

Team Snipers

university Portal CMS (Content Management System)

Software Requirements Specification

Version 1.0

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1.0 Introduction :

1.1 Purpose :

University Portal CMS is a CMS(Content Management System) using which anyone can create a portal for his/her institute/school/college within couple of hours like 3 or 4 hrs.

The website portal delivered using university Portal CMS will have rich set of functionalists that a college or institute may require. Institutes/colleges can deploy their portal on either Intranet or Internet(public). This makes automation of various student, faculty and administrator related tasks.

1.2 Scope :

- There are basically three stakeholders of the system – **Students, Faculties and Administrator.**
- All users will have their own profile.
- All privileges are granted to the admin, so the admin can create faculties' and students' profile with id and default password, that can be later on edited by the respective student and faculty.
- Faculties have partial rights to some functionality modules/features such as attendance, test, result, time-table, notes, resources, etc.
- The Post facility facilitates anyone to send message according to a customized list, a PRN list, a Faculty list, a group list, a batch list and/or a program list. So, only by a single click, a message can be sent to a customized list. (which also eliminates duplicate entries overlapped in customized list -optimization).
- Faculties can create assignment questions and upload link for the same, where students can upload their assignment. The time-stamp of the upload is maintained, so that late submissions can be distinguished easily.
- Faculties can upload notes and other resources (e-books ,tutorials) that can be downloaded by students.
- Faculties can schedule tests which will be highlighted on the students' calendar with appropriate message as tool tip. For declaring results, the concerned faculty is only required to enter the obtained marks. The

students' Ranking, grading, class average, and C.G.P.A will be calculated automatically.

- Faculties can add/update/delete the time table.
- Faculties have only to enter the no of unattended sessions of a student for a respective subject on a date. Rest of the details will be auto generated by the system.
- Admin can add events and its respective photo gallery/photos in it.
- Admin can add/update/delete program, program's batch and groups of a batch.
- In case of a forgot password, the admin can reset the password as the default password of the concerned faculty/student.
- Admin can add/update/delete placement statistics and the recruiters' details.
- Admin can enroll the students to a group and can add subjects to it.

1.3 Definitions, Acronyms and Abbreviations :

CMS

Content Management System is a system in which data can be defined as nearly anything: documents, movies, text, pictures, phone numbers, scientific data, and so forth. The CMS has search, retrieval and insertion/deletion facility for all its data.

Web Portal

A **web portal** is a web site that functions as a point of access to all facilities that are provided . A portal presents information from diverse sources in a unified way.

Admin

Administrator has full access to any data. He/she can add/manage/delete faculties and students.

HTML

Hyper Text Markup Language is used to create static web pages.

PHP

PHP Hypertext Preprocessor is a general-purpose server-side scripting language originally designed for Web development to produce dynamic Web pages.

Mysql

MySQL is a relational database management system (RDBMS) that runs as a server providing multi-user access to a number of databases

Apache

The Apache HTTP Server, commonly referred to as Apache , is web server software notable for playing a key role in the initial growth of the World Wide Web.

UML

Unified Modeling Language is a standard language for writing software blueprints. The UML may be used to visualize, specify, construct and document .

LAMP

LAMP is an open source Web development platform that uses Linux as the operating system, Apache as the Web server, MySQL as the relational database management system and PHP as the object-oriented scripting language.

SHA-1

Secure Hash Algorithm-1 is a cryptographic hash function that is used in this project for storing password in database.

CKEditor

CKEditor (formerly FCKeditor) is an open source WYSIWYG text editor from CKSource. It is used in many of the forms of this project.

JavaScript

JavaScript is a prototype-based scripting language that is dynamic, weakly typed and has first-class functions. This project uses no of client-side java Script as well as server-side java Script for interactive dynamic page and flashy look.

CSS

Cascading Style Sheets (CSS) is a style sheet language used to describe the presentation semantics (the look and formatting) of a document written in a markup language. The theme of this portal is designed using CSS 3.0 standards.

BlueFish editor

Bluefish is a web development editor focused towards the development of dynamic websites. This project uses Bluefish editor for writing page source code in php.

phpMyAdmin

phpMyAdmin is an open source tool written in PHP intended to handle the administration of MySQL over the World Wide Web. It can perform various tasks such as creating, modifying or deleting databases, tables, fields or rows; executing SQL statements; or managing users and permissions.

Google Dorks

This project makes a use of google dork (site:) for searching in the website.

.htaccess

.htaccess (hypertext access) is the default name of a directory-level configuration

file that allows for decentralized management of web server configuration. This CMS delivers .htaccess file bundled with website created from it.

AJAX

Ajax (Asynchronous Java Script and XML): It is a technique used in java script to create dynamic web pages.

Web 2.0

It is commonly associated with web applications which facilitate interactive information sharing, interoperability, user-centered design and collaboration on the World Wide Web.

1.4 References :

- <http://www.sicsr.ac.in/>
- <http://www.w3schools.com/>
- <http://mail.sicsr.ac.in/>
- <http://elearning.sdrclabs.in/>
- <http://www.lafayette.edu/>
- <http://www.phpcloud.com/>
- PHP manual 5.3.9 (Multi HTML version)
- Mysql 14.12 manual (Single HTML Version)
- Book : PHP 5.1 by Ivan Bayross

1.5 Technologies Used :

- LAMP stack

- Linux : This project development is done under (Fedora 15 GNOME) OS.
- Apache : This project uses Apache 2.0.52 version for serving http request.
- Mysql : This project uses Mysql 14.14 as database or back end.
- PHP : This project uses PHP 5.3.9 as front end.
- PhpMyAdmin : This project uses phpMyAdmin 3.4.9 for database administration.
- Bluefish Editor : This project uses Bluefish 2.0.3 as a text editor.
- FCKEditor : This project uses FCKEditor 2.6.5 bundled in web page.
- AJAX : This project uses AJAX for various flashy look and performance purpose.
- JavaScript : This project uses javaScript for adding user interactivity in webpage.
- CSS : This project uses CSS 3.0 standards for building theme.

1.6 Overview :

Existing System :

- college is currently using moodle cms which doesn't provide Attendance management , Message(Post) Forwarding, Time-Table management , Notes and Resources management , (Program – Batch – Group) level policies.
- Moreover it doesn't provide any events or photo gallery system.
- college is using mail.sicsr.ac.in mailing service from google for forwarding messages which doesn't provide customized list facility.
- college is using spread sheet (google docs) for declaring result and attendance which is manual and paper based system.

Drawbacks :

- For forwarding even a single statement students/faculties has to use mail facility.
- No such separate groups created for divisions, specialization, elective subject combinations. So it becomes difficult to manage separate policies for them.
- Attendance and Time-Table system is paper based so it is quite time consuming.
- Students and Faculties has to use different services for different functionalist. Such as moodle for test, mail for message, Sagittarius for resources etc.

Proposed System:

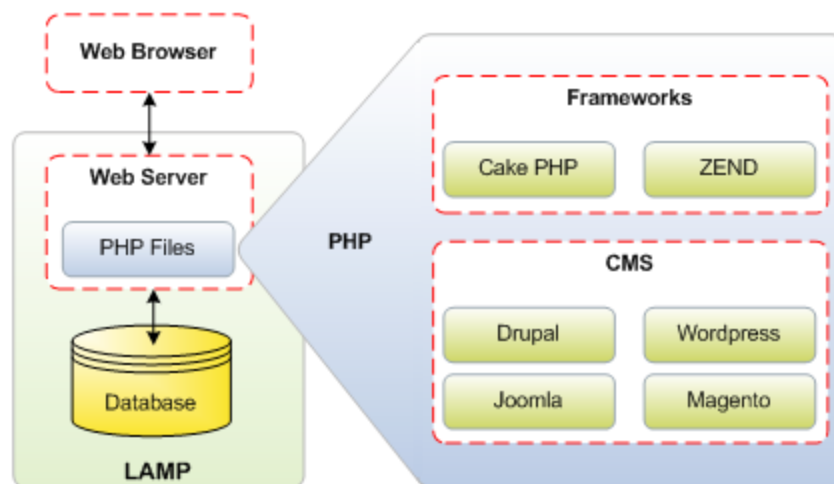
- Designing a web portal which facilitates all the services at one place.
- Automated attendance and time-table management system.
- Posts forwarding functionality with customized list as receivers.
- Resources and Notes management with authentication.
- Program level, batch level and group level separate policies.
- Event and web photo gallery system.

Our Plan:

- Maintaining Student and Faculty profile.
- Managing students at three different level Program, Batch and Group level.
- Providing a calendar in which all important events, upcoming exams and assignment submission date will be highlighted.
- Faculties will have add/update/delete privileges to notes, assignment, tests, result, attendance and time-table.
- Admin will create faculty and students profile with default password, that students and faculties will edit later.
- Admin can create program, batches and groups of it. He/She can also add student or list of students to group as well as subjects to it.
- There will be a file manager which will maintain resources and notes.

2. Overall Description :

2.1 Product Perspective :



2.2 Software Interface :

Front End Client : PHP 5.0 and above.

Web Server : Apache2 (apache 2.0 and above)

Database Engine : Mysql

Back End : Mysql 13.02 and above.

2.3 Hardware Interface :

Minumum Requirements : (Client Side)

Browser : IE 5.0 and Mozilla 3.02.
Processor : Pentium D processor 1.2 Ghz
Ram : 128MB
Disk Space : 100 MB

Minumum Requirements : (Server Side)

PHP version : PHP 5.0 and above.
Web Server : Apache2 (apache 2.0 and above)
Database Engine : Mysql 13.02
RAM : 128MB
Disk Space : 100 MB

Recommended Requirements : (Client Side)

Browser : IE 5.3 and Mozilla 4.0.
Processor : Pentium 4 processor 2.2 Ghz
Ram : 512MB
Disk Space : 1024 MB

Recommended Requirements : (Server Side)

PHP version : PHP 5.03 and above.
Web Server : Apache2/Apache2.02
Database Engine : Mysql 14.14
RAM : 1024MB
Disk Space : 2024 MB

2.4 Communication Interface :

Client (Students) on Internet will be using HTTP/HTTPS protocol.

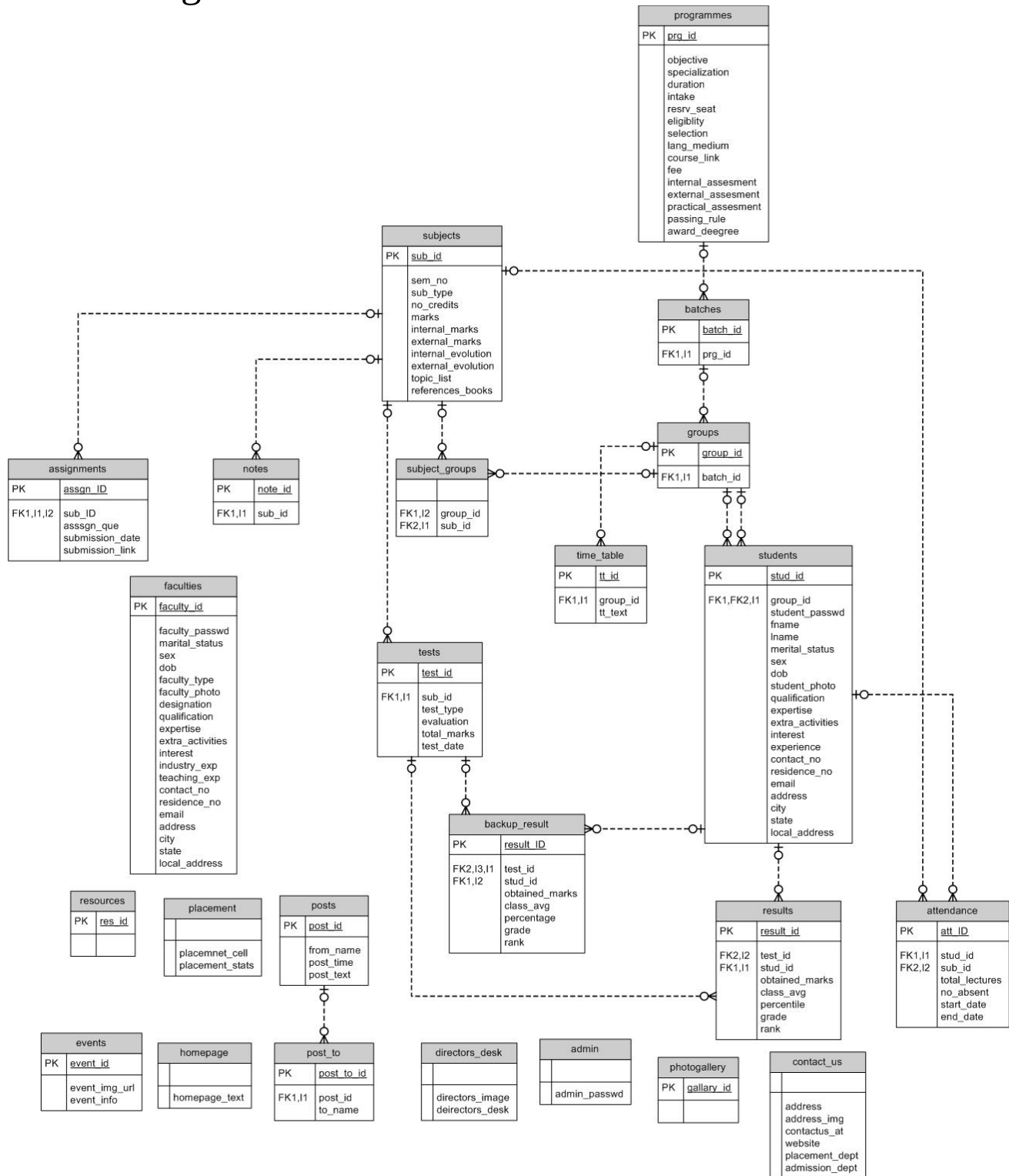
Client (Faculties) on Internet will be using HTTP/HTTPS and FTP protocol.

Client (Admin) on Internet will be using HTTP/HTTPS and FTP protocol.

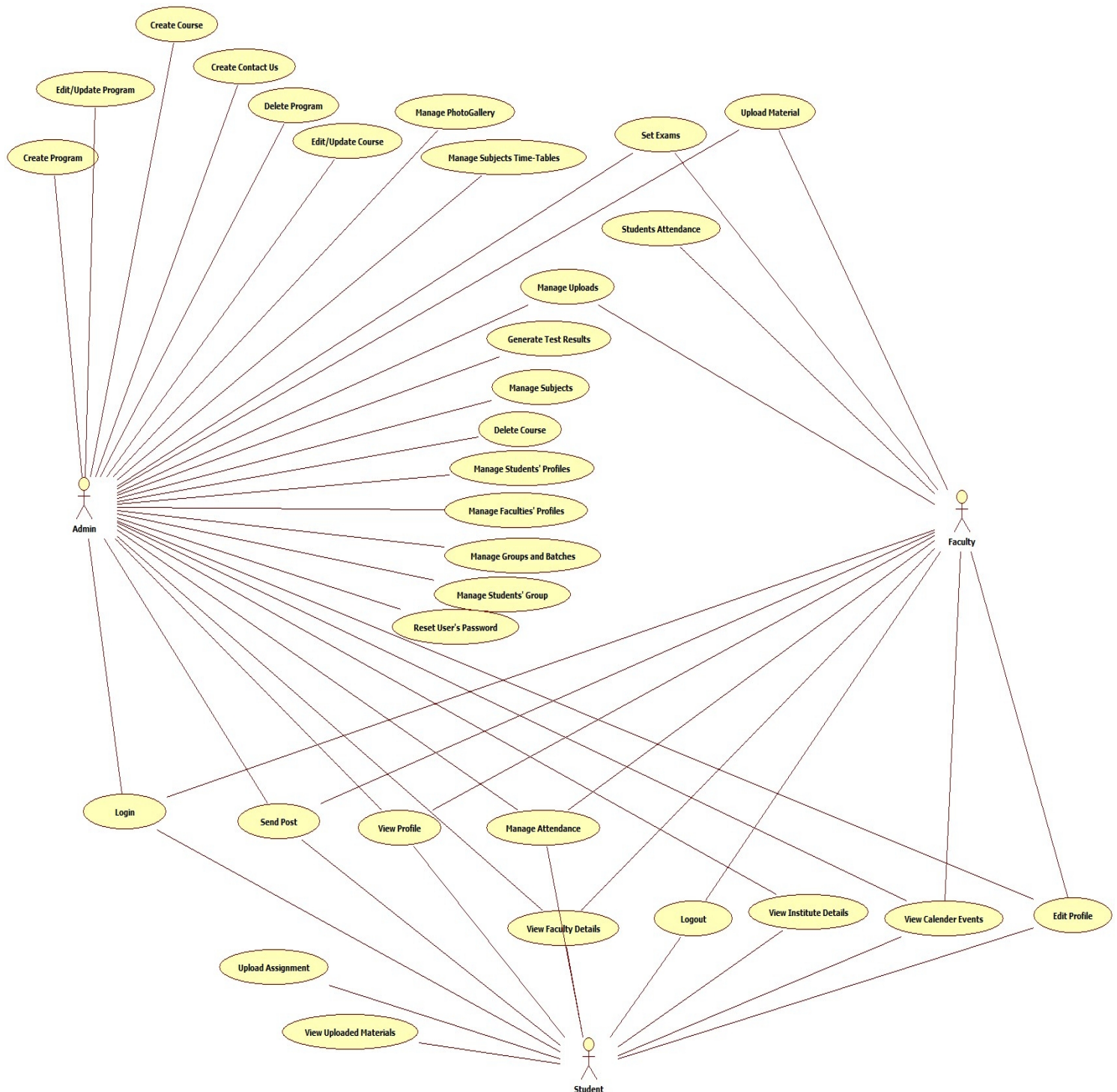
2.5 Constraints :

- GUI is only in English.
- Neither faculty nor student can create their own profile.
- Deletion of group or batch or program results into deletion of all related students data.
- The database backup facility facilitates to take backup of database as well as restoration of it.
- There is a table of results backup where all result of previous year is stored.
- Admin can remotely log in and can manage resources via CPANEL.
- .htaccess file will be delivered with each website created using this CMS.
- Upload of any notes, assignments or resources will be limited to the size of 100MB.

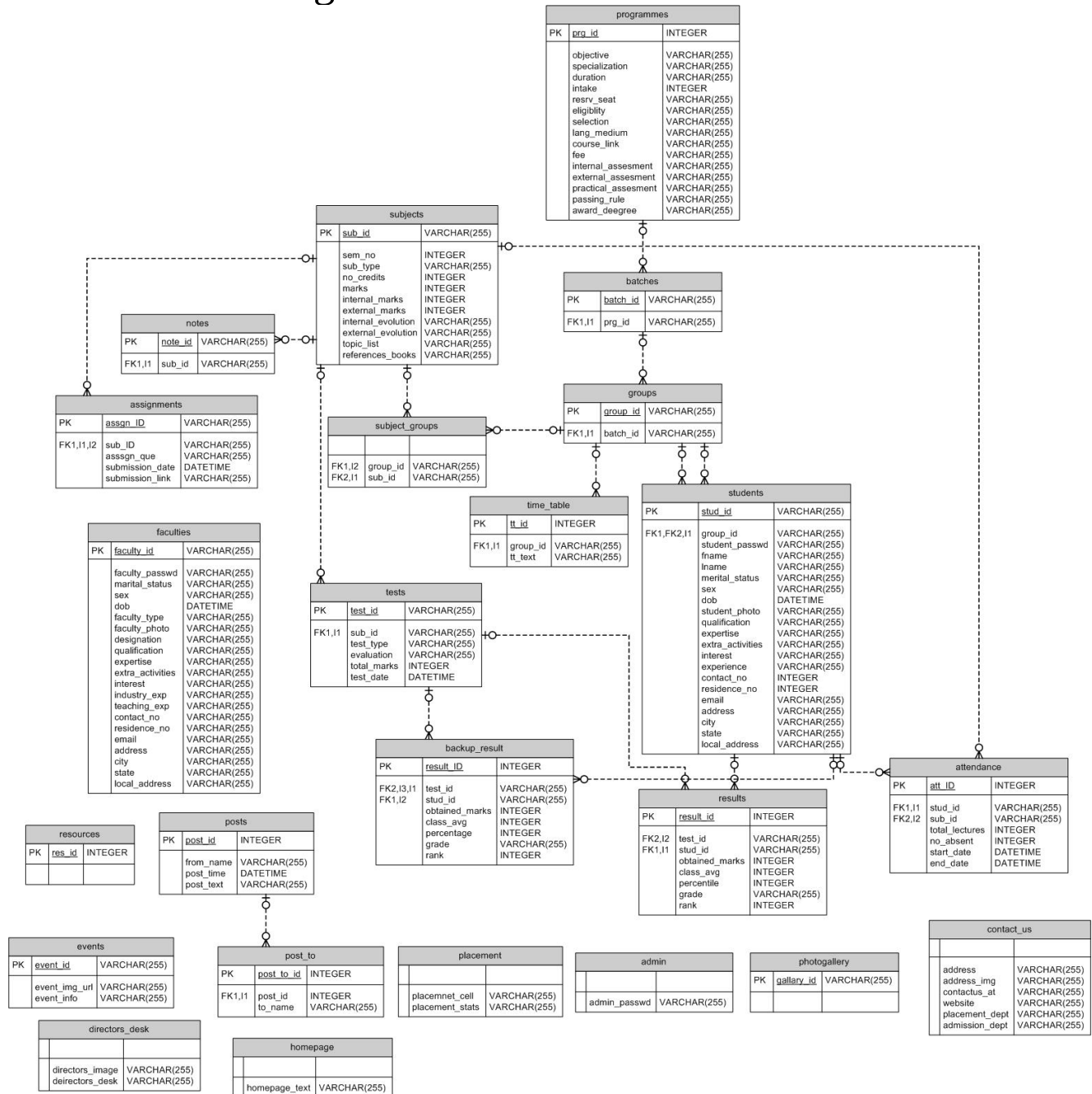
2.6 ER Diagram :



2.6 Use Case Model Survey :



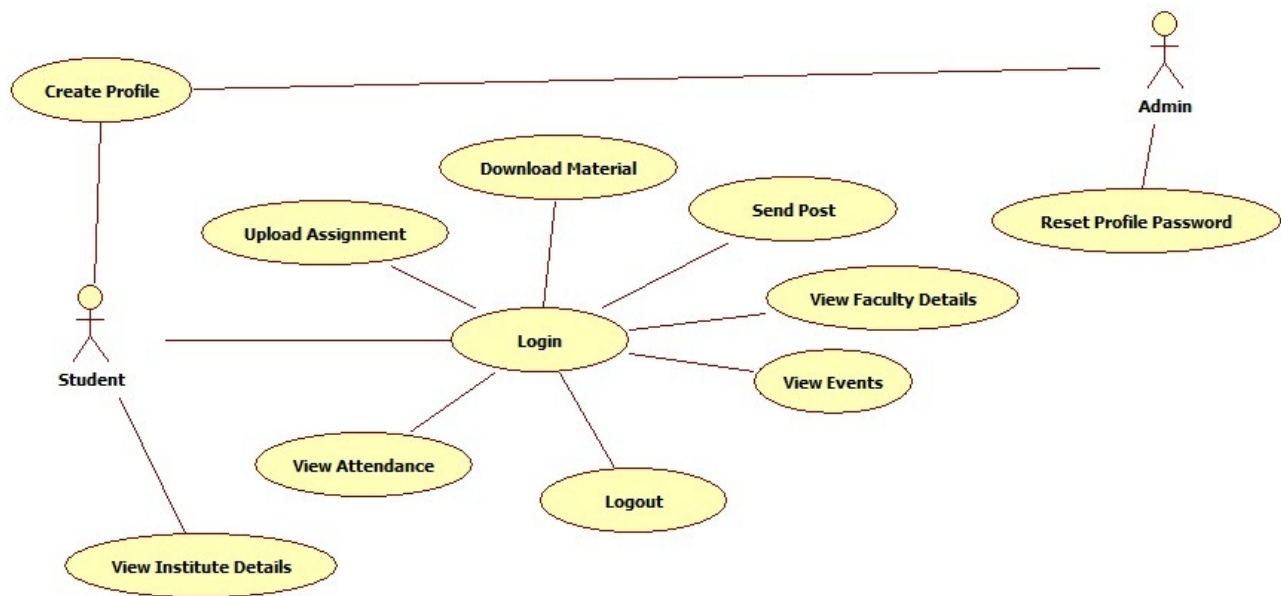
2.7 Database design :



3.0 Specific Requirements

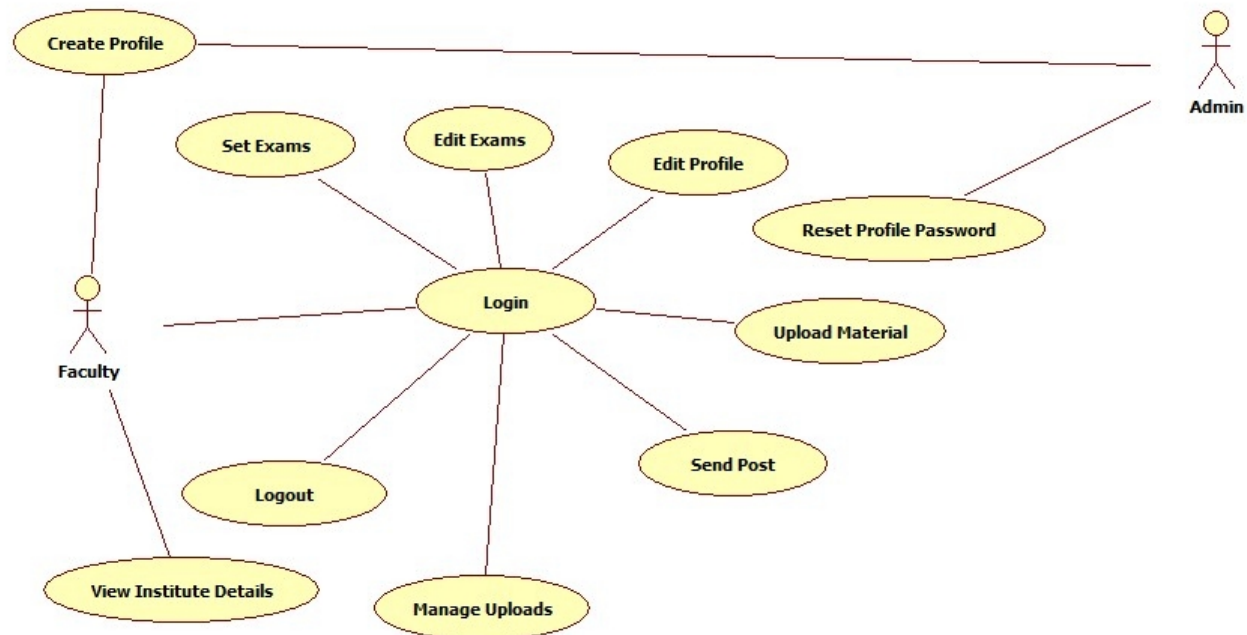
3.1 Use case report

3.1.1 Student use case report



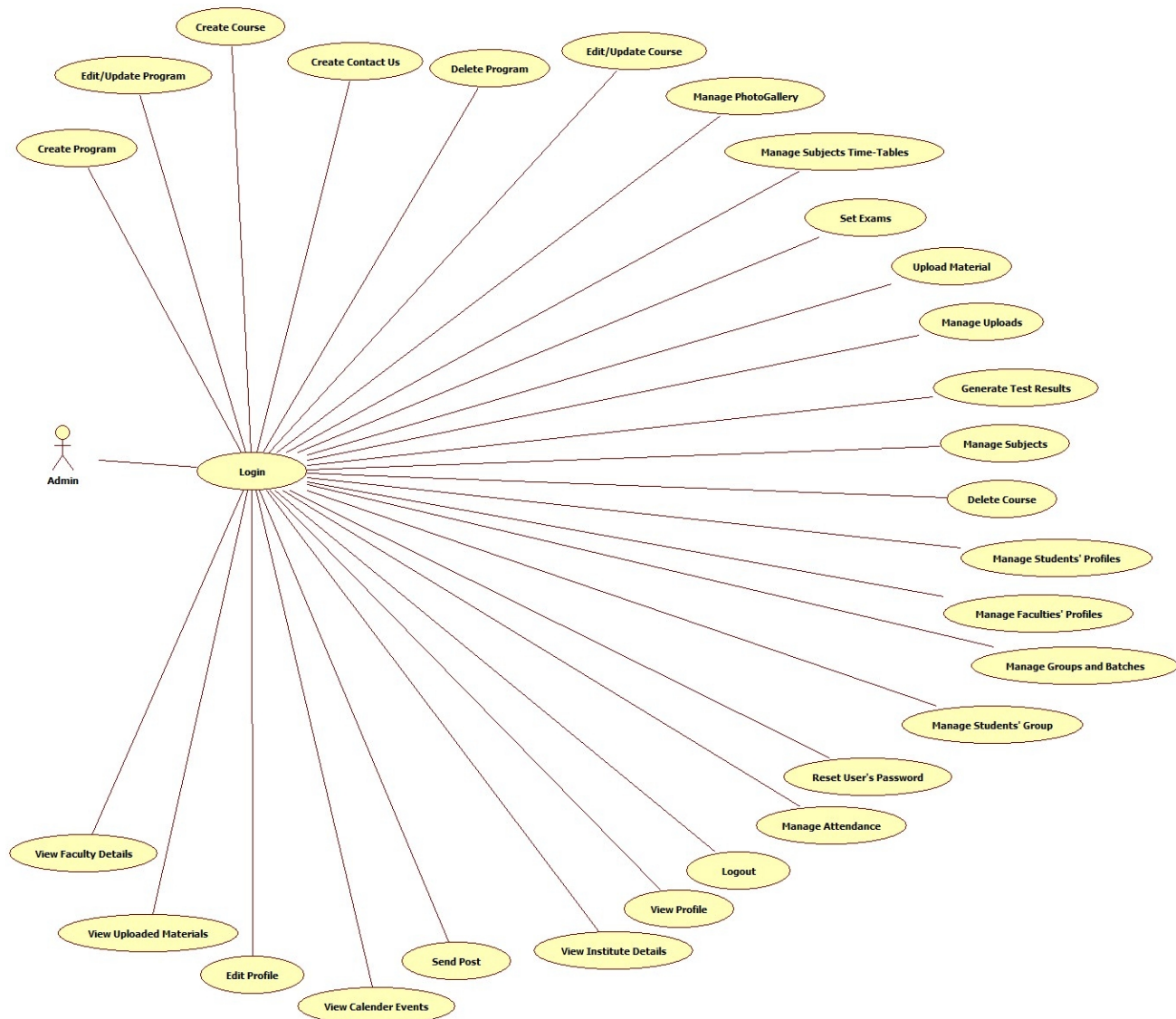
USECASE	DESCRIPTION
Login	Login to the system
Upload Assignment	Upload assignment
Download Materials	View and Download materials
View Faculty Details	View the faculty details
View calender events	View the calender and upcoming events
View attendance	View the attendance of a time period
Send Post	Send a post to a list
Logout	Logout of the system

3.1.2 Faculty use case report



USECASE	DESCRIPTION
Login	Login to the system
Set Exams	Set the evaluation exam of a subject
Edit Exams	Edit existing exam
Edit profile	Edit own profile
Upload Material	Upload Ebooks and Guides
Send Post	Send post to a list
Manage Uploads	Manage own uploads
View Institute Details	View all details of institute
Logout	Logout of the system

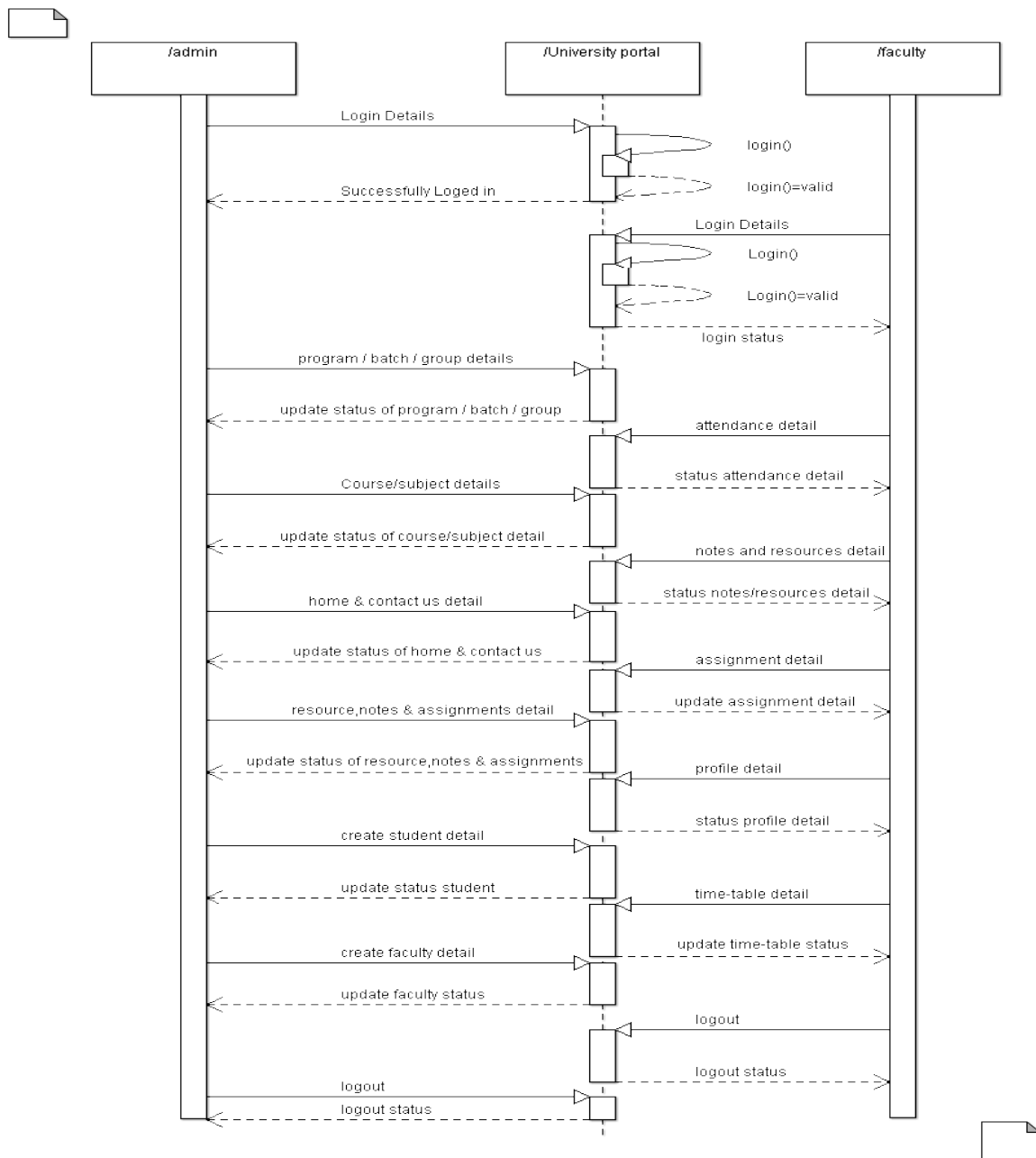
3.1.3 Admin use case report



USE CASE	DESCRIPTION
Login	The admin has to sign in to the system
Create Program	To create academic programme
Update Program	Update existing programme
Create Course	Create new course
Create ContactUs Page	Create institute page
Delete Program	Delete existing programme
Edit/Update Course	Edit existing course
Manage Photogallery	Add and remove photogalleries
Manage Subjects TimeTable	Manage timetable
Set Exams	Set evaluation exams
Upload Material	Upload tutorials and e books
Manage Uploads	Manage all uploads
Generate Test Results	Generate evaluation results
Manage Subjects	Manage subjects of a course
Delete Course	Delete an existing course
Manage Students' Profiles	Edit and delete students' profile
Manage Faculties' Profiles	Edit and delete faculties' profiles
Manage Group and Batches	Edit and update group and batches
Manage Students' Groups	Edit and update groups
Reset User's Password	Reset password upon request
Manage Attendance	View and manage attendance
View Profile	View all profiles
View Institute Details	View contact us and institute page
Send Post	Send messages
View Calender Details	View upcoming and all events
View.Manage Uploaded Materials	View and delete all uploaded materials
View Faculty Details	View all faculties' details
Logout	Logout of the system

3.2 Sequence Diagrams

3.2.1 Admin-Faculty-University portal sequence diagram.



3.2.1 Student-University portal sequence diagram.

