# Learning Management System

## Introduction

Learning Management System (LMS) is management application. It manages all sort of records in an Institute. With a user point of view, user can be registered as an Employee or a Student in general. Exam details and Time Table can be viewed by end user. Students may be classified according to their respective department, Batch and Section. Student attendance can be marked and viewed by system administrator. Student result can be viewed by Student and Employee as end user, Created and managed by System administrator.

## Business Rules

* A **Person** can be registered as a **Student** or an **Employee**
* **Student** can be registered in one **Institute** belongs to a specified **Batch**, a **Department** and a **Class**.
* Single **Batch** (e.g 2016), **Department** and a **Class** can be assigned to many **Student**s.
* An **Employee** can teach many students of different batches.
* An **Employee** can teach in many **Class**es of many **Department**s.
* An **Employee** can teach in many **Class**es.
* Section is relatable to **Class** in the undergoing scenario.
* Strength of a **Class** will always be less than its capacity decided by admin.
* Each **Student** can have only one **Attendance** for a **Course** for each date.
* **Batch** can be assigned to multiple **Class**es. Each **Class** have only one specific **Batch**.
* Each **Batch** has its assigned **Department**. Single **Department** can be assigned to many **Batches**.
* Many **Class**es can have many **Exam**s and vice versa.
* A **Program** can be assigned to many **Class**es.
* A **Department** can be assigned to many **Program**s.
* A **Class** can be assigned to many sections of **TimeTable** buteach **Class** can be assigned to **TimeTable** for each day of week.
* An Employee can be assigned to many sections of **TimeTable** buteach **Employee** can be assigned to **TimeTable** for each day of week.
* A **Course** can be assigned to many sections of **TimeTable** buteach **Course** can be assigned to **TimeTable** for each day of week.
* Many **Student**s can have many results but each student have on result for respective course.
* Many **Course**s can have many results.
* A **Course** can be assigned to one **Exam** only.

# Conceptual Design

# Logical Design

# List of Reports

1. **Admission** schedule of Different Programs.
2. **TimeTable** of each **Class.**
3. **Month** wise Expenses and Revenue Report.
4. **Batch** wise report of all **Student**s.
5. **Program** wise report of all **Student**s.
6. **Class** wise report of each batch in particular **Department.**
7. **Attendance** report of a **Class.**
8. **Course** enrollment report.
9. **Class** wise report of **Employee**s in selected **Batch**.
10. **Department** wise **Employee** report.
11. **Designation** wise **Employee** report in their respective **Department**s.
12. **Result** report of **Class** in particular **Course.**

## Technology to be used for implementation

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| Property | Detail |
| Software | Visual Studio 2015 |
| Platform | MVC Web Application |
| Languages | C#, Javascript, Jquery, Frontend(HTML/CSS) |
| Framework | ASP .Net |