

TERM PROJECT

August 27, 2021

1 TERM PROJECT STEPS

1. Think of a real-world application, and come up with the right name for this application.
Ex: (a) Learning Management System (LMS)
(b) Health Care System (for IIT Guwahati users)
2. Requirement Analysis: Describe the requirement of your project in detail in plain English. The requirement analysis is usually prepared by interviewing the users. Since we do not have this step, you will have to read documents, etc. to understand the system.
3. Capture the requirement in an ER diagram, including constraints (if any).
4. Convert the ER diagram into relations (tables) complete with keys, constraints etc.
5. Create the relational design.
6. Design the front end. You need to understand the queries that users may want to ask and design your system accordingly.
7. Fine-tuning and security

- - - 0 0 0 - - -

2 List of Projects

1. Learning Management System
2. Health Care System
3. Portal for buying and selling – For buying and selling pre-owned products. Allow search for specific products to prospective buyers
4. Fitness Portal – Users feed in their personal data and requirement. The portal comes up with a fitness regime and diet plan.

5. Placement portal – Companies and students can register. The portal will show students the companies they are eligible to apply. Provide various placement statistics
6. Online volunteering services - A platform where people can freely join as a volunteer and render their services. Those people who need help, they can get services from the volunteers by registering in the platform.
7. Peer-to-Peer (P2P) Lending: Connects verified borrowers seeking loan (at low-interest rates compare to banks, quick and hassle-free service, no prepayment penalty) with investors looking to earn higher returns on their investments.
8. Event Management System: A centralised system which gives schedule of different events happening around the campus with detailed description of each events (for example: seminars, conferences, guest lectures, etc). The system will also allow organizers to book rooms, statistics of sponsors for an event, etc

3 Projects Description

3.1 Learning Management System (LMS)

An LMS is a software for delivering, tracking and managing training. They can have several features such as managing courses, users and their roles; assessment; user feedback and so on. In this project, we will develop the feature for evaluation.

The project will have at least three primary modules:

1. **Quiz module:** In the quiz module, an instructor should be able to set different question types: multiple-choice, true-false, short answers and others. The quiz should allow multiple attempts and immediate grading. The aim is to use this module for pop-up quizzes during an ongoing lecture. The submissions made by the students will be recorded in the database.
2. **Assignment module:** This module will allow instructors to set various assignments and due dates. The students are then permitted to upload their assignments in specified formats (.pdf, .txt, .ppt, etc.). Late submissions are not allowed.
3. **Survey module:** The survey module will allow an instructor to have in-line surveys during an ongoing lecture. For example, “Whether we should have a quiz next week?”. Students should be able to record their response and the survey response should be immediately available.

3.2 Health Care System

In this project, we try to automate the process involved in a dispensary, such as that of IIT Guwahati. It will have at least four modules.

1. **Admin module:** This module will manage the different users and assign a role to the users – doctors, patient etc
Setup up appointment with the doctor; cancel appointment etc
2. **Doctor:** Each registered doctor will have a profile which will include name, specialization, college/institute etc.
The doctors will indicate their availability (Monday, first half). Based on this information, the admin will prepare a roster.
Doctors can check the medical history of a patient. Record the information related to the current diagnosis including medicines prescribed
3. **Patient:** A patient need to first register itself to the system. While registration, the patient will record its name, employee id/roll number, department, previous medical history.
4. **Staff:** This module will contain information about all the medical staff as well as non-medical staff. The medical staff include nurse, lab technician, etc. The non-medical staff include those working in the medical office, receptionist etc.

3.3 Portal for buying and selling

In this project We will create a online market place for IITG campus. where any one from IITG campus can buy and sell pre-owned products. products can be searched using set of filters. It will have at least following module.

1. **Admin module:** This module will manage the website, user, product, perform needed updates and generate income from each purchase.
2. **User module:** Each user need to create a profile before buying or selling any product. User can list, update and delete his product. Buyer can show interest or buy the product.
3. **Product:** Each product will be registered buy seller managed(preference order and brokerage) by admin. Each product will have set of filters.
4. **Customer Care:** admin will have of some staffs with limited access to take care of each customers(buyers and seller).

3.4 Fitness Portal

In this project We will create a service portal, which help user to maintain their fitness, and provide different service like GYM, YOGA and DIET PLAN. It will have at least following module.

1. **Admin module:**This module will manage the website, user, service, perform needed updates.
2. **User module:** Each user need to create a profile with their requirement. User may buy a membership or can go for a trial period(limited facilities). After membership can choose specialist from prescribed department.
3. **Department:** Fitness club have three department GYM, YOGA and DIET PLAN with their facilities and specialized staff.
4. **Staff:**fitness club will have specialized staff and service staff. specialized staff will train the customers on the basis of their requirement. Service staff will assign the department on the basis of users requirements.
5. **Customer Care:**admin will have of some staffs with limited access to take care of each customers.

3.5 Placement portal

In this project, we will perform the placement activity and maintain the placement information of IITG. Website will have list of companies, placement information university and departments wise. It will have at least four modules.

1. **Admin module:**This module will manage the different users and assign a role to the users companies, students, students coordinators and faculties in charge.
2. **Company:**Each Company will have to register and have to provide the eligibility criteria, placement examination stage and vacancy.
3. **Student:** Each Student need to register itself. While registration, the Student will provide its name, roll number, department, academic information. Each student has to go for placement eligibility test for appearing in any company placement.
4. **Placement:** Registered Company will show no of vacancy of different profile and criteria. Registered student apply for the job. Company will select the student on the basis of their criteria and test.

3.6 Online volunteering services

In this project, we will create a platform where people register to provide volunteering service of their expertise(Teaching and Training, Translator, Art and Design, Technology Development, and Health Service). Any organization

or user in need may get the volunteers service. It will have at least the following modules.

1. **Admin module:** This module will manage the different users and assign volunteer to the needee.
2. **Volunteer:** Each volunteer will have to register and have to provide the his expertise (Teaching and Training, Translator, Art and Design, Technology Development, and Health Service) and availability.
3. **Needee:** Any organization or user in need have to register in the portal and request for volunteer and with date and time.
4. **Assignment:** On the basis of Needee and volunteer data admin will assign the volunteer to the needee.
5. **Feedback:** Both needee and volunteer will give feedback to one another which will help admin to maintain rating of needee and volunteer.

3.7 Peer-to-Peer (P2P) Lending

In this project, we will create a service portal to Connects verified borrowers seeking loan (at low-interest rates compare to banks, quick and hassle-free service, no prepayment penalty) with investors looking to earn higher returns on their investments. It will have at least the following modules.

1. **P2P Service Provider:** P2P Service Provider will work as middle man between lender and borrower. It will maintain transaction and related data.
2. **Lender:** Each Lender will have to register and have to provide the his total investment and criteria of investment.
3. **Borrower:** Each Borrower have to register in the portal and request for loan. Borrower has to provide source of income and monthly income.
4. **Coustomer Care:** P2P Service Provider will have of some staffs with limited access to take care of each coustomers problems.
5. **Feedback:** Both Lender and Borrower will give feedback to one another which will help P2P Service Provider to maintain rating of needee and volunteer.

3.8 Event Management System

In this project, we will Manage the Different events and participant in different Auditorium in such a way that no two event will be schedule in same auditorium at same time. No student can participate in two event at same time. Each even should have some sponsors. It will have at least the following modules

1. **Admin module:**This module will manage the different Event, Participant and Auditorium. Admin will schedule each even in auditorium and allow participant to attend event without conflict.
2. **Event:**Each Event will have to register and have to provide the requirement of the event.
3. **Participant:**Each Participant need to register itself. While registration, the Participant will provide his basic information. Student may request to participate in different event as per his interest. Admin will allow participant to attend event without conflict.
4. **Auditorium:**Different Auditorium will have different capacity. On the basis of event requirement auditorium will be assigned to event by admin without conflict.
5. **Feedback:**Participant will provide feedback for each event.