

# UML Model Report

---

## UML Model

Made with help of star UML

NAME: SHARAD ASAWA  
AADHYA MATHUR

REGISTRATION NUMBER: RA2111026010365  
RA2111026010367

## Table of Contents

1. TABLE OF CONTENTS	2
2. PREFACE	3
3. GOAL OF THE PROJECT	3
4. BACKGROUND	3
5. TASK OF THIS PROJECT	4
6. CLASS DIAGRAM	5
7. SEQUENCE DIAGRAM	5
8. COLLABORATION DIAGRAM	5

## PREFACE

---

This preface and the following introduction added by SHARAD ASAWA(RA2111026010365) and AADHYA MATHUR(RA2111026010367) in support of the first project in the subject Object Oriented Design and Programming 18CSC202J in SRM for the 3rd semester of the academic year 2022.

This document illustrates the working of the hostel management software's design in an object-oriented software system.

The assumption behind this project is that a good design is much easier to follow than to create. Only time & effort will tell if this approach is pedagogically sound.

## GOAL OF PROJECT

---

The main goal is to introduce you to a collage fest organiser, to improve the productivity of management staff. Hopefully in the future, this project will prove useful for the whole world. In any case programming from a model is probably a more interesting and efficient way of programming using robustness diagrams and sequence diagrams.

## BACKGROUND

---

This program simplifies collage fest organiser and register process of students in a university. It has a simple design which makes their profile safe and makes the entire management process clear and easy to understand.

## TASK OF PROJECT

---

This is the Activity UML diagram of College Festival Organizer which shows the flows between the activity of Event, Video, Volunteers, College,

Student. The main activity involved in this UML Activity Diagram of College Festival Organizer are as follows:

Event Activity

Video Activity

Volunteers Activity

College Activity

Student Activity

## COLLAGE FEST ORGANISER SYSTEM CLASS DIAGRAM

---

College Festival Organizer Class Diagram describes the structure of a College Festival Organizer classes, their attributes, operations (or methods), and the relationships among objects. The main classes of the College Festival Organizer are College, Student, Event, Event Managers, Volunteers, Audio.

Classes of College Festival Organizer Class Diagram:

+ College Class - Manage all the operations of College

« Student Class © Manage all the operations of Student

- + Event Class © Manage all the operations of Event
- + Event Managers Class © Manage all the operations of Event Managers
- + Volunteers Class - Manage all the operations of Volunteers
- « Audio Class © Manage all the operations of Audio

Classes and their attributes of College Festival Organizer Class Diagram:

College Attributes - college\_id, college\_name, college\_description

« Student Attributes : student\_id, student\_college\_id, student\_name, student\_mobile, student\_email, student\_username, student\_password, student\_address

« Event Attributes : event\_id, event\_name, event\_college\_id, event\_student\_id, event\_type, event\_place, event\_description

Event Managers Attributes \_ event\_manager\_id, event\_manager\_college\_id, event\_manager\_name, event\_manager\_mobile, event\_manager\_email, event\_manager\_username, event\_manager\_password, event\_manager\_address

« Volunteers Attributes © volunteer\_id, volunteer\_college\_id, volunteer\_name, volunteer\_mobile, volunteer\_email, volunteer\_username,

volunteer\_password, volunteer\_address

Audio Attributes : audio\_id, audio\_title, audio\_language, audio\_type, audio\_volume, audio\_description

Classes and their methods of College Festival Organizer Class Diagram:

College Methods - addCollege(), editCollege(), deleteCollege(), updateCollege(), saveCollege(), searchCollege()

\* Student Methods : addStudent(), editStudent(), deleteStudent(), updateStudent(), saveStudent(), searchStudent()

« Event Methods : addEvent(), editEvent(), deleteEvent(), updateEvent(), saveEvent(), searchEvent()

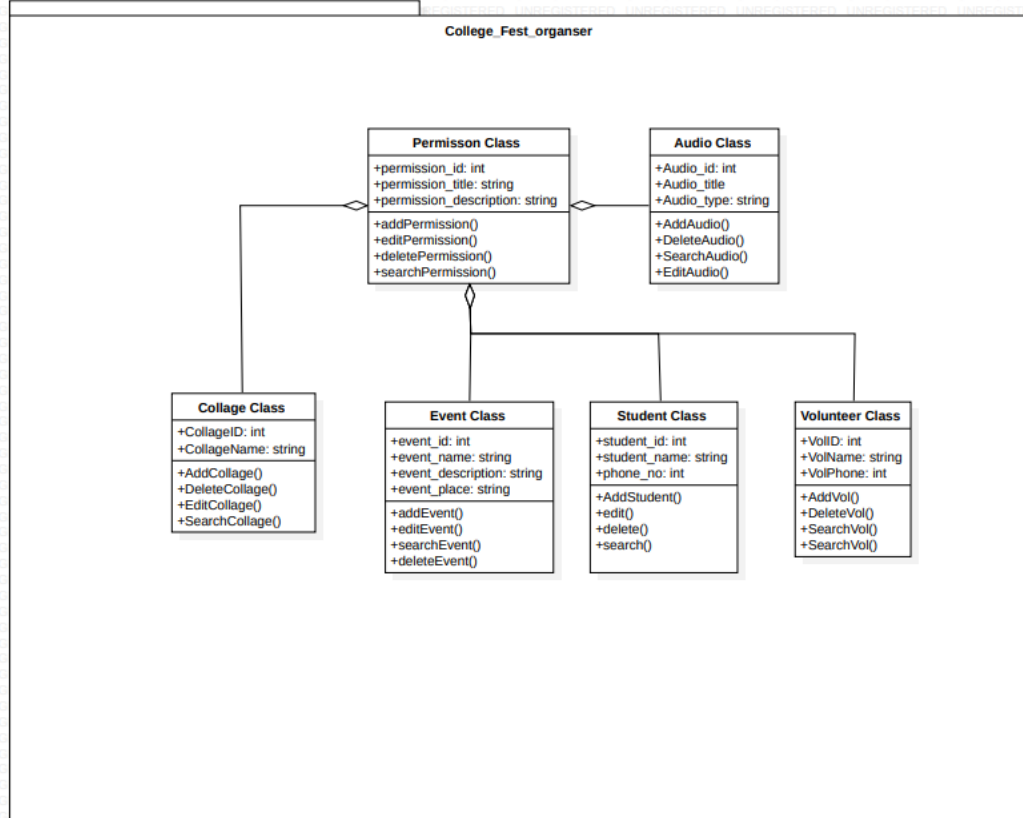
Event Managers Methods : addEvent Managers(), editEvent Managers(), deleteEvent Managers(), updateEvent Managers(), saveEvent Managers(), searchEvent Managers()

+ Volunteers Methods - addVolunteers(), editVolunteers(), deleteVolunteers(), saveVolunteers(), searchVolunteers()

Audio Methods : addAudio(), editAudio(), deleteAudio(), SearchAudio()

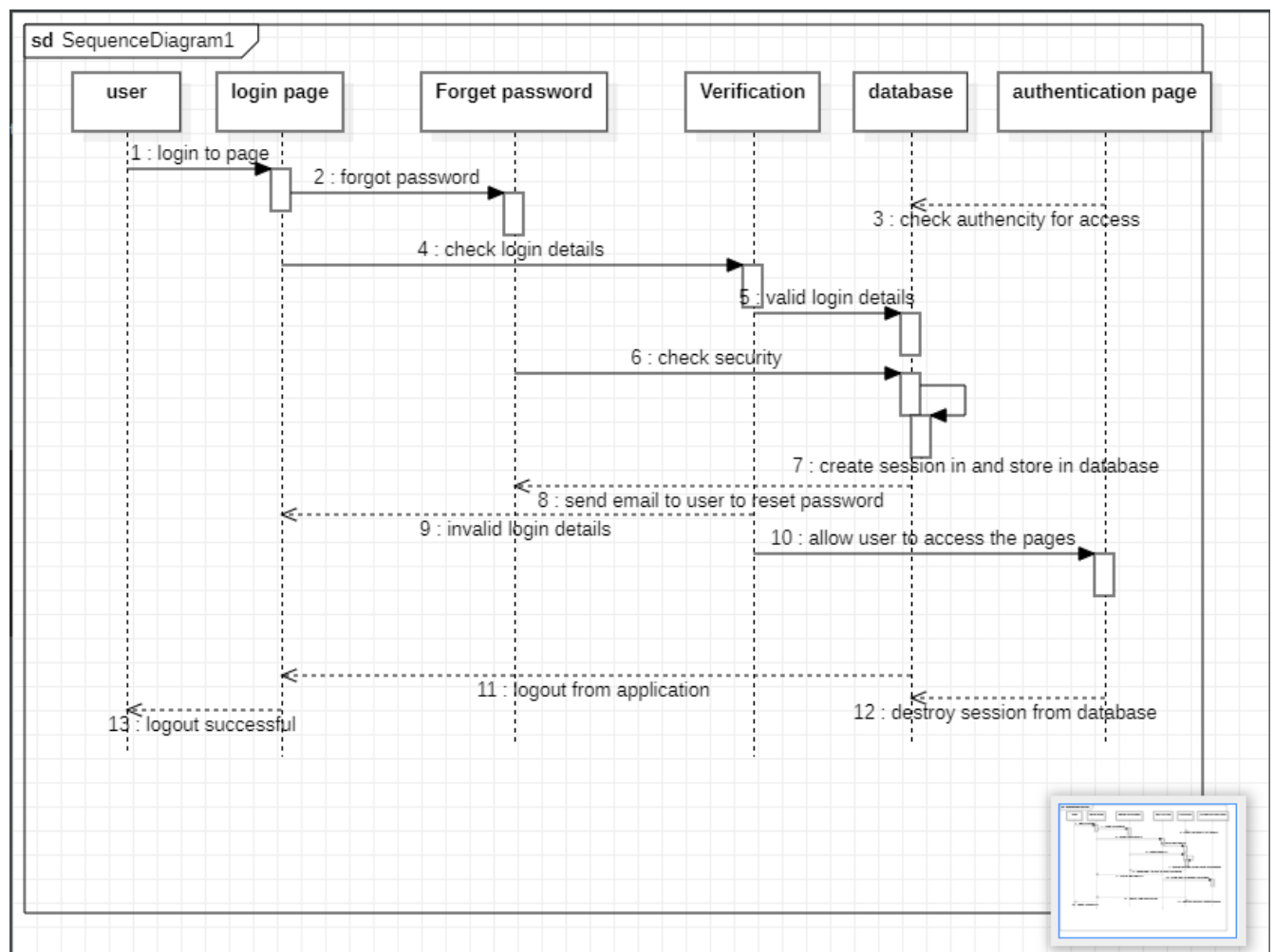
# CLASS DIAGRAM:

Model::ClassDiagram1



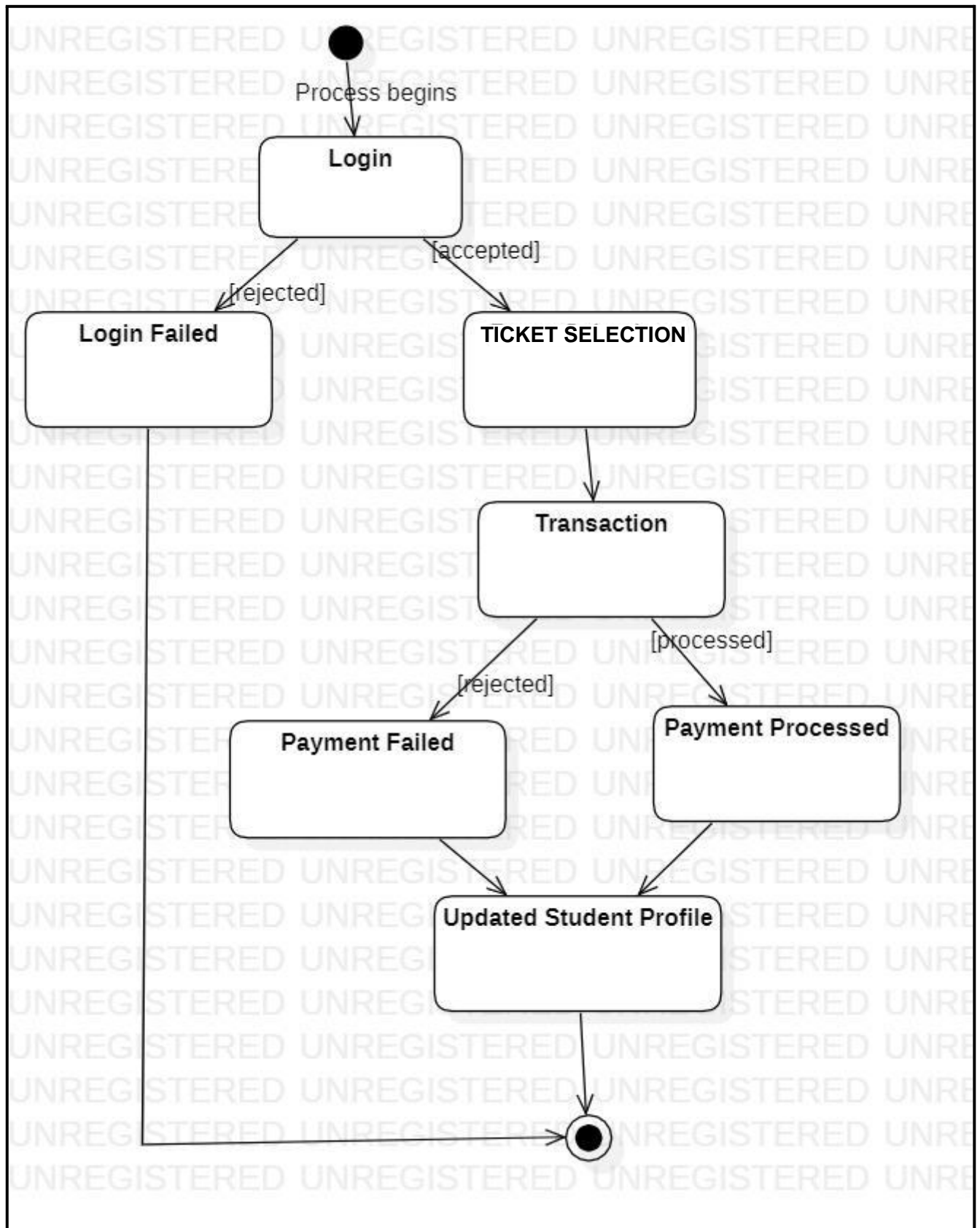
## COLLAGE FEST ORGANISER SYSTEM SEQUENCE DIAGRAM

This is the Login Sequence Diagram of College Festival Organizer. where admin will be able to login in their account using their credentials. After lo-gin user can manage all the operations on Video, Event, Volunteers, Student, Audio. All the pages such as Volunteers, Student, Audio are secure and user can access these page after login. The diagram below helps demonstrate how the login page works in a College Festival Organizer. The various objects in the Student, Video, Event, Volunteers, and Audio page—interact over the course of the sequence, and user will not be able to access this page without verifying their identity



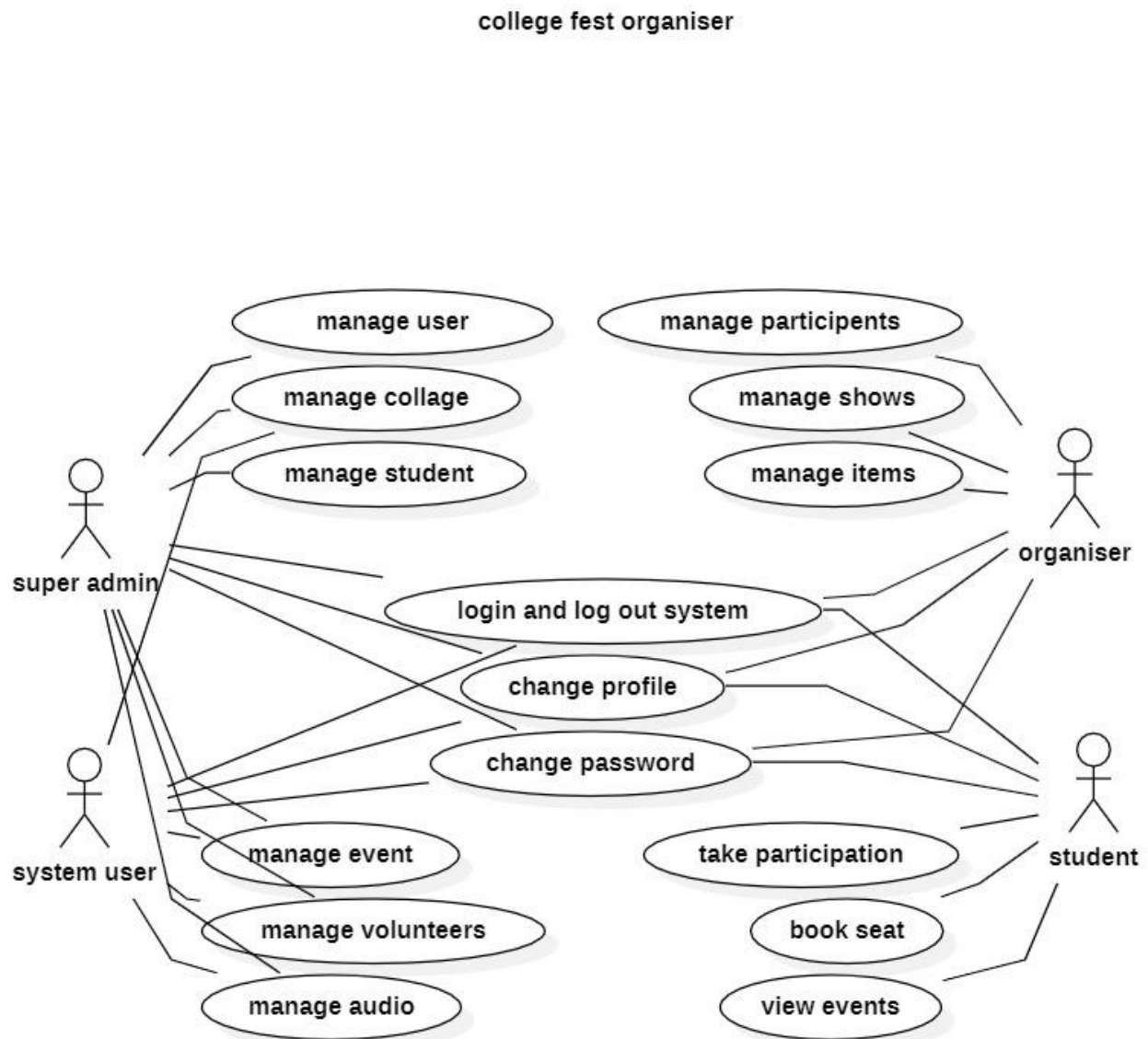
## COLLAGE FEST ORGANISER SYSTEM STATE CHART DIAGRAM

A state diagram is a type of diagram used in computer science and related fields to describe the behavior of systems. It describes the different abstract states in the collage fest organiser system.



## COLLAGE FEST ORGANISERSYSTEM USE CASE DIAGRAM

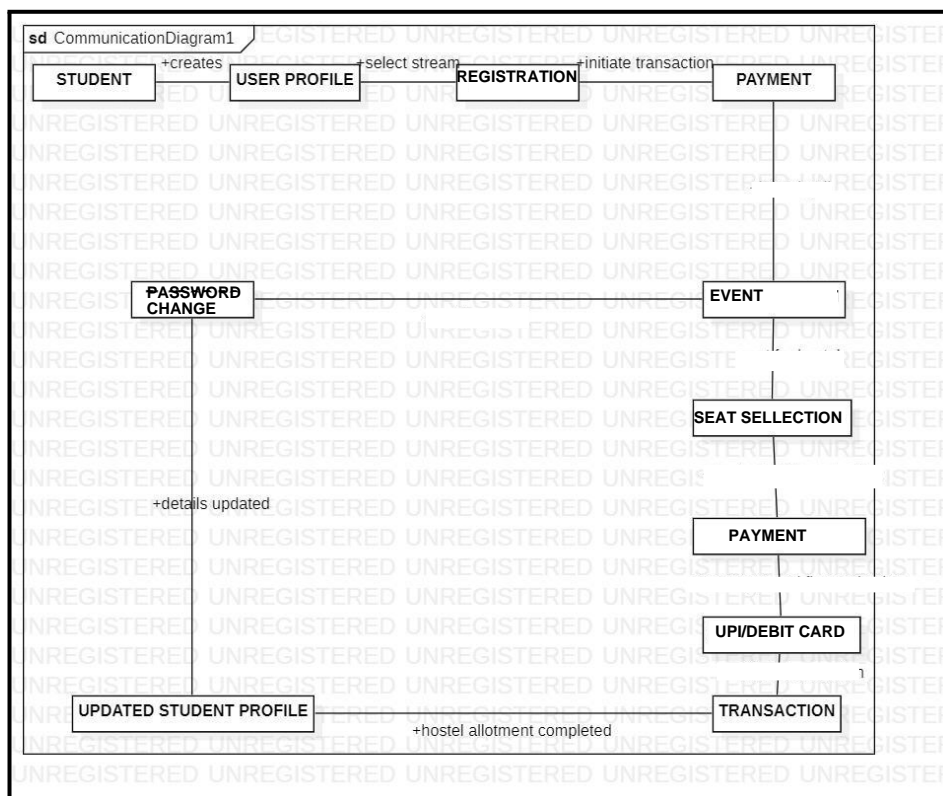
A use case diagram is a graphical depiction of a student's possible interactions with the collage fest organiser system. It shows various use. The use cases are represented by ellipses. A UML use case diagram is the primary form of system/software requirements for a new software program underdeveloped.





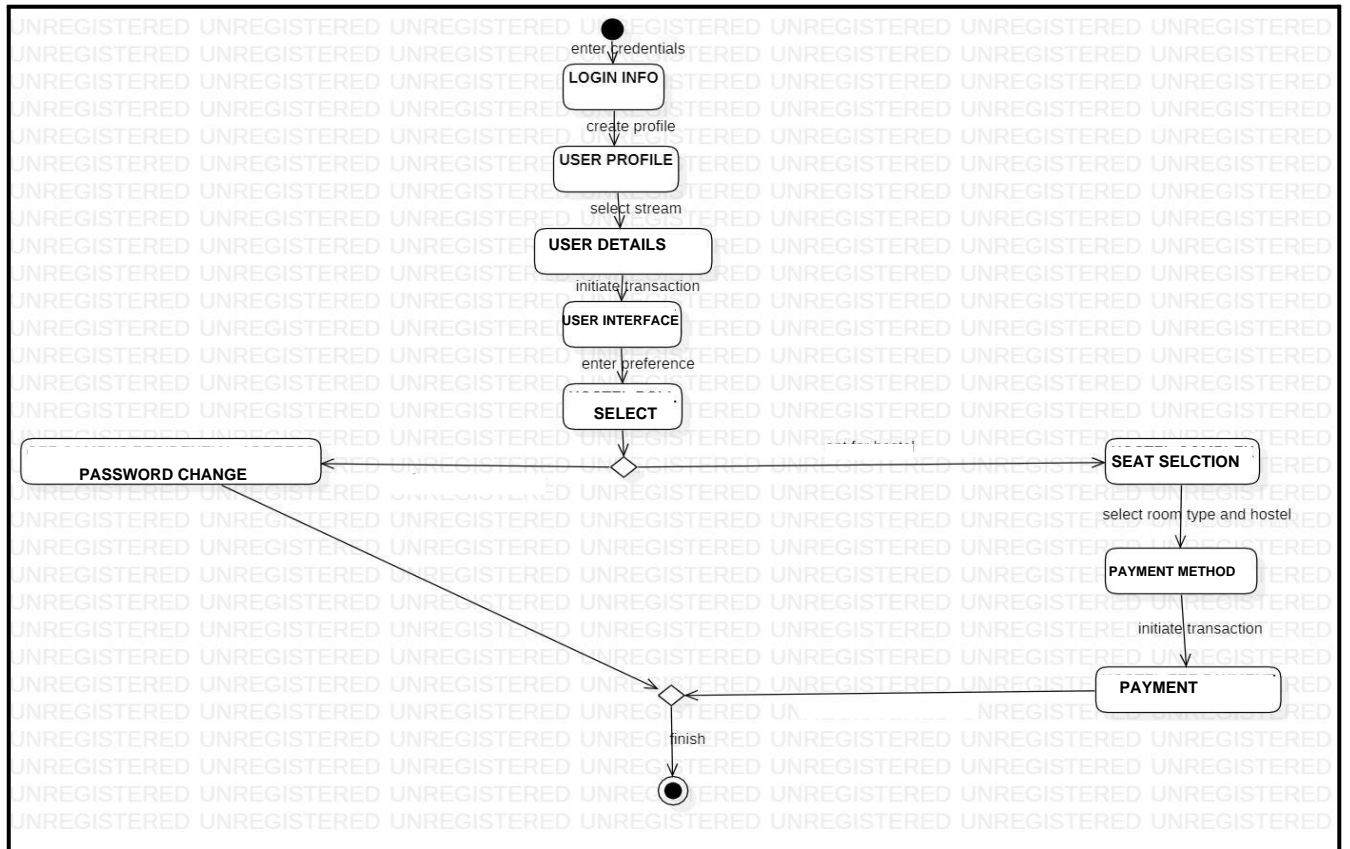
## COLLAGE FEST ORGANISER SYSTEM COLLABORATION DIAGRAM

This is the UML Collaboration Diagram of collage fest organiser System which shows the relationships and interaction among the objects. This is used to portray dynamic behaviour of a particular use case and define the role of each object.



## COLLAGE FEST ORGANISER SYSTEM ACTIVITY DIAGRAM

Activity diagrams are graphical representations of workflows of stepwise activities and actions with support for choice, iteration and concurrency in collage fest organiser system.

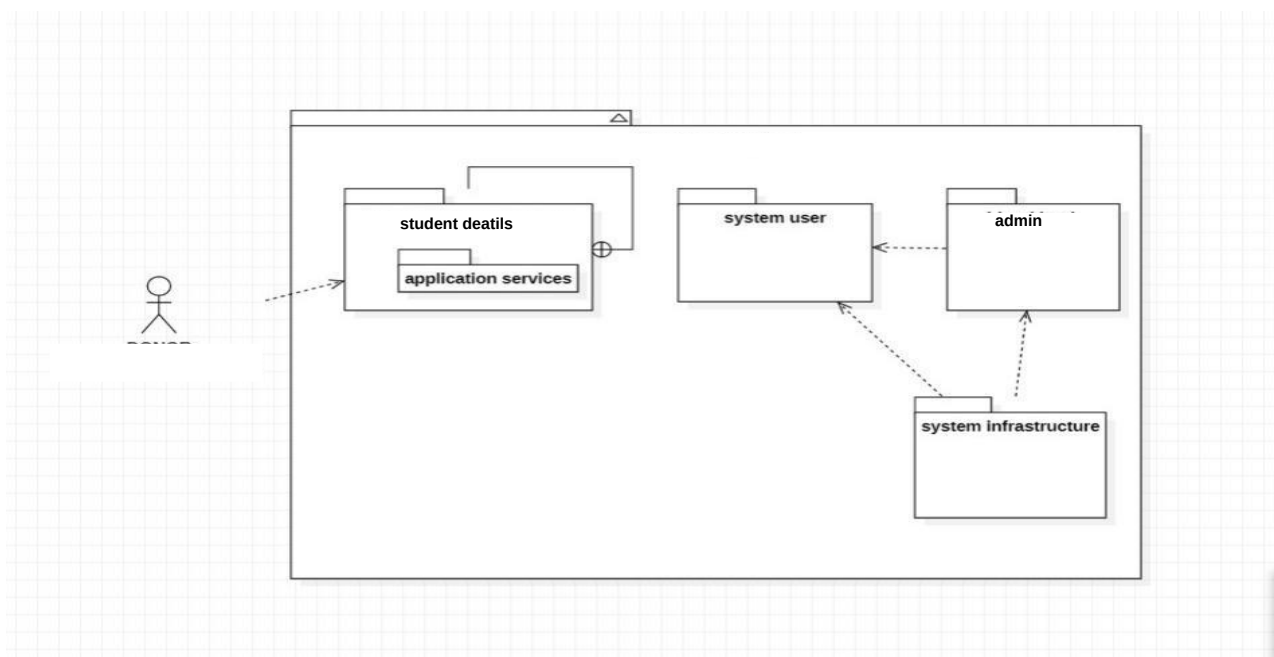


## COLLAGE FEST ORGANISER SYSTEM PACKAGE DIAGRAM

Package diagram, a kind of structural diagram, shows the arrangement and organization of model elements in middle to large scale project. Package diagram can show both structure and dependencies between sub-systems or modules, showing different views of a system, for example, as multi-layered (aka multi-tiered) application - multi-layered application model.

Package diagram follows hierarchal structure of nested packages. Atomic module for nested package is usually class diagrams. There are few constraints while using package diagrams, they are as follows.

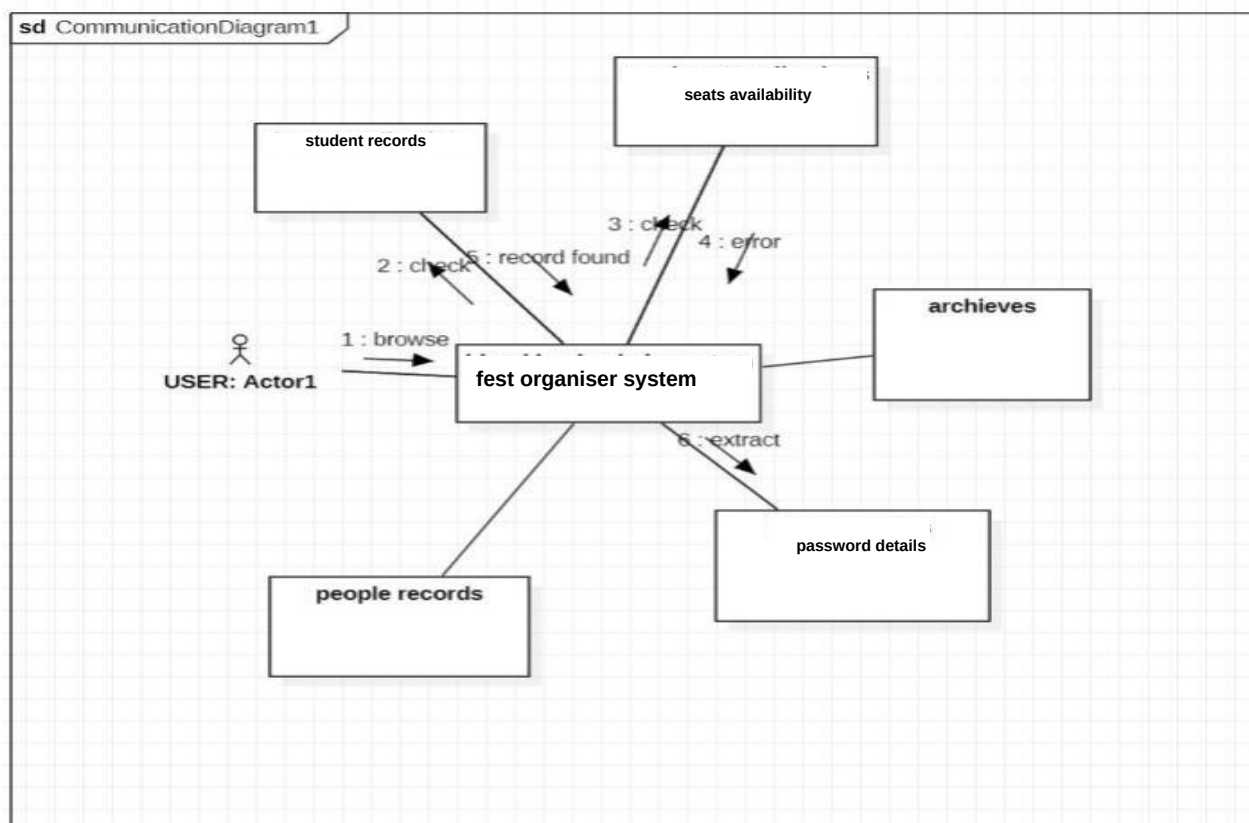
- Package name should not be the same for a system, however classes inside different packages could have the same name.
- Packages can include whole diagrams, name of components alone or no components at all.
- Fully qualified name of a package has the following syntax.



## COLLAGE FEST ORGANISER SYSTEM COMMUNICATION DIAGRAM

A collaboration diagram, also known as a communication diagram, is an illustration of the relationships and interactions among software objects in the Unified Modelling Language (UML). These diagrams can be used to portray the dynamic behavior of a particular use case and define the role of each object.

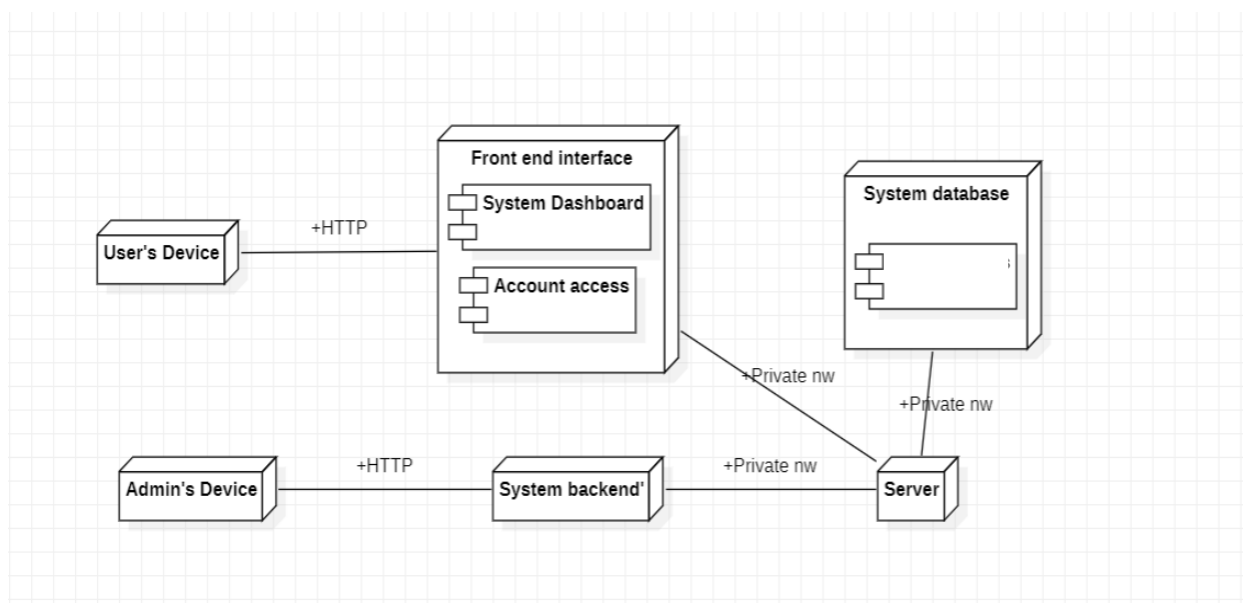
Collaboration diagrams are created by first identifying the structural elements required to carry out the functionality of an interaction. A model is then built using the relationships between those elements. Several vendors offer software for creating and editing collaboration diagrams.



### COLLAGE FEST ORGANISER SYSTEM DEPLOYMENT DIAGRAM

The collage fest organiser System UML deployment diagram explains the sketch of the relationship between software and hardware. These hardware and software are labelled to clarify their part in the system's operation. They were represented by nodes and the connections were represented by labelled arrows. The deployment diagram shows the scenario when the system is deployed. It has 4 nodes represented with boxes and relationship connections. The nodes are the blood bank management system, the customer's device, the admin's device, and the database (system server). The system server node contains a developed database that will hold the details of the system online.

For the connection, the system is connected to the server database using a private network which enables it to pass a connection to the devices and enable users to access the system and database. The admin and the customer then can communicate using an online or internet connection.



## College Festival Organizer Component Diagram

Posted By freeproject on February 8, 2018

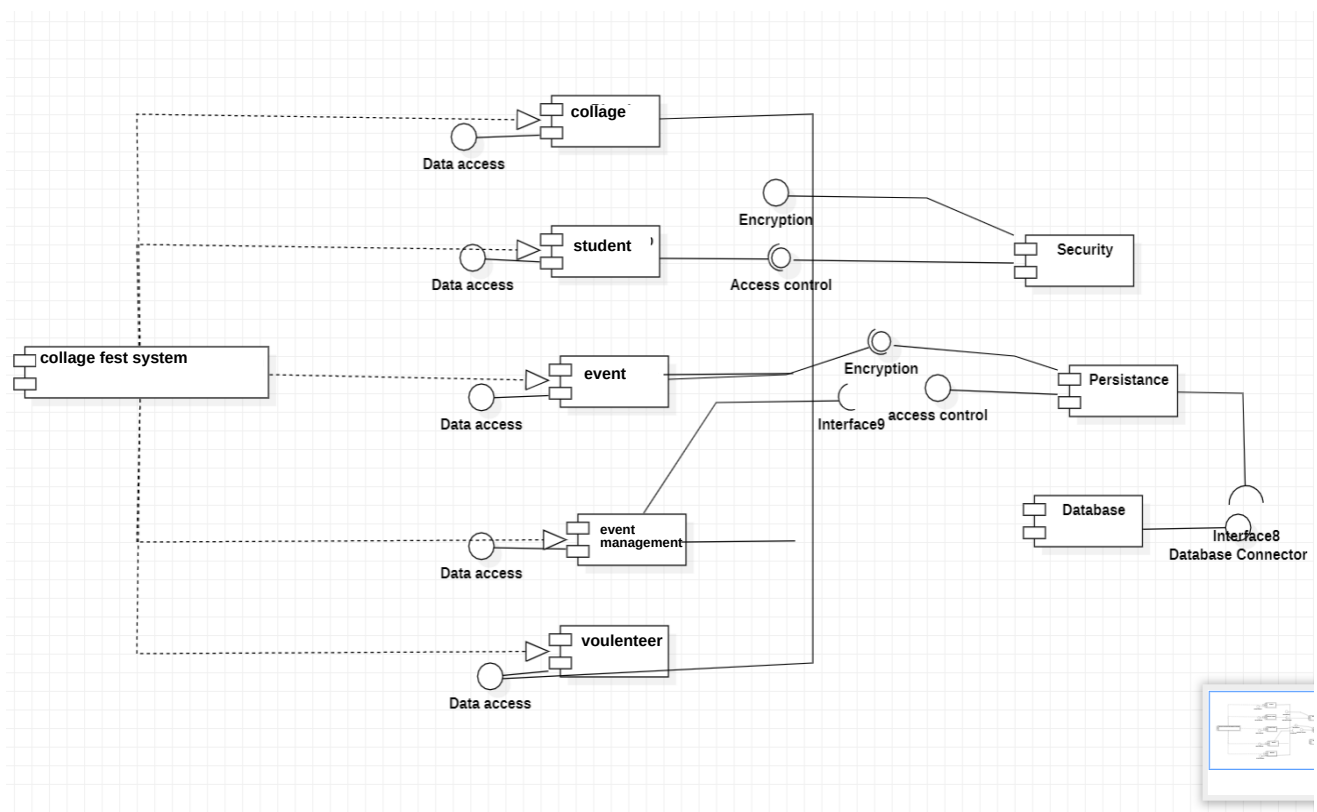
This is a Component diagram of College Festival Organizer which shows components, provided and required interfaces, ports, and relationships between the Video, Student, Audio, Volunteers and Event. This type of diagrams is used in Component-Based Development (CBD) to describe systems with Service-Oriented Architecture (SOA). College Festival Organizer UML component diagram, describes the organization and wiring of the physical components in a system.

Components of UML Component Diagram of College Festival Organizer:

- \* Video Component
- \* Student Component
- \* Audio Component
- \* Volunteers Component
- \* Event Component

Features of College Festival Organizer Component Diagram:

- \* You can show the models the components of College Festival Organizer.
- \* Model the database schema of College Festival Organizer
- \* Model the executables of an application of College Festival Organizer
- \* Model the system's source code of College Festival Organizer



## CONCLUSION

We understand the working of a collage fest organiser system through the various UML diagram and their subparts which help us in grasping the different ideas, variations, and steps in creating a particular software system that improves the system.

## REFERENCES

1. **C Programming Absolute Beginner's Guide**: By Greg Perry and Dean Miller
2. **The C Programming Language (2nd Edition)**: By Dennis Ritchie
3. **C++ Concurrency In Action**: By Anthony Williams
4. **C++ Template Metaprogramming**: By Aleksey Gurtovoy and David Abrahams
5. **Effective Modern C++**: By Scott Mayor