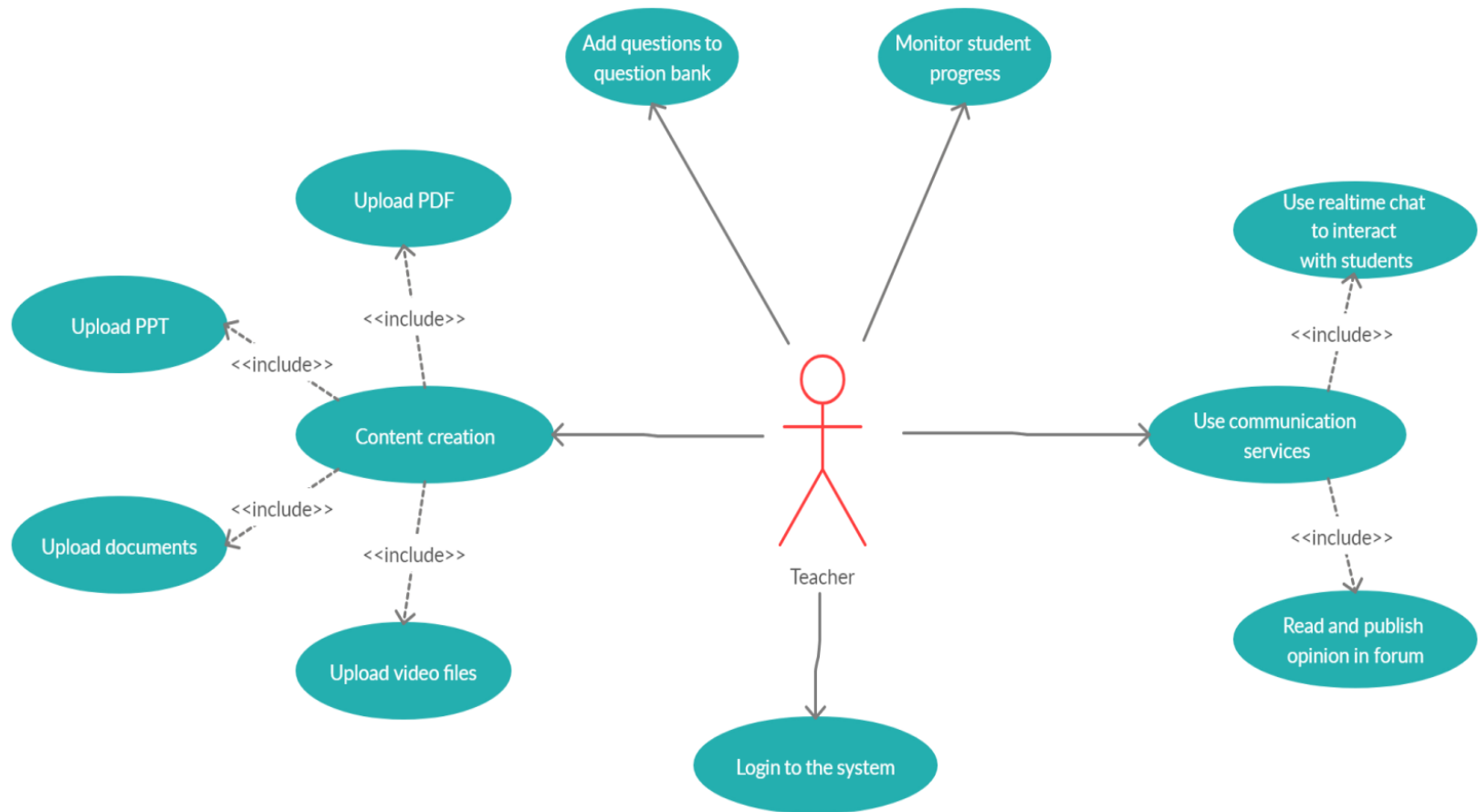
Use Case : Administrator



Use Case : Student



Use Case : Teacher



Use Case Specification

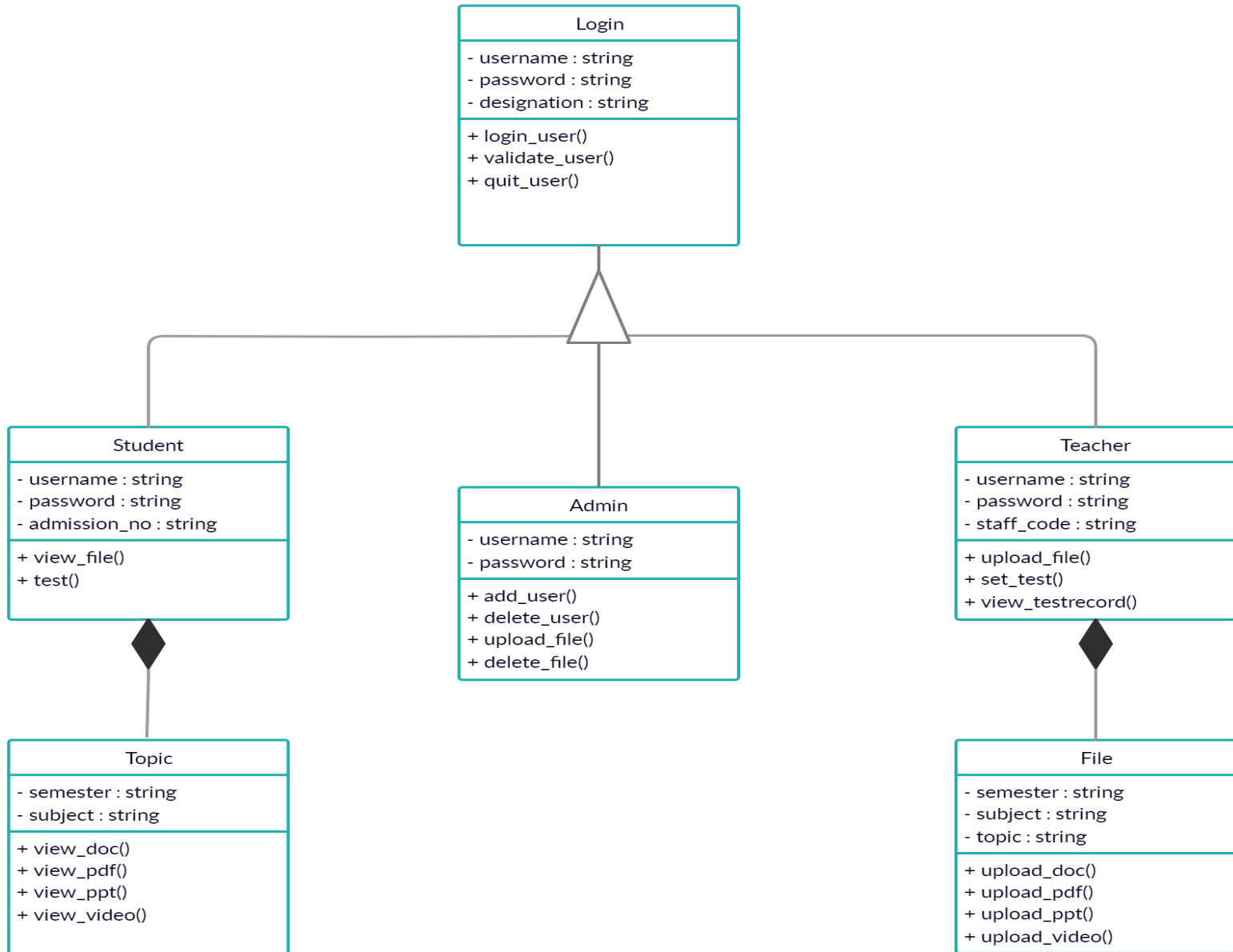
List of actors:

- Admin
- Student
- Teacher

List of Use cases:

- Register
- Login
- System management
- User management
- Use learning materials
- Use communication services
- Content creation
- Add questions to question bank
- Monitor student progress

Class Diagram



1. Register

1.1 Description

The users register themselves with the website.

1.2 Flow of Events

1.2.1 Basic Flow

1. The user provides username, e-mail id & mobile number.
2. The user sets the password.
3. Username & password are set for the user which he/she uses for login.

1.2.2 Alternative Flow

If the provided fields are in invalid format, the system prompts to enter valid ones and remains unchanged.

1.3 Pre-Condition

The user must have a valid e-mail id and phone number before registration.

1.4 Post-Condition

After the user successfully registers with the application, he/she will be redirected to the login session.

2. Login

2.1 Description:

The user logs into the website using the registered username and password.

2.2 Flow of Events

2.2.1 Basic Flow

1. The user enters register username and password.
2. The system verifies and allows the user to log into the system if authorized.

2.2.2 Alternative Flow:

If the username and/or password provided by the user are invalid, the system prompts the user to enter valid details and remains unchanged.

2.3 Pre-Condition:

The user should have been registered with the application before logging into it.

2.4 Post-Condition:

After successful log-in, the user shall be redirected to the home page.

3. System management

3.1 Description

The administrator manages the entire system information (such as manage curriculam, content management, etc.).

3.2 Flow of Events

3.2.1 Basic Flow

1. The administrator logs into the system.
2. He/she is redirected to the admin home page.
3. The administrator starts managing the system information (if needed).

3.2.2 Alternative Flow

NIL

3.3 Pre-Condition

The administrator should have been authorized with the website.

3.4Post-Condition

NIL

4. User management

4.1 Description

The administrator manages the entire system information (such as enrollment of students, enrollment of teachers, etc.).

4.2 Flow of Events

4.2.1 Basic Flow

1. The administrator logs into the system.
2. He/she is redirected to the admin home page.
3. The administrator starts managing the enrollment of students and teachers (if needed).

4.2.2 Alternative Flow

NIL

4.3 Pre-Condition

The administrator should have been authorized with the website.

4.4 Post-Condition

NIL

5. Use learning materials

5.1 Description

The student manages the various file and documents (such as Study learning materials, View video file, etc.).

5.2 Flow of Events

5.2.1 Basic Flow

1. The Student logs into the system.
2. He/she is redirected to the user home page.
3. The student starts view study materials, view video files and documents, download files, test knowledge throw test, view personal progress.

5.2.2 Alternative Flow

NIL

5.3 Pre-Condition

The student should have been authorized with the website.

5.4Post-Condition

NIL

6. Use communication services

6.1 Description

The student and teacher manages to interact by chats and opinion forum.

6.2 Flow of Events

6.2.1 Basic Flow

1. The Student and Teacher logs into the system.
2. He/she is redirected to the user home page.
3. The student or teacher can use chat to interact with student or teacher.
4. The student or teacher can manage read and publish opinion in forum.

6.2.2 Alternative Flow

NIL

6.3 Pre-Condition

The student or teacher should have been authorized with the website.

6.4 Post-Condition

NIL

7. Content creation

7.1 Description

The teacher manages the various file and documents (such as upload PPT, PDF, etc.).

7.2 Flow of Events

7.2.1 Basic Flow

1. The Teacher logs into the system.
2. He/she is redirected to the user home page.
3. The Teacher can uploads various file format such as PDF, PPT, Docs, Video files.

7.2.2 Alternative Flow

NIL

7.3 Pre-Condition

The teacher should have been authorized with the website.

7.4Post-Condition

NIL

8. Add questions to question bank

8.1 Description

The teacher manages the various file and documents (such as add questions.).

8.2 Flow of Events

8.2.1 Basic Flow

1. The Teacher logs into the system.
2. He/she is redirected to the user home page.
3. The Teacher can add questions to question bank for the students.

8.2.2 Alternative Flow

NIL

8.3 Pre-Condition

The teacher should have been authorized with the website.

8.4 Post-Condition

NIL

9. Monitor student progress

9.1 Description

The teacher manages to monitor student progress through their account.

9.2 Flow of Events

9.2.1 Basic Flow

1. The Teacher logs into the system.
2. He/she is redirected to the user home page.
3. The Teacher can monitor student progress with help of their account.

9.2.2 Alternative Flow

NIL

9.3 Pre-Condition

The teacher should have been authorized with the website.

9.4 Post-Condition

NIL

Functional Requirements

- Provides the searching facilities based on various factors. Such as Assignment, Teacher, Quiz, Question.
- E-learning Management System also manage the Class details online for Quiz details, Question details, Assignment.
- It tracks all the information of Student, Class, Quiz etc.
- Manage the information of Student.
- Shows the information and description of the Assignment, Teacher.
- To increase efficiency of managing the Assignment, Student.

Non-Functional Requirements

Following are the non-functional requirements needed for the project:

- System with active internet connection