



UNIVERSITY MANAGEMENT SYSTEM

COURSE NAME: Advance Software Engineering

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CLASS:BSSE II (Section A)

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Project:

University Management System

INTRODUCTION

A University Management System is a software application for educational establishment to manage University data.

University Management System starts with the registration of new staff and students. when the subjects are allocated to the staff the head of the department should enter the detailed information in the excel sheet. The staff enters the attendance of the students of their corresponding subjects and marks of the students.

PROBLEM IN THE EXISTING SYSTEM

Sorting and accessing the data in the form of excel sheet is a tremendous work. Manage the record of each and every student from starting it is so difficult.

PROPOSED SYSTEM

In this project the UNIVERSITY MANAGEMENT SYSTEM (UMS) makes the management to get the updated information. This system includes the three functional divisions they are:

- University administrator
- Department administrator
- User (student / faculties).

FEATURES

The main objective of the proposed university management system is to computerize the existing system and reduce manpower and time consumption. It provides the following features

- Maintain information of students and teachers
- Generate test results and students' score related to respective subject and department
- Reduce error in data management
- Centralized database management
- Easy and user-friendly interface for the operator of the system
- Reduce paper work and time consumption
- Computerize the entire activities and operations
- Generate report or management take decisions.

IMPORTANT FUNCTIONS

- **DEPARTMENT METHODS:**

Add_Depart(),Delete_Depart(),Update_Depart()Search_Depart()

- **STUDENT METHODS:**

Add_Std()Delete_Std t(),Update_Std ()Search_Std ()

- **TEACHER METHODS:**

Add_Teacher (),Delete_Teacher (),Update_Teacher (),Search_Teacher()

- **COURSES METHODS:**

Add_Course (),Delete_Course (),Update_Course (), ,Search_Course ()

CLASSES OF UNIVERSITY MANAGEMENT SYSTEM

- Department Class: Manage all the operation of Department
- Student Class: Manage all the operation of Student
- Teacher Class: Manage all the operation of Faculties
- Courses Class: Manage all the operation of Courses

METHODOLOGY

METHODOLOGY

- Water Fall Methodology

ANALYSIS MODEL

The model that is basically being followed is the WATERFALL MODEL, which states that the phases are organized in a linear order. In this model the sequence of activities performed in a software development project are: -

- Requirement Analysis
- System and Software design
- Implementation
- Testing
- Deployment
- Maintenance

WATER FALL MODEL was being chosen because all requirements were known beforehand and the objective of our software development is the computerization/automation of an already existing manual working system.

SPECIFIC REQUIREMENT

Functional Requirement:

- Admin must have full access to database
- System will record customer basic data(full name, address, phone no)
- Admin can added a new student, department, teacher and courses into the database of the system.
- Admin can removing a student, department, teacher and courses from the database of the system.
- System is able to modify student, department, teacher and courses data.
- Admin can search a student, department, teacher and courses from the database of the system.
- System should have user-friendly desktop

Non-Functional Requirement:

- System must be supported to all windows.
- System must have local database in order to avoid any inconvenience.
- Information concerning students and faculties must be persistence.

PROJECT TOLLS

Phases:

- Analysis phase.
- Designing phase.
- Database Management phase.
- Project Management phase.
- Documentation.

1. ANALYSIS TOOLS

Software analysis includes all activities, which help the transformation of requirement specification into implementation.

OUR PROJECT:

we used Process street in our project.

- **Process street**
Free regular workflow scheduling.

Other Tools:

- **Visure**
Reduction total life-cycle costs.
- **Jama**
Jama tool is best for projects with waterfall.

2. DESIGN TOOLS:

Software Design is a process to transform user requirement into some suitable form, which helps the programmer in software coding and implementation.

Our Project:

we used Visual Paradigm is our project to generate Class Diagram and sequence diagram and activity diagram.

- **Visual Paradigm**

Visual Paradigm is a UML Case tool supporting UML 2 ,SysML and Business process modelling notation from the Object Management Group. In addition to modelling support , it provides report generation and code engineering capabilities including code generation.

Other Tolls:

- **MS VISIO**

It is a diagramming and vector graphics application and is part of the Microsoft Office family.

- **Lucid chart**

Lucid chart is a web-based commercial service which allows users to collaborate and work together in real time to create flowcharts, organizational charts, website wireframes, UML designs, mind maps, software prototypes, and many other

3. DATABASE MANAGEMENT TOOLS

A database management system (DBMS) is a software for creating and managing database. The DBMS provide users and programmers with a systematic way to create ,update ,retrieve, and manage data.

OUR PROJECT:

We used Microsoft Access in our project.

- **Microsoft access**

Microsoft access is a database management system from Microsoft that combines the relational Microsoft Jet Database Engine with a graphical user interface and software-development tools.

Other Tools:

- **MS SQL server**

In this there are two DBMS sets of tools DBAs and developers : SQL server data tools, for use in developing databases, and SQL Server Management Studio, for use in deploying, monitoring and managing database.

- **ORACLE**

Oracle Database is multi-model database management system produced and marketed by Oracle corporation . Commonly used for running online transaction processing, data warehouse and mixed database workloads.

4. PROJECT MANAGEMENT TOOLS

Project management includes developing a project plan, which involve defining and confirming the project goals and objectives, how they will be achieved, identifying task and quantifying the resources needed and determining budgets and timelines for completion.

OUR PROJECT:

We used Microsoft project for creating Gantt chart, Pert chart and timeline in our project.

- **MS PROJECT**

MS Project is standard tool for maintaining the project plan.

OTHER TOOLS

- **TEAM WORK**

For teams of all size that need more robust levels of security.

- **Workfront**

It has features of enterprise work management, issue tracking, document management tracking, time tracking and portfolio management.

5. DOCUMENTATION TOOLS

Software documentation is written text or illustration that accompanies computer software or is embedded in the source code.it either explain how it operates or how to use it or may mean different things to people in different role.

OUR PROJECT:

We used Microsoft word for documentation of our project.

- **MS WORD**

MS Word is used for manipulate a text document, such as a resume or a report. Software provide tools for editing, deleting and various types of formatting.

Other TOOLS:

- **SHARE POINT**

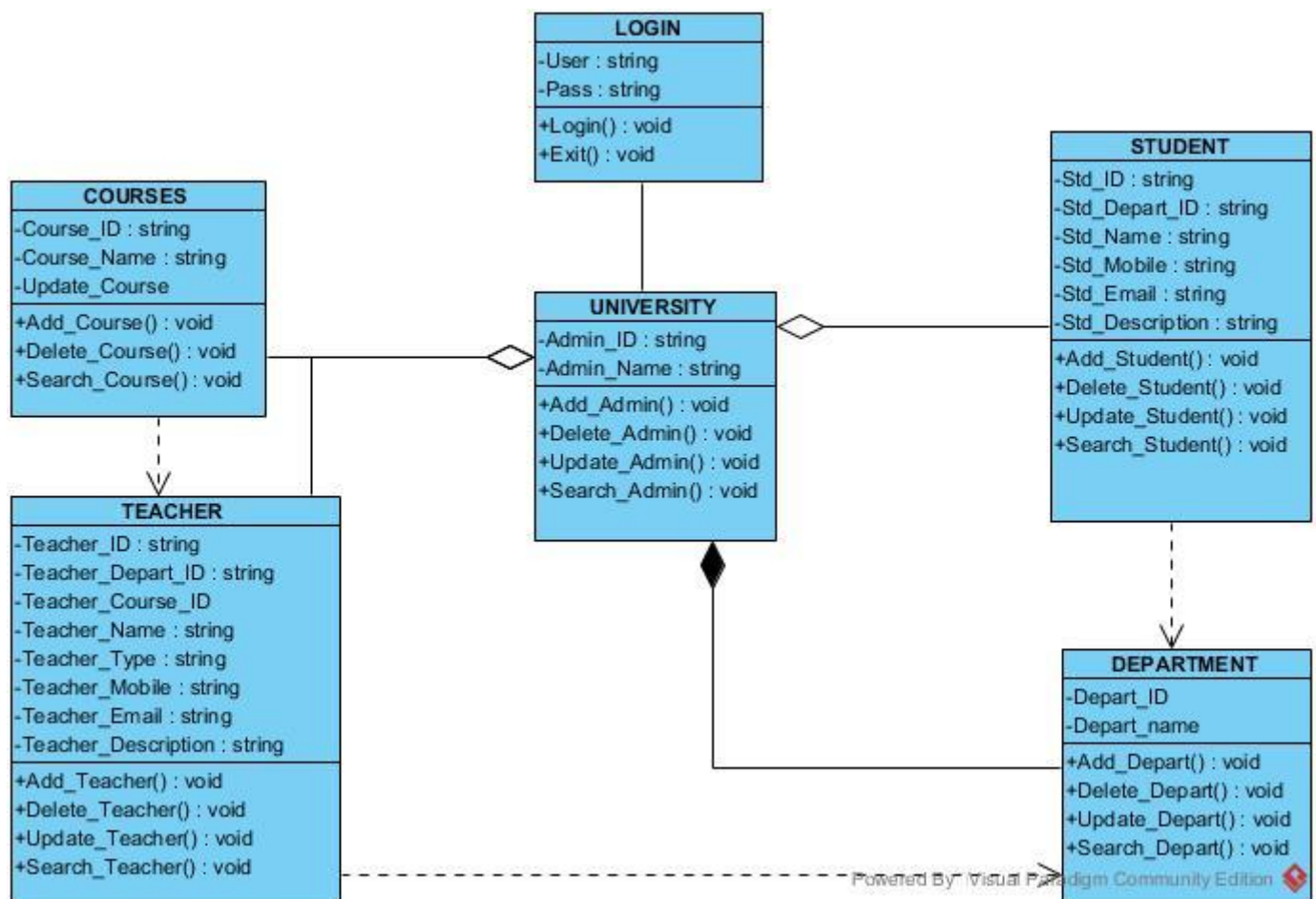
Share point is primarily sold as a document management and storage system, but the product is highly configurable and usage varies substantially between organizations.

- **GOODLE DOCS**

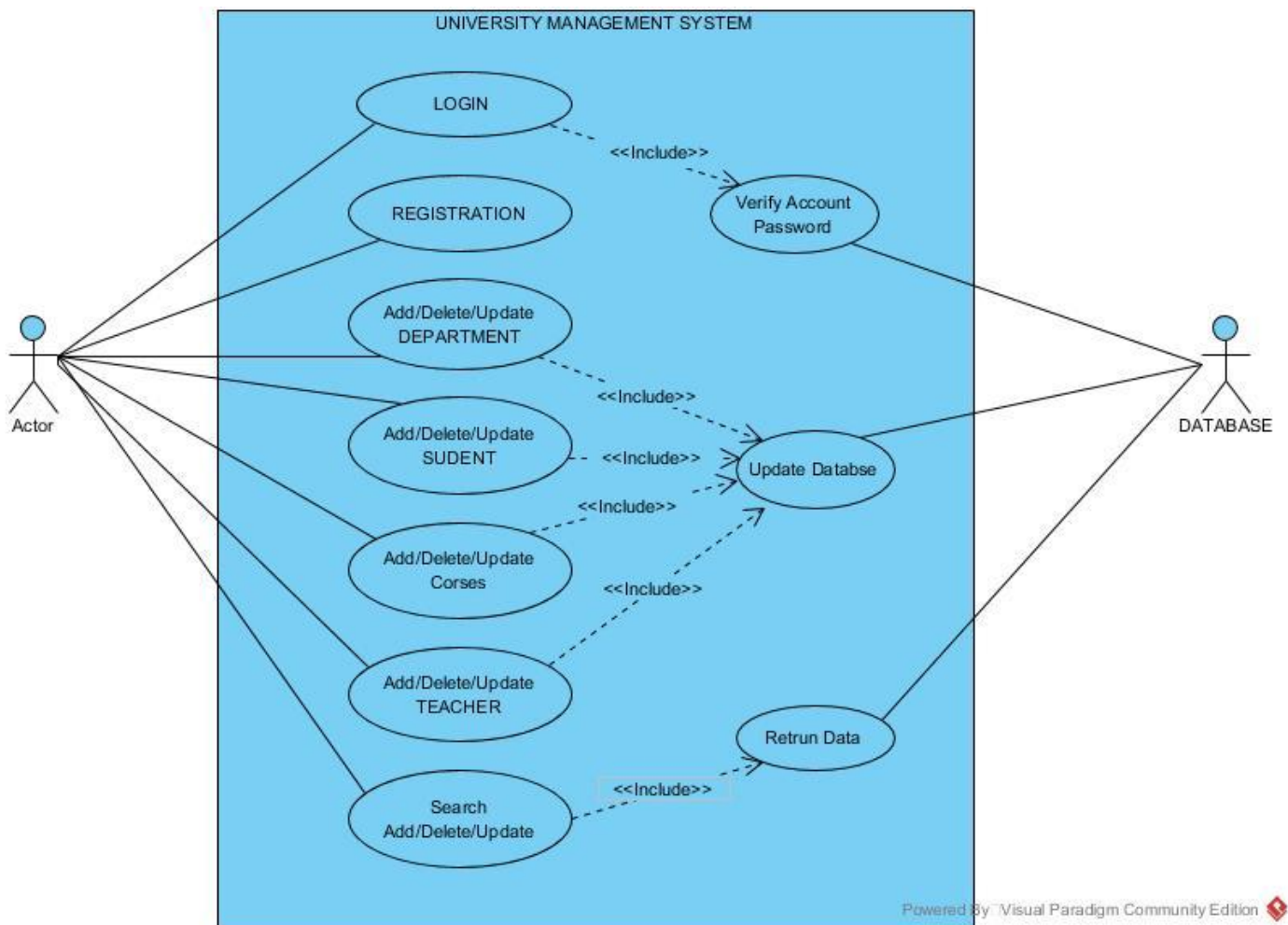
Google Docs is a free Web-based application in which documents and spreadsheets can be created, edited and stored online. Files can be accessed from any computer with an internet connection and a full-featured Web browser

INTERFACE REQUIREMENT

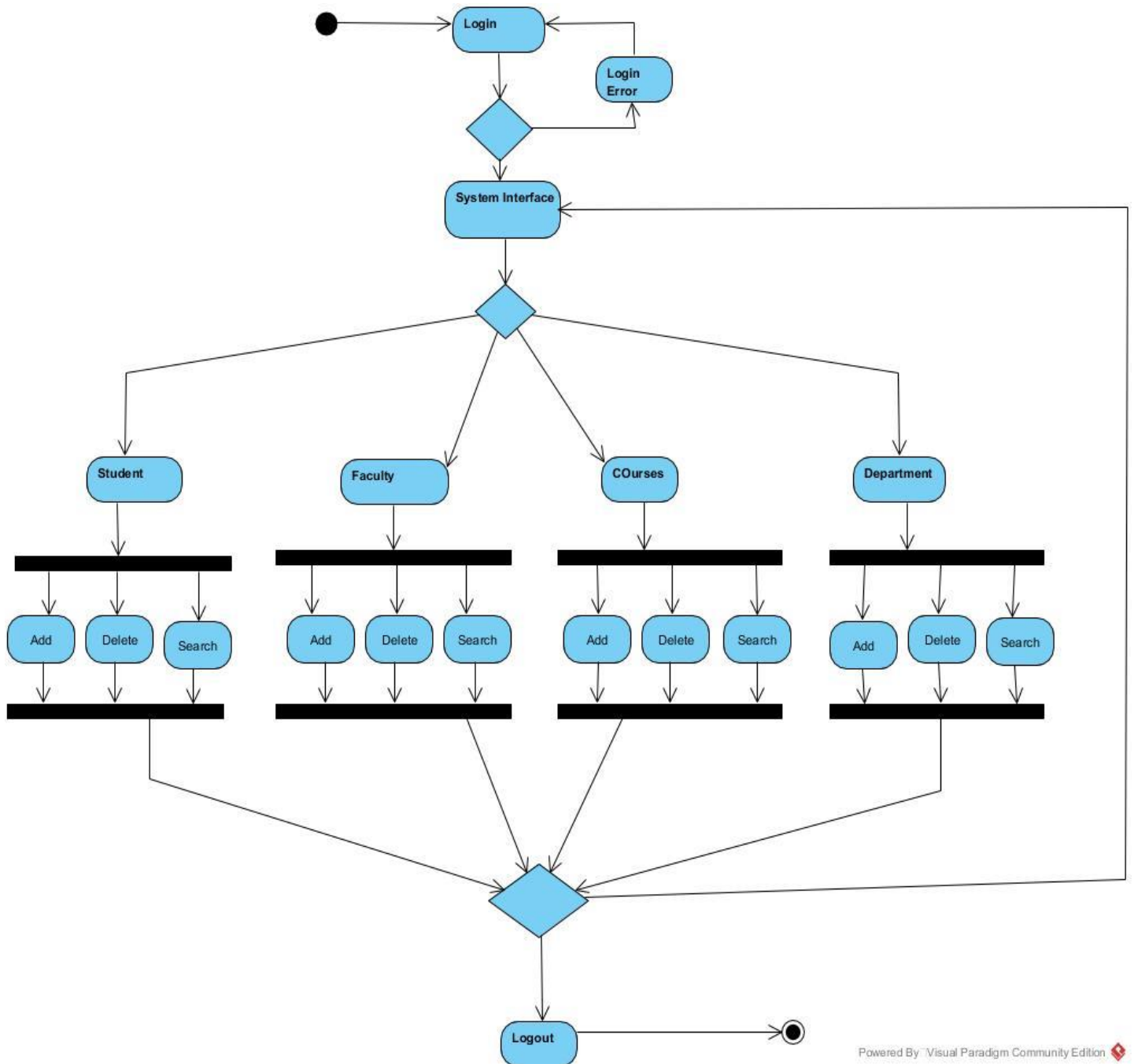
CLASS DIAGRAM:



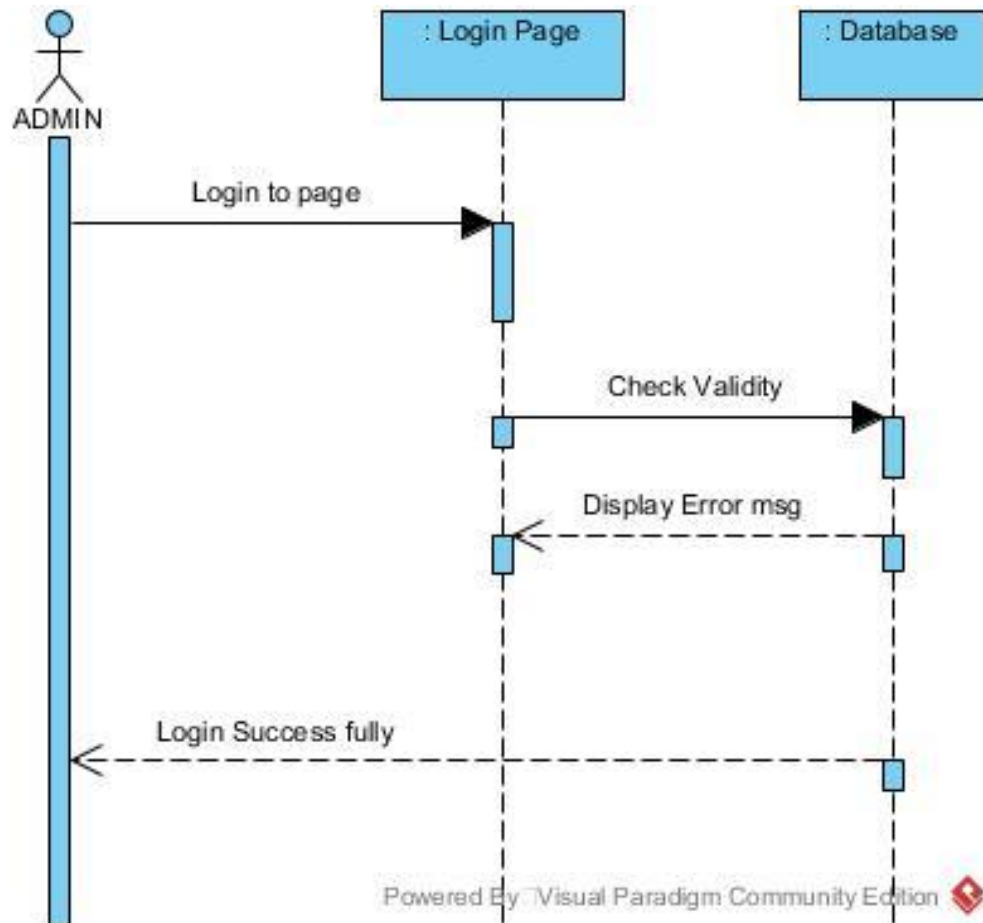
USE CASE DIAGRAM:



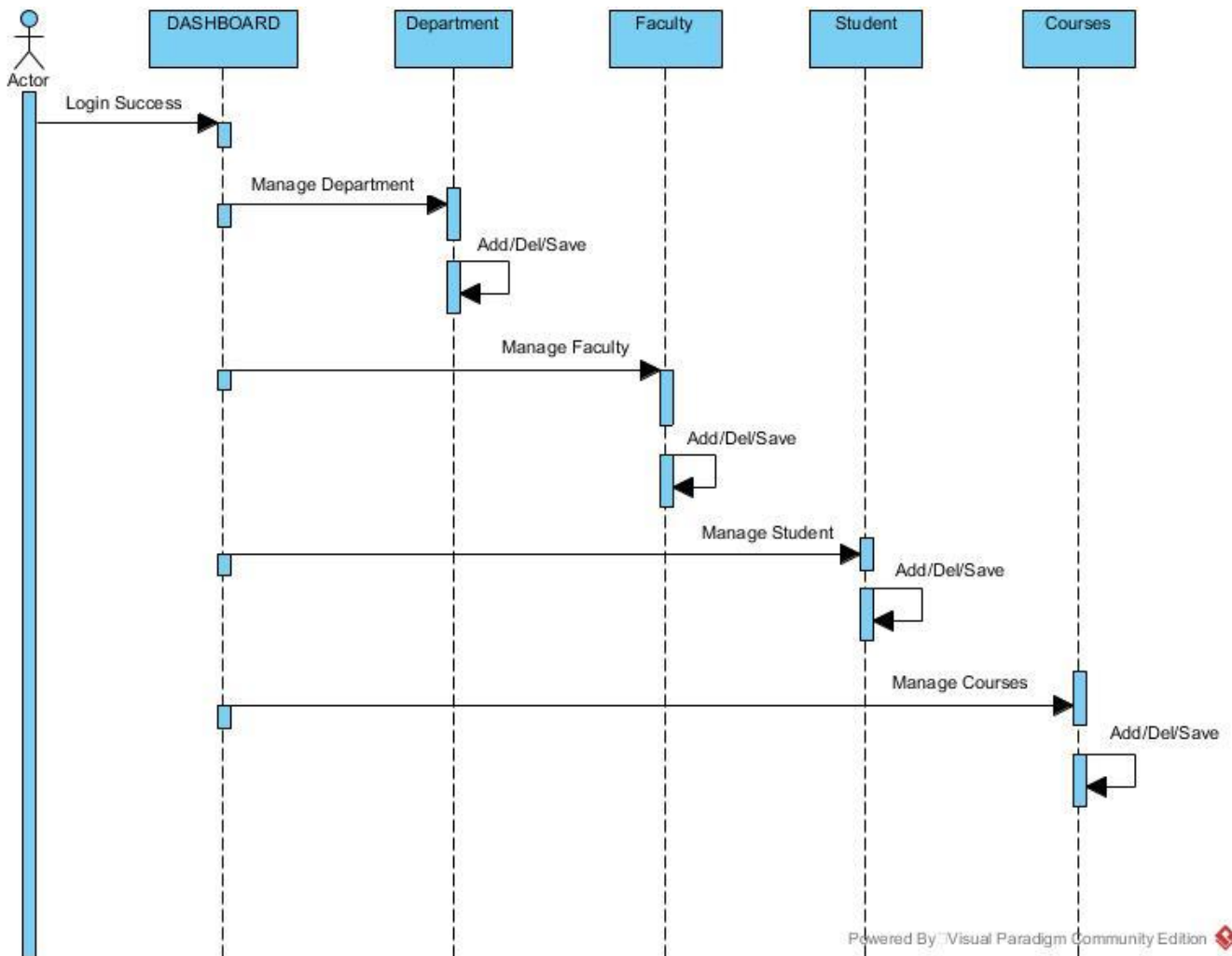
ACTIVITY DIARAM:



ADMIN LOGIN SEQUENCE DIAGRAM:



SEQUENCE DIAGRAM:



BOOK

Student Records Management: A Handbook

By American Association of Collegiate Registrars and Admissions Officers

REFERENCE

http://www.academia.edu/5568260/UNIVERSITY_MANAGEMENT_SYSTEM

<http://cybervision.com.pk/university-management-system.php>