

Software Requirement Specification for Enrollment Portal

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DATABASE SYSTEMS

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1 Introduction

This section gives a scope description and an overview of everything included in this SRS document.

The current process of enrollment involves filling an online form, paying the fees, and then submitting hard copies of the online application and the payment receipt. This project aims to make the process of enrollment completely paperless.

1.1 Purpose

The purpose of this project is to automate the process of enrollment, that happens every semester, to make the process easier for both the admin and the students, and also helps in reducing the amount of paper used. It will also provide an user-friendly portal to make verification easy.

- To maintain/process complete details of students about their personal and academic domain.
- To enable students enroll for courses online with ease.No need to meet professors in person.
- To enable Professors to approve or disapprove a particular student for certain elective easily.
- To make enrollment process of students simple.

1.2 Intended Audience

This software is created for:

- The administration of institute for their review and monitoring of the students.

and this document is created for:

- The software development team for their use in analysing requirements.

1.3 Scope

The scope of the to-be developed "**Enrollment Portal**" This software will be an mobile/online portal where the student can fill out all the information required for enrollment, and upload all documents(if any) that are required for the process. The software will automatically fetch all the information about the enroller, once the Roll No. is entered. The information can be verified and edited by the enroller if any mistakes are found. The software also allows each enroller to generate time table for the current semester.

All the information entered is stored in a centralised database. This data is fetched during the next enrollment. The documents are stored in a file server, and are linked to their corresponding enroller using the database.

The software will also make the verification process easy for the admin. The admin can select by branch and view all students belonging to that branch who have already enrolled. The software will also display the documents submitted along with other information.

2 System Description

2.1 Product Perspective

The enrollment database system will store the following information:

- Student Details

The database will store the Name, Roll No., Date of Birth, Gender, Fee details, Academic details like Year, Semester. It will also store some details of the student's parents like Name, Address, Contact Number etc.

- Faculty Details

The database will store details like Name, Faculty Number, Date of Birth, Gender, Office room number. For faculty advisors, the database will store details of who is advised by the faculty.

- Course Details

The Course Name, Course Number, Department, Type(elective/core), Number of credits, Faculty number etc. will be stored for each Course. The Course table will be linked to Faculty and Students tables.

- Department Details

For each department, the Department Name, Department Number, and details of Head of Department will be stored. The Department table will be linked to Faculty and Students tables.

A mobile application will be used by the students to enter and verify these details.

2.2 User class and Characteristics

Users of the system should be able to retrieve their details and edit them if necessary. The system will support 3 types of user privileges, Student, Faculty and Admin. Students will have access only to student functions, Faculty will have access only to faculty functions, whereas admin will have access to all functions.

The student should be able to do the following functions:

- Fetch and verify Details
- Select courses for next semester
- Transaction for fee payment
- Generate Time Table for current semester

Faculty should be able to do the following functions:

- Track enrollments for a particular elective
- Set eligibility criteria for electives.

Administrators should be able to do the following functions:

- View and edit student details.
- Monitor Fee payments and enrollments.

2.3 Design and Implementation Constraints

The design time constraints are:

- The software package should be designed so as to handle ~ 100 Faculty members/Admin, ~ 1000 students.

The implementation time constraints are:

- Implementation of the database using a centralized database management system.

3 Functional Requirements

1. For Administrators of **IIITDM**

- (a) To facilitate the maintenance of important records of the students currently studying in the institute.
- (b) To monitor fee payments and course enrollments of students in any semester online.

2. For Faculty of **IIITDM**

- (a) To keep track of enrollments into a particular elective and check whether the student is eligible to enroll to the course.
- (b) To provide their contact details to students and acquire students' contact details when needed.

3. For Students of **IIITDM**

- (a) Facility to do the enrollment process online at the start of every semester.
- (b) Facility to view and choose electives offered by a faculty and get their contact details if necessary.
- (c) Facility to make the transactions for fee payment easily.

3.1 System Features

3.1.1 Use case 1:Admin

Sr. no	Stimulus from User	Response from Software
1.	Admin Staff logs in using user-id and password in admin portal	Software displays home screen of admin portal
2.	Admin staff chooses 'View existing student' option	The software authenticates user to check if he is allowed for the task and shows the details of the selected student or shows error.
3.	Admin staff chooses 'Modify students' existing details' option	The software authenticates user to check if he is allowed for the task and shows the associated next screen or throws an error
4.	If errors are displayed, Admin staff corrects the errors and chooses 'Submit' option.	Software validates the details entered and a toast appears saying 'Operation Successful'. If there are any errors again, the software redisplay the screen with errors highlighted.
5.	Admin staff chooses 'Add faculty information' option and enters new faculty information along with user-id	The software authenticates user to check if he is allowed for the task and shows the associated next screen in which he enters the faculty details or throws an error
6.	If errors are displayed, Admin staff corrects the errors and chooses 'Submit' option.	Software validates the details entered and default password is generated. If there are any errors again, the software redisplay the screen with errors highlighted.
7.	For options 'View existing faculty' and 'Modify existing faculty'	Same as that for student.
8.	Admin staff chooses 'Logout'	The software gets back to login screen after logging out.

3.1.2 Use case 2: Faculty

Sr. no	Stimulus from User	Response from Software
1.	Faculty enters his/her institute id and password on the login portal.	Software displays home screen of Faculty portal
2.	Faculty chooses 'Update/delete existing course info' option	The software updates the course based on the course no.
3.	Faculty chooses 'Add elective course' option and enters the details along with respective constraints for the course.	The course details along with constraints are updated in the software
4.	Faculty queries for a certain student's details enrolled in his/her course by entering the student's rollno.	Software displays the respective student's record.
5.	Faculty clicks on 'add/delete student' into the elective.	Software takes rollno of the student as input and adds/deletes him/her.
6.	Faculty queries for no.of people enrolled in a course offered by him/her.	Software displays no. of students enrolled for the particular course.

3.1.3 Use case 3: Students

Sr. no	Stimulus from User	Response from Software
1.	Student enters his/her rollno(or JoSAA no for Semester-1) and clicks on 'Login' button.	Software displays home screen of the student portal
2.	Student clicks on 'Enrollment (20xx-20xx)' option	The software allows the student to next screen if enrollment procedure is started else a message is displayed saying 'Enrollment yet to start' along with enrollment dates.
3.	Student fills details required for the enrollment.	The software stores the details and flags wrong entries if any.
4.	Student clicks on 'Make payment' option and enters payment credentials.	The software redirects the user to merchant site, after authentication the software gives out a receipt.
5.	Student chooses 'Courses' option and chooses the branch he/she belongs to.	The software enrolls the student in appropriate courses based on the branch he/she belongs to and the invalid entries are flagged.
6.	Student chooses electives from the options he is been given on the page.	Software enrolls him/her into those electives after checking minimum CGPA and batch size requirements.
7.	After confirmation from Courses screen, the student clicks on 'Generate timetable' option.	A customized timetable based on courses/electives chosen is displayed.
8.	The student fills other required forms like antiraggig affidavit and uploads the student's signature, Parent's signature and clicks on 'Submit' option	The student gets enrolled successfully..
9.	Student chooses 'Logout' options	The software gets back to login screen after logging out.

3.2 Entity Relationship Diagram

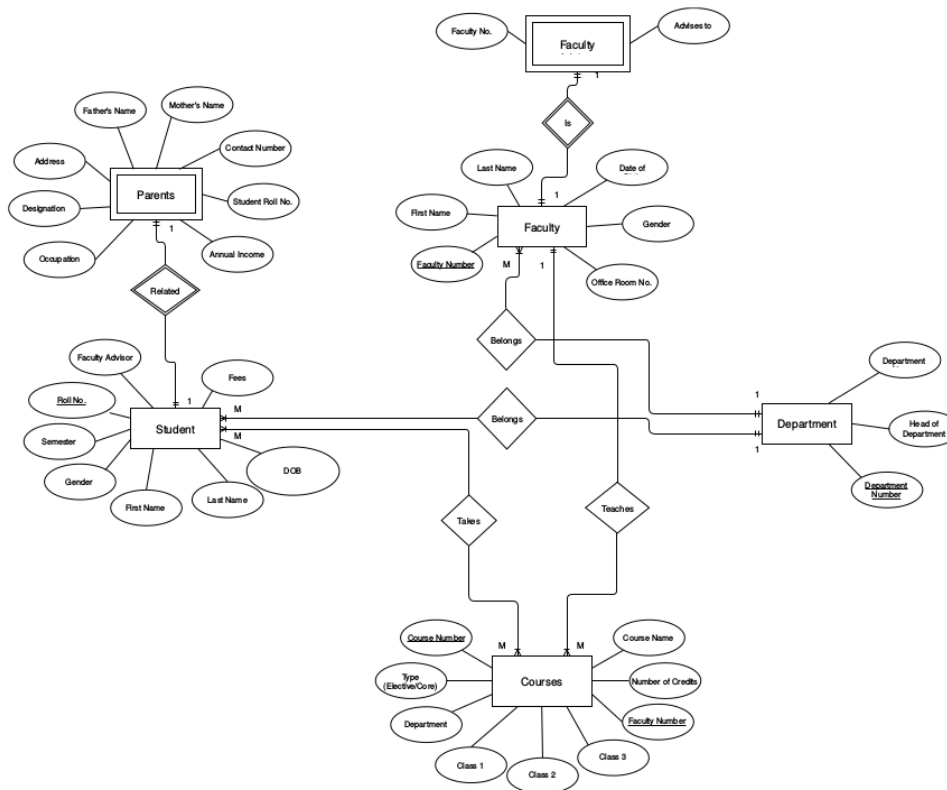


Figure 1: ER Diagram

3.3 Schema diagram

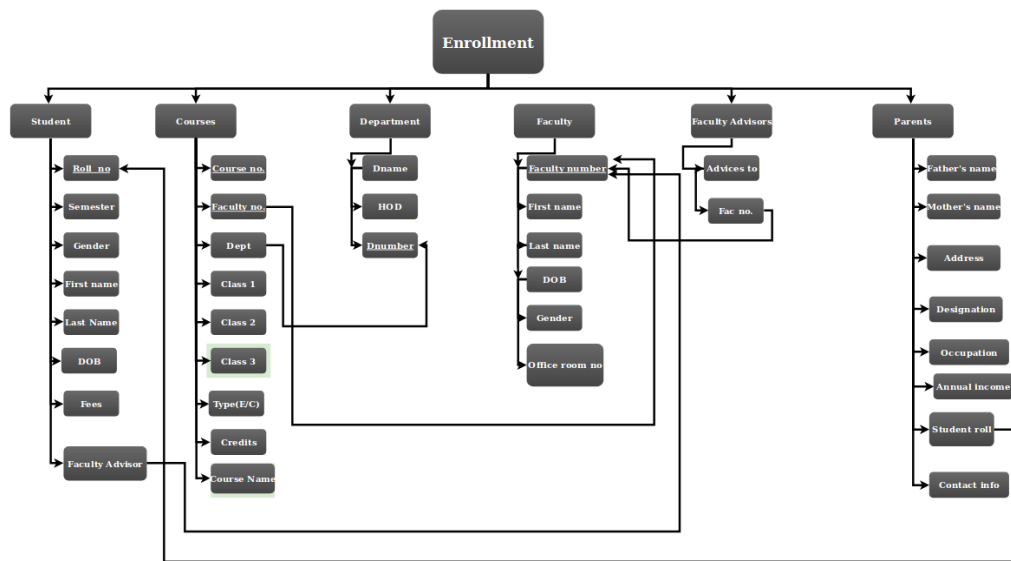


Figure 2: Schema diagram

4 Non Functional Requirements

1. The new system will be able to stay up and running at least 98 percent of time.
2. The system must be able to serve up to two thousand users concurrently without crashing.
3. The new system monitor fee payments and course enrollments of students in any semester online.
4. The new registration system should display the student's timetable and show the changes made to it in real-time as the student adds and drops courses.

5 Open issues

- Facilitating the communication between admin and faculty for issues like time slots etc....