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First Progress Report

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III.Project Information

1.	Title of the project	Evark – Smart School Management System
2.	Type of project	Inorganic
3.	Team size	1-5 members
4.	Subsystem title	Evark
5.	Date of opening	

A. Software Requirement Specification

B.Detail design

a)Title, Abstract and Type of Project(software)

Evark

ABSTRACT

Innovating education is not only about discovering new ways to deliver classroom learning. It is also about automating your campus with a solution that covers every aspect of management. Evark's Smart School solution is a multi-platform campus automation system for schools. Discover a high-tech suite of automated tools that simplifies school management, streamlines communication between administrators, teachers, and parents, and enables better learning and safe environment for the students.

HARDWARE AND SOFTWARE REQUIREMENTS

- RAM – 1GB or above
- OS - Windows 7 (and above)

Front End: HTML, CSS, Bootstrap

Back End: CodeIgniter, MySql

Guided by:

Mr. Neeraj Kharya

Submitted by:

Suvidhi Kankariya

b)List of tables

c) List of Figures

d) List of Abbreviations/symbol

- DFD – Data Flow Diagram
- ER – Entity Relationship diagram

1.INTRODUCTION

1.1Project description

The introduction of the Software Requirements Specification (SRS) provides an overview of the entire SRS with purpose, scope, definitions, abbreviations, references and overview of the SRS. The aim of this document is in to gather and analyse and give an in-depth insight of the complete **Evark–Smart School Management System** by defining the problem statement in detail. A condition for a capability that must be met or possessed by a system to satisfy an agreement, standard, specification or other formally and compulsory document of **Evark.**

1.2 Company Profile

Scketch Digital Solution is a Software Development and Service Based Company. Scketch is a Design Prodigy that fulfils your digital needs right from idea incubation to launch, from its design to development, from iterating to marketing. It is equipped with an arsenal of design principles and is trained in understanding business needs from an end user perspective to craft the best experience possible.

1.3Mission and Vision

The prime Mission and Vision is "GO SMART". We are here to tackle and provide solutions for the Enterprise and End users. We build our products with an aim to make technology much simpler which can be used by the consumers.The closely bonded team of Scketch aspires to provide skilfully the complete digital solution to clients and strive to deliver wonderful experience.

2.SYSTEM STUDY

2.1EXISTING SYSTEM

Existing system interface is not much user friendly. The information present in existing system is not much up to date. Existing system needs to be upgraded with advanced feature. In the existing system there's no intervention of parents. Transparency problem was there in existing system. It is also difficult to use live classes. Makes accessing data more cumbersome process.

- **Time consuming:** the existing system is time consuming to traverse. It takes a lot of time to go to each and every page of website.
- **SEO friendly:** it doesn't support SEO properly, because of its bulky data.
- **Loading time:** it takes a lot of time to load and need the high-speed internet connection.
- **User interface:** needs to be updated

2.2PROPOSED SYSTEM

- This system aims to provide the student's information and leads that can be used for follow up.
- This manages all the administration tasks like student admissions, payroll, staff's salary, transport, library, internal task tests, organizing exams, generating results with all-in-one solution. Integration of online payment system with the school management software is not only beneficial to the parents, but also to the school & education institute management.
- This system also provides the Live-class feature, teachers can easily conduct online classes for the purpose of ensuring real-time engagement of all students and teachers.
- This system give access to parents so that they can also track their child's performance can pay fees online.
- Students are able to view their attendance, fee details, timetable, get notified about examination schedule, results, can apply for leave online.

2.3FEASIBILITY STUDY

Feasibility study is an important phase in the web development process. It enables the developer to have an assessment of the product being developed. It refers to the feasibility study of the product in terms of outcomes of the product, operational use and technical support required for implementing it.

2.3.1.Technical Feasibility

The technical feasibility in the proposed system deals with the technology used in the system. It deals with the hardware and software used in the system whether they are of latest technology or not. It happens after the system is prepared a new technology arises and the user wanted the system based on the technology. This system uses window platform, HTML, CSS, Bootstrap as front-end technology and CodeIgniter as back-end technology.
Technical issues raised during the investigation are:

• Does the existing technology sufficient for the suggested one?

• Can the system expand if developed?

2.3.2.Economical Feasibility

Economic analysis is the most frequently used method for evaluating the effectiveness of a new system more commonly known as cost/benefit analysis.
The following are some of the important financial questions asked during preliminary investigation:

1. The costs conduct a full system investigation.
2. The cost of the hardware and software.
3. Improvement resulting over the existing method in terms of accuracy, timeliness.
4. Cost comparison
5. Estimate on the life expectancy of the hardware.

2.3.3.Operational Feasibility

The project has been developed in such a way that is becomes very easy for a business with computer and technical knowledge to operate it. This software is very user friendly and require any technical person to operate.

This includes the following questions-

1.Is there sufficient support for the users?

2.Will the proposed system cause harm?

3.SOFTWARE REQUIREMENT SPECIFICATION

3.1.Introduction

- In this SRS we discuss about the problem related to designing a Evark – Smart School Management System.
- This system provides as one able platform that helps you to network, collaborate and grow.
- The system allocated to software as part of system engineering are refined by establishing a complete information description a detailed functional and behaviour description, an indication of performance requirements and design constraints, appropriate validation criteria and other data pertinent to requirements.

3.1.1.Purpose of SRS.

- The purpose of SRS is to understand the requirement of the customer and programmer can understand it, and show the overview of the system with the help of SRS.
- The Complete and concrete SRS can make the system more feasible and provide more ease to complete the system at accurate time, cost and in high quality system.
- This document presents a detailed explanation of the objectives, features, user interface and application of Evark. It will also describe how the system will perform and under which it must operate.

3.1.2.Scope

- The scope of this project is to provide the platform where it helps you to achieve a mission to unite all and mutually help to build a mammoth business empire for the ages to come.
- The system works upon the concept of word-of-mouth and thus our team members are known for their dedication, loyalty and perhaps professionalism towards the program. Our team members meet regularly to build solid presentation skills, business relationships and indeed become excellent net workers.

- This system will provide the platform that helps you to achieve your long-term goals by connecting you with the quality business professionals.

3.2Overall Description

This software is inorganic software. Evark – Smart School Management System is a multi-platform campus automation system for schools. Discover a high-tech suite of automated tools that simplifies school management, streamlines communication between administrators, teachers, and parents, and enables better learning and safe environment for the students.

3.2.1Product Perspective

- Evark provides admin the ability to manage the administration tasks like student admissions, staff salary, library, timetable, exams, generate notice, results, certificates, fetch student's information, as well as manages the hostel, transport etc.
- Evark provides Student the ability to perform the tasks like login, to view their profile, also view the attendance, join the live classes, submit their homework, get the details of online exams and get the results online, apply for leave and can also provide the reviews of teachers.

3.2.2Product Function

A This platform provide a number of functions to the Student/user, such as :

- Attend online classes
- Submit their homework
- Apply for leave
- View Aattendance
- View exam schedule and results
- View Fee Details

3.2.3.User Characteristics

- The Authorized member may have access this application no extra knowledge is required.
- Every people related to school can access it without any problem.
- No need of extra knowledge but must have knowledge about basic things like how to upload a file and create/access live class.

3.2.4Constraints, Assumptions and Dependencies

- The application can be used only if the admin/student/staff/parent login with correct username and password.
- The further process or transactions can be carried on only with the permission of the administrator.

3.3NONFUNCTIONAL REQUIREMENTS

In this subsection we know about the interface which we use to build the system like user interface, external interface, hardware interface, software interface and communication interface.

3.3.1External Interface Requirement

All the interactions of the software with people, hardware, and other software should be clearly specified. For the user interface, the characteristics of each user interface of the software product should be specified. User interface is becoming increasingly important and must be given proper attention. A preliminary user manual should be created with all user commands, screen formats, an explanation of how the system will appear to the user, and feedback and error messages. Like other specifications these requirements should be precise and verifiable.

3.3.2.User Interface

In order to maintain an acceptable speed at maximum number of uploads allowed from a particular info will be any number of users can access the system at any time. Also, connections to the servers will be based on the criteria of attributes of the user like his location, and server will be working whole 24X7 times.

The user interface for the software shall be compatible to any browser such as Internet Explorer, Chrome by which user can access to the system.

3.3.3.Hardware Interface

- Processor: Pentium IV and higher
- Memory: 1 GB or above
- Hard Disk Space: 256 GB
- Monitor: VGA, LCD, LED

- Mouse: PS2/USB , Keyboard: PS2/USB

3.3.4Software Interface

- Front End: HTML, CSS, Bootstrap.
- Back End: CodeIgniter
- Operating System: Windows 7 or above
- Browser: Internet Explorer 6.0/ Firefox 2.0 or higher/ Google Chrome

3.3.5Communication Interface

Tools: HTML5, CSS3, Bootstrap

3.3.5.1HTML 5

Hypertext Markup Language (HTML 5), the languages of the World Wide Web (WWW), allows users to produces Web pages that include text, graphics and pointer to other Web pages (Hyperlinks).HTML5 is not a programming language but it is an application of ISO Standard 8879, SGML (Standard Generalized Markup Language), but specialized to hypertext and adapted to the Web. HTML5 can be used to display any type of document on the host computer, which can be geographically at a different location. It is a versatile language and can be used on any platform or desktop. HTML provides tags (special codes) to make the document look attractive. Advantages -

- HTML5 is platform independent.
- A HTML5 document is small and hence easy to send over the net. It is small because it does not include formatted information.
- HTML5 provides validation inside tag.
- HTML5 provides tags for videos.

3.3.5.2 CSS3

CSS3 is the new version of the CSS it provides the designing with new features like animations, and new styling attributes for styling parameters. It is very easy to use but provides lots of attributes for the styling parameters.

- Evark should use the HTTP protocol for communication over the Internet and for the Internet communication will be through TCP/IP protocol suite.

- This project supports all type of web browsers. We are using simple pages for the different function in this project.

3.4FUNCTIONAL REQUIREMENT

Functional requirements specify which outputs should be produced from the given inputs. They describe the relationship between the input and output of the system. For each functional requirement, a detailed description of all the data inputs and their source, the units of measure, and the range of valid inputs must be specified. All the operations to be performed on the input data to obtain the output should be specified. This includes specifying the validity checks on the input and output data, parameters affected by the operation, and equations or other logical operations that must be used to transform the inputs into corresponding outputs.

- The Evark is a multi-platform campus automation system for schools. Discover a high-tech suite of automated tools that simplifies school management, streamlines communication between administrators, teachers, students and parents, and enables better learning and safe environment for the students.

3.4.1 Evark – Smart School Management System

- Login page 1.1

  Sign in the authorized Student which is having username and password.

- Profile Page 1.2

  The profile of Student who logs in, in this application, different features like view profile, fees, exams, documents, as well as timeline.

- Live Classes 1.3

  In this module, student is able to join the live classes created by the teacher via link provided by teacher itself.

- Homework 1.4

  In this module, students can view their homework and can upload their submissions directly in the portal

- Online Exam 1.5

In this module, all the information related to exams have been mentioned.

- Apply Leave 1.6

  In this module, student can apply for the leave.

- Examinations 1.7

  In this module, student can get the exams schedule and result.

3.5PERFORMANCE REQUIREMENTS

 The performance is static.

3.5.1Static Performance

- In the Evark- students can enter with their Username and Password .
- It supports n numbers of user to access the system at the same time from anywhere with the application.

3.5.2DynamicPerformance

Not applicable.

3.6DESIGN CONSTRAINTS

3.6.1Standard Compliance

- The system shall be built using a standard web page development tool that confirms to Microsoft's API standards and we use MySQL to store database into the server.
- There are many operations which we are performing in this system that is view fee details, apply for leave, homework submission etc.

3.6.2Hardware Limitations

At least users have a computer system with given software requirement to access this site, at least this much must be need of this software.

3.6.3Reliability and Fault Tolerance

Evark have recovery technique by storing the backups of database in the server.

3.6.4Security

- This system allow only the member can have the authority to access the whole data and this application with providing their Username and password.
- Control access to data.
- Security for database.

3.6.5 Other Requirements

1. Correctness – Extend to which program satisfies specifications, fulfils user's mission objectives.
2. Efficiency - amount of computing resources and code required to perform function.
3. Flexibility - effort needed to modify operational program.
4. Interoperability - effort needed to couple one system with another.
5. Reliability - extent to which program performs with required precision
6. Testability - effort needed to test to ensure performs as intended
7. Usability - effort required to learn, operate, prepare input, and interpret output.

4. SYSTEM DESIGN

4.1Object/ Class model.

4.1.1Data dictionary containing description of class attributes

Table: Login Page

Fields	Data Type	Description	Range
Username	varchar(20)	Enter user_name for login	0 to 8000 char
Password	varchar(20)	Enter Password	0 to 8000 char

Table: Profile Page

Fields	Data Type	Description
Admission_date	date	Admission date of the student
Date_of_birth	date	Date of Birth of the student
Category	varchar(20)	Category of the student
Phone_no	Number	Phone number of the student
nationality	varchar(20)	Nationality of the student
address	varchar(50)	Address of the student
Father_name	varchar(50)	Father's name of the student
Father_phone	number	Father's phone number
Father_occupation	varchar(20)	Father's occupation

Mother_name	varchar(50)	Mother's name of the student
Mother_phone	number	Mother's phone number
Guardian_name	varchar(50)	Guardian's name(if any)
height	float	Height of the student
weight	float	Weight of the student

Table: Student attendance

Fields	**Data Type**	**Description**
id	Int	Id of the student
Student_session_id	Int	Session id of the student
Biometric_attendance	Int	Biometric of the student
date	Date	Date of the attendance
remark	varchar(20)	Remarkregarding attendance
isactive	varchar(20)	
Created_at	Timestamp	Attendance creation time
Updated_at	Timestamp	Attendance Updation time

Table: homework

Fields	**Data Type**	**Description**
id	int	Id of the student
Class_id	int	Class Id
Section_id	int	Section Id
subject	varchar(20)	Subject
Homework_date	date	Date of homework creation
Submit_date	date	Date of homework submission

Evaluation_date	date	Evaluation date
document	varchar	Homework pdf/doc

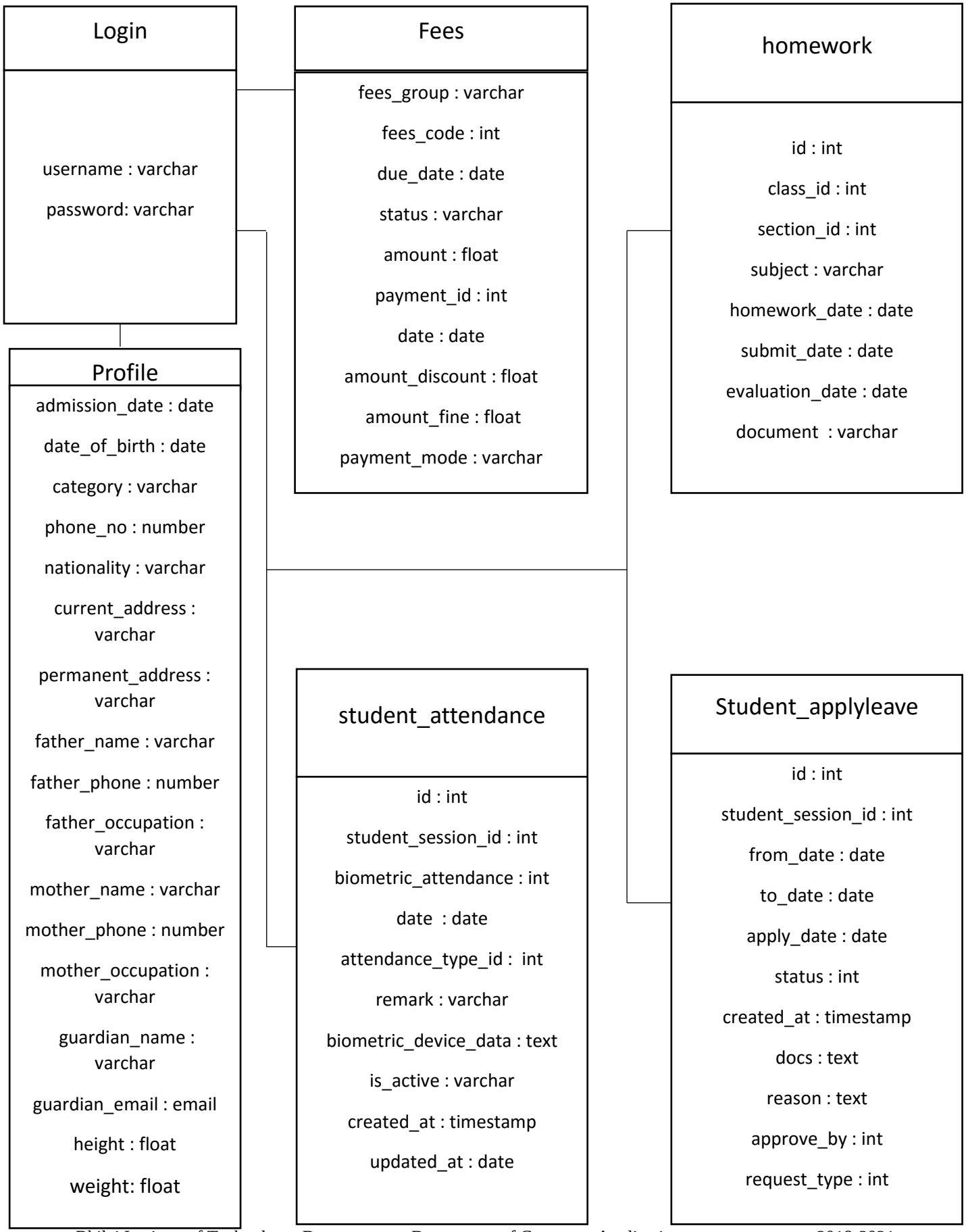
Table: Fees

Fields	Data Type	Description
Fees_group	varchar	Fees group
Fees_code	int	Fees code
Due_date	date	Due date for fees
status	varchar(20)	Status of fees whether paid or not
amount	number	Fees Amount
Payment_id	int	Payment ID
date	date	Fees payment date
Payment_mode	varchar(20)	Mode of Payment

Table: Student Leave

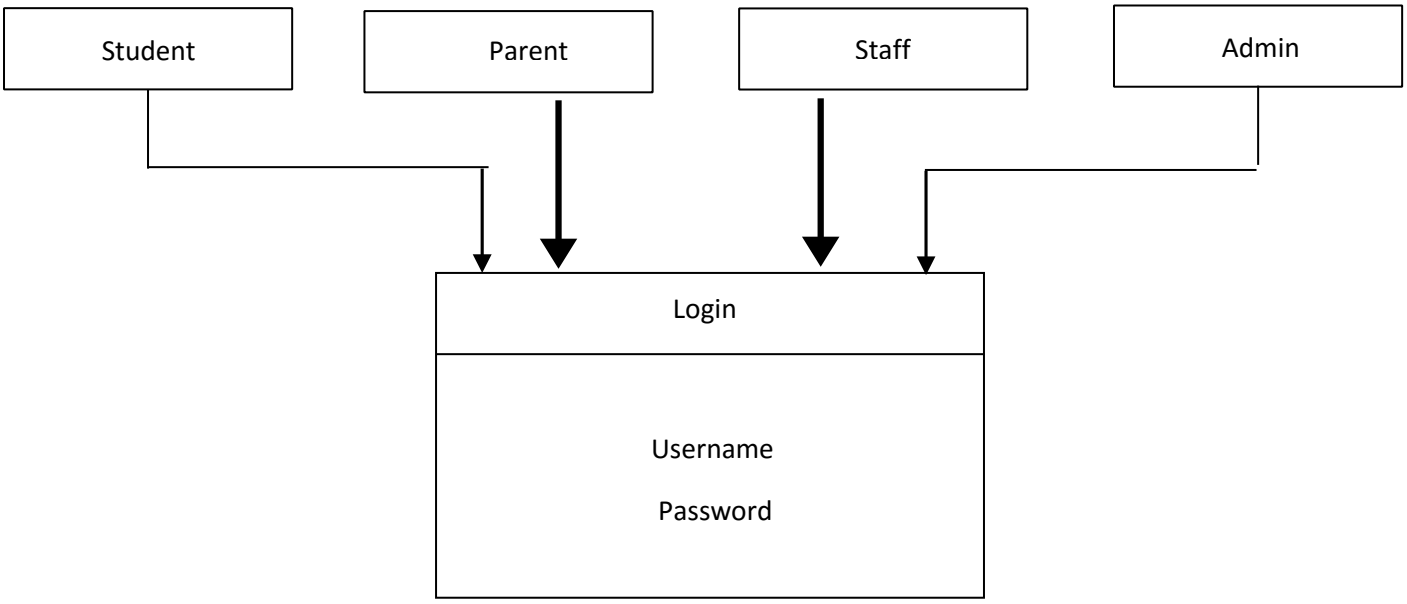
Fields	Data Type	Description
Id	int	Id of the student
Student_session_id	int	Session id of student
From_date	date	Date from when student wants leave
To_date	date	To when student wants leave
apply_date	date	Date when student is applying
docs	text	Application of leave
reason	text	Reason for the leave
Approve_by	varchar(20)	Approved by

4.1.2.Association between classes



4.1.3. Simplifying

object classes using Inheritance



4.1.4. Group classes into module

Login

- Student Login
- Login credentials is provided by Admin.
- Student can change Username and Password.

Profile

- Profile page has different fields like students details, fees details, exams, documents, timeline to which student can get access after login.
- If student forgot password they reset their password.
- Exit & come back to the login page.

Live Classes

- From here student can join the live classes via zoom.
- Live classes is created by teachers.
- Teacher provides the zoom link to the student.

Homework

- Student get homewok access here.
- They can submit their homework by attaching the files.
- Exit and go back to the home page.

Apply for Leave

- Student can apply for leave by this module.
- The leave is approved by admin/teacher only.
- Exit and go back to the home page

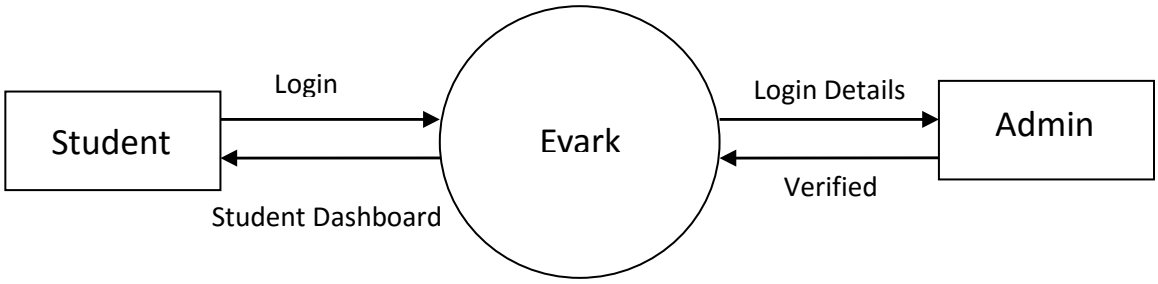
Student Attendance

- Student can view their attendance here.
- Exit and go back to the home page

Exam Special

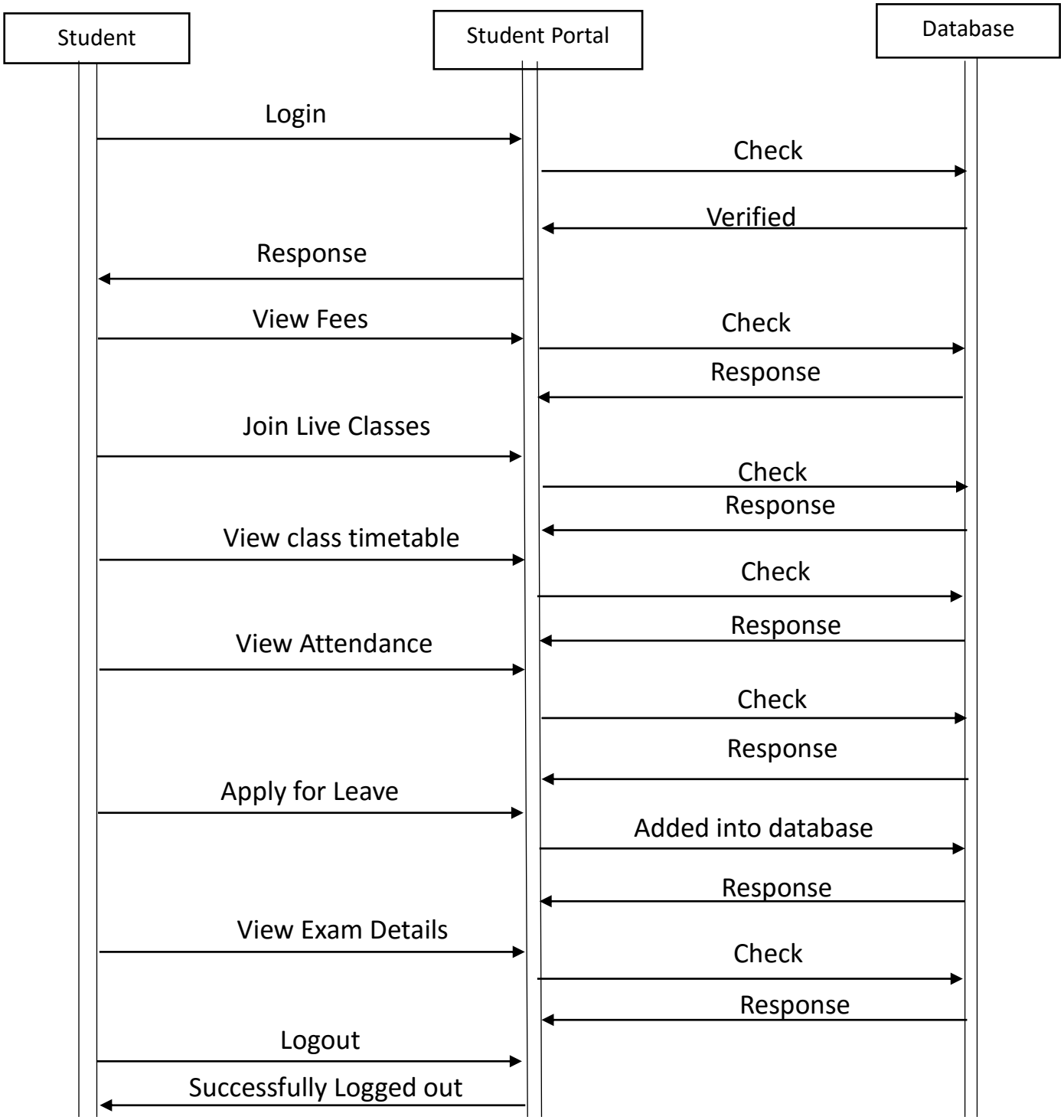
- Syllabus, question bank, solved paper for exams provided by teacher will appear in this module.
- Exit and go back to the home page

4.1.5. Object diagram

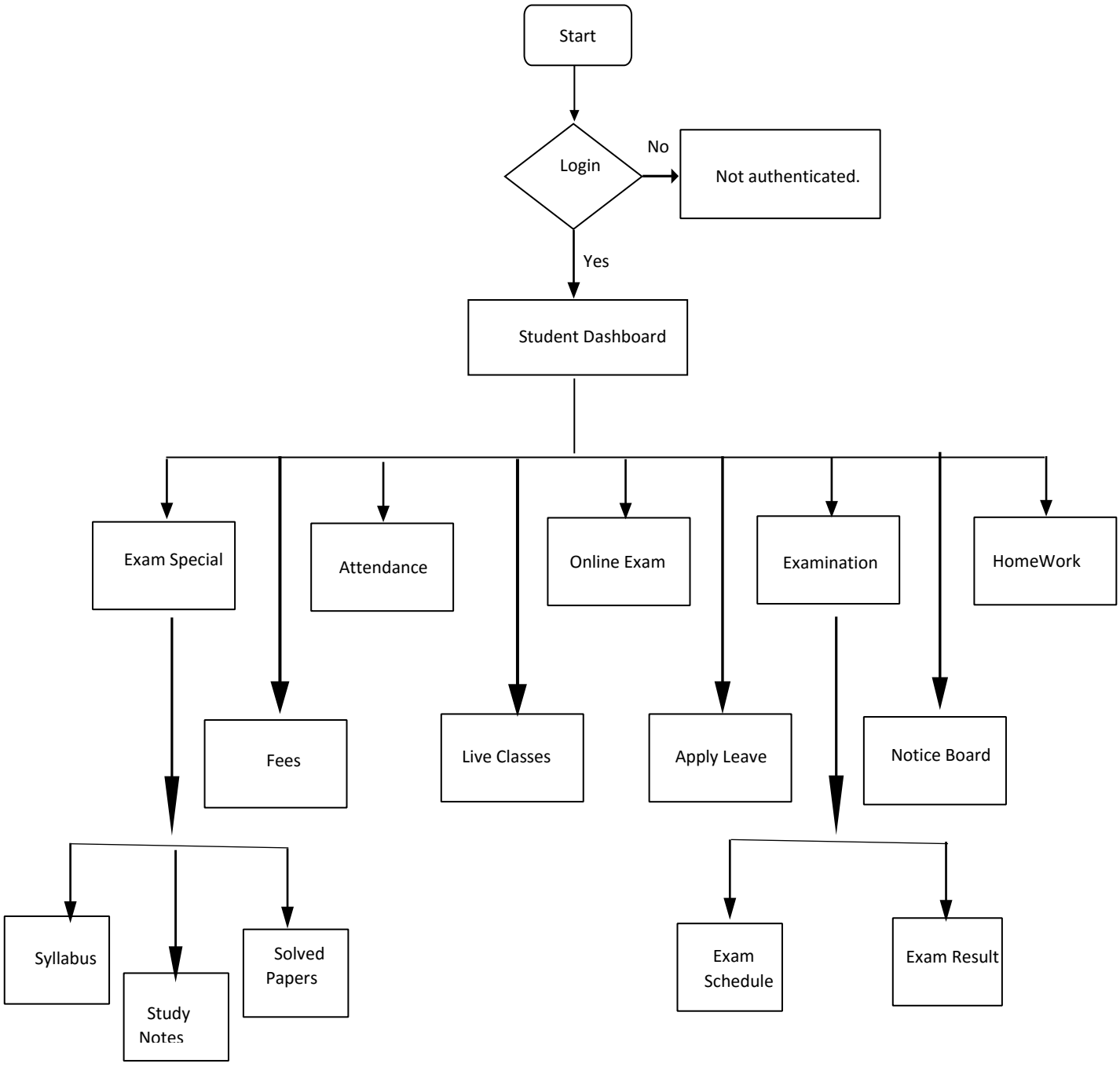


4.2Dynamic model

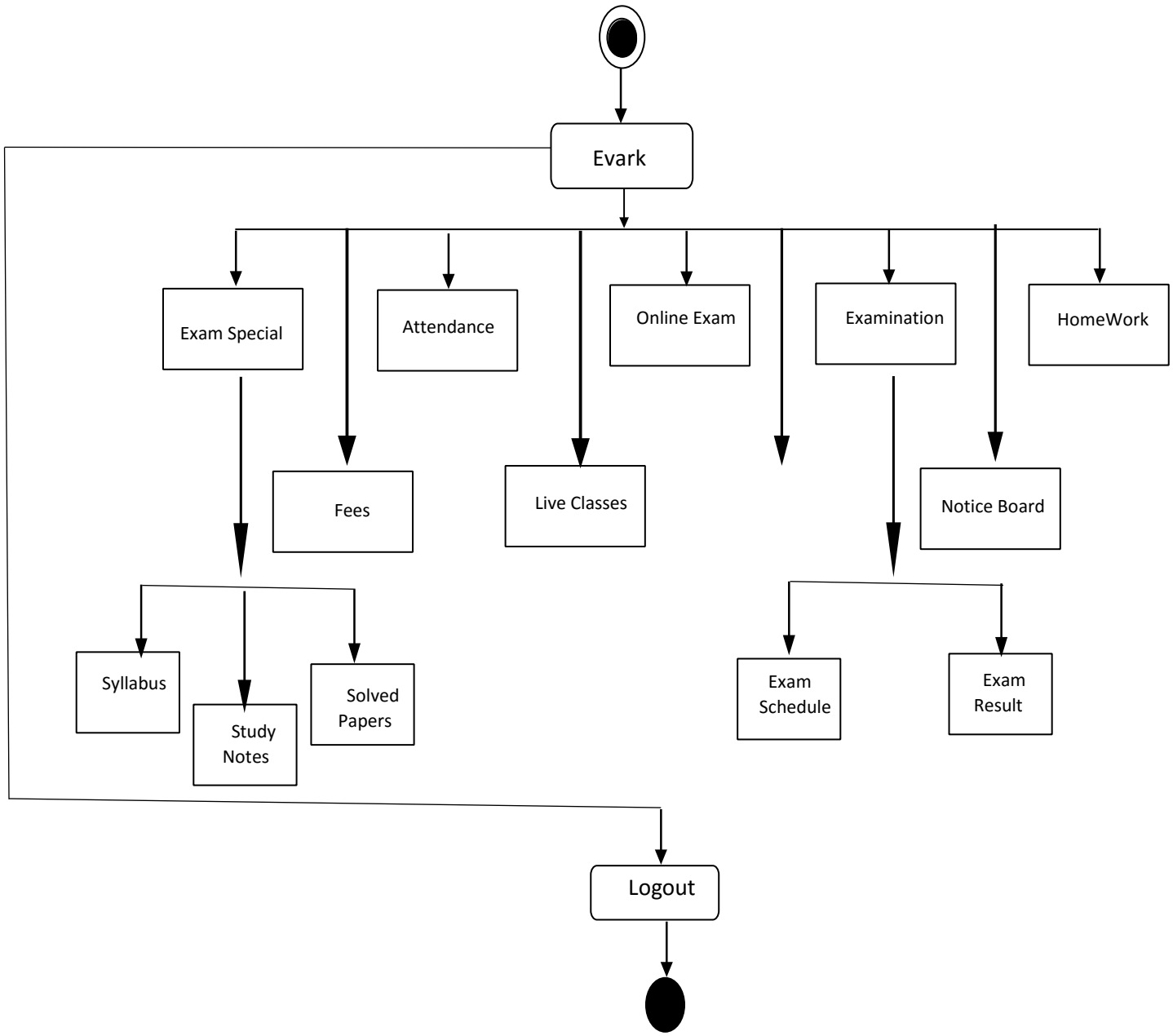
4.2.1Scenario(Project interaction Sequence)



4.2.2. Event Flow Diagram(EFD)

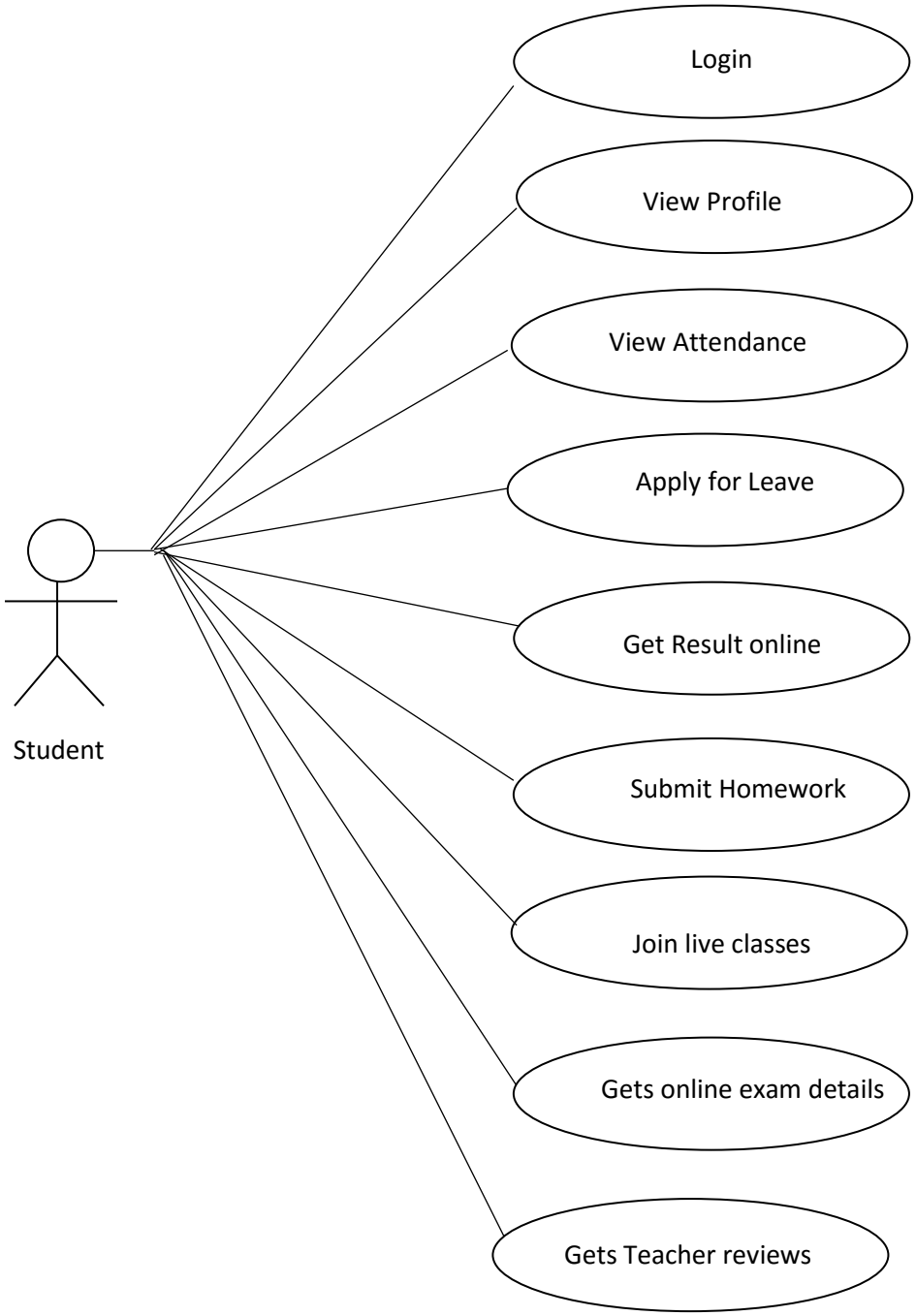


4.2.3. State Diagram(SD) for each classes



4.3Functional Model

4.3.1Use Case Diagram



4.3.2Identification Of Input/Output Values

Login

Input	Description
Username	Provide username for login
Password	Provide valid password

Profile

Fields	Description
Admission Date	Admission date of the student
Date of Birth	Date of Birth of the student
Category	Category of the student
Phone Number	Phone number of the student
Nationality	Nationality of the student
Address	Address of the student
Father's Name	Father's name of the student
Father's Phone	Father's phone number
Father'sOccupation	Father's occupation
Mother's Name	Mother's name of the student
Mother's Phone	Mother's phone number
Guardian's Name	Guardian's name(if any)
Height	Height of the student
Weight	Weight of the student

Student Attendance

Fields	Description
ID	Id of the student
Student Session Id	Session id of the student
Date	Date of the attendance
Remark	Remark regarding attendance
IsActive	
Created At	Attendance creation time
Updated At	Attendance updating time

Student Homework

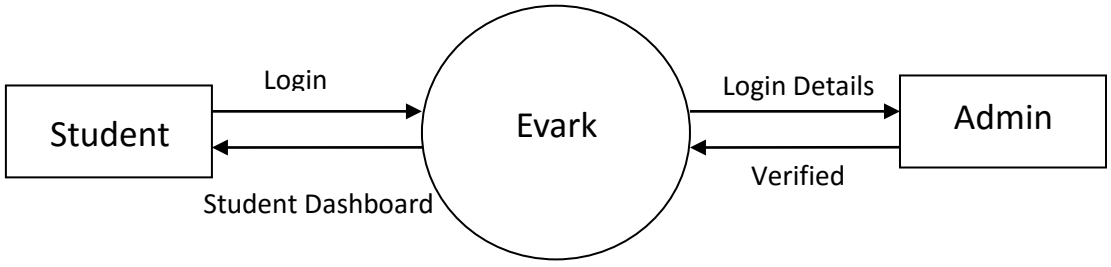
Fields	Description
ID	Id of the student
Class Id	Class Id
Section Id	Section Id
Subject	Homework Subject
Homework Date	Date of homework creation
Submission Date	Date of homework submission
Evaluation Date	Evaluation date
document	Submit homework in the form of pdf/doc file

Student Leave

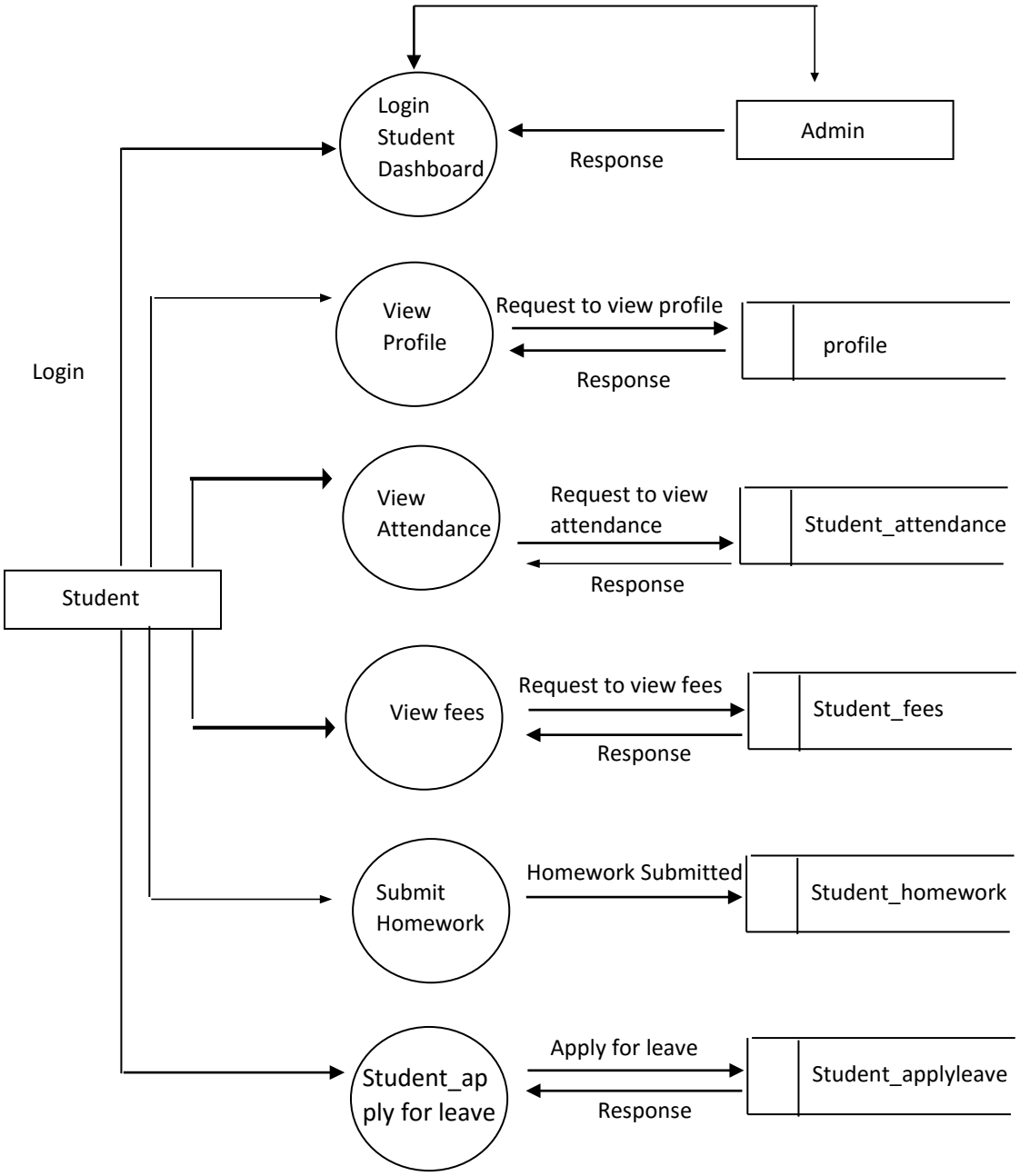
Fields	Description
Id	Id of the student
Student Session Id	Session id of student
Leave from	Date from when student wants leave
To Date	To when student wants leave
Apply Date	Date when student is applying for leave
Docs	Application of leave
Reason	Reason for the leave
Approve_by	Approved by

4.3.3. DFD As Needed To Show Functional Dependencies

0 LEVEL DFD:-



1 LEVEL DFD:


Login
Student
Dashboard
Admin
Response
Login
View
Profile
Request to view profile
profile
Response
View
Attendance
Request to view
attendance
Student_attendance
Response
Student
View fees
Request to view fees
Student_fees
Response
Submit
Homework
Homework Submitted
Student_homework
Student_ap
ply for leave
Apply for leave
Student_applyleave
Response

4.3.4. Identification of constraints

primary key foreign key

4.4 Database Design

4.4.1 Schema Description Including Keys Memberlogin

Login

username	password

Profile

admission_date	date_of__birth	phone_number	Nationality	Address	father_name	father_phone	father_occupation	Mother_name	mother_phone

Student Attendance

Id	student_session_id	date	remark	isActive	Created_at	updated _at

Student Homework

Id	Class Id	Section Id	Subject	Homework Date	Submit Date	Evaluation Date	Document

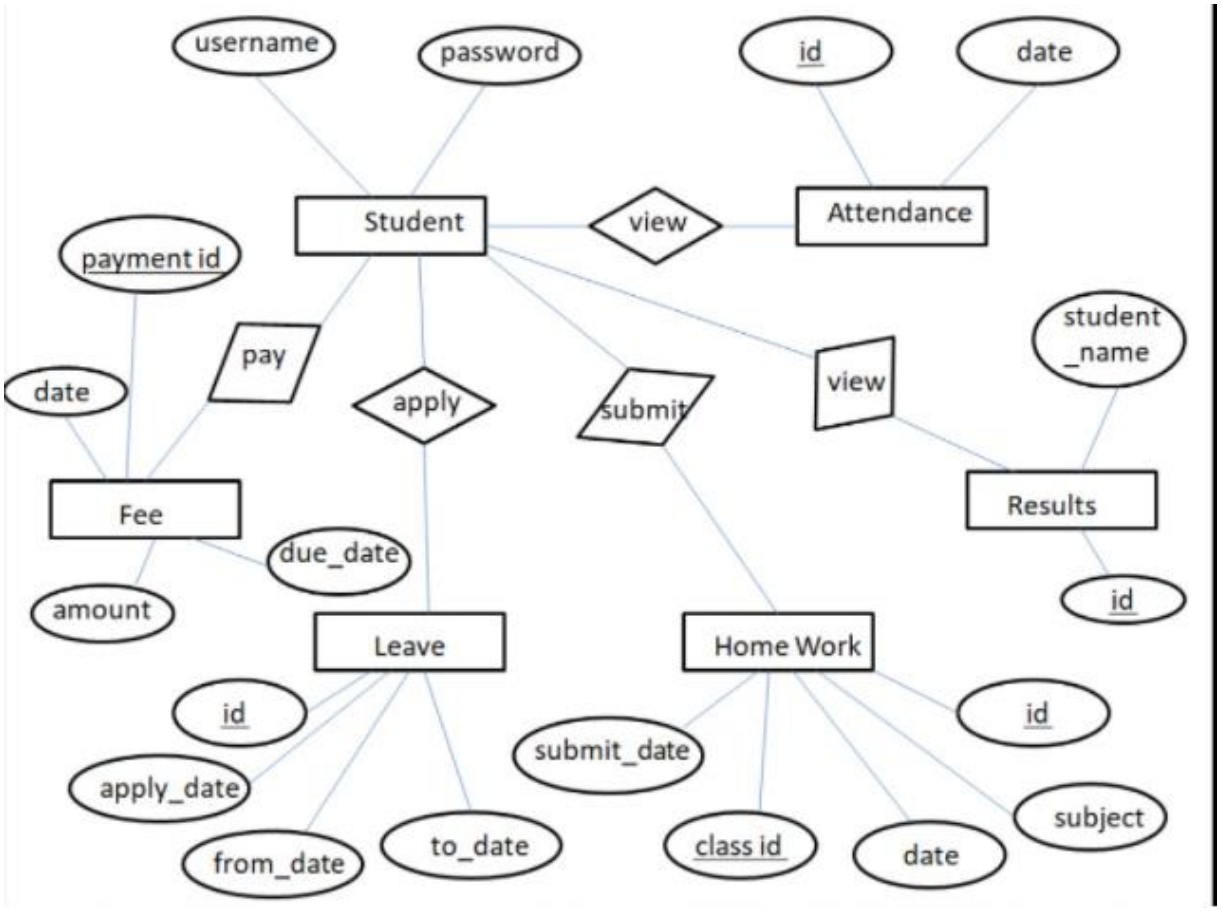
Fees

fees_group	fees_code	due_date	Status	amount	payment_id	date	payment_mode

Student Leave

id	student_session_id	from_date	to_date	apply_date	docs	reason	approve_by

4.4.1E-R Diagram



5. CONCLUSIONS

- This system is developed to overcome the man power and time consumption which is very high in the manual existing system.
- This system will provide the ease of handling the data.
- Students gets all the facilities in a single website, like when they want to join live classes they need not to switch to other application it's integrated inside the website itself.
- This system is developed to upgrade the existing system with new technologies like live classes, homework submission.

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- https://css-tricks.com/snippets/css/gradient-text/

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Book : Software Engineering –A Practice Approach by Roger s. Pressman

Comment of guide (satisfactory/Not satisfactory):- _____

Name and signature of the candidate **signature of the guide**

Date:

Place:

Departmental use only:-

Comments of Co-ordinator (satisfactory/Not satisfactory):- _____

Date: **Signature of Project Co-ordinator**

Name: Mrs. Shweta Kharya

Department of Computer Applications

Bhilai Institute of Technology, Durg