# Software Engineering Lab

# Final Project

Online School Management System

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**Software Engineering:** Software engineering is an engineering discipline. Where we work on all the process of software production & development.

# Online School Management System

## Purpose:

We want to manage a school functionality and all activities properly to use this system. Now we can manage all things in computer. For this system we can manage large amount of data in small time. It is very time consuming process. This system is specially designed for an educational purpose for school.

## Project Description:

We developed a school management system to manage all information of students such as their class, their results, their payments, their attendance, their admission, their schedule and also manage teacher and employees all activities.

## Project Features:

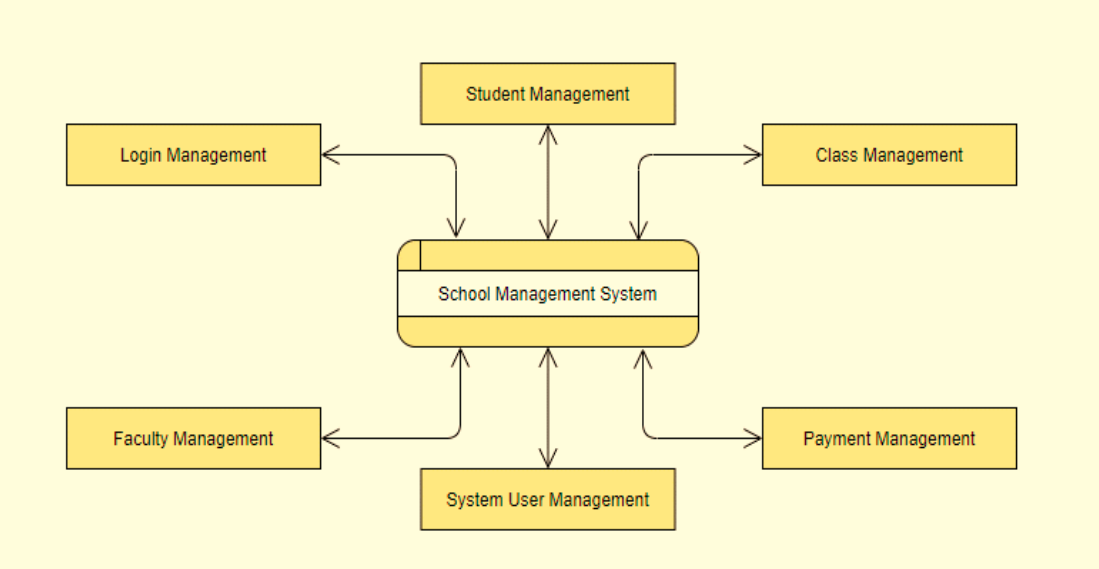
1. UI/UX Design
2. Students manage
3. Teacher and employee activities manage
4. Class manage
5. Result Manage
6. Student admission manage
7. Payment manage
8. Schedule manage etc.

## Requirements/Tools

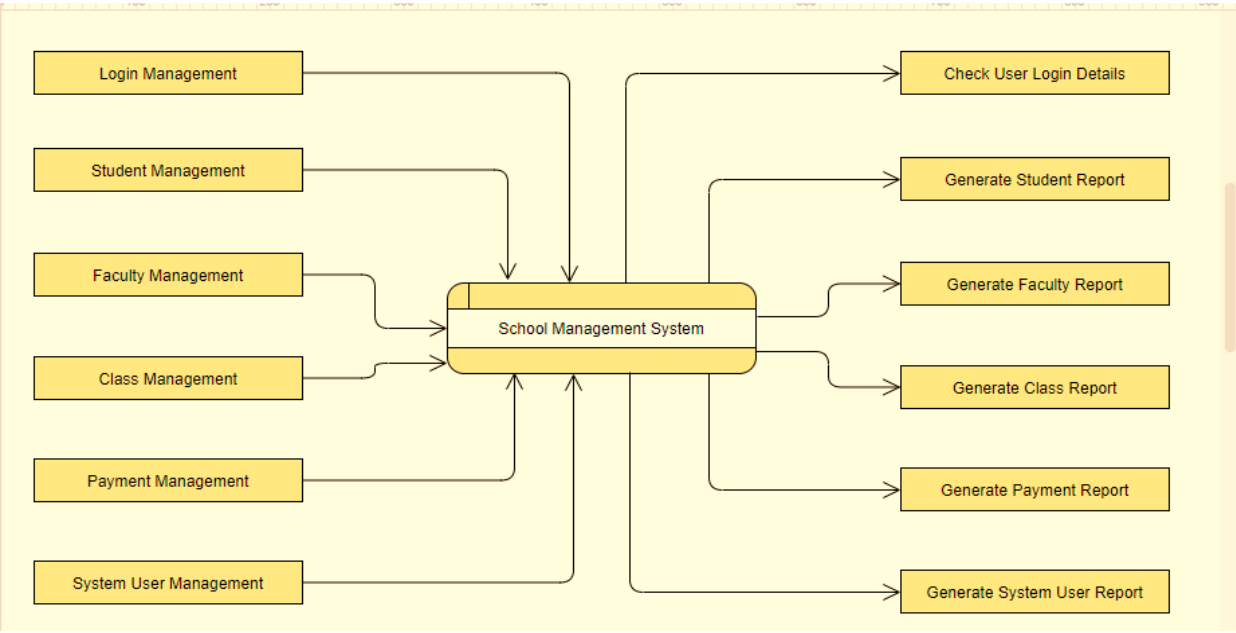
1. Developers
2. Project Manager
3. Documentation Writer
4. Quality Testing Assurance
5. PHP, UML, DFD, Visual Programming, LA ravel, MySQL, JavaScript, JQuery, Code Block, Html, CSS, Bootstrap etc.

**DFD:** Data Flow Diagram. The flow of data of a system or process is represented by DFD. It also gives insight into the inputs and outputs of each entity and the process itself.

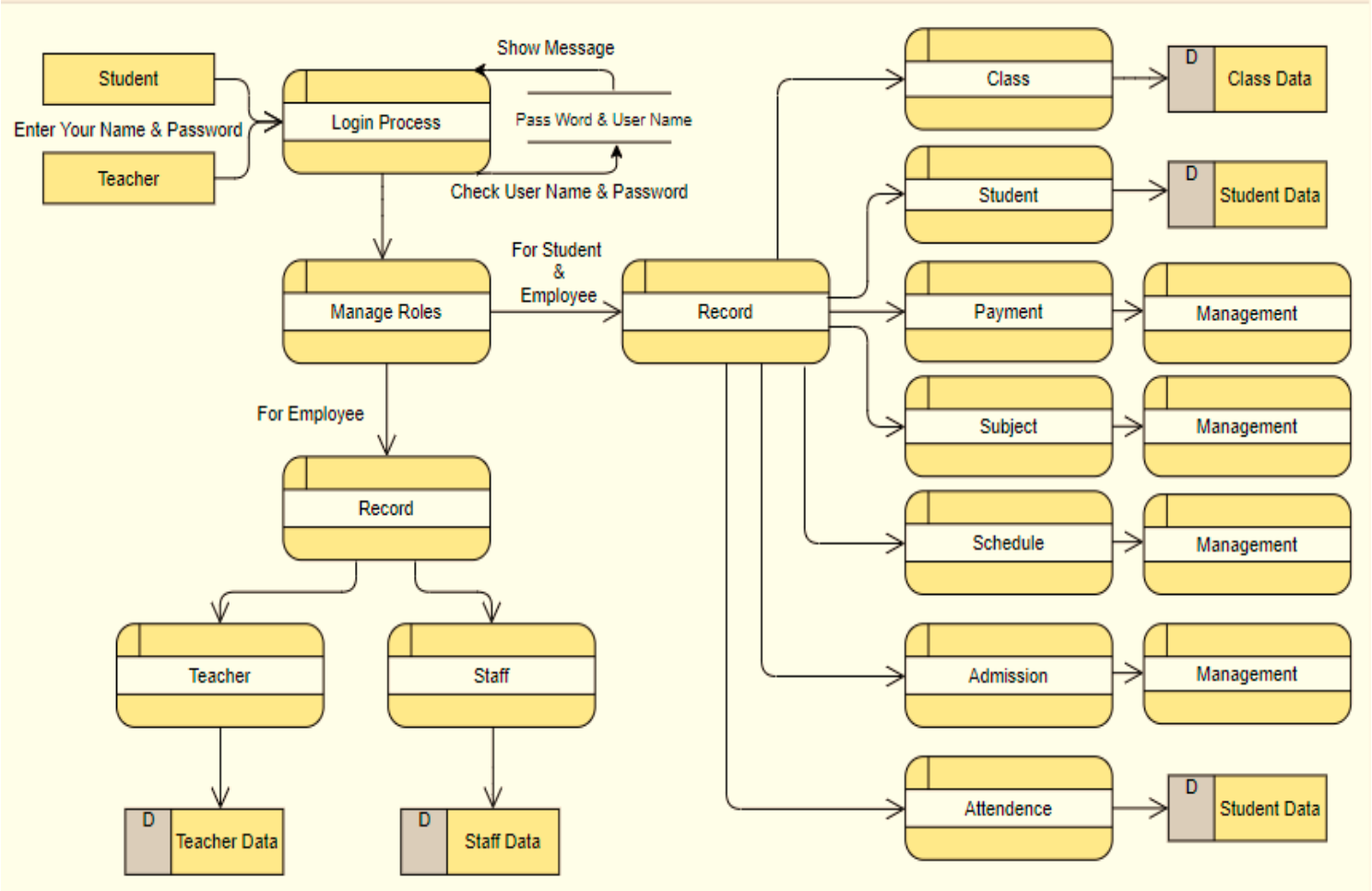
**Level-0:**




**Level-1:**



## Here we want to design Online School Management System DFD




**For Level 0:** In level 0 we want to show how all process connected to each other. School management system is main process & others are sub process.

**For Level 1:** In level 0 we want to show how main process generate report details. Each individual process request to main process for their work. And main process generate all report one by one.

## Final:

1st a student or teacher or employee wants to login in the system. Where they give their name & password. Login system check this data in his own database. If data was valid then user can login in system else system show invalid message.

Then manage role system check user roles. User was student or teacher or employee. In student part all user can enter but in employee part only teacher & employee can enter.

Then record system all records for student or teacher or employee. Where teacher & employees data store in their database & student data store in student database.

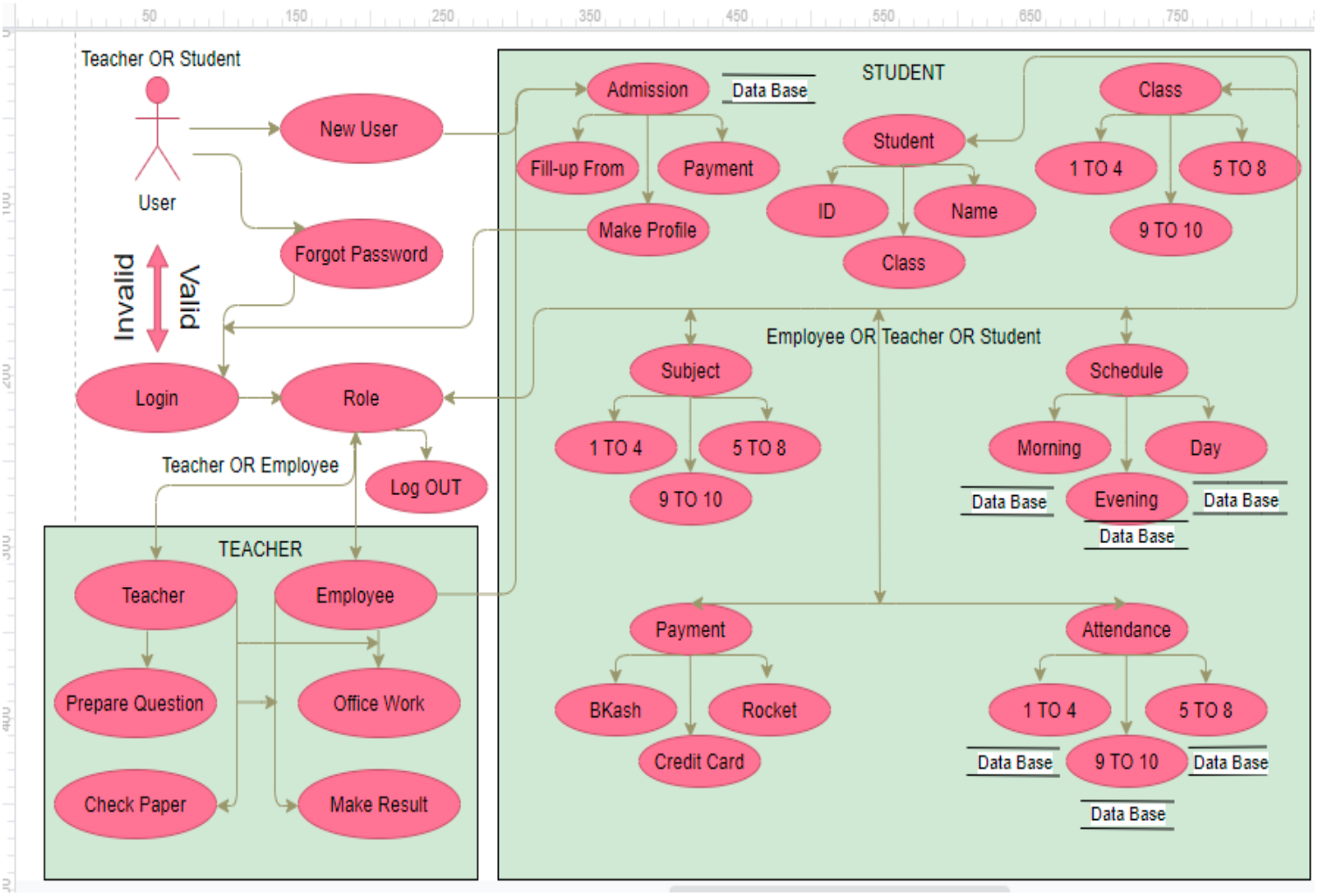
Class, Student & Attendance system are generate one or many databases. They save all information of this.

Use payment system student can pay their fees & required money. This system connected to another management system where all the transaction procedure was implemented.

Also use subject, schedule & admission system student can choose their class, subject & admission details. This systems are connected to another management system where all the transaction procedure was implemented. Because this procedure was too long.

**UML:** Unified modeling Language. It is a general-purpose, developmental, modeling language in the field of software engineering that is intended to provide a standard way to visualize the design of a system.

## Here we want to design Online School Management System UML



## UML:

1st a student or teacher or employee wants to login in the system. Where they give their name & password. Login system check this data in his own database. If data was valid then user can login in system else system show invalid message. If user forgot his password then he can enter forgot password system where they get new password for enter the system. If user was new. He wants to admit in this school. So he can go admission system. Complete this system he get his enter id & password. Use this he can enter next in this system.

Then role system check user roles. User was student or teacher or employee. In student part all user can enter but in employee part only teacher & employee can enter. In this system we get another system logout. Use this user can logout to this system.

Teacher system is connected 2 more system make question & check paper where he can make question & check student paper. Employee system connected with another 2 system office work & make result. It also connected admission system. Because employee work on admit student.

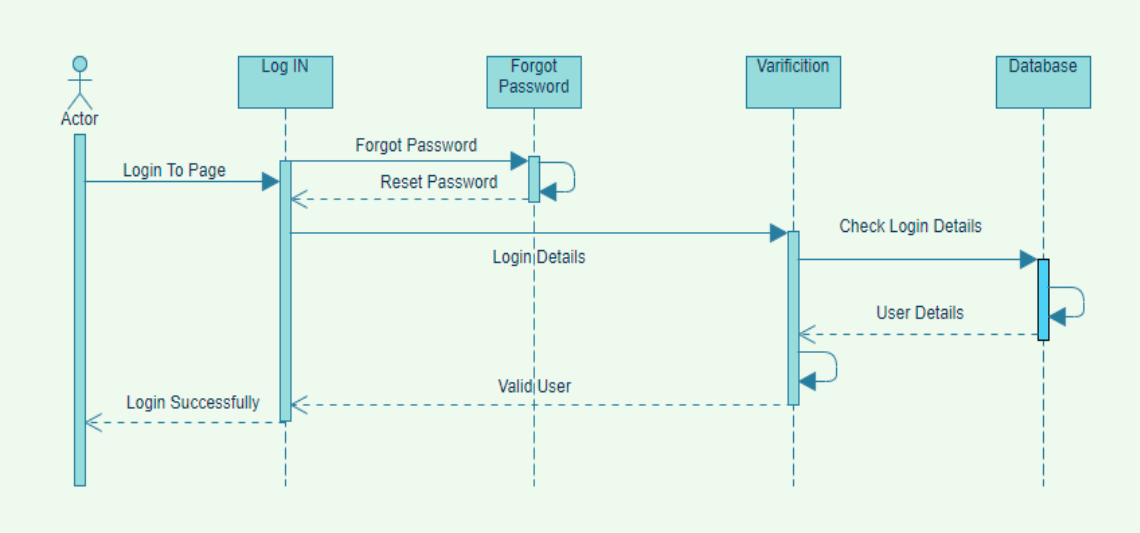
Class, Student & Attendance system are generate one or many databases. They save all information of student.

Use payment system student can pay their fees & required money. This system connected to another management system where all the transaction procedure was implemented.

Also use subject, schedule & class system student can choose their class, subject & result details. This systems are connected to another management system where all the transaction procedure was implemented. Because this procedure was too long.

**Sequence Diagram:** A sequence diagram simply depicts interaction between objects in a sequential order the order in which these interactions take place. We can also use the terms event diagrams or event scenarios to refer to a sequence diagram. Sequence diagrams describe how and in what order the objects in a system function.

## Login Part:



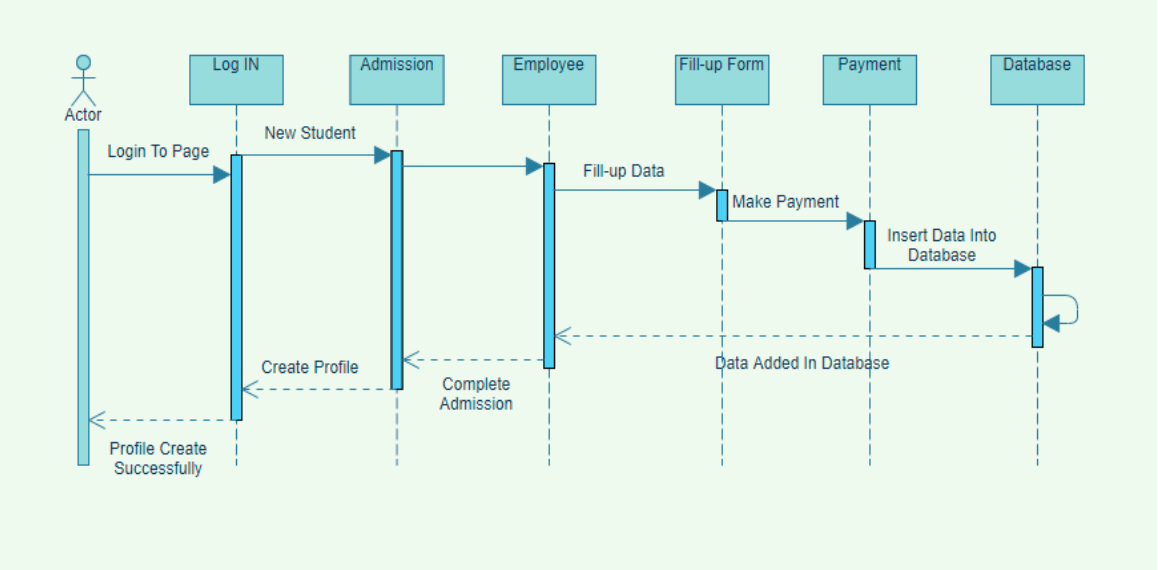

1st a user wants to login in the system. So, he move login system. Login system connected with another 2 system forgot password & verification. If user forgot their password only this condition they go forgot password system. This system work little time & give feedback.

Then user enter verification system. This system check user is valid or not. Verification system connected with another system that name is database. Where system check user login information.

If user is valid then it send feedback to verification system & close individual system work. Then verification system send feedback to login system & close individual system work.

Finally login system get his main information from feedback. Then user login successfully or get invalid message.

## Admission Part:



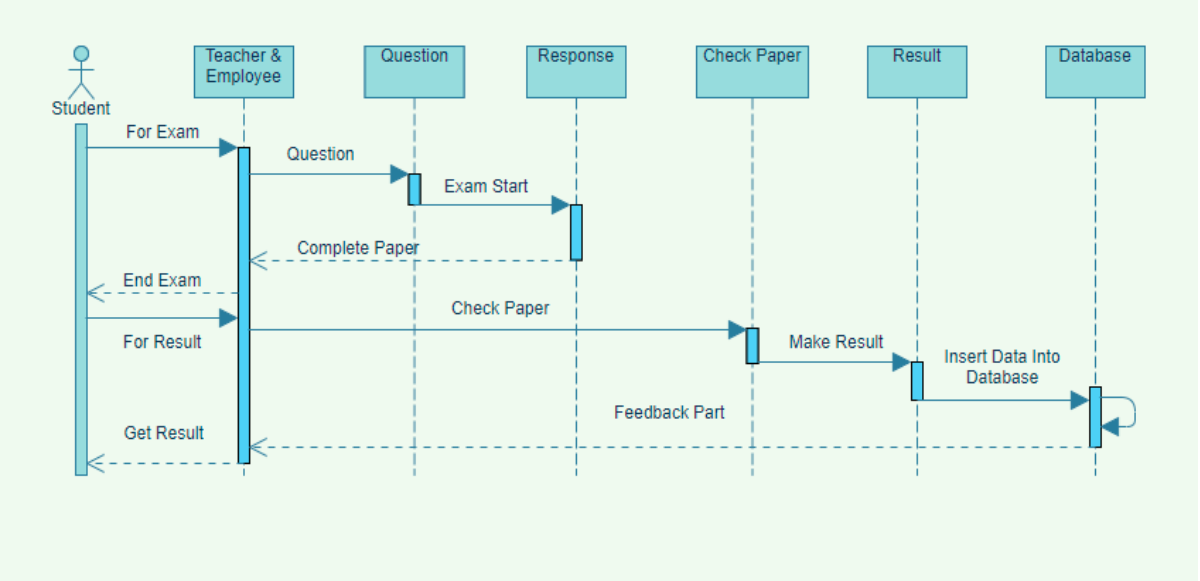

1st a user wants to login in the system. So, he move login system. Here user was not registered in this system because user is new. So his 1st work is admit in this school.

So, login system connected with admission system. Where new student get chance to admit. Then admit system connected with employee system. Because in previous UML modelling we see employee works on all process in student admission.

Employee system connected with another from system. Where employee fill up all details of student. Complete this system individual work user can go payment system where user pay their registration fees. Complete registration student all details stored in database.

Then database system give feedback to employee admission complete. Then employee create a profile for student & give user id & password for further use to login this system. Then user get message his profile was created.

## Exam Part:



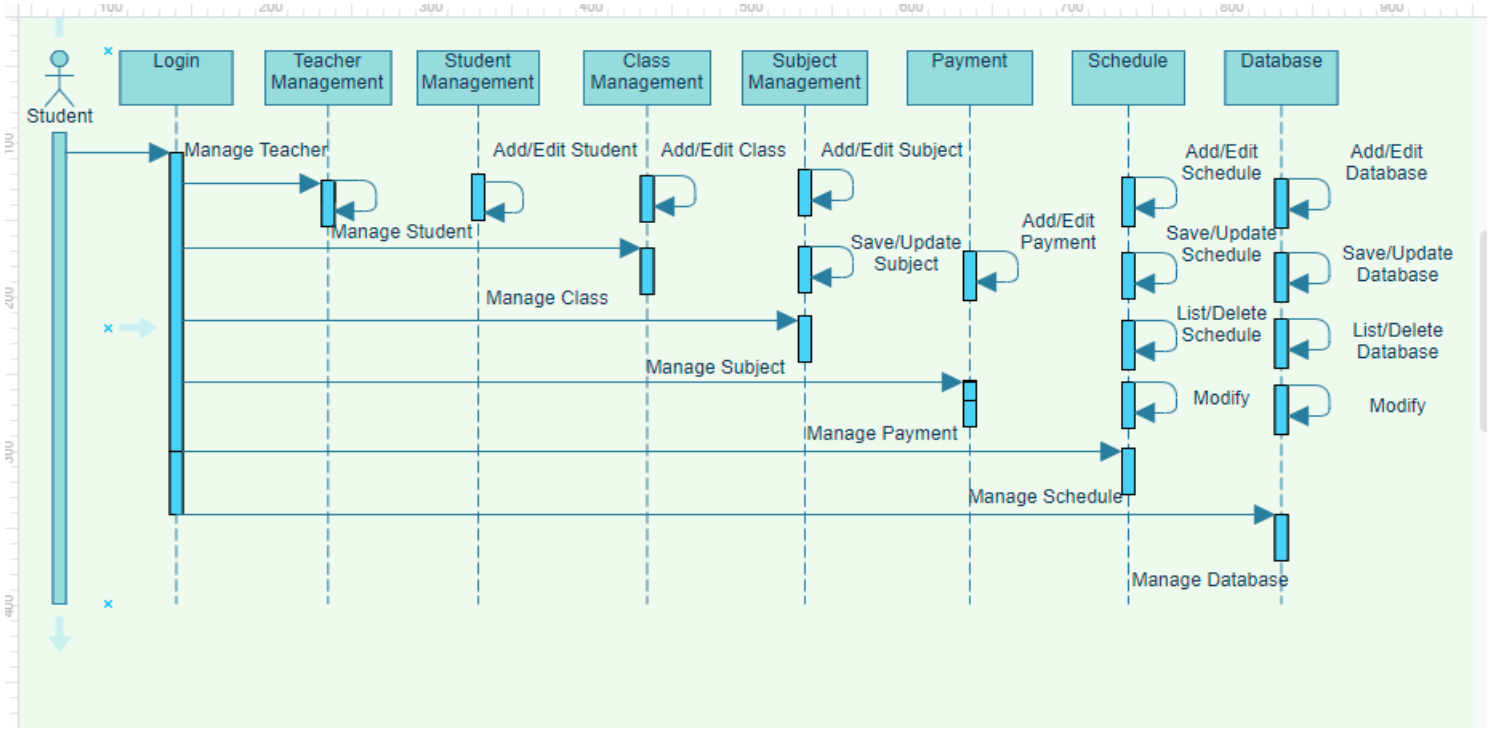

Normally we know that exam is connected with two things teacher & student. So, here 1st student system with teacher system for exam. Where teacher provide question for student to use question system.

After complete question system work every student get their question paper. Then they response in exam & after complete their paper they submit it to teacher system. Student part is complete now.

Teacher & employee work 1st to last in this diagram. After complete student exam paper teacher get this. Then he send it to check paper system. Where every student paper was checked & give their mark. Complete this section work it move on next system result.

In result system teacher & employee work to make result for combining individual mark. Complete this they give grade & store in database. After store database system give feedback. Complete all this process student get their result.

## Here we want to design Online School Management System Sequence Diagram




This is overall working process. How the system work we try to show that.

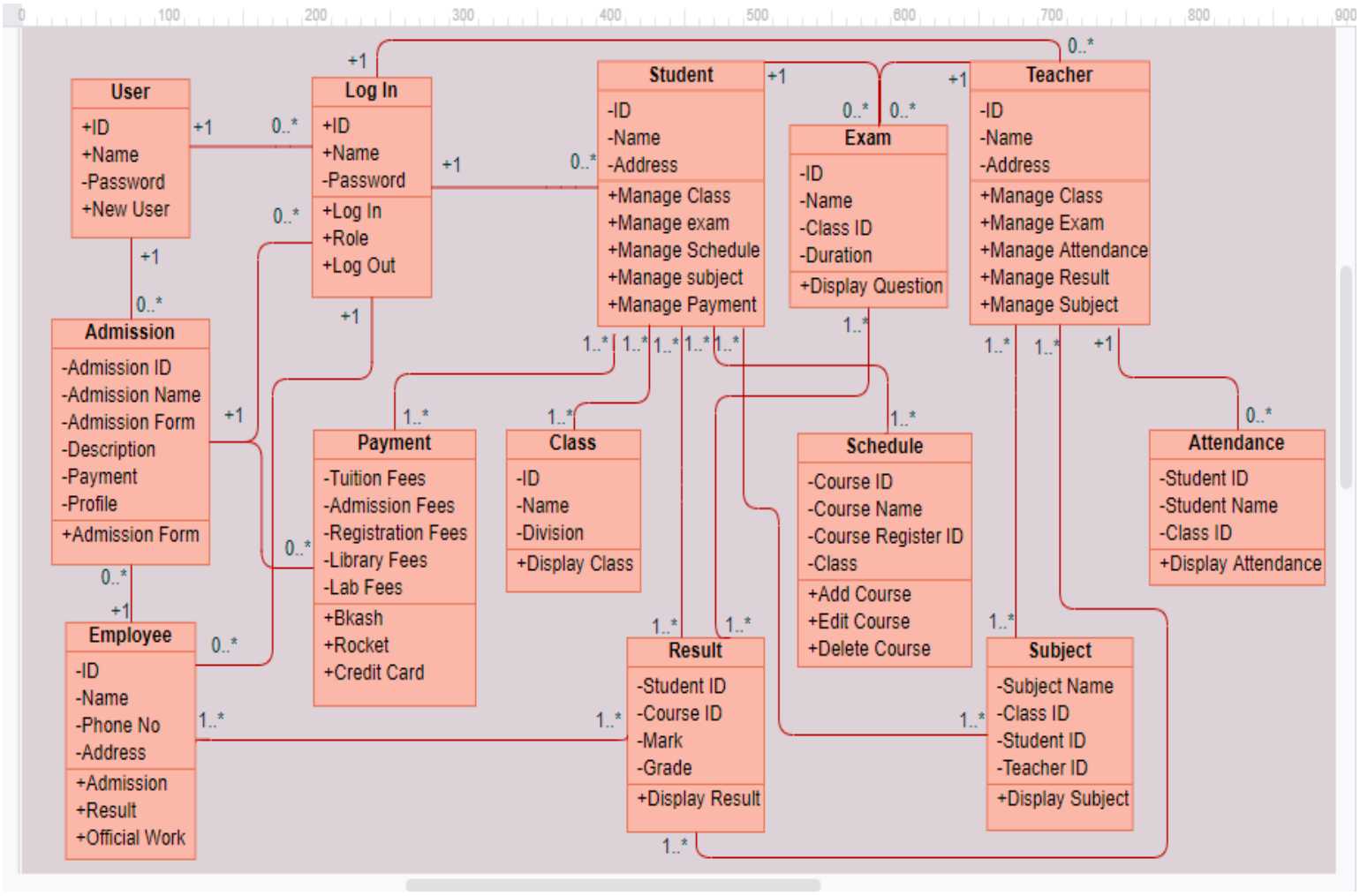
After login system user can go their required section & get their required output. The system was run until it work complete or give feedback.

In individual section user can add/edit, save/update, list/delete and modify their data.

Suppose I login system. I need to work on schedule section. Then I go on those section & complete my work & give feedback to main login system. After complete my work I exit in this system.

**Class Diagram:** The class diagram is the main building block of object-oriented modeling. It is used for general conceptual modeling of the structure of the application, and for detailed modeling, translating the models into programming code. Class diagrams can also be used for data modeling.

## Here we want to design Online School Management System Class Diagram



**Class Diagram:** Here individual system represented in individual class. Where each class has their attributes.

Suppose user class has id, name, password, new user attributes. (+, -, #) means variable type. + means public, - means private, # means protected type data.

1st user login system to give their id & password. If they was new then 1st go admission part. Complete all work they get enter id & password.

In login class user see display login, role & logout operation. They can enter system or exit system. Role attributes set part. Because student work & teacher work are not same. Student don't right to know employees work details or teacher details.

Here we see every class is connected with one to one or one to many connection to another class.

Suppose I talk about exam class. This class is generated by teacher & give exam student. So, it connected with teacher & student class. This class attributes is id, name, class id, duration. 1st 3 attributes are work on find student original details & duration maintain exam time. This class display question so student get this. This class also connected with result class. Because after complete exam part further work done in result class.

This is how individual class connected to each other maintain their attributes.

**Conclusion:** I hope through use this system we properly manage all criteria of a school & students. This system is specially designed for an educational purpose. There are many place to work on it.