



1. Project Definition

Abstraction

Introduction

Proposed System

System Scope

Platform Requirement



1.1 Abstraction

The successful deployment and operation of an offline College Management system requires knowledge of mechanism design, system architecture to Software developers because they are intensely data driven and have temporal behaviors that must be faithfully implemented.

This article discusses many of the issues that a product provider should consider when selecting or developing a product software system. Products can be seen as a mechanism that is precisely defined by sets of rules that govern size, weight, and clearing.

These activities will have natural components in the software system, and the choices made in the architecture of the product system will affect its scalability, temporal integrity, and overall complexity. Complementary features of product systems, search tools, and reputation mechanisms, are also discussed.



1.2 Introduction

The project is about “College Management System”. It is used for managing the data of college. This software is designed to manage and store all the details of the college. ADCMS will be handled by the management of any college.

This project will aim to achieve following things...

- The management of student data
- Employee Records management
- Course Details Management
- Subject Details Management
- Student Fees Collection
- Employee Salary Payment
- Attendance Management
- Library Management
- Student’s Department Management.
- Software Design Customization.

The development of software based application is always done considering all the aspects of the user who are going to use them as their work or business.



Hence, the development strategies must be followed which can be able to handle all the inconsistency and complexity of the system and it is also necessary that the system can able to accept maximum changes during its enhancement process. ADCMS is also provide Change Visual Style Functionality with the use of that Admin can change or set it's own suitable software Visualization.

There are many things still can be included in here and will be included in future like....

- Manage User Role
- Manage Multiple Branches
- Take the Student Exam Here
- Display Student's Result

Working with this system I learned many things like how to analysis any system , Database Management – store more information in less space, Designing, Logic Development. And the main thing is, how to create Real World Application & how to manage it.



1.3 PROPOSED SYSTEM

I am working on College Management System.

This System is useful for colleges to manage their data. It eliminates the clumsy paper work and maintaining the different excel sheets. Easy to maintain & modify inserted records with other rich functionalities.

This system contains following functionalities.....

- Security of data.
- Require less hardware components.
- No need of server & Internet.
- Efficiently manage records.
- Easy to modify the data.
- Only the specified user can use it.

There are many softwares available in the market for college but most of the softwares have either only Student Management or Employee Management functionalities. This Software is the combination of all this individual system like student management, employee management , Financial management , course management and etc.... this software's designs can also be customized by the admin.



1.4 System Scope

The College Management System can deploy on any environment of windows machine and provide better through output with less efforts & complete requirement specification.

Here, I can develop system requirement and specification document (SRS) which is very useful to understands actual project's needs

It is designed with easy to use GUI, so any user can easily learn your system steps and complete its task without any burden.

Easy GUI can used by more users for your application which is very helpful for any developer for update it's based on users feedback.



1.5 Platform Requirements

➤ Hardware

⊕ PC CONFIGURATION :

- ❖ **Processor** : Dual Core
- ❖ **HDD** : 100 GB
- ❖ **RAM** : 1 GB

➤ Software

- ❖ Windows 7 , 8 , 8.1 , 10
- ❖ .NET Framework 3.5
- ❖ Resolution 1024*768 for better experience.
- ❖ Access Data Base Engine
(According to Microsoft Office Version)
- ❖ Microsoft Office 2007 or above



2. Project Analysis

Preliminary Investigation

Feasibility Study

Fact Finding Techniques

System Specification

Linear Sequential Model



2.1 Preliminary Investigation

Analysis is an important part of any project; If Analysis is not done properly then the whole project move in the wrong direction. It also provides a schedule for the proper project work.

Following are major steps that I have followed during the analyses of the whole system.

- ✓ In first phase I have understood the project definition in detail from my project guide.
- ✓ After the detailed discussion, I have noted down the lots of queries regarding the exact output.
- ✓ As I have followed prototype model in development, I have conducted various meeting regarding the development tool I should use such that it fulfill all the functionalities of software based implementation.
- ✓ I have spent enough time to gather requirements of employees and deciding development tools in Analyses phase.



2.2 Feasibility Study

Planning activities must be done before starting the project. Once the project is started, project control begins. During planning, all the activities that management needs to perform the planned. While during project control, activities are spread over the development life cycle of the software, and their basic goal is ensure that the plan is being followed.

The basic goal of planning is to look into the future, identify the activities that need to be done to complete the project successfully, and plan the scheduling and resources allocation for these activities.

The input to the planning activity is the requirements specifications, the output phase is the plan, which is a document describing different aspects of the plan.



Technical Feasibility

The technical issues generally raised during the investigation are discussed below:

- ❖ The organization has a very well integrated system department with requisite technology to create the needs of the proposed system.
- ❖ The system is very much open by nature and can easily be expanded in the future to satisfy newly emerged needs.
- ❖ The usage of a reliable RDBMS like MS-SQL server gives guaranteed accuracy, reliability, and ease of data access and data security.
- ❖ The hardware needed to develop and implement the system is adequate. "THE COLLEGE MANAGEMENT SYSTEM" is using C#.NET is using .NET FRAMEWORK 3.5 , which is no additional cost has been incurred. And software like MS-SQL server which is used in various applications.

So, my project is technical feasible.



Economical Feasibility

The cost involved in designing and devolving a system should be a good investment for the organization for certain system.

The financial and economical issues are raised are as under:

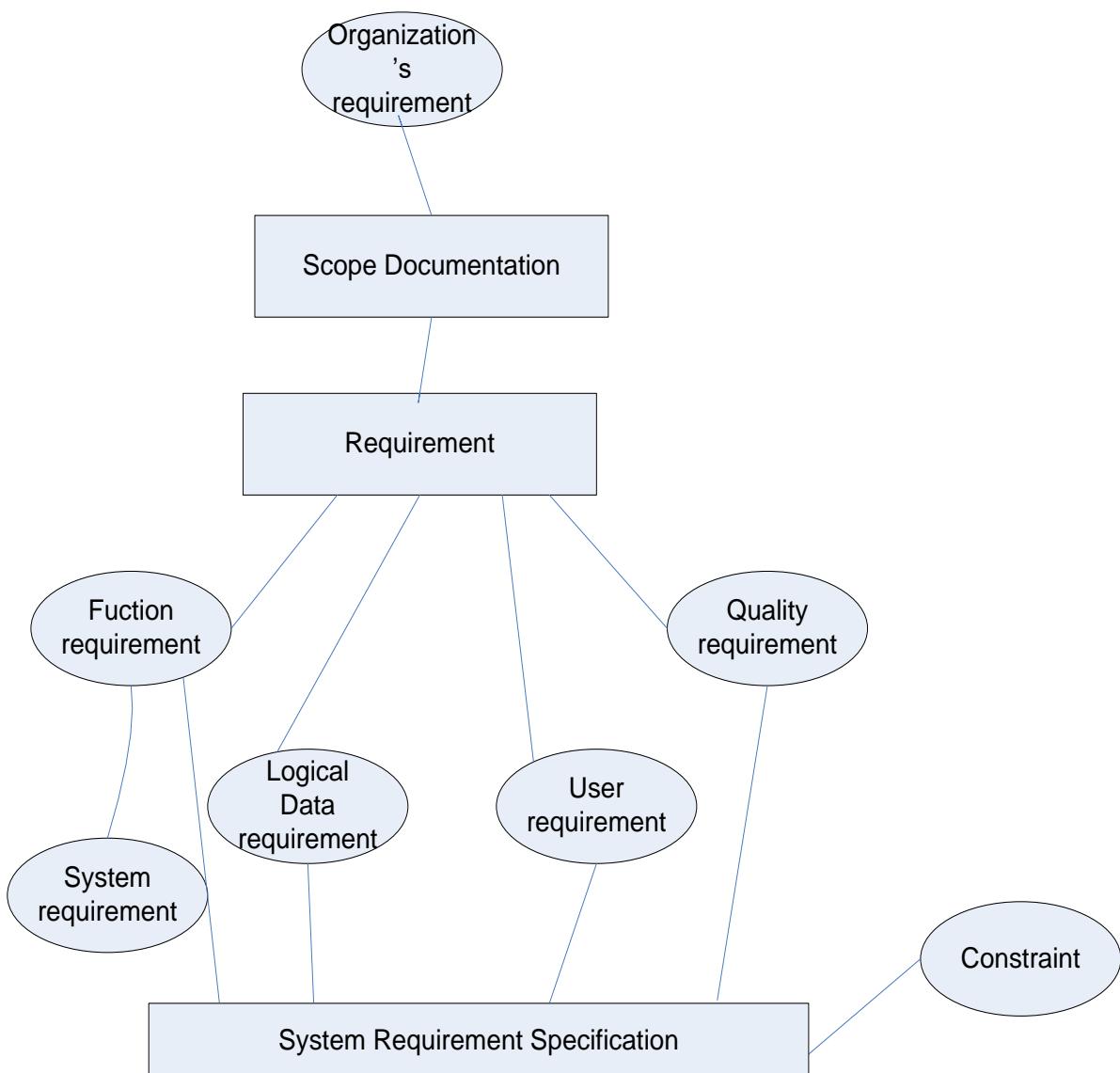
- ❖ The cost of conducting a full system investing is justified since the system development is in-house.
- ❖ No extra cost is incurred for developing the system. As required software are already used by the department.
- ❖ No extra cost for the modification or addition of software and hardware will require in case of future expansion of the current system.
- ❖ Cost of creating such as system in the present scenario does not seem to be much as the organization has the software and hardware technologies.

So, The proposed system is financially and economically feasible.



Operational Feasibility

Any project proposed can be beneficial only if it satisfies the organization requirement. In any mature system setup, a new system not only needs to robust but also needs to communicate and work in tandem with other existing system.





The operational feasibility asks if the system will work when it is developed and installed.

- ❖ The system was well supported by the management with the systems managers taking personal interest in the system development process.
- ❖ The users through initially repressive worked along with the development team once the initial doubts are cleared.
- ❖ The proposed system makes a best effort to satisfy the requirements of both users and the customer keeping in mind some infrastructure constraints.

After conducting the interview of the employees, who will be use the system in future, is seems that they are quite willing to acquire such a system, which would reduce a lot of manual work and implement efficient storage and retrieval of data required.



Schedule Feasibility

As I have 3 months to complete this project, this project seems feasible to complete within the schedule.

CONCLUSION OF FEASIBILITY STUDY:

At the end of feasibility study it has been found that the new proposed system is feasible.



2.3 Fact Finding Techniques

Interview

Interviews are conducted at Harivandana College with Mr. Harsad Fefar on regular basis to know the requirements and confirm if any changes are required in the present system. Interviews are essential to ensure that the developer and customer have the same perception of the system.

List of Questions & Answer are conducted in Interviews

Q.1 Which functionality do you want?

We want the Students record management, Employee data management, Course details & also the Finance should be handled within this software

Q.2 Software will be handled by whom?

My system can be controlled by the admin staff of particular college.



Q.3 How Many Users can Simultaneously work on my System?

Currently, My system is based on single tier architecture but on a single machine multiuser can work.

Q.4 Is this system online or offline?

This system is an offline system.

Q.5 Where you can use your proposed system?

I can use it on any college for the data management.

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Q.6 Require server to maintain data?

No need of server it is offline system.

Q.7 Which functionalities you will need in future?

We will need functionalities like, Sending SMS to Students, Sending Email , Attendance Sheet, etc...

Q.8 On which Operating System your system will run?

This system can work on any windows 7 or above operating system.



Record Review

Reviewing records, are carried out along with the interview as the interview was carried out at the place of their work and hence when there was any doubt or if more information was needed. Record reviews are to get the information in any available form in front of me for further consideration.

While analysis, I collected the following records from various colleges....

- ✓ Student Fees receipts
- ✓ Student register
- ✓ Current computerized system
- ✓ Attendance Sheet

As a result of this, doubts are sort out immediately.



Observation

Observation was also carried out during the interview; as how the various information can be carry out from the other section of existing system.

At the time of manual system analysis I observed the following things.....

- ✓ How the physical system works
- ✓ Student data excel sheets
- ✓ How they stores records like College details and etc.



2.4 System Specification

The proposed computerized system should give them the following features:

- ❖ Elimination of clumsy paper work
- ❖ The maintenance and retrieval of the old records should be fast and easy.
- ❖ The system should be flexible enough for further modification and enhancement.
- ❖ Eliminating of creating different excel data sheets.
- ❖ The system should be user friendly.

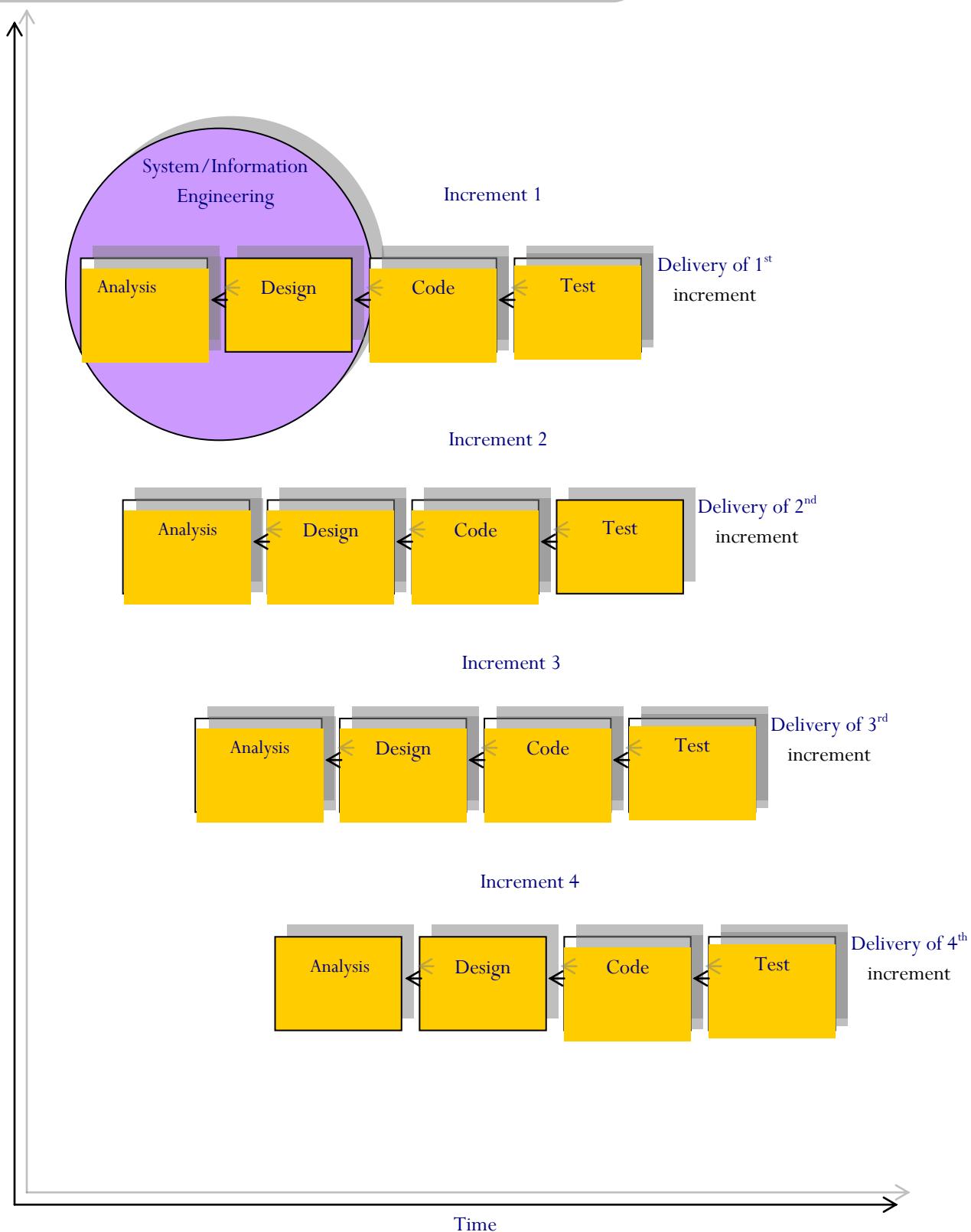


USER INTERFACE FEATURES :

- ❖ All data capture screens are presented in consistent, standardized user friendly GUI format.
- ❖ Validations related to data capture are carried out instantaneously and error if any, flagged there and then. Only error free data is accepted by the system.



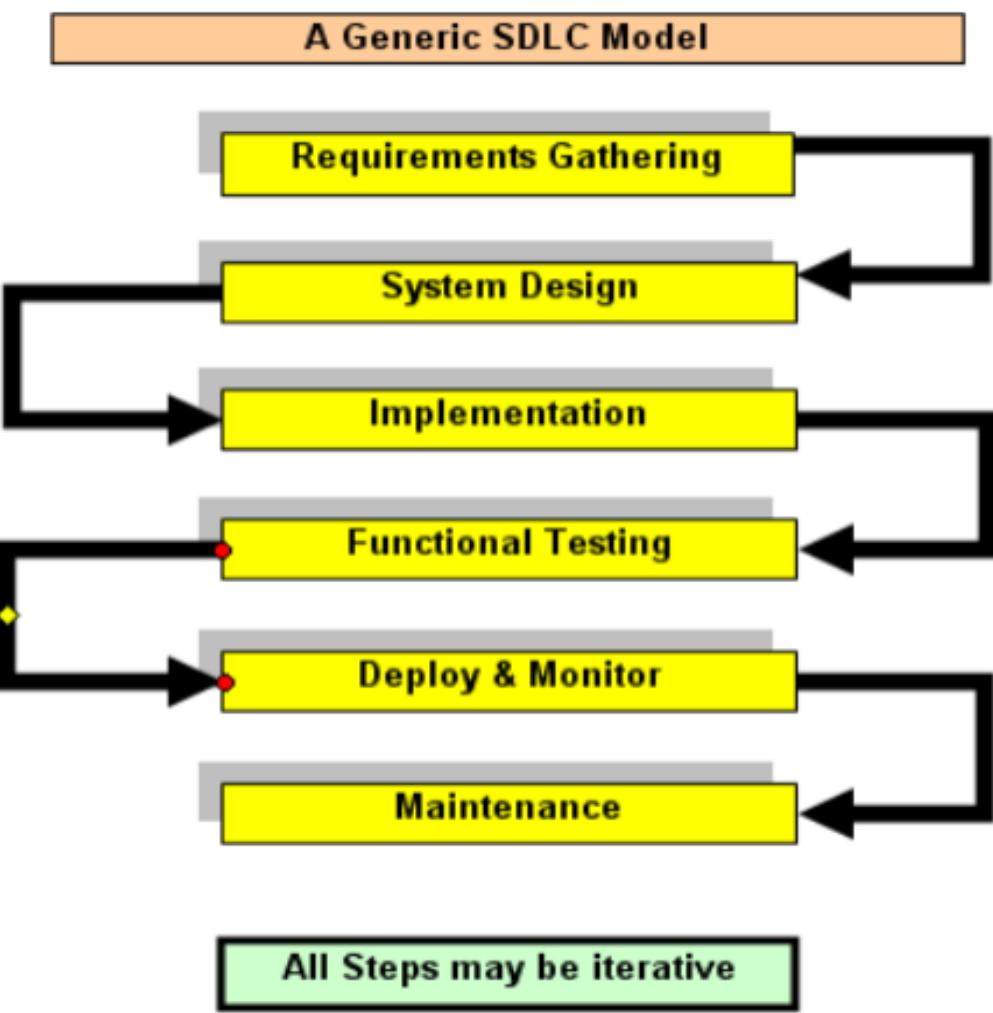
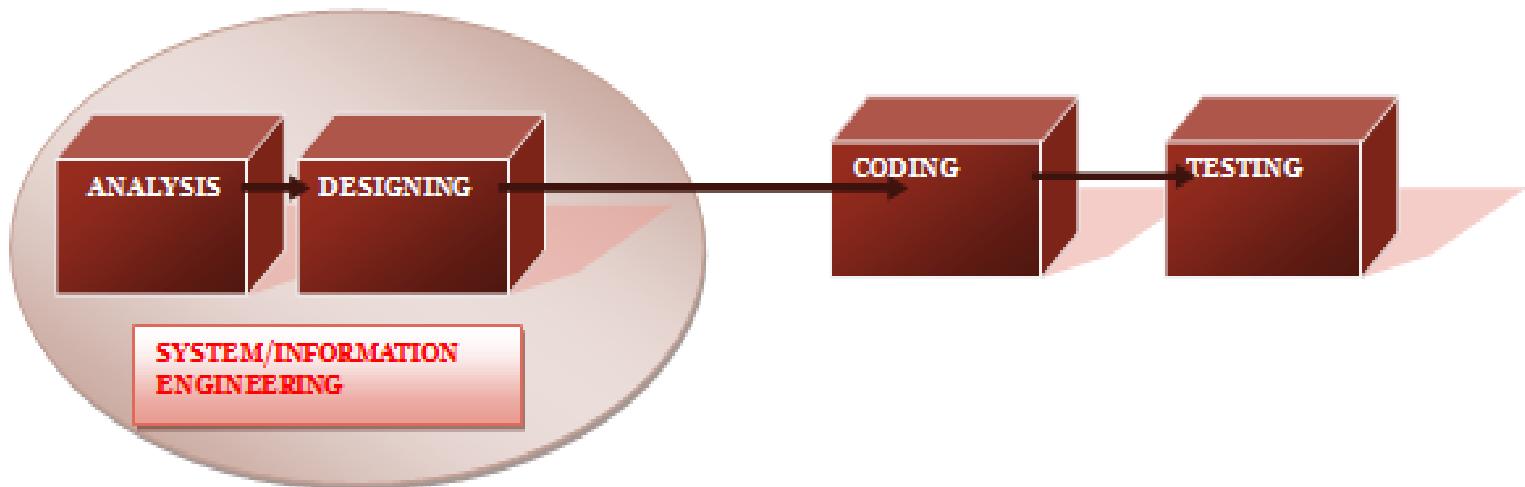
2.5 Linear Sequential Model





I choose a linear Sequential model, the purpose of this model is that it work Parallels within modules. This model also called the Waterfall models that follow the following steps:

- **Software Requirement Analysis**
- **Designing**
- **Coding**
- **Testing**





❖ **ANALYSIS:**

During this activity I communicate with admin, project manager and take the requirement from there. I try to find which kind of system or output from my application. Requirement for both the system and the software have been documented and reviewed with both of them.

❖ **DESIGNING:**

Designing is the major part of any Software designing. Proper design and good GUI is the base of any project. Software design is actually a multi step process that focuses on data structure, software architecture, interface presentation, and procedural details.

- As a data structure design-database design very crucial part of developing a “College Management System”. I designed different databases as per requirements analysis. I also decided the fields of a record, primary key for the database, field according to which the database should be sorted etc.
- As a software architecture design – I used single-tier application for developing a College Management System. The biggest benefit is no need of any extra machines or servers. That reduces the cost of software.
- Here the single pc can work as server and client both.

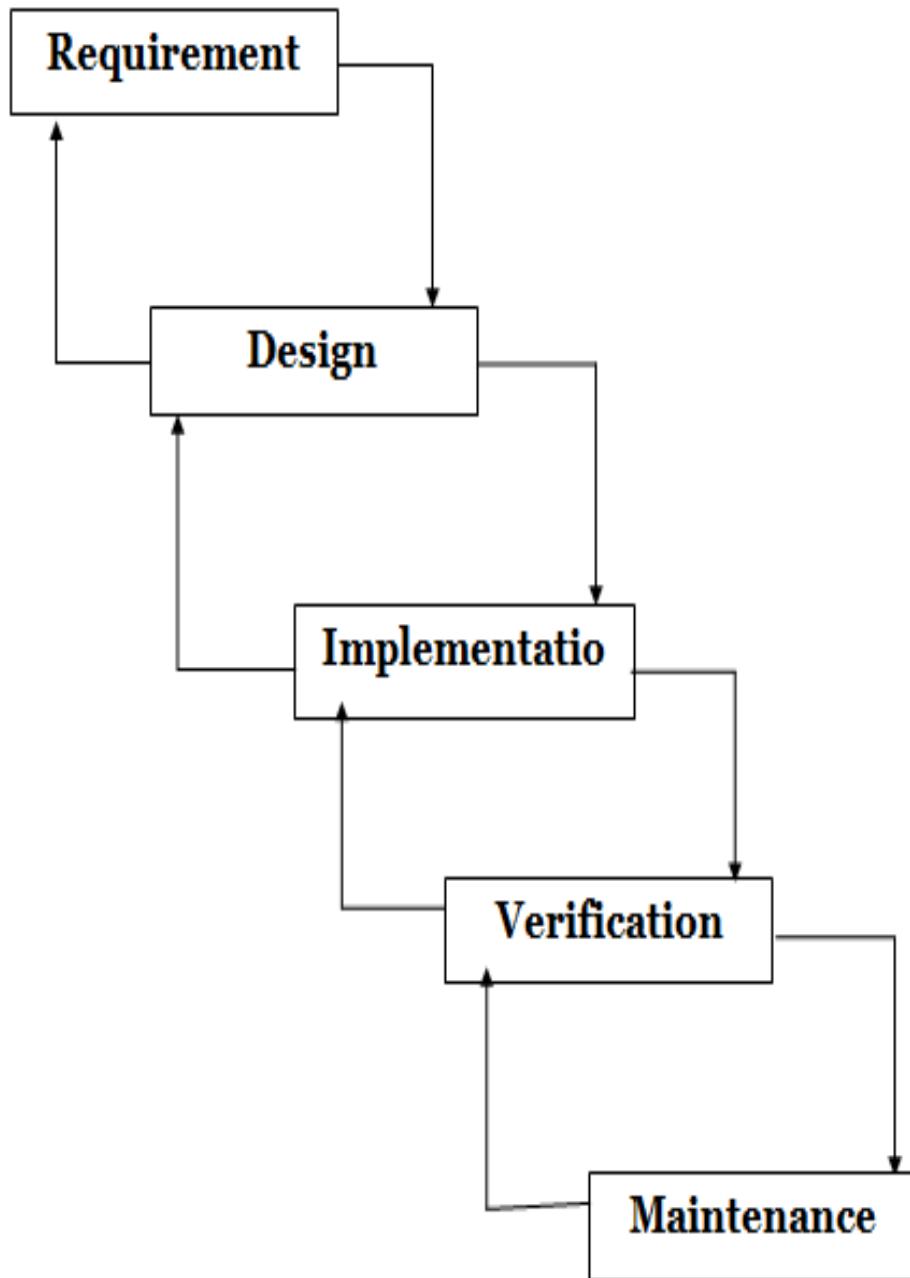


❖ **CODING:**

The design must be trusted into an executable file. The code generation step performs this task. I decided to use C#.NET language and windows 7 to accomplish code generation. The coding for any phase is as needed as the design phase of the project. Coding was the second major task. Coding was done parallel as with the design of the project.

❖ **TESTING:**

Once the code has been generated, program testing begins. The testing process focuses on the logical internals of the project, ensuring that all statement had been tested. I decided to use unit testing, integration testing and validation testing to make my project. Testing was done on the regular base during the coding phase itself. Some error that remains uncovered that is done properly at the time of Testing. And I get the required output that I want. A large amount of situations create while entering the data during input processing. So, testing is done to get the desired output.





3. System Design

Process Specification

Design Strategies

Data Dictionary

Data Flow Diagram

E-R Diagram

Use Case



3.1 Process Specifications

Login

- Accepts username and password from user.
- Check for the username and password in the common database table and if not correct then appropriate message will be displayed.
- If username and password is correct then the user can login to the system and can see the software options appropriate their role defined by the admin.
- Here new users can be only generated by the system admin.



3.2 Design Strategies

SOFTWARE ENGINEERING APPROACH:

Software design process involves developing several models of the system at a different level of abstraction as the design is decomposed error and omissions in earlier stages are discovered. The two design strategies are widely accepted as follows:

FUNCTION ORIENTED DESIGNING:

The system is designed from a functional viewpoint starting with a high level view and progressively refining this into a more detailed design. The system state is centralized and shared between functions operating on the state.

As my system is process oriented I have work accordingly considering the functional designing.

OBJECT ORIENTED DESIGNING:

The system is viewed as a collection of objects rather than as function. Object oriented technology lead to reuse and reuse leads to faster development and higher quality programs. It is also easier to maintain.



3.3 Data Dictionary

1. Table : Users

Description : Contains the user name and password and role

Field	Type	Description
UserId	Int	Stores User Id
UserName	Nvarchar(20)	Stores User Name
Password	Nvarchar(20)	Stores password
RoleId	Int	Stores role id of user

2. Table : UserRole

Description : Contains different roles for user

Field	Type	Description
RoleId	Int	Stores Role Id
RoleDescription	Nvarchar(20)	Stores Role

3. Table : Country

Description : Stores Country

Field	Type	Description
CountryId	Int	Stores Country Id
CountryNm	Nvarchar(40)	Stores Country name



4. Table : State

Description : Stores State

Field	Type	Description
StateId	Int	Stores State Id
CountryId	Int	Stores Country Id
StateNm	Nvarchar(30)	Stores State name

5. Table : City

Description : Stores City

Field	Type	Description
CityId	Int	Stores City Id
StateId	Int	Stores State Id
CityNm	Nvarchar(30)	Stores City name

6. Table : Cast

Description : Stores Cast

Field	Type	Description
CastId	Tinyint	Stores Cast Id
CastNm	Nvarchar(20)	Stores Cast Name



7. Table : Student

Description : Stores Student Personal Details

Field	Type	Description
Grno	Int	Stores Grno
S_FullName	Nvarchar(50)	Stores Student Name
S_Profile	Navrchar(1000)	Stores student Profile picture Path
S_Gender	Varchar(10)	Stores Student Gender
S_AdmissionDate	Datetime	Stores Student Admission Date
S_CastId	Tinyint	Stores CastId
S_CurrentAddress	Nvarchar(200)	Stores Current Address
S_PermanentAddress	Nvarchar(200)	Stores Permanent Address
S_Pincode	Int	Stores Pincode
S_CountryId	Int	Stores Country Id
S_StateId	Int	Stores State Id
S_CityId	Int	Stores City Id
S_DOB	Datetime	Stores Date of Birth
S_BirthPlace	Nvarchar(40)	Stores Birthplace
S_MobileNo	Bigint	Stores Mobile No
S_Telephone	Bigint	Stores Telephone No
S_Email	Nvarchar(100)	Stores Email Id
S_CourseId	Smallint	Stores Course Id
S_AdmissionSem	Tinyint	Stores AdmissionSem
S_CurrentSem	Tinyint	Stores CurrentSem
S_Discount	Tinyint	Stores Discount (%)
S_Fees	Int	Stores Course Fees
S_Remark	Nvarchar(500)	Stores Other Detail
S_CurrentStatus	Char(1)	Stores Student Status
S_LeavingYear	Smallint	Stores Leaving Year



8. Table : ParentsDetail

Description : Stores the details of student's parents

Field	Type	Description
Grno	Int	Stores Grno
S_Fathernm	Nvarchar(50)	Stores Student Father Name
S_Mothernm	Nvarchar(50)	Stores Student Mother Name
S_ParentsOccupation	Nvarchar(50)	Stores Parents Occupation
S_ParentsOfficeAddress	Nvarchar(200)	Stores Parents Office Address
S_ParentsContactNo	Bigint	Stores Parents Mobile No

9. Table : SchoolDetail

Description : Stores the student's school details

Field	Type	Description
Grno	Int	Stores Grno
School_nm	Nvarchar(50)	Stores School Name
School_stream	Nvarchar(50)	Stores School Stream
School_last_year	Smallint	Stores Last Year of Student
School_last_year_percentage	Tinyint	Stores Last Year Percentage



10. Table : CollegeDetail

Description : Stores the student's College details

Field	Type	Description
Grno	Int	Stores Grno
Clg_nm	Nvarchar(50)	Stores Student Father Name
Clg_stream	Nvarchar(50)	Stores College Stream
Clg_last_sem	Nvarchar(50)	Stores Last Semester of Student
Clg_year	Smallint	Stores College Last Year
Clg_last_sem_percentage	Tinyint	Stores College last sem percentage

11. Table : PaymentMethod

Description : Stores Different Payment Methods

Field	Type	Description
PaymentModeId	Tinyint	Stores Payment Mode Id
PaymentMode	Nvarchar(50)	Stores Payment Mode Name



12. Table : DocumentDetail

Description : Stores the Document Details of Student

Field	Type	Description
Grno	Int	Stores Grno
D_12_marksheet	Bit	Stores 1(true) if 12 th Marksheets is Submitted else 0(false)
D_12_lc	Bit	Stores 1(true) if 12 th Leaving Certificate is Submitted else 0(false)
D_Previous_marksheets	Bit	Stores 1(true) if College Previous Marksheets are Submitted else 0(false)
D_noc	Bit	Stores 1(true) if Non Objection Certificate is Submitted else 0(false)
D_tc	Bit	Stores 1(true) if College Transfer Certificate is Submitted else 0(false)



13. Table : FeeCollection_tb

Description : Stores Student Fee Collection Details

Field	Type	Description
Grno	Int	Stores Grno
P_Studentnm	Nvarchar(50)	Stores Student Name
P_Coursenm	Nvarchar(50)	Stores Course Name
P_PaymentDate	Datetime	Stores Student Payment Date
P_PaymentYear	Smallint	Stores year, Student is Paying for which year
P_PaidFee	Int	Stores Paid Fees
P_TotalPaid	Int	Stores Total Fees of Student
P_Due	Int	Stores Due Fee
P_Discount	Tinyint	Stores Discount (%)
P_PayableAmount	Int	Stores Amount to Pay
P_PaymentModeId	Tinyint	Stores Payment Mode Id

14. Table : Courses

Description : Stores Course Deatils

Field	Type	Description
C_Id	Smallint	Stores Course Id
C_Name	Nvarchar(50)	Stores Course Name
C_Alias	Nvarchar(50)	Stores Course Alias
C_TotalSem	Tinyint	Stores Total Semester in Course
C_Duration	Tinyint	Stores Course Duration
C_Fees	Int	Stores Course Fees



15. Table : Subjects

Description : Stores Course Details

Field	Type	Description
S_Id	Smallint	Stores Subject Id
C_Id	Smallint	Stores Course Id
S_Name	Nvarchar(50)	Stores Subject Name
S_Code	Smallint	Stores Subject Code
S_Sem	Tinyint	Stores Subject Semester

16. Table : Department

Description : Stores Department Details

Field	Type	Description
SubjectName	Nvarchar(50)	Stores Subject Name
EmployeeName	Nvarchar(50)	Stores Employee Name

17. Table : EmployeeBankDetails

Description : Stores Employee's Bank details

Field	Type	Description
EmpId	Int	Stores Employee Id
BankId	Int	Stores Bank Id
AccountNo	Bigint	Stores Bank Account No
BranckName	Varchar(50)	Stores Branch Name of Bank
IFSCCode	Varchar(50)	Stores IFSC Code



18. Table : BankName

Description : Stores the Bank Name Provided with this System

Field	Type	Description
BankId	Int	Stores Bank Id
BankName	Varchar(50)	Stores Bank Name

19. Table : EmployeeIdentityProof

Description : Stores the Employee's Identity Proof the

Field	Type	Description
EmpId	Int	Stores Employee Id
I_AadharCard	Bit	Stores 1(true) if Aadhar Card is Submitted else 0(false)
I_PanCard	Bit	Stores 1(true) if PanCard is Submitted else 0(false)
I_ExperienceCertificate	Bit	Stores 1(true) if Experience Certificate is Submitted else 0(false)
I_DegreeCertificate	Bit	Stores 1(true) if Degree is Submitted else 0(false)



20. **Table** : Employee_set_salary

Description : Stores the Employee's Salary Details

Field	Type	Description
EmpId	Int	Stores Employee Id
E_Salary	Int	Stores Employee Salary

21. **Table** : Attendance

Description : Stores the Student Attendance Details.

Field	Type	Description
CourseId	Smallint	Stores Course Id
Sem	tinyint	Stores Semester
Month	Varchar(9)	Stores Month
AttendanceSheet	Varchar(100)	Stores Attendance Sheet Name
BatchYear	Smallint	Stores Attendance Sheet Bach Year

22. **Table** : BookCategory

Description : Stores the Book Category Details.

Field	Type	Description
Category_ID	int	Stores Category Id
Category_Name	Varchar(50)	Stores Category Name



23. Table : L_Book

Description : Stores the Employee's Salary Payable Details.

Field	Type	Description
Id	Int	Stores Book Id
BookID	Int	Stores Book ID
BookName		Stores Books Name
CategoryID	Int	Stores Category ID
AuthorName	Nvarchar(50)	Stores Author Name
PubliserName	Nvarchar(50)	Store Publiser Name
Stock	Int	Store Books Stock
Available	Int	Store Available Book Stock
Price	Int	Store Book Price



24. Table : PayEmployeeSalary_tb.

Description : Stores the Employee's Salary Payable Details.

Field	Type	Description
EmpId	Int	Stores Employee Id
E_Month	Nvarchar(50)	Stores Last Payment Month
January	Nvarchar(50)	Stores Payment Date
Fabruary	Datetime	Stores Payment Date
March	Datetime	Stores Payment Date
Aprile	Datetime	Stores Payment Date
May	Datetime	Stores Payment Date
June	Datetime	Stores Payment Date
July	Datetime	Stores Payment Date
August	Datetime	Stores Payment Date
Septembar	Datetime	Stores Payment Date
Octomber	Datetime	Stores Payment Date
November	Datetime	Stores Payment Date
December	Datetime	Stores Payment Date



25. Table : Employee

Description : Stores the Employee Personal Details

Field	Type	Description
EmpId	Int	Stores Employee Id
E_Name	Nvarchar(50)	Stores Employee Name
E_Profile	Navrchar(1000)	Stores Employee Profile picture path
E_FatherName	Varchar(50)	Stores Employee Father Name
E_MotherName	Varchar(50)	Stores Employee Mother Name
E_JoinDate	Datetime	Stores Employee Joining Date
E_IsTeaching	Varchar(20)	Stores [Teaching Staff] or [Non-Teaching Staff]
E_CurrentAddress	Nvarchar(200)	Stores Current Address
E_PermanentAddress	Nvarchar(200)	Stores Permanent Address
E_Pincode	Int	Stores Pincode
E_CountryId	Int	Stores Country Id
E_StateId	Int	Stores State Id
E_CityId	Int	Stores City Id
E_Gender	Varchar(10)	Stores Student Gender
E_CastId	Tinyint	Stores CastId
E_DOB	Datetime	Stores Date of Birth
E_BirthPlace	Nvarchar(40)	Stores Birthplace
E_EmpMobileNo	Bigint	Stores Mobile No
E_Email	Nvarchar(100)	Stores Email Id



E_Telephone	Bigint	Stores Telephone No
E_ParentsMobileNo	Bigint	Stores Parents Mobile No
E_Degree	Varchar(50)	Stores Degree of Employee
E_LastEmployerAt	Varchar(50)	Stores Employee's Last working place name
E_YearOfExperience	Int	Stores Employee's Experience (In Year)
E_Remark	Varchar(200)	Stores Employee's Other Details



3.4 Data Flow Diagrams

A data flow diagram (DFD) is a graphical representation of the "flow" of data through an information system.

In other words, it shows:

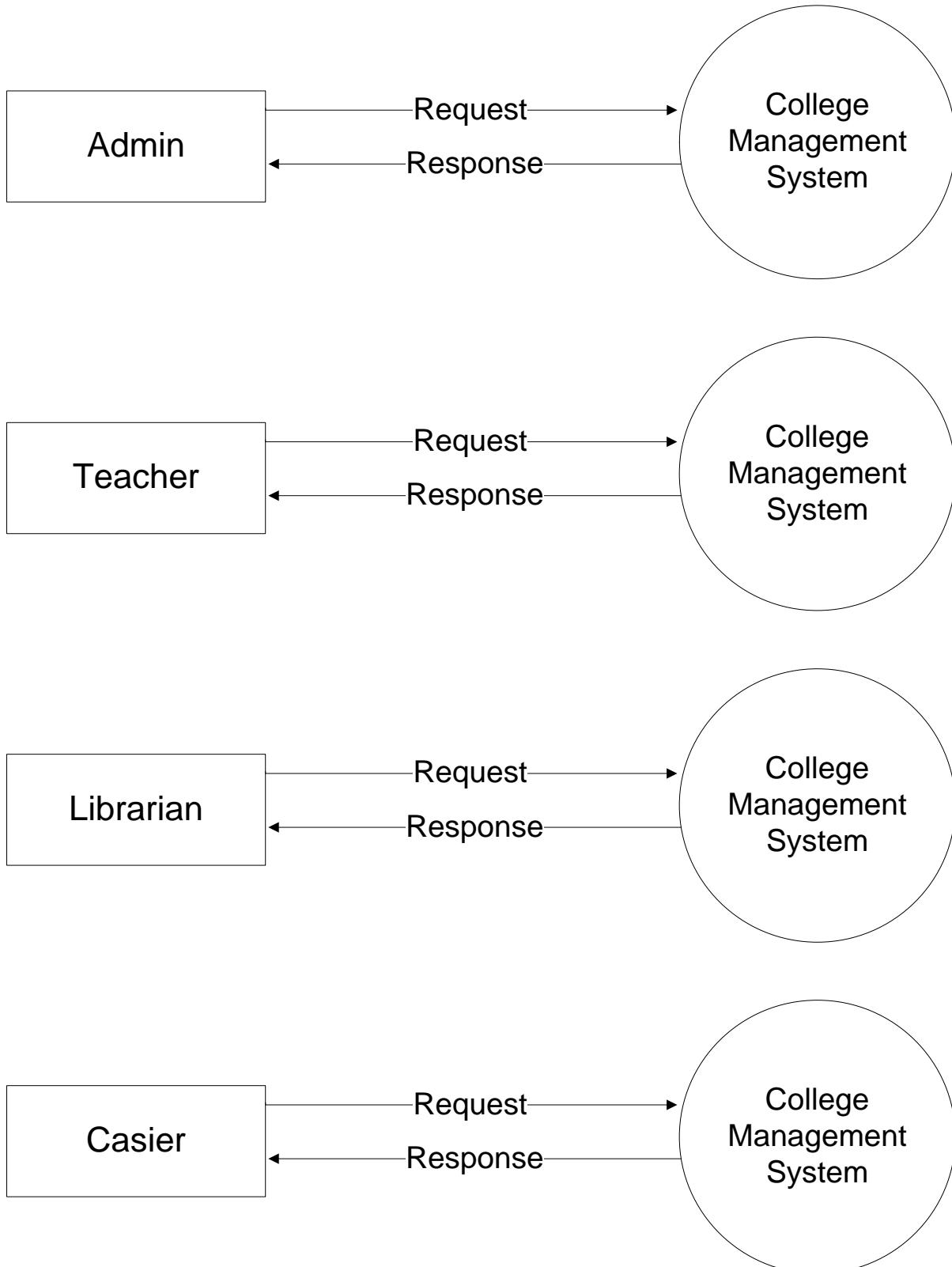
- What goes in
- How it is changed
- What comes out

A data flow diagram can also be used for the visualization of data processing (structured design). It is common practice for a designer to draw a context-level DFD first which shows the interaction between the system and outside entities. This context-level DFD is then "exploded" to show more detail of the system being modeled.

Data flow diagrams are a useful and initiative way of describing a system. They are normally understandable without special training. Especially if control information is excluded. They show end-to-end processing. That is, the flow of processing from when data enters the system to where it leaves the system can be traced.



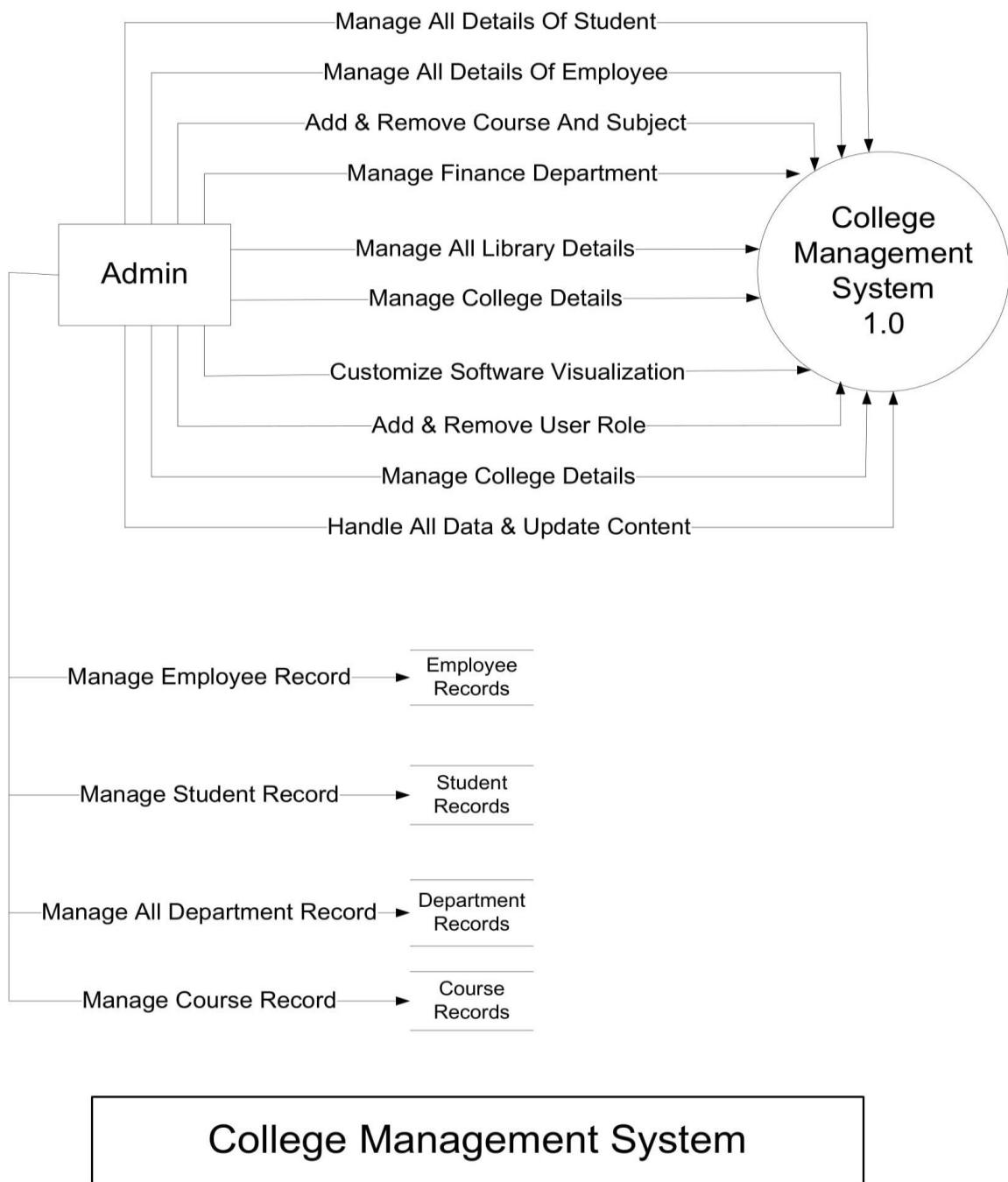
Context Level :





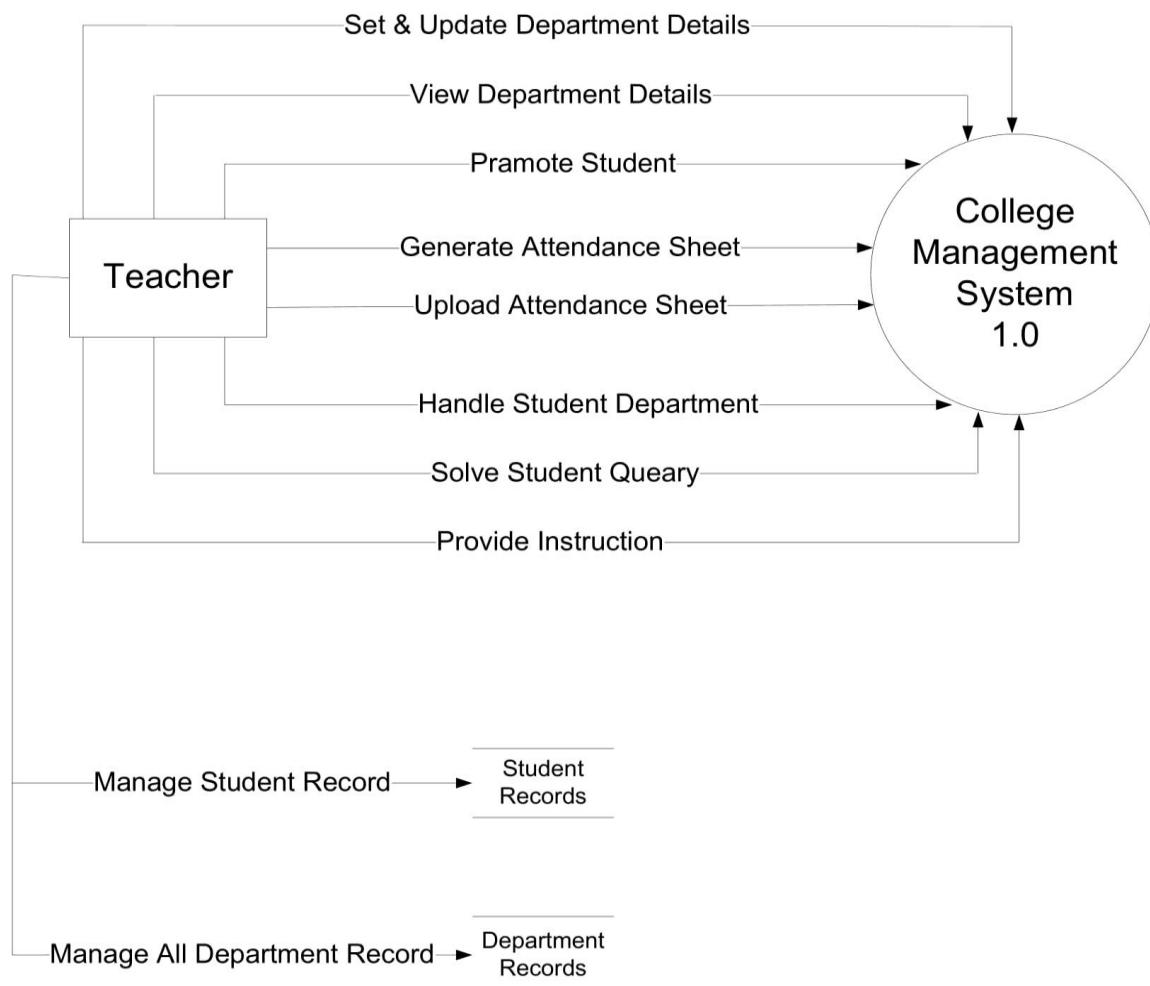
0 Level :

➤ Admin Side :





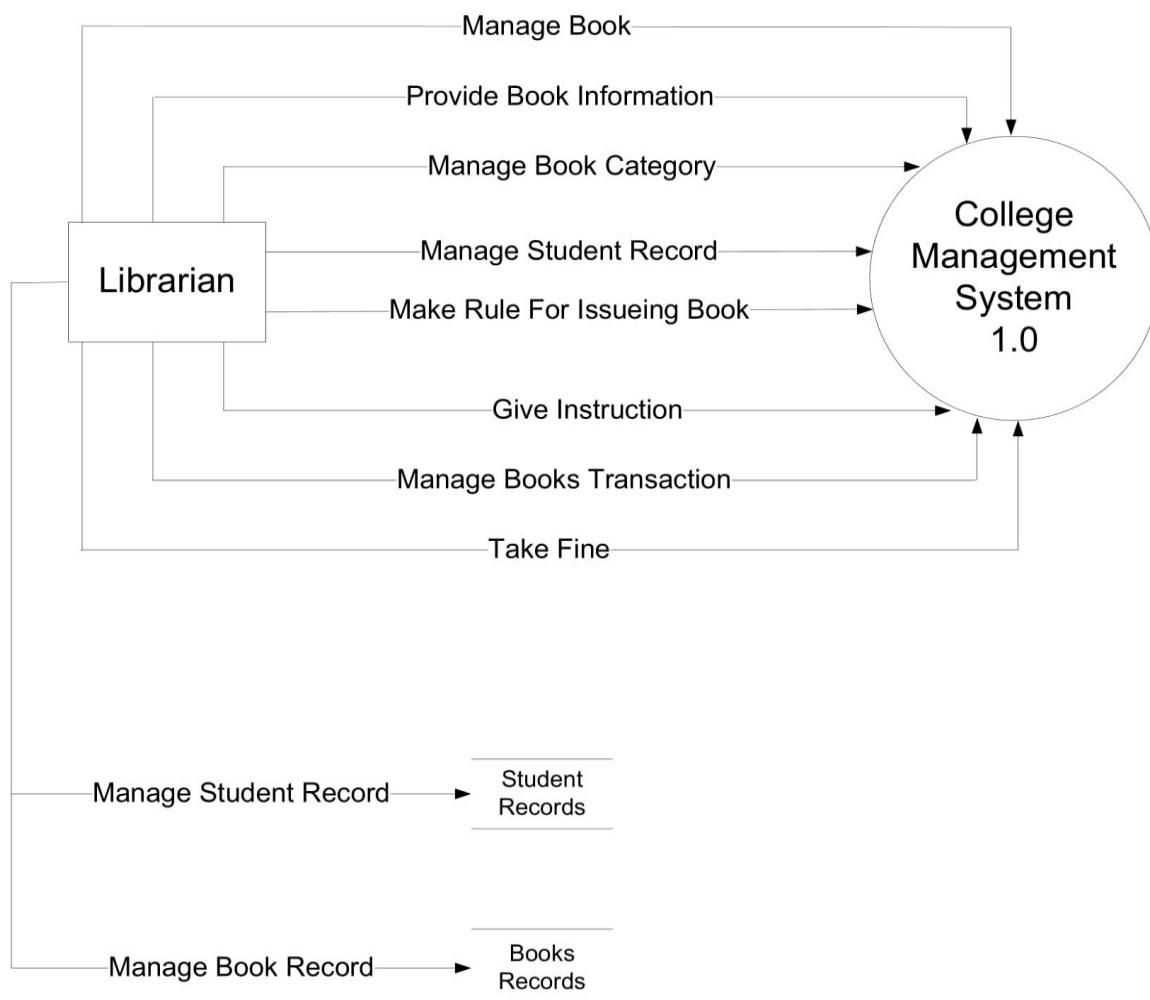
➤ Teacher Side :



College Management System



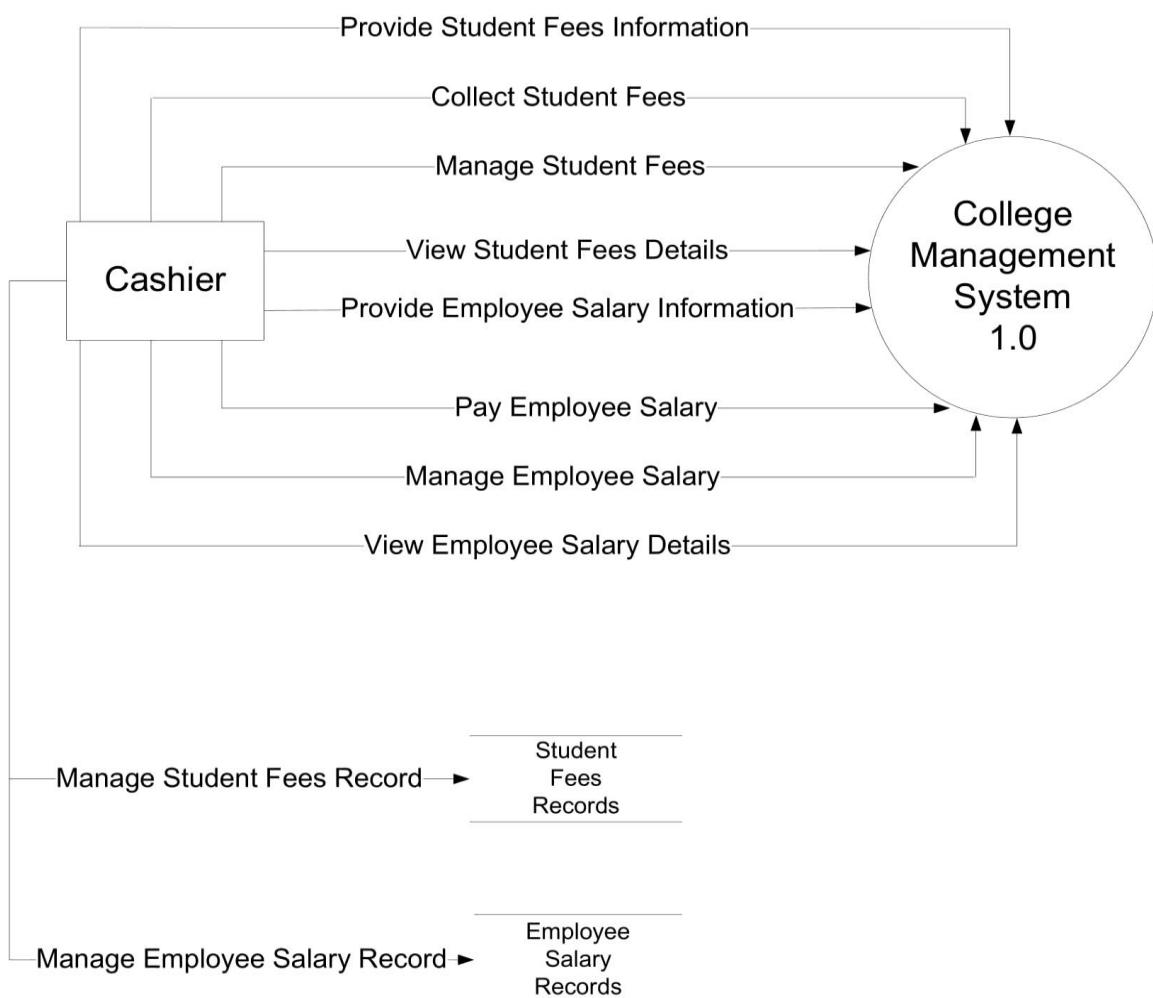
➤ Librarian Side :



College Management System



➤ Casier Side :



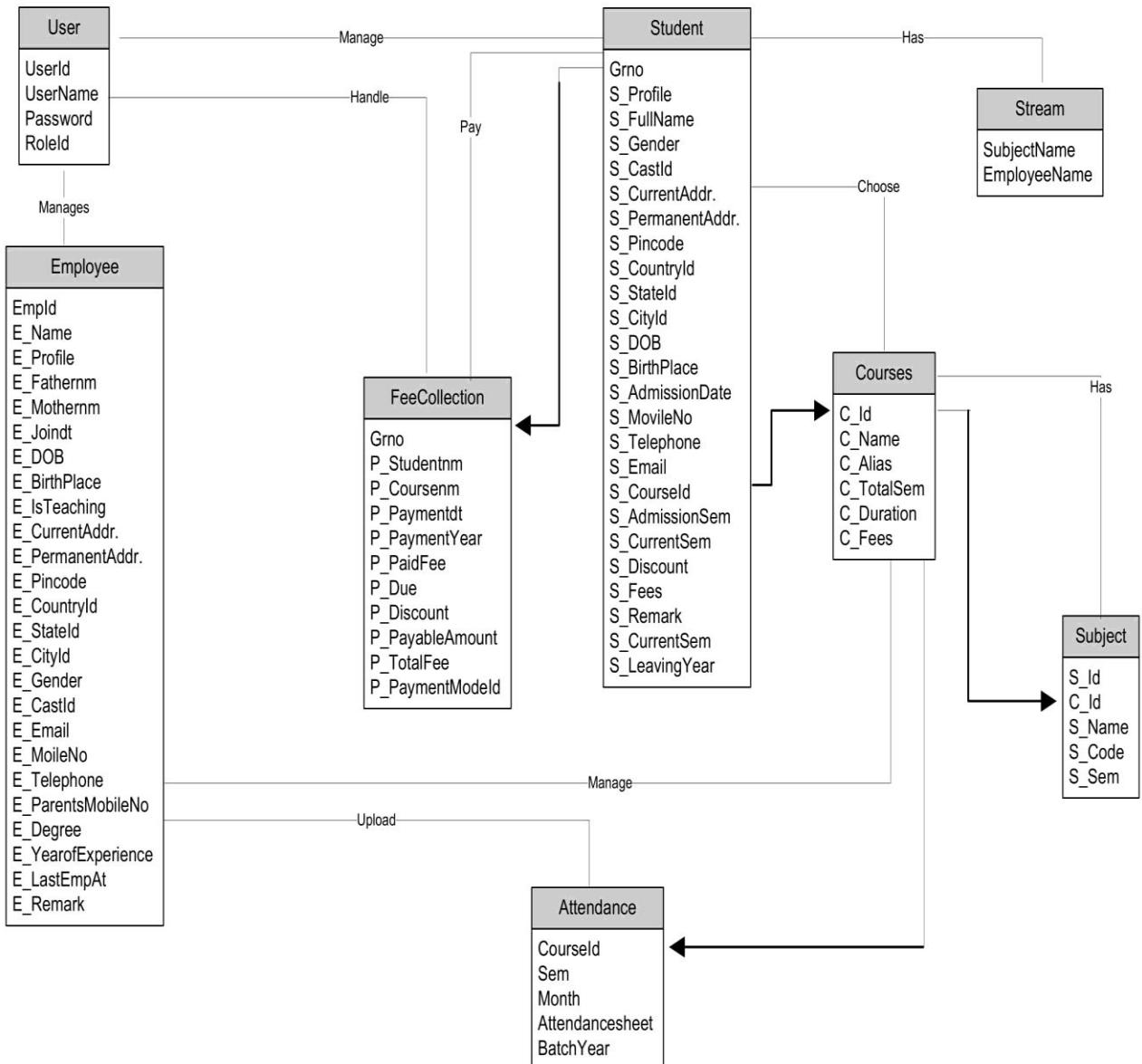
College Management System



3.5 E-R Diagrams

Entity Relationship Model (ERM) is a technique used to analyze and model the data in organizations using an Entity Relationship (ER) Diagram.

In Software Engineering, an Entity-Relationship Model (ERM) is an abstract and conceptual representation of data. Entity-Relationship Modeling is a database modeling method, used to produce a type of conceptual schema or semantic data model of a system, often a relational database, and its requirements in a top-down fashion. Diagrams created by this process are called Entity-Relationship Diagrams, ER Diagrams, or ERDs.



College Management System

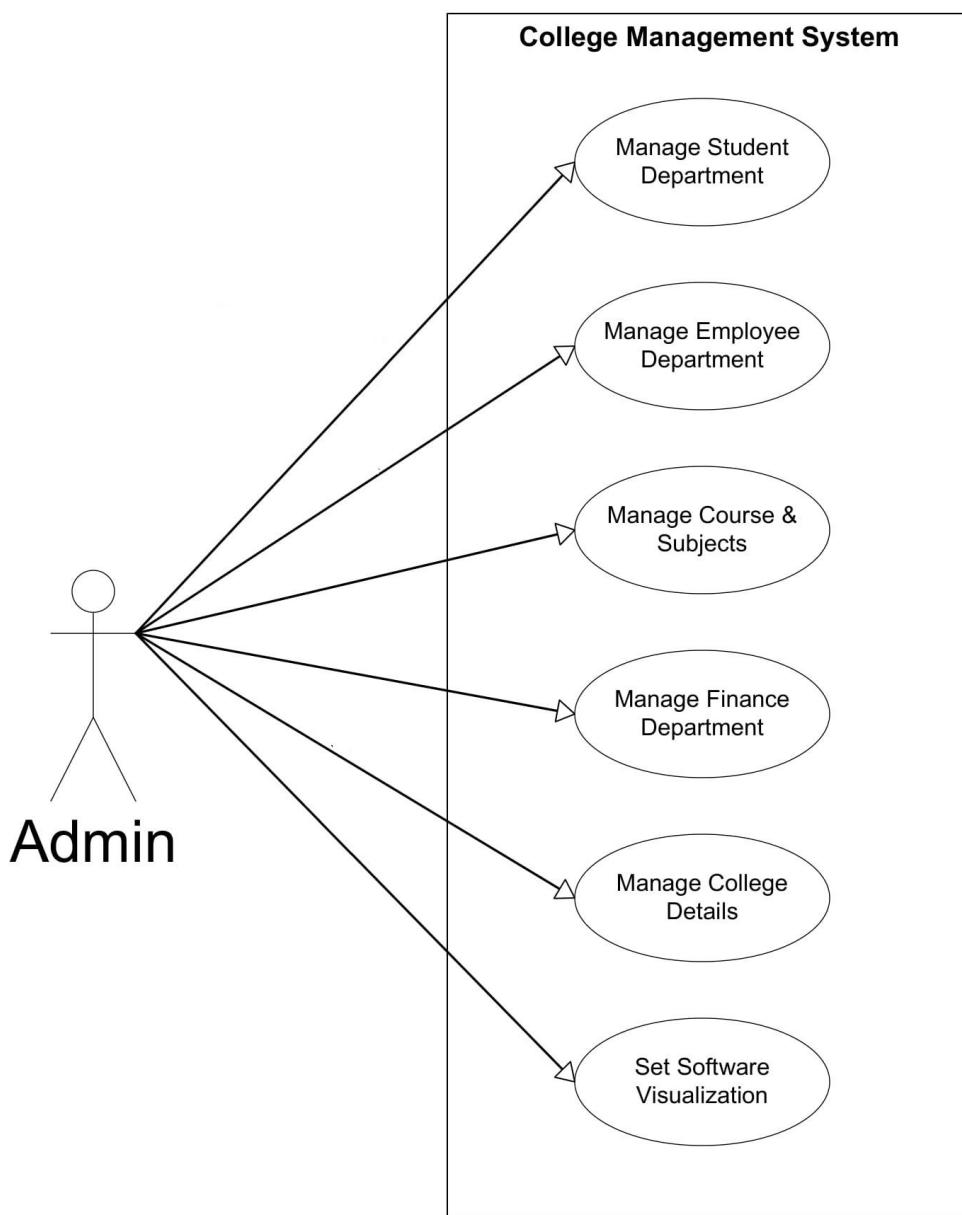


ADCMS



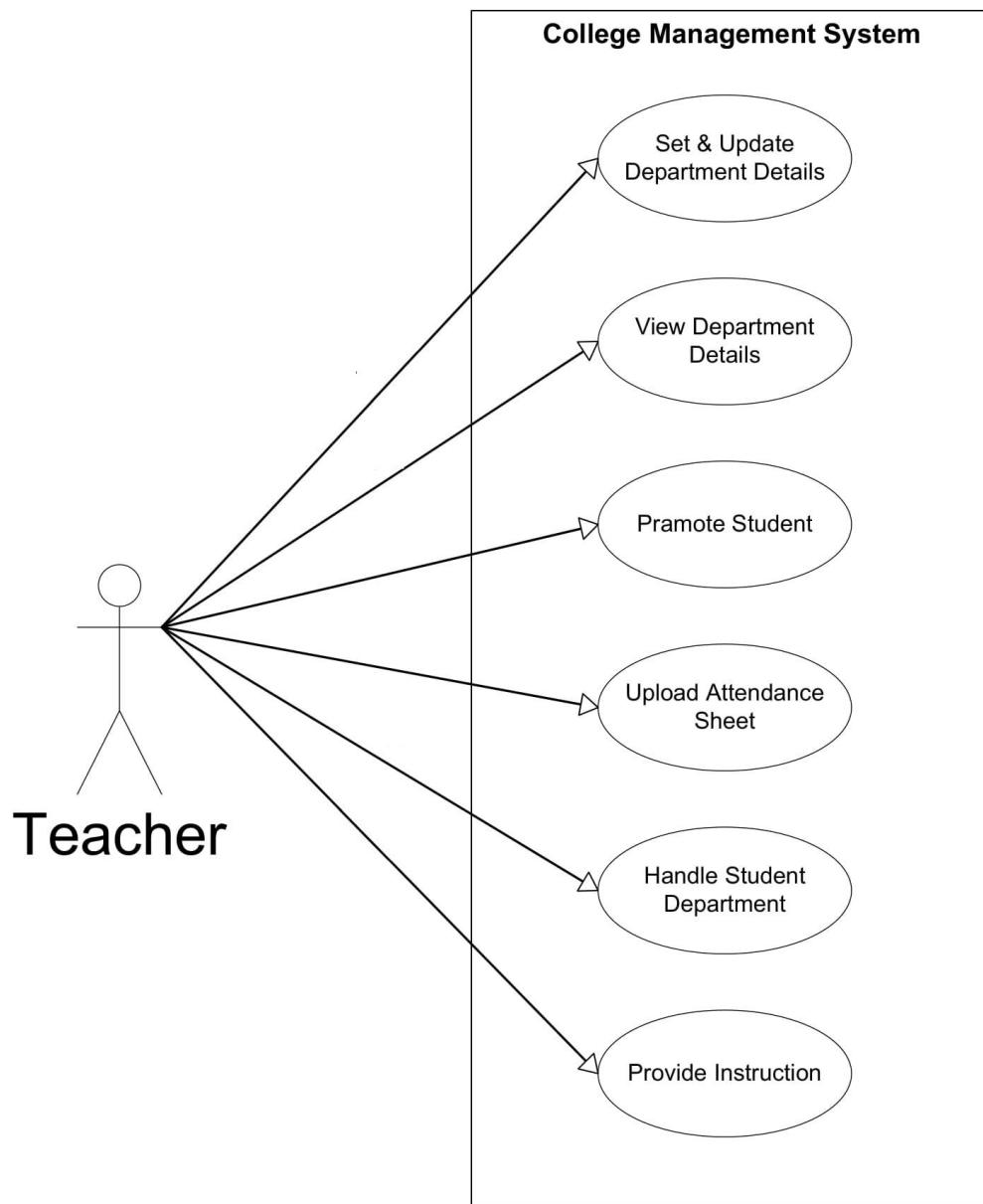
3.6 Use Case

➤ Admin Side :



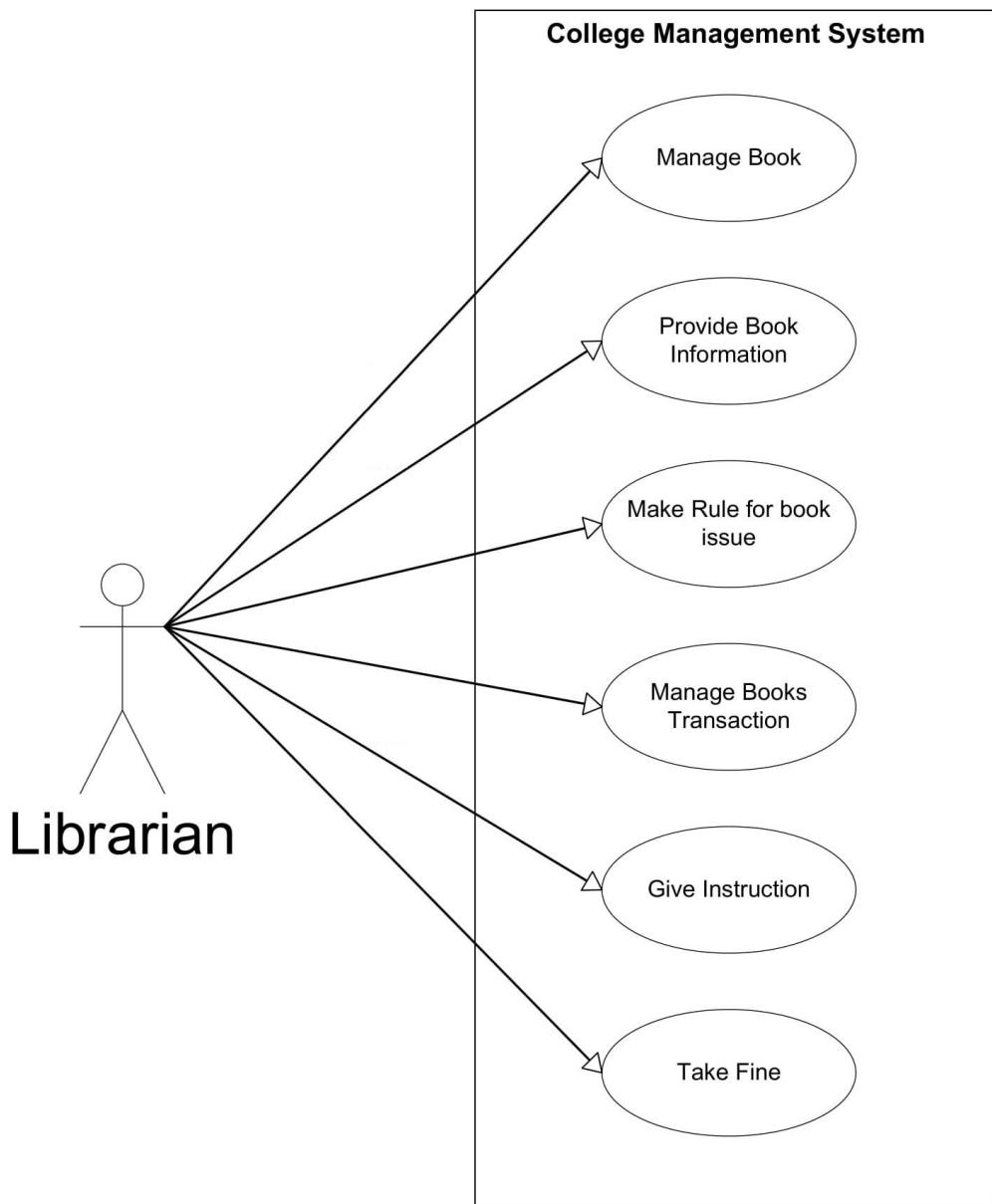


➤ Teacher Side :



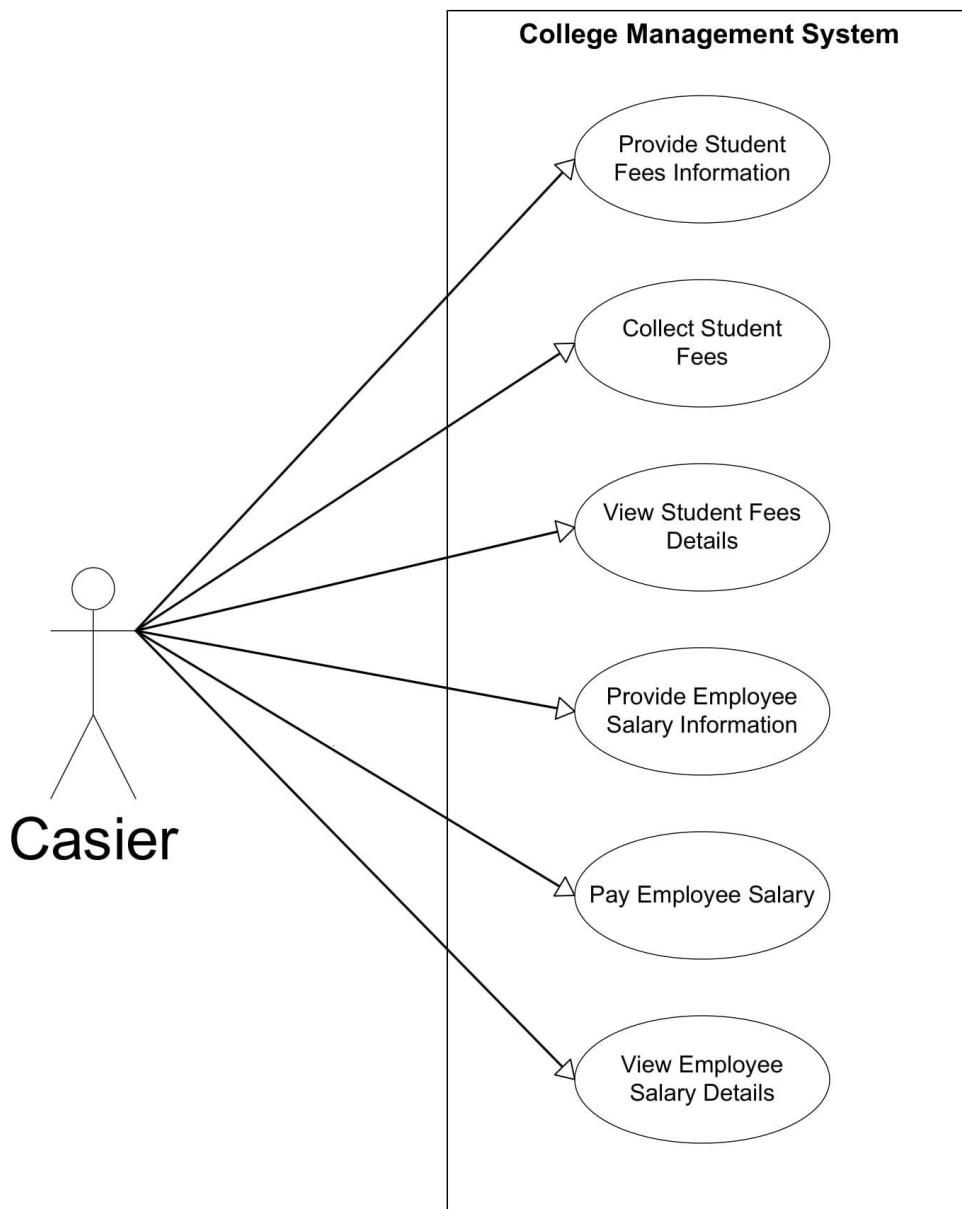


➤ Librarian Side :





➤ Casier Side :





4. Tools and Technology

Technology Used

.NET Framework

Language

About C#.NET

About MSSQL

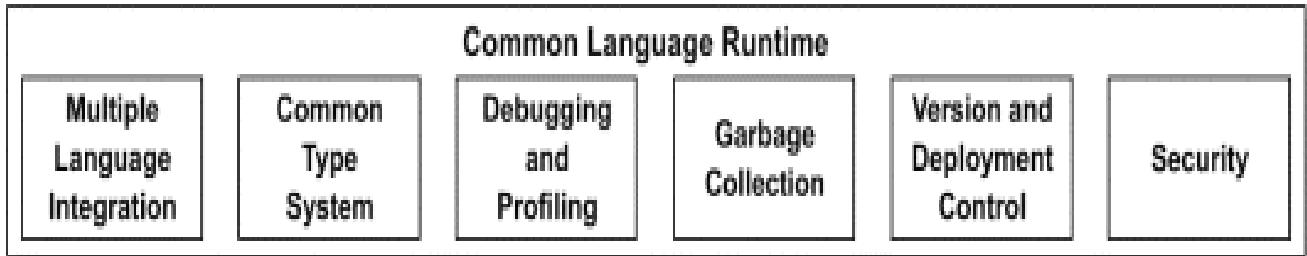
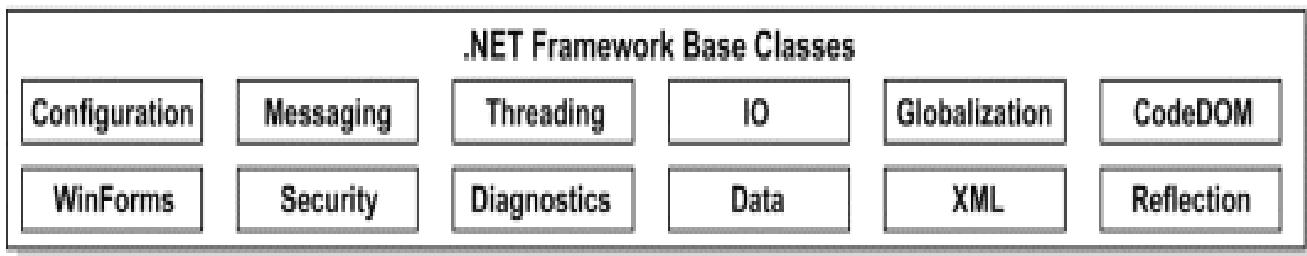
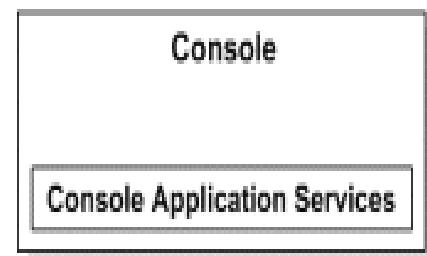
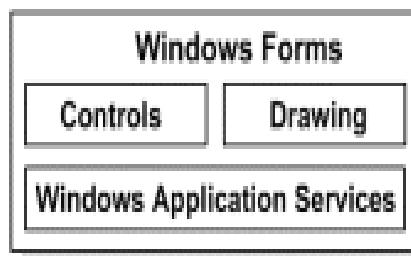
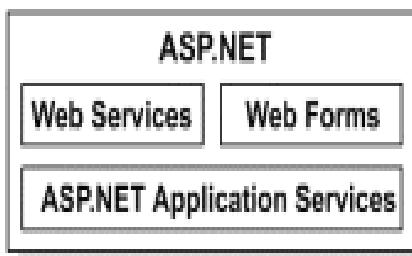


4.1 Technology Used

4.1.1 .NET Framework

➤ What is .NET Framework?

The .NET Framework is a service or platform for building, deploying, and running applications. The .NET Framework consists of 2 main parts: Common Language Runtime (CLR) and Class Libraries.





➤ What are the features of .NET Platform?

There are many features provided by .NET Framework which has made .NET popular and reliable in software development and Ibm development industry. Following are features of .NET Platform / .NET Framework.

- **Multilanguage Development :**

VS.NET supports multiple languages. This is definitely one of the biggest advantages of .NET Framework because programmers having ability in their own languages can use their skills in their languages. Another advantage of Multilanguage is that all are developed under same basic environment.

- **Multi-Device Development :**

Apart from that .NET supports multiple developments you can create Mobile Application, PDA Application, etc.

- **Distributed Architecture :**

VS.NET applications have capability to be executed on Distributed Architecture. You can create applications which can be executed on Distributed Architecture.



- **Platform and Processor Independence :**

Generally when you compile a code written in some language, it is converted directly to Native Code i.e. EXE or DLL. In VS.NET execution of programs is done in two processes. First program is converted from Language Code to IL Code and then from IL Code to Native Code, which makes .NET application to become Platform and Processor independence.

- **Automatic Memory Management :**

Memory managed is always one of biggest headache of Developers. VS.NET handles memory managed by itself. Under Garbage Collection method, it automatically collects the objects which are no longer needed and removes it from memory.

- **Easy Deployment :**

In many languages, Deployment is one of the tedious tasks. Using VS.NET application becomes easy to deploy. You can create Deployment project easily which helps to deploy application on target machines.



- **Interoperability with Unmanaged Code :**

Because interaction between new and older applications is commonly required, the .NET Framework provides means to access functionality that is implemented in programs that execute outside the .NET environment. So, Interoperability with Unmanaged Code is provided.

- **Security :**

The design is meant to address some of the vulnerabilities, such as buffer overflows, that been exploited by malicious software. Additionally, .NET provides a common security model for all applications.

- **Performance and Scalability :**

As far as Performance and Scalability is concerned, .NET based applications give better performance in terms of memory, device management, etc. You can create Robust Application with full scalability provided by application.



- **XML Support :**

Today XML is used widely for the transportation of data between Client and Server via HTTP. Because XML works in Text which can be understood by all OS and Hardware's, .NET supports writing, manipulating and transforming of XML documents.



➤ What is the Common Language Runtime (CLR)?

- It is the execution engine for .NET Framework applications.
- It is the heart or backbone of the .NET.
- It's is the runtime engine provided by the .NET framework.
- It provides an infrastructure to run programs and allows them to communicate with other parts of the .NET framework.
- It provides a number of services, including the following:
 - Code loading and execution
 - Application memory isolation
 - Verification of type safety
 - Conversion of IL to native code
 - Access to metadata
 - Managing memory for managed objects
 - Enforcement of code access security
 - Exception handling, including cross-language exceptions



➤ What is the Common Type System (CTS)?

- CTS allow programs written in different programming languages to easily share information.
- A class written in C# should be equivalent to a class written in VB.NET.
- Languages must agree on the meanings before they can integrate with one another.
- CLS forms a subset of CTS. This implies that all the rules that apply to CTS apply to CLS also.
- It defines rules that a programming language must follow to ensure that objects written in different programming languages can interact with each other.
- CTS provide cross language integration.
- The common type system supports two general categories of types:
 1. Value Types
 2. Referencetype



➤ What is the Common Language Specification (CLS)?

- CLS includes basic language features needed by almost all the applications.
- It serves as a guide for library writers and compiler writers.
- The Common Language Specification is a subset of the Common Type System.
- The Common Language Specification is also important to application developers who are writing code that will be used by other developers.



➤ What is an assembly?

- An assembly is the primary building block of a .NET Framework application.
- An Assembly is a logical DLL.
- It consists of DLLs or Executable.
- It is a collection of functionality that is built, versioned, and deployed as a single implementation unit (as one or more files).
- All managed types and resources are marked either as accessible only within their implementation unit or as accessible by code outside that unit.



➤ What are Private Assemblies and Shared Assemblies?

- A private assembly is used only by a single application, and is stored in that application's install directory (or a subdirectory therein).
- A shared assembly is one that can be referenced by more than one application.
- In order to share an assembly, the assembly must be explicitly built for this purpose by giving it a cryptographically strong name (referred to as a strong name).
- By contrast, a private assembly name need only be unique within the application that uses it.



➤ What is .NET Framework Class Library (FCL)?

- In C, <conio.h>, <stdio.h> etc. are header files. I add those header files in my program to use inbuilt functions.
- Same here, the .NET Framework are collection of classes or namespace that can be used to develop applications.
- The class library consists of data classes, XML classes, Ib Forms classes and Windows Forms classes, Smart device classes, Input Output classes.
- Other name of FCL is BCL - Base class library.



➤ What is Garbage Collection (GC)?

- Garbage Collection is a mechanism that allows the computer to detect when an object is no longer needed.
- It then automatically free up the memory used by that object.
- One of the advantages of CLR is automatic memory management that uses the garbage collection mechanism.
- The CLR's garbage collector (GC) manages the allocation and release of memory for an application.
- I do not have to write code to perform memory management tasks when you develop managed applications.



➤ What is Metadata?

- Metadata stored within the Assembly.
- .NET records information about compiled classes as Metadata.
- Metadata means data about data.
- A .NET language compiler will generate the metadata and store this in the assembly.
- On the .NET Platform programs are compiled into .NET PE (Portable Executable) files.
- The header section of every .NET PE file contains a special new section for Metadata.
- Metadata is nothing but a description of every namespace, class, method, property etc. contained within the PE file.
- The CLR uses this metadata to
 - Locate classes
 - Load classes
 - Generate native code
 - Provide security



➤ What is the Microsoft Intermediate Language (MSIL)?

- MSIL is the CPU-independent instruction set into which .NET Framework programs are compiled.
- It contains instructions for loading, storing, initializing, and calling methods on objects.
- Combined with metadata and the common type system, MSIL allows for true cross-language integration.
- MSIL also known as CIL - Common Intermediate Language or IL-Intermediate Language



➤ what is Namespace?

- As above, the .NET Framework class library is collection of namespaces.
- Namespace is a logical naming scheme for types that have related functionality.
- Namespace means nothing but a logical container or partition.
- It's like Drives of our computer.
- Like my computer contain C: D: E: and F: My F: contains songs and videos my C: contains installed file so on.
- For example, my friend wants songs. So I will directly go to my computer's F: because songs are placed there.
- At the root of the hierarchy is the System namespace.
 - The notion of a namespace plays a fundamental role in the .NET Framework.



Common Namespaces :

Namespace	What It Contains	Example Classes and Subnamespaces
System.Collections	Creation and management of various types of collections	ArrayList, Hashtable, SortedList
System.Data	Classes and types related to basic database management (see Chapter 11 for details)	DataSet, DataTable, DataColumn,
System.Diagnostics	Classes to debug an application and to trace the execution of code	Debug, Trace
System.IO	Types that allow reading and writing to and from files and other data streams	File, FileStream, Path, StreamReader, StreamWriter
System.Math	Members to calculate common mathematical quantities, such as trigonometric and logarithmic functions	Sqrt (square root), Cos (cosine), Log (logarithm), Min (minimum)
System.Reflection	Capability to inspect metadata	Assembly, Module
System.Security	Types that enable security capabilities (see Chapter 24 for details)	Cryptography, Permissions, Policy



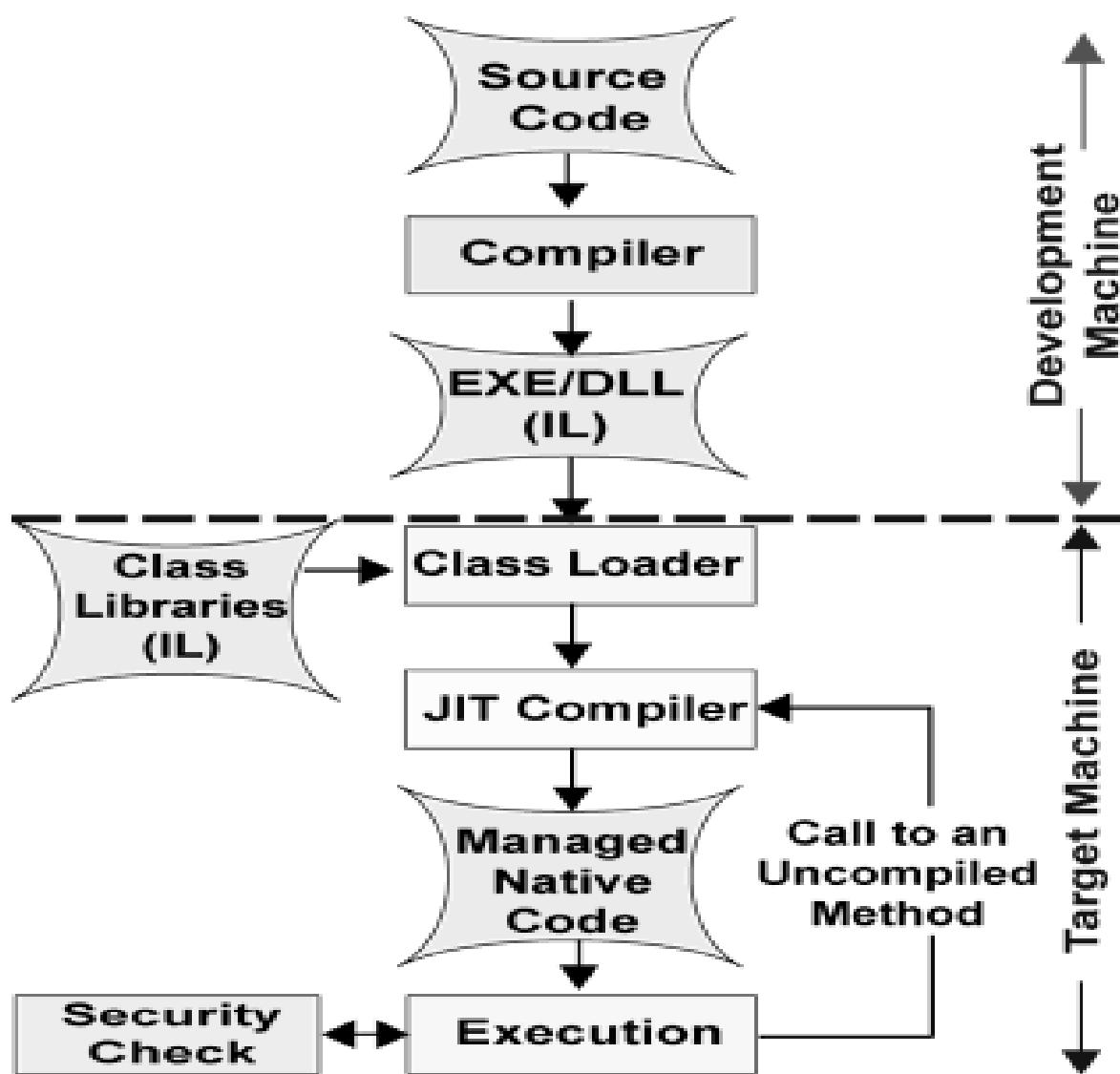
➤ What is JIT?

- It stands for "Just-In-Time".
- It's a smart compiler.
- JIT does not compile whole program each time and every time.
It compiles only that portion of the program which functions are called that time. And suppose Native code is already present then that data will not again compiled. If changes are made then possible that it will again generates MSIL to Native.
- Firstly any program compile by its own compiler then it will convert into MSIL then with the help of JIT; MSIL compile into Native code but CLR does not convert whole MSIL code to Native code on Load time of that application; instead of it compiles the MSIL instructions as they are called.
- There are 3 types of JIT
 - ★ **Pre-JIT**: It compiles complete program into native code in a single compilation cycle. This work is done at the time of deployment of the program.
 - ★ **Econo-JIT**: It compiles only those methods that are called at runtime.

★



- ★ **Normal-JIT:** It's like Eco no-JIT. The methods are compiled the 1st time they are stored in cache. When the same methods are called again the- compiled code from cache is used for execution.





➤ what are Managed Code and Unmanaged Code?

○ **Managed Code:**

- Managed Code is what VB.NET and C# Compilers create.
- Code that targets the CLR (Common Language Runtime), the foundation of .NET Framework, is known as Managed Code.
- It compiles IL (Intermediate Code), not to machine code that could run directly on your computer. The IL is kept in a file called an Assembly which is known as Assembly Info.cs file, along with metadata that describes the classes, methods, and attributes of the code which you have created. You can copy it to another server / pc to deploy the assembly there – and often that coping is the only step required in the deployment.
- Managed code runs in the CLR. The runtime offers a wide variety of services to your running code.
- The managed code is always executed by a managed runtime execution environment rather than the operating system directly.
- Applications written in Java, C#, VB.NET, etc. target a runtime environment which manages the execution and the code written using these types of languages is known as Managed Code.
-



- Managed Code is always compiled to IL, so it provides platform independence.
- Managed code can access both managed data and unmanaged data.

- **Unmanaged Code:**

- Code that does not target the CLR (Common Language Runtime) runtime is known as Unmanaged Code.
- Unmanaged code is what you use to make before VS.NET 2003 was released.
- Code that is directly executed by the OS is known as Unmanaged Code.
- Typically applications written in VB 6, C++, C, COM components, ActiveX components are an example of Unmanaged Code.
- Unmanaged Code typically targets the processor architecture and is always dependent on the computer architecture.
- Unmanaged code is always compiled to target a specific architecture and will only run on the intended platform, this means if you want to execute the same application on different machines, you need to recompile your program again.
- Unmanaged code is always compiled to the native code which is architecture specific.



➤ .NET Framework Versions :

Generation	Version Number	Release Date	Development Tool	Distributed With
1.0	1.0.3705.0	13-Feb-2002	Visual Studio .NET	N/A
1.1	1.1.4322.573	24-Apr-2003	Visual Studio .NET 2003	Windows Server 2003
2.0	2.0.50727.42	7-Nov-2005	Visual Studio 2005	Windows Server 2003 R2
3.0	3.0.4506.30	6-Nov-2006	Expression Blend	Windows Vista, Windows Server 2008
3.5	3.5.21022.8	19-Nov-2007	Visual Studio 2008	Windows 7, Windows Server 2008 R2
4.0	4.0.30319.1	12-Apr-2010	Visual Studio 2010	N/A
4.5	4.5.50709.17929	15-Aug-2012	Visual Studio 2012	Windows 8, Windows Server 2012



4.2 Language

4.2.1 About C#.NET

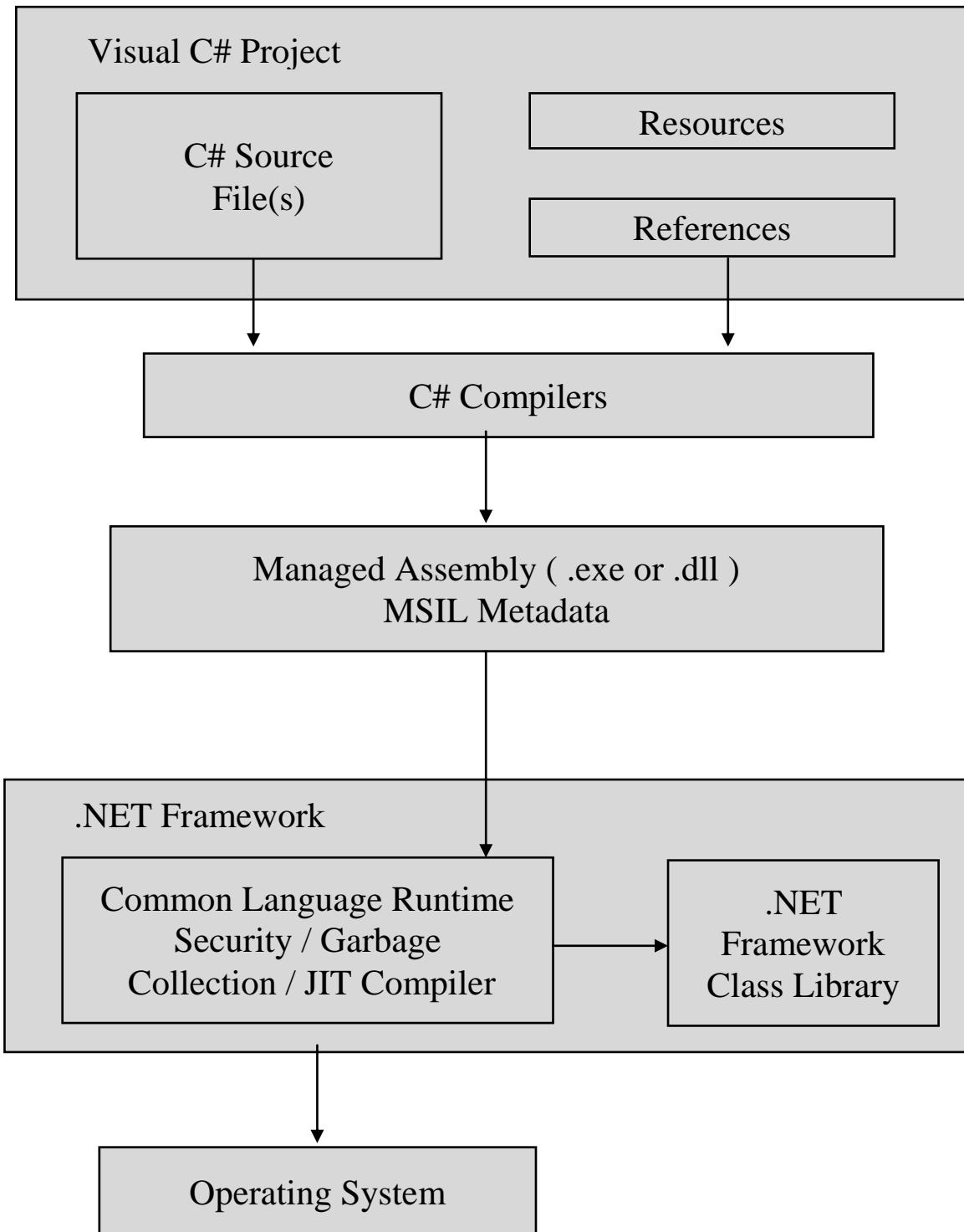
➤ Overview :

C#.NET is a server-side software application framework designed for software development to produce Dynamic forms. It was developed by Microsoft to allow programmers to build dynamic software applications, Web development and Web services.

Anders Hejlsberg is known as “founder of C# Language”. It was first released in January 2002 with version 1.0 of the .NET Framework. C#.NET is built on the Common Language Runtime (CLR), allowing programmers to write ASP.NET code. These languages like C#.NET enable you to develop ASP.NET applications that benefit from the Common Language Runtime (CLR), type safety, inheritance, and so on.



C#.NET Architecture:





4.2.2 About MSSQL

➤ What is Microsoft SQL Server ?

Microsoft SQL server is a flexible program that works for both simple and complex database projects. It is also a Relational Database, which means it lets you define relationships between different types of information (like customers and orders) so you can use them together.

The Microsoft SQL Server Database Engine is the core service for storing, processing, and securing data. The Database Engine provides controlled access and rapid transaction processing to meet the requirements of the most demanding data consuming applications within your enterprise. The Database Engine also provides rich support for sustaining high availability.

Working with a Microsoft SQL Server 2005 database, the process of creating forms, reports, data access pages, and modules is the same. Once you connect to an SQL Server database or OLE DB, you can view, create, modify, and delete tables, views, stored procedures, and database diagrams, relationships between different



tables can be made easily using the Microsoft SQL Server Design Tools.

The Database Engine is the core service for storing, processing, and securing data. The Database Engine provides controlled access and rapid transaction processing to meet the requirements of the most demanding data consuming applications within your enterprise. The Database Engine also provides rich support for sustaining high availability.



➤ Advantages of SQL Server :

Reliability:

With SQL Server the clients do not talk directly with the tables but with an intelligent data manager on the server. This in turn reads and writes data from and to the tables. If a client machine crashes, or the network hiccups, this will not affect the underlying tables.

Data Integrity:

Data integrity in SQL Server is enhanced by the use of 'triggers' which can be applied whenever a record is added, updated or deleted. This occurs at the table level and cannot thus be forgotten about, ignored or bypassed by the client machine.



5. Screen Layouts



Log In

The screenshot shows a Windows-style dialog box titled "AD_CMS". Inside the box, there are two text input fields. The first field is labeled "User Name :" and contains the text "admin". The second field is labeled "Password :" and contains the text "@@@@@@@". Below these fields are two buttons: a teal-colored "Log In" button on the left with a key icon, and a teal-colored "Clear" button on the right. The background of the dialog is light gray.

Log In Form Used To Log Into The ADCMS



Main Form

AD - College Management System

(+91)0123456789 ADCMS@gmail.com

[Logout](#)



Welcome admin

- [!\[\]\(d0fa7aa18e2bc596a11266d17e7253b5_img.jpg\) Home](#)
- [!\[\]\(9dcda05aa4d2ada13363ee23b873c0ec_img.jpg\) Student Management](#)
- [!\[\]\(d11cf8570f7db40768f116e405aa4342_img.jpg\) Staff Management](#)
- [!\[\]\(24c45d4f1ed20b7673cfeb3df761ef30_img.jpg\) Courses](#)
- [!\[\]\(cf1b777092d74db8c77da6143ed6d0e3_img.jpg\) Department](#)
- [!\[\]\(4ddc8ee951ab085a336fc53eb3138402_img.jpg\) Finance Department](#)
- [!\[\]\(ae65bcb9d7d7457c45f8f7923d272261_img.jpg\) Attendance](#)
- [!\[\]\(c1832d39b8cfbb76442255aada911b9e_img.jpg\) Library Management](#)
- [!\[\]\(46e9c6aadb27de5cdcd17e6ec47241f9_img.jpg\) College Details](#)
- [!\[\]\(24c92ea0928f8edd7c3a6ee6d72d8ad0_img.jpg\) Admin Section](#)
- [!\[\]\(e9df7e8cf8b36eab631e4382bfba9cef_img.jpg\) Exit](#)

Harivandana College

Do The Best,Get The Best



After Successful Log In This Screen Will Display To The Admin User Only.



Student Management Options

The screenshot shows the 'Student Management' section of the ADCMS application. On the left, a vertical sidebar lists various management options: Welcome admin, Home, Student Management, Staff Management, Courses, Department, Finance Department, Attendance, Library Management, College Details, Admin Section, and Exit. The 'Student Management' option is currently selected. The main area is titled 'Student Management' and contains three icons with corresponding labels: 'Student Admission' (blue person icon with a plus sign), 'Update Student Details' (student holding a pencil), and 'Student Profile' (three students). The top right corner of the main area has a red 'X' button. The top bar includes the title 'AD - College Management System', contact information '(+91) 8128278322 ADCMS@gmail.com', and a 'Logout' link.

Here The Sub Options Of Student Management Will Be Listed Out.



Student Registration

i. Personal Details

AD - College Management System

(+91) 8128278322 ADCMS@gmail.com Logout

Student Admission

Welcome admin

Home

Student Management

Staff Management

Courses

Department

Finance Department

Attendance

Library Management

College Details

Admin Section

Exit

Personal Details **Educational Details**

*Gr No.: *Admission Date:

*First Name *Middle Name *Last Name

Candidate: Father: Mother:

Click to Upload Image

*Current Address: PinCode:

*Permanent Address: As Above

*Country: *State: *City:

*Gender: Male Female *Cast:

*Date Of Birth: *Birth Place:

*Parents Occupation
Father/Mother Occupation:
Office Address:

Contact Information
*Candidate: Email-ID:
*Parents: Telephone No.:

Save & Go To Next Tab **Clear**

This Screen Will Be Displayed On Student Registration.



Student Registration

ii. Educational Details

AD - College Management System

(+91) 8128278322 ADCMS@gmail.com Logout

Student Admission

Welcome admin

Home Student Management Staff Management Courses Department Finance Department Attendance Library Management College Details Admin Section Exit

Personal Details **Educational Details**

*Previous Educational Details

School College

Name : Name :
Stream : Stream :
Year : Last Sem. :
Percentage : % [Round off] Year :
Percentage : % [Round off]

*Admission Stream : BCA *Admission Sem. : 1 *Discount (%) : 0

Document Details

School Document College Document
 12th Marksheets All Previous Marksheets
 12th L.C. N.O.C
 Transfer Certificate (T.C.)

Fees To Pay : 31000 Rs.
(per Year)

Remark :

Save Clear

Another Tab Of Student Registration.



Update Student Details

i. Search Student

AD - College Management System

(+91) 8128278322 ADCMS@gmail.com [Logout](#)

Welcome admin

- [Home](#)
- [**Student Management**](#)
- [**Staff Management**](#)
- [**Courses**](#)
- [**Department**](#)
- [**Finance Department**](#)
- [**Attendance**](#)
- [**Library Management**](#)
- [**College Details**](#)
- [**Admin Section**](#)
- [**Exit**](#)

Search Student Detail

Grno	Name	Gender	Admission	Course	CurrentSemes	City	MobileNo
1	HARSH JANAKBHAI JOSHI	Female	19-Sep...	B.COM	1	Rajkot	8989599599
2	DHAVAL RAMBHAI BHEDA	Male	19-Sep...	BCA	1	Rajkot	8128278832
3	POOJA RAMESHBHAI CHAUH	Male	19-Sep...	BCA	3	Rajkot	5151158515
4	RUSHI NARBHAI MEHTA	Male	19-Sep...	BBA	1	Rajkot	1681651681
5	YASH SANDIPBHAI NAGAR	Male	19-Sep...	BBA	3	Rajkot	8989898914
6	UMANG JANIBHAI BAGUDA	Female	19-Sep...	B.COM	5	Rajkot	8646849468

Search By
 *Select Course :

 Enter Student Detail : [enter any single detail of student]

Clicking On Update Student Details This Screen Will Display. Here Select Student & Perform Update / Delete Operation.



Update Student Details

ii. Update Student Personal Detail's Tab

AD - College Management System

(+91) 8128278322 ADCMS@gmail.com Logout

Student Admission

Welcome admin

Home

Student Management

Staff Management

Courses

Department

Finance Department

Attendance

Library Management

College Details

Admin Section

Exit

Personal Details **Educational Details**

*Gr No.: 2 *Admission Date: Wednesday, September 19, 2018

*First Name	*Middle Name	*Last Name
DHAVAL	RAMBHAI	BHEDA
Father:	RAMBHAI	BHEDA
Mother:	JAGRUTIBEN	RAMBHAI
BHEDA		

Click to Upload Image

*Current Address: RAJKOT PinCode: 360000

*Permanent Address: RAJKOT As Above

*Country: India *State: Gujarat *City: Rajkot

*Gender: Male Female *Cast: General

*Date Of Birth: Monday, January 1, 1990 *Birth Place: RAJKOT

Parents Occupation

Father/Mother Occupation: BUSINESS

Office Address: RAJKOT

Contact Information

*Candidate: 8128278322 Email-ID: dhavalb@gmail.com

*Parents: 8780595959 Telephone No.:

Save & Go To Next Tab **Clear**

Clicking On Update Button In Search Student This Screen Will Display According The Selected Student. Used To Update Student Details.



Update Student Details

iii. Update Student Detail's Educational Tab

AD - College Management System

(+91) 8128278322 ADCMS@gmail.com Logout

Student Admission

Welcome admin

Personal Details Educational Details

*Previous Educational Details

<input checked="" type="checkbox"/> School	<input type="checkbox"/> College
Name : KALYAN	Name :
Stream : COMMERCSE	Stream :
Year : 2016	Last Sem. : 1
Percentage : 87 % [Round off]	Year :
	Percentage : % [Round off]

*Admission Stream : BCA *Admission Sem. : 1 *Discount (%) : 0

Document Details

<input type="checkbox"/> School Document	<input type="checkbox"/> College Document
<input checked="" type="checkbox"/> 12th Marksheets	<input type="checkbox"/> All Previous Marksheets
<input checked="" type="checkbox"/> 12th L.C.	<input type="checkbox"/> N.O.C
	<input type="checkbox"/> Transfer Certificate (T.C.)

Fees To Pay : 31000 Rs. (per Year)

Remark :

Save Clear

The screenshot shows the 'Student Admission' form. On the left, a sidebar lists various management sections: Home, Student Management, Staff Management, Courses, Department, Finance Department, Attendance, Library Management, College Details, Admin Section, and Exit. The main form is titled 'Student Admission' and contains tabs for 'Personal Details' and 'Educational Details'. The 'Educational Details' tab is active, showing fields for previous school/college information, admission details (stream: BCA, semester: 1, discount: 0%), document submission (12th marksheets, 12th L.C.), and fees (31000 Rs per year). A remark section is also present.

This Screen Contains The Educational Details of Student .



View Student Details

i. Student Personal Detail's Tab

AD - College Management System

(+91) 8128278322 ADCMS@gmail.com Logout

Student Admission

Personal Details **Educational Details**

*Gr No. : 2 *Admission Date : Wednesday, September 19, 2018

Candidate :	DHAVAL	RAMBHAI	BHEDA
Father :	RAMBHAI	BHEDA	BHEDA
Mother :	JAGRUTIBEN	RAMBHAI	BHEDA

*Current Address : RAJKOT PinCode : 360000

*Permanent Address : RAJKOT As Above

*Country : India *State : Gujarat *City : Rajkot

*Gender : Male Female *Cast : General

*Date Of Birth : Monday, January 1, 1990 *Birth Place : RAJKOT

*Parents Occupation
Father/Mother Occupation : BUSINESS

Office Address : RAJKOT

Contact Information
*Candidate : 8128278322 Email-ID : dhavalb@gmail.com

*Parents : 8780595959 Telephone No. :



This Screen Will Be Displayed On View Student Details.



View Student Details

ii. Student other Detail's Tab

AD - College Management System

(+91) 8128278322 ADCMS@gmail.com Logout

Student Admission

Personal Details **Educational Details**

*Previous Educational Details

<input checked="" type="checkbox"/> School	<input checked="" type="checkbox"/> College
Name : KALYAN	Name : RP BHALODIA
Stream : ARTS	Stream : BCA
Year : 2016	Last Sem. : 2
Percentage : 89 % [Round off]	Year : 2017
	Percentage : 89 % [Round off]

*Admission Stream : BCA *Admission Sem. : 3 *Discount (%) : 0

Document Details

<input type="checkbox"/> School Document	<input checked="" type="checkbox"/> College Document
<input type="checkbox"/> 12th Marksheets	<input checked="" type="checkbox"/> All Previous Marksheets
<input checked="" type="checkbox"/> 12th L.C.	<input type="checkbox"/> N.O.C
	<input checked="" type="checkbox"/> Transfer Certificate (T.C.)

Fees To Pay : 31000 Rs.
(per Year)

Remark :

Welcome admin

Home

Student Management

Staff Management

Courses

Department

Finance Department

Attendance

Library Management

College Details

Admin Section

Exit

This Screen Contains The Educational Details of Student.



Employee Management Options

The screenshot shows the ADCMS software interface. On the left, there is a vertical navigation menu with the following items:

- Welcome admin
- Home
- Student Management
- Staff Management
- Courses
- Department
- Finance Department
- Attendance
- Library Management
- College Details
- Admin Section
- Exit

In the center, there is a yellow header bar with the text "Employee Management". Below it, there are four icons with corresponding labels:

- Employee Registration (Icon: person with plus sign)
- Update Employee Details (Icon: person with pencil)
- Employee Profile (Icon: two people)
- Set & Modify Employee Salary (Icon: clipboard with checkmark)

The top right corner of the main area has a red "X" button.

Here The Sub Options Of Employee Management Will Be Listed Out.



Employee Registration

i. Personal Details

AD - College Management System

(+91) 8128278322 ADCMS@gmail.com Logout

Welcome admin

Employee Registration

Personal Details Other Details

Employee ID : 4	*Joining Date : Wednesday, September 19, 2018	*Employee Type <input checked="" type="radio"/> Teaching <input type="radio"/> Non-Teaching
*First Name		*Middle Name
*Last Name		
Employee :		
Father :		
Mother :		
*Current Address :		PinCode :
Permanent Address :		<input checked="" type="checkbox"/> As Above
*City : Rajkot	*State : Gujarat	*Nationality : India
*Gender : <input checked="" type="radio"/> Male <input type="radio"/> Female	*Cast : General	
*Date Of Birth : Thursday , January 1, 1970		*Birth Place :
Contact Information		Education / Experience
*Employee :	*Email-ID :	*Education : Under Graduate
*Parents :	Telephone No. :	Years Of Experience : <input type="checkbox"/> Last Employer :
Save & Go To Next Tab		Clear

This Screen Will Be Displayed On Employee Registration.



Employee Registration

ii. Educational Details

AD - College Management System (-) (X)

(+91) 8128278322 ADCMS@gmail.com [Logout](#)

Welcome admin

Employee Registration

Personal Details Other Details

*Bank Details

Account No.: IFSC Code:

Bank Name: Branch Name:

Identity Proof

*AADHAR CARD
 *PAN CARD
 EXPERIENCE CERTIFICATE
 *DEGREE CERTIFICATE

Remark:

Save Clear

Home
Student Management
Staff Management
Courses
Department
Finance Department
Attendance
Library Management
College Details
Admin Section
Exit

Another Tab Of Employee Registration.



Update Employee Details

i. Search Employee

AD - College Management System

(+91) 8128278322 ADCMS@gmail.com [Logout](#)

Welcome admin

Search Employee

EMPID	EmployeeName	Gender	Designation	City	MobileNo
1	HARSAD CHAN...	Male	Teaching	Rajkot	8887878555
2	DARSHAN DIPA...	Male	Teaching	Rajkot	1234567890
3	NIRAJ TAKO PA...	Male	Non-Teaching	Rajkot	1234567890
4	MAULIK VIJAY...	Male	Teaching	Rajkot	6846846846
5	KALPESH MAH...	Male	Teaching	Rajkot	1234567890

Search By

*Select Designation :

Enter Employee Detail : [enter any single detail of student]

Clicking On Update Employee Details This Screen Will Display. Here Select Employee & Perform Update / Delete Operation.



Update Employee Details

ii. Update Employee Personal Detail's Tab

AD - College Management System

(+91) 8128278322 ADCMS@gmail.com [Logout](#)

Employee Registration

Welcome admin

Personal Details **Other Details**

Employee ID :	1	*Joining Date :	Thursday , September 1, 2005
		*First Name	*Middle Name
		*Last Name	
Employee :	HARSAD	VIJAYBHAI	SHAH
Father :	VIJAYBHAI	JAYBHAI	SHAH
Mother :	MINABEB	VIJAYBHAI	SHAH
*Current Address :		Rajkot	PinCode : 360000
Permanent Address :		Rajkot	<input checked="" type="checkbox"/> As Above
*City :	Rajkot	*State :	Gujarat
		*Nationality : India	
*Gender :		<input checked="" type="radio"/> Male	<input type="radio"/> Female
		*Cast : General	
*Date Of Birth :		Thursday , January 1, 1970	*Birth Place : RAJKOT
Contact Information			
*Employee :	8887878555	*Email-ID :	asdf@gmail.com
*Parents :	9876543210	Telephone No. :	
Education / Experience			
*Education :		Ph.D	
Years Of Experience :		<input type="text"/>	Last Employer :
Save & Go To Next Tab		Clear	

Clicking On Update Button In Search Employee This Screen Will Display According The Selected Employee. Used To Update Employee Details.



Update Employee Details

iii. Update Employee Other Detail's Tab

AD - College Management System

(+91) 8128278322 ADCMS@gmail.com [Logout](#)

Employee Registration

Personal Details Other Details

*Bank Details

Account No. : 3651156986	IFSC Code : RA0001526
Bank Name : STATE BANK OF INDIA	Branch Name : RAIYA ROAD

Identity Proof

*AADHAR CARD
 *PAN CARD
 EXPERIENCE CERTIFICATE
 *DEGREE CERTIFICATE

Remark : HOD of BCA

Save Clear

Home Student Management Staff Management Courses Department Finance Department Attendance Library Management College Details Admin Section Exit

This Screen Contains The Other Details of Employee .



Employee Set Salary

AD - College Management System

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Set & Modify Employee Salary

*Search By :

Employee ID Employee Name Designation

Employee ID : Find

Employee Id	Employee Name	Employee Type	Salary
1	HARSAD JAYBHAI S	Teaching	5000
2	DARSHAN DIPAK M...	Teaching	50000
3	NIRAJ TAKO PATEL	Non-Teaching	Not Set
4	MAULIK VIJAYBHA...	Teaching	Not Set
5	KALPESH MAHESH ...	Teaching	Not Set

Double Click On The Record To Update The Salary.

Employee Name :

*Employee Salary : Rs. [Per Month]

This Screen Contains The Set Salary Details.



Courses Management Options

The screenshot shows the ADCMS software interface. On the left, there is a vertical sidebar with a user icon and the text "Welcome admin". Below this are several menu options: Home, Student Management, Staff Management, Courses (which is highlighted in blue), Department, Finance Department, Attendance, Library Management, College Details, Admin Section, and Exit. The main content area has a yellow header bar with the text "(+91) 8128278322 ADCMS@gmail.com" and "Logout". Below the header, the word "Courses" is displayed in blue. There are two large circular icons: one green icon with a white plus sign and a stack of papers, labeled "Add New Course"; and one orange icon with a white document and a pen, labeled "Update Course".

Here The Sub Options Of Courses Management Will Be Listed Out.



Add New Course

i. Insert New Courses

AD - College Management System

(+91) 8128278322 ADCMS@gmail.com Logout

Add New Course

Welcome admin

Home Student Management Staff Management Courses Department Finance Department Attendance Library Management College Details Admin Section Exit

Course Details Subject Details Course Fee Details

Add Course

*Course Name :

*Course Name Alias : As per name

*Total Semester :

Next **ADD**

	CourseName	CourseAlias	TotalSem	Duration	Fees
▶	BACHELOR OF COMP...	BCA	6	3 y	31000
	BACHELOR OF BUSIN...	BBA	6	3 y	50000
	BACHELOR OF COMM...	B.COM	6	3 y	40000

[Must Set The Fees of New Course, Otherwise It Will Not Display AnyWhere in Software]

Here New Course Will Be Added.



Add New Course

ii. Insert New Subjects

AD - College Management System

(+91) 8128278322 ADCMS@gmail.com Logout

Welcome admin

Home Student Management Staff Management Courses Department Finance Department Attendance Library Management College Details Admin Section Exit

Add New Course

Subject Details

*Course Name : BCA

*Subject Name :

*Subject Code :

*Select Semester : 1

Next ADD

	Subjectcode	SubjectName	CourseAlias	InSem
▶	101	C LANGUAGE	BCA	1
	55	COA	BCA	2
	78	NETWORK	BCA	4
	66	C PLUS PLUS	BCA	3
	45	PHP	BCA	5

Here New Subjects Will Be Added.



Add New Course

iii. Set Course Fees

AD - College Management System

(+91) 8128278322 ADCMS@gmail.com Logout

Welcome admin

Home Student Management Staff Management Courses Department Finance Department Attendance Library Management College Details Admin Section Exit

Add New Course

***Course Fee Details**

Select Course :

Set Fee : Rs.

Total Fee : Rs.

CourseName	CourseAlias	TotalSem	Duration	Fees
BACHELOR OF COMPUTE...	BCA	6	3 y	31000
BACHELOR OF BUSINESS...	BBA	6	3 y	50000
BACHELOR OF COMMERSE	B.COM	6	3 y	40000

Course Fees Will Be Set.



Update Course Details

i. Remove Courses

AD - College Management System

(+91) 8128278322 ADCMS@gmail.com [Logout](#)

Welcome admin

Home Student Management Staff Management Courses Department Finance Department Attendance Library Management College Details Admin Section Exit

Update Course Details

Course Details Subject Details Course Fee Details

CourseName	CourseAlias	TotalSem	Duration	Fees	Edit
BACHELOR O...	BCA	6	3 y	31000	Remove
BACHELOR O...	BBA	6	3 y	50000	Remove
BACHELOR O...	B.COM	6	3 y	40000	Remove

Course Will Be Removed From Here .



Update Course Details

ii. Remove Subjects

AD - College Management System

(+91) 8128278322 ADCMS@gmail.com [Logout](#)

Welcome admin

[Home](#)

[Student Management](#)

[Staff Management](#)

[Courses](#)

[Department](#)

[Finance Department](#)

[Attendance](#)

[Library Management](#)

[College Details](#)

[Admin Section](#)

[Exit](#)

Update Course Details

Course Details Subject Details Course Fee Details

Select Course : BCA

	Subjectcode	SubjectName	CourseAlias	InSem	Edit
101	C LANGUAGE	BCA	1	Remove	
55	COA	BCA	2	Remove	
78	NETWORK	BCA	4	Remove	
66	C PLUS PLUS	BCA	3	Remove	
45	PHP	BCA	5	Remove	

Selected Subjects Will Be Removed.



Update Course Details

iii. Update Course Fees

The screenshot shows the 'Update Course Details' page of the ADCMS application. On the left, there is a vertical sidebar with a user icon and the text 'Welcome admin'. Below this are links for 'Home', 'Student Management', 'Staff Management', 'Courses', 'Department', 'Finance Department', 'Attendance', 'Library Management', 'College Details', 'Admin Section', and 'Exit'. The main content area has a yellow header bar with the title 'Update Course Details' and a close button. Below the header, there are three tabs: 'Course Details', 'Subject Details', and 'Course Fee Details'. The 'Course Fee Details' tab is active, showing a table with course information:

	CourseName	CourseAlias	TotalSem	Duration	Fees
▶	BACHELOR OF COMPUTATION	BCA	6	3 y	31000
	BACHELOR OF BUSINESS ADMINISTRATION	BBA	6	3 y	50000
	BACHELOR OF COMMUNICATIONS	B.COM	6	3 y	40000

Below the table, there is a form labeled '*Course Fee' with fields for 'Select Course' (set to BCA), 'Set Fee' (31000 Rs. [per year]), and 'Total Fee' (93000 Rs. of 3 year(s)). There are 'Update' and 'Clear' buttons at the bottom of the form.

Course Fees Can Be Update From Here .



Department Options

AD - College Management System

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[Logout](#)

The screenshot shows the 'Department' section of the software. On the left, there's a sidebar with a user profile icon and the text 'Welcome admin'. Below this are links for 'Home', 'Student Management', 'Staff Management', 'Courses', 'Department', 'Finance Department', 'Attendance', 'Library Management', 'College Details', 'Admin Section', and 'Exit'. The main area has a yellow header with the word 'Department'. It contains three icons: a clipboard with a checklist, a stack of books, and a person climbing a green arrow. Below each icon are labels: 'Set & Modify Department Details', 'View Department Details', and 'Promote Student Department'.

Sub Options Of Department Will Be Listed Here .



Set & Modify Department Details

AD - College Management System (+91) 8128278322 ADCMS@gmail.com Logout

Welcome admin

Home Student Management Staff Management Courses Department Finance Department Attendance Library Management College Details Admin Section Exit

Set & Modify Department Details

	SubjectName	EmployeeName
1	PHP	HARSAD JAYBHAI SHAH

*Department Name : BCA
*Select Semester : 5 Find

*Subject Name : PHP
*Select Teacher : HARSAD JAYBHAI SHAH

Save / Update Close

Subject Teacher Will Be Set For Particular Subject.



View Department Details

AD - College Management System

(+91) 8128278322 ADCMS@gmail.com Logout

View Department Details

*Search By

Select Department : BCA Find

Select Semester : 1 Close

	Grno	Student Name	Gender
>	2	DHAVAL RAMBHAI BH	Male

	SubjectName	EmployeeName
>	C LANGUAGE	Not Set

Number Of Students

Total : 1

Girls : 0

Boys : 1

Subject Teacher Will Be Set For Particular Subject.



Promote Student Department

AD - College Management System (+91) 8128278322 ADCMS@gmail.com Logout

Welcome admin

Home Student Management Staff Management Courses Department Finance Department Attendance Library Management College Details Admin Section Exit

Promote Student Department

*Search Department : Select Course : BCA Update Semester : 1 to 2

Find Students

Sem - 1 Sem - 2

Grno	Student Name	Gender
2	DHAVAL R...	Male

> < >> <<

Grno	Student Name	Gender

Promote Student Clear

Promote Student To Next Semester.



Finance Sub Options

AD - College Management System (+91) 8128278322 ADCMS@gmail.com Logout

Welcome admin

Home

Student Management

Staff Management

Courses

Department

Finance Department

Attendance

Library Management

College Details

Admin Section

Exit

Finance Department

Student Fee Collection View Student Payment Details Pay Employee Salary View Employee Salary Details

Here The Sub Options Of Finance Department Will Be Listed.



Student Fee Collection

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Student Fee Collection

Filter Detail

*Select Course :

*Select Semester :

Student Name :

Search **Clear**

*G.R. No. :

*Student Name :

*Payment Date :

*Payment Year :

*Collected Fee : Rs.

Collect Fee **Clear**

Grno	Student Name	Course Name	Current Sem	Payment Date	Fees for payment	Paid Fee	Total Paid	Due	Discount	Payable Fees	Total Fees	Payment Mode
2	DHAVA...	BCA	1			0	0	31000	0	31000	31000	

Student's Fees Will Be Collected From Here .



Display Student Fees Record

AD - College Management System

(+91) 8128278322 ADCMS@gmail.com Logout

View Student Payment Details

Welcome admin

Home

Student Management

Staff Management

Courses

Department

Finance Department

Attendance

Library Management

College Details

Admin Section

Exit

*Select Course : BCA

*Select Semester : 1

Find

Payment Details

Paid Due All

Grno	Student Name	Course Name	Current Sem	Payment Date	Fees for payment	Paid Fee	Total Paid	Due	Discount	Payable Fees
2	DHAVAL...	BCA	1			0	0	31000	0	31000

Student's Fees Records Are Displayed Here .



Pay Employee Salary

AD - College Management System (+91) 8128278322 ADCMS@gmail.com Logout

Welcome admin

Home Student Management Staff Management Courses Department Finance Department Attendance Library Management College Details Admin Section Exit

Pay Employee Salary

*Search By : Employee ID Employee Name Designation

Employee ID : Find

Employee Id	Employee Name	Employee Type	Salary
1	HARSAD JAYBHAI SHAH	Teaching	5000
2	DARSHAN DIPAK MEH	Teaching	50000

*Employee Name :
*Salary of Month :
*Payment Date :
*Amount to Pay : Rs.

Employee Salary will Paid From Here .



View Employee Salary

AD - College Management System

(+91) 8128278322 ADCMS@gmail.com Logout

Welcome admin

Home

Student Management

Staff Management

Courses

Department

Finance Department

Attendance

Library Management

College Details

Admin Section

Exit

View Employee Salary Details

*Select Month : JANUARY

*Payment Status

Paid Due All

Find

Clear

	Employee Id	Employee Name	Salary	Last Paid For	january
1	HARSAD JAYBHAI SHAH	5000	APRIL	16-Sep-18	
2	DARSHAN DIPAK MEHTA	50000	JANUARY	19-Sep-18	

Employee Salary will Display From Here .



Library Management Sub Options

The screenshot shows the ADCMS application window. On the left, there is a vertical sidebar with a user profile icon and the text "Welcome admin". Below this are several menu items: Home, Student Management, Staff Management, Courses, Department, Finance Department, Attendance, Library Management (which is highlighted in a grey box), College Details, Admin Section, and Exit. At the top right, there are links for "(+91) 8128278322", "ADCMS@gmail.com", "Logout", and a close button. The main content area has a yellow header bar with the text "Library Management". Below this, there are three items: "Manage Category" with a red book icon, "Manage Books" with a purple book icon and a green plus sign, and "Books Transaction" with a blue double-headed arrow icon.

Library Management Options will Display Here.



Manage Books Category

AD - College Management System

(+91) 8128278322 ADCMS@gmail.com Logout

Welcome admin

Home Student Management Staff Management Courses Department Finance Department Attendance Library Management College Details Admin Section Exit

Manage Category

Add New Category :

Category_Name	Edit
BCA	Remove
BBA	Remove
BCOM	Remove
BSCT	Remove

Manage Book Category Will be Managed From Here .



Manage Books

AD - College Management System

(+91) 8128278322 ADCMS@gmail.com

[Logout](#)

Welcome admin

[Home](#)

[Student Management](#)

[Staff Management](#)

[Courses](#)

[Department](#)

[Finance Department](#)

[Attendance](#)

[Library Management](#)

[College Details](#)

[Admin Section](#)

[Exit](#)

Add Books

Book ID :

Select Category :

Book Name :

Author Name :

Publiser Name :

Stock :

Price :

[ADD](#)

[Clear](#)

	Book Name	Category	Author Name	Publiser Name	Total Book	Available Book	Price
▶	C LANGUAGE	BCA	ANCSI	ONLYD	2	2	400
	LKJD	BCOM	LKJ	K	10	10	1
	MANAGEMENT	BCOM	ONLYD	ONLYD	10	10	890
	JAVA FUNDAM...	BSCIT	JEMS	JEMS	10	10	7000

Manage Book Will be Managed From Here .



College Details

AD - College Management System

(+91) 8128278322 ADCMS@gmail.com Logout

Welcome admin

Home Student Management Staff Management Courses Department Finance Department Attendance Library Management College Details Admin Section Exit

Harivandana College

HARIVANDANA EDUCATION TRUST

Total Students	Total Staff	Total Courses
6 4 Boys 2 Girls	5 4 Teaching Staff 1 non-Teaching Staff	3

Classes	Labs
50	10

B.COM BBA BCA

Edit

All Basic College Details Will Display Here.



Admin Section

AD - College Management System

(+91) 8128278322 ADCMS@gmail.com [Logout](#)

Welcome admin

Home

Student Management

Staff Management

Courses

Department

Finance Department

Attendance

Library Management

College Details

Admin Section

Exit

Admin Section

Set Home Page Design

Change Visual Style of Software

Set User & Role

Sub Options Of Admin Will Display Here .



Design Home Page

AD - College Management System (+91) 8128278322 ADCMS@gmail.com Logout

Welcome admin

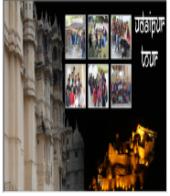
Home Student Management Staff Management Courses Department Finance Department Attendance Library Management College Details Admin Section Exit

Design Home Page

College Name : Harivandana College

College Icon :  [Upload Icon](#)

College Tag line : Do The Best,Get The Best

College Slider Images : 
01.jpg
02.jpg
03.jpg
04.jpg
05.jpg
06.jpg
08.jpg
8.jpg

[Upload Images](#)
[Remove](#)
[Remove All](#)

[Ok](#) [Cancel](#)

Admin Can Customize System Home Page From Here.

Which Will Display To All Users.



Customize Software Colour

The screenshot shows the ADCMS software interface. On the left is a vertical sidebar with a user icon and the text "Welcome admin". Below this are links for "Home", "Student Management", "Staff Management", "Courses", "Department", "Finance Department", "Attendance", "Library Management", "College Details", "Admin Section", and "Exit". The "Admin Section" link is currently selected and highlighted in grey. A central modal window titled "Change Software Visual Design" is open. It contains three color selection fields: "Main Form Background Color" (grey square), "All Form Background Color" (white square), and "All Form Header Background Color" (yellow square). Each color square has a "Change" link next to it. At the bottom of the modal are "Update" and "Reset" buttons. The top right corner of the modal has a red "X" button. The top bar of the application includes the title "AD - College Management System", a phone number "(+91) 8128278322", an email address "ADCMS@gmail.com", and a "Logout" link.

Admin Can Customize System Colors From Here.



Define Other Users

AD - College Management System

(+91) 8128278322 ADCMS@gmail.com Logout

Set User

User Name :

Password :

Re-Type Password :

Select Role :

ID	UserName	Password	UserRole	DELETE
101	admin	admin1	ADMIN	Remove
102	Bhavin	motu	CASHIER	Remove
103	teacher	teacher1	TEACHER	Remove
104	dhaval	books	LIBRARIAN	Remove

Different Users Will Be Created From Here .



Attendance Sub Forms

AD - College Management System

(+91) 8128278322 ADCMS@gmail.com Logout

Welcome admin

Home

Student Management

Staff Management

Courses

Department

Finance Department

Attendance

Library Management

College Details

Admin Section

Exit

Attendance

ATTENDANCE

Attendance vector illustration

shutterstock.com - 629210428

Upload Attendance Sheet

View Attendance

Instruction && Rules

Generate Attendance Sheet

Sub Options Of Attendance Will Display Here .



Upload Attendance Sheet

AD - College Management System

(+91) 8128278322 ADCMS@gmail.com Logout

Welcome admin

Home Student Management Staff Management Courses Department Finance Department Attendance Library Management College Details Admin Section Exit

Upload Attendance

Attendance Sheet Details

*Select Department: BCA

*Select Semester: 1

*Select Month: SEPTEMBER

Batch Year: 2018

Select File C:\Users\DHAVAL\Downloads

Upload Attendance

RollNo	Student Name	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
	DHAVAL R...																												

Here User Can Upload Attendance Sheet.



View Attendance Sheet

AD - College Management System

(+91) 8128278322 ADCMS@gmail.com Logout

Welcome admin

Home

Student Management

Staff Management

Courses

Department

Finance Department

Attendance

Library Management

College Details

Admin Section

Exit

View Attendance Sheet

*Attendance Details

Select Department : BCA

Select Semester : 1

Select Month : SEPTEMBER

Select Batch Year : 2018

View Attendance

Enable Filtering

Download Attendance

Filter & Details

Attendance By : Name Date

Total Students : 1 Present : 7 Absent : 4

Enable Attendance

RollNo	Student Name	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	2
1	DHAVAL R...	p	a	p	a	p	a	p	p	p	a																		

Here User Can View Attendance Sheet.



Instruction For Uploading Attendance Sheet

i. Rules For Creating Attendance Sheet

The screenshot shows a web-based application interface for 'AD - College Management System'. On the left, there's a vertical sidebar with icons and text links: 'Welcome admin', 'Home', 'Student Management', 'Staff Management', 'Courses', 'Department', 'Finance Department', 'Attendance' (which is highlighted in grey), 'Library Management', 'College Details', 'Admin Section', and 'Exit'. At the top right, there are user details: '(+91) 8128278322' and 'ADCMS@gmail.com' with a 'Logout' link. The main content area has a yellow header bar with the title 'Rules For Creating Attendance Excel Sheet'. Below it, there are two tabs: 'Instructions' (selected) and 'Pictorial Instructions'. The 'Instructions' tab contains a list of steps and requirements:

- Steps How To Create your own Attendance Sheet :)
- Open Microsoft Excel.
- Right Click on Sheet1(At the bottom of the file) -> Rename -> 'AttendanceSheet'.
- Software will detect only this name sheet not others.
- In Columns A-AG , the headings r : RollNo, Student Name, 1, 2, 3, 4, 5, 6, ..., 31
- All Columns Must have valid Data like.....
 - RollNo must have only Non-Negative Integeral Number.
 - Student Name must have only Alphabets
 - 1, 2, 3, ..., 31 these are the dates where you can only write 'P/P' for Present or 'A/A' for absent.
 - You can also leave it if there is any holidays

..... We Also Provide the Readymade format You Can Download It From Other Option.

Rules For Creating Attendance Sheet.



Instruction For Uploading Attendance Sheet

ii. Pictorial Instruction For Creating Attendance Sheet

The screenshot shows the ADCMS application interface. On the left, a sidebar menu lists various management sections: Home, Student Management, Staff Management, Courses, Department, Finance Department, Attendance, Library Management, College Details, Admin Section, and Exit. The 'Attendance' option is currently selected. The main content area has a yellow header bar with the title 'Rules For Creating Attendance Excel Sheet'. Below the header, there are two tabs: 'Instructions' and 'Pictorial Instructions', with 'Pictorial Instructions' being the active tab. A red tooltip message 'Step-2 : Rename "Sheet1" >> "AttendanceSheet"' is overlaid on the screen. In the bottom right corner of the main area, there is a note: 'Mouse Enter will Stop Animation & Mouse Leave from Image will start Animation'.

Pictorial Instruction For Creating Attendance Sheet.



Generate Attendance Sheet

AD - College Management System

(+91) 8128278322 ADCMS@gmail.com [Logout](#)

Generate Attendance Sheet X

Welcome admin

Home

Student Management

Staff Management

Courses

Department

Finance Department

Attendance

Library Management

College Details

Admin Section

Exit

*Select Department & Semester

Select Department :

Select Sem :

Generate Attendance Sheet

Generate Attendance Sheet With Software Pre-defined Formate.



Main Form

AD - College Management System

(+91) 8128278322 ADCMS@gmail.com Logout

Welcome bhavin

Home Student Management Staff Management Courses Department Finance Department Attendance Library Management College Details Admin Section Exit

 Harivandana College
Do The Best,Get The Best


Budding Scientist 2
National Conference
Theme: Emerging Science



When Any User Of Finance Department of College Logged In Successfully Then It Can Only See The Above Option.



Main Form

AD - College Management System

(+91) 8128278322 ADCMS@gmail.com

[Logout](#)

Welcome teacher

Home

Student Management

Staff Management

Courses

Department

Finance Department

Attendance

Library Management

College Details

Admin Section

Exit

HARIVANDANA EDUCATION TRUST

Harivandana College

Do The Best,Get The Best

Hi Tech VISION

State Level Seminar

After Successful Log In This Screen Will Display To The Users Who Has The Teacher Role Only.



6. Testing And Debugging

Testing Methodology

Unit Testing

Test Cases

System Testing



6.1 Testing Methodology

Black Box Testing :

- Black box testing is the method of dynamic testing
- It is also referred as behavior testing.
- It focuses on the functional requirement of the software.
- Black box testing treats the software as a “black box”, without knowledge of internal implementation.
- Black box testing method includes :
 - Equivalence Partitioning
 - Model-based testing
 - Specification-based testing
- Black box testing finds the error in following categories :
 - Incorrect or missing function
 - Interface(a point where 2 things interact) error
 - Utilization & termination error
 - Behavior & performance error etc...
- In Order to implement the black box testing the tester must be aware with the requirement specification of system & user.



Advantage:

Using this technique the tester can find bugs in program easily.

Disadvantage:

A black box tester writes many test cases to check something that can be tested by only test case. So it is consuming activity.



6.2 Unit Testing

- Unit testing means the testing of individual software components or modules.
- It is typically done by the programmer or testers.
- It requires the detailed knowledge of the internal program design and code.
- It requires developing test driver modules or test harness.



6.3 Test Cases

1. Users

Field	Values	Message
UserId	101	
UserName	Admin	
Password	admin1	
RoleId	1	

Field	Values	Message
UserId	101	
UserName	Admin	
Password	abcdef	
RoleId	1	

Field	Values	Message
UserId	101	
UserName	Adefghi	
Password	admin1	
RoleId	1	



2. Courses

Field	Values	Message
C_Id	1001	
C_Name	Bachelor or Computer Application	
C_Alias	BCA	
C_TotalSem	6	
C_Duration	3	
C_Fees	50000	

Field	Values	Message
C_Id	1001	
C_Name	Bachelor or Computer Application	
C_Alias	123	Course Alias must have only alphabets.
C_TotalSem	6	
C_Duration	3	
C_Fees	50000	

Field	Values	Message
C_Id	1001	
C_Name		
C_Alias	BCA	
C_TotalSem	6	
C_Duration	3	
C_Fees	50000	Course Name Required.



3. Subjects

Field	Values	Message
S_Id	1	
C_Id	1001	
S_Name	C Language	
S_Code	123	
S_Sem	1	Subject Added Successfully.

Field	Values	Message
S_Id	1	
C_Id	1001	
S_Name	HTML	
S_Code	123	
S_Sem	1	Subject Code already Available.

Field	Values	Message
S_Id	1	
C_Id	1001	
S_Name	55555	
S_Code	345	Subject Name must have only alphabets.
S_Sem	1	



6.4 System Testing

- Entire System is tested as per the requirement.
- Black-Box Testing type testing is based on overall requirements specifications.
- Covers all combined parts of a system .



7. Conclusion

Work Experience

Future Enhancement

Bibliography



Work Experience

The past 3 months have proved to be a great learning experience and have made me aware of the hardships an organization has to deal with while building a software project. I also came across various methods and conventions that an organization follows in order to develop a project. My project guide was always eager to lend a helping hand during the course of developing our project but made sure that I try to solve my difficulties by myself first and then only ask him for his help thereby made me self-reliant. He also made sure that I understood every single aspect of the project. I would conclude this by saying that I gained a lot from this training and this knowledge surely will help me in the coming future.



Future Enhancement

A Software application is well established here I have tried to narrate some points that are really considered as required enhancement in this system.

- Implementing more payment method. For both Students and Employees to collect fees and pay employee salary directly into the bank.
- Generating Invoices.
- Develop the system for multiple branches of any colleges.
- Make software able to generate the student results.
- System will take exam.
- Also Attendance will be stored here.



- Also Provide the Library management System in this System.
- Allow the system admin to send the message / Email to the students or employee.
- Provide Digitization Log In.



Bibliography

This project was impossible to be a success without the support and help from the experience guide the books and mainly the internet really prove it for me the “information Highway”. Everything was really easy to find out on the internet.

Softwares:

- SMS 3.1
- TS Management



Thank you