Amrita Vishwa Vidyapeetham
Amrita School of Engineering, Coimbatore
Department of Computer Science and Engineering

B.Tech CSE/II Year/IIIsemester

2021 – 2022 Odd Semester

19CSE202 Database Management Systems
L T P C- 3 0 3 4

Project Based Course

Table of Contents

Review dates

Date	Review	Evaluation Criteria
08th October-2021	Project Review 1	**Project Design** 1. One Page Abstract 2. Schema diagram of the project. 3. ER diagram of the project 4. Documentation 5. Viva
19th- November – 2021	Project Review 2	**Project Implementation - 60%** 1. Normalisation of the design 2. Creation of tables with constraints 3. Populating tables with relevant records 4. User interface Design 5. Documentation 6. Viva
31st – December - 2021	Project Review 3	**Project Implementation – 100%** 1. Final demo of the project. 2. Completed Database and User Interface design. 3. Connectivity 4. Documentation 5. Viva

Review Evaluation Forms

Review I

Sno	Stud_RollNO	Name	Section	CO2	CO2	CO1	CO1	CO2	CO2	Presentation (10)	Documentation (10)	Total (50)
				ER Diagram (10)	Schema Diagram (10)	Q&A RDBMS Basics (2)	Q&A SQL/RA (2)	Q&A ER (3)	Q&A ER (3)			

Review II

Sno	Stud_Rollno	Name	Section	CO3	CO1	CO1	UID (10)	Documentation (10)	Presentation (10)	CO1	CO1	CO3	CO3	Total (60)
				Normalization (10)	Creation of tables (5)	Insertion of Records (5)				Q&A SQL (2)	Q&A RA (2)	Q&A Normalization (3)	Q&A Normalization (3)	

Review III

Sno	Rollno	Name	Section	UI Design (10)	Database (10)	Connectivity (10)	Documentation (10)	Presentation (10)	CO2	CO3	CO4	CO5	Total (60)
									Q&A ER (2)	Q&A Normalization (2)	Q&A Transaction (3)	Q&A HighLevel DBs (3)	

Weekly Plan

Week No	Group Project
Week 1	Group Formation. Project Allocation
Week 2	Understanding the abstract and revising. (The project group can revise the abstract) **Submission of revised abstract**.
Week 3	Identification of schemas. **Submission Schema Diagram**
Week 4	Database design using ER Model. Identifying Entity sets, Relationship sets.
Week 5	**Submission of ER diagram.** **Review 1: Presenting the design of database with ER diagram.**
Week 6	**Extending the ER diagram with Extended E-R features.**
Week 7	**Submission of Revised ER diagram with Extended Features.**
Week 8	Identifying the functional dependencies. Normalization up to third normal forms
Week 9	Normalizing to higher normal forms. Creating Database.
Week 10	Completion of creation of database and insertion of records. **Review 2: Presenting database implementation, normalization done and incorporating various complicated queries.**
Week 11	**Submission of a report based on the Normalization done on the database design.** Completing User Interface design
Week 12	Connectivity with back end and User Interface
Week 13	**Project Demo**
Week 14	Adding PL/SQL functions, cursors and triggers
Week 15	**Review 3: Final Demonstration and Viva.**

#1 Asset Management System

This project is related to an asset management company (AMC). AMC manages the wealth of its customers by investing their individual funds in different categories including stocks, bonds, real estate and more. By doing so it provides its customers with more diversification and investing options. An AMC provides a platform where its customers can have their individual accounts and invest their funds in different options that is being provided by the company. A customer can login to their account and deposit the funds that they are willing to invest in any single or multiple options that are being made available by the AMC. The admin of AMC will have the record of its customers and the schemes that they have opted to invest their funds. The AMC will in turn invest the funds of customers as per their choice and report the change in the positions to its customers in terms of loss or profit. The customers through their account can track their current status of their funds and be able to analyze the performance of their portfolio (which section of their portfolio is in profit/loss). The admin of the AMC will provide the information of new schemes or discontinuation of any old schemes in the announcement section. From the information received a customer can be able to choose the schemes as well as he can be able to change from one scheme to another.

Business Rules

(1) An AMC home page will have a registration link for new customers as well as a login link for existing customers.
(2) There are two types of users in the system – Administrator, Customer.
(3) The administrator should be able to do the following: Create a Scheme, by providing the scheme details, approve the choice of the customers for a scheme, update the changes requested by customers and delete the customers for a scheme. Administrator should also be able to publish announcements.
(4) The customer should be able to do the following: Login/Register to an AMC, invest his funds in one or many schemes, change the funds from one scheme to another, should be able to view the status of his funds.

Tables

(1) Customer Information.
(2) AMC administrator Information.
(3) Funds Information.
(4) Schemes Information.
(5) Registration details.
(6) Announcements.

Output

(1) Admin view – customer wise, scheme wise
(2) Customer detail's view – his/her funds, schemes, status (profit/loss)
(3) Scheme detail's view – funds wise, customer wise.

#2 Online Banking System

This project is related to banks. A bank has many branches across country. It provides customers with individual accounts to avail its services. The account can be either savings or current based on the requirement of the customer. Both the accounts have their individual rules set by the bank. The main services that any bank in the country provides are 1) it allows its customers to deposit their money into their accounts for which the bank pays certain interest 2) it also provides loan to customers for which customer has to pay an interest. Apart from these two main services, a customer by opening an account at any bank can be able to transfer money to any other account across different banks or in the same bank. Bank also provides debit or credit cards to its customers for ease of transactions. From the online services of a bank, a customer can avail the benefits without visiting the bank in person. Customers can login to their account and be able to see his/her account details, account statement, transactions details, loan details (if any), apart from being able to transfer money to other accounts, pay bills etc.

Business Rules

1. Online banking system of a bank will have a registration link for new customers as well as a login link for existing customers.
2. There are two types of users in the system – Administrator, Customer.
3. The administrator should be able to do the following: Should have customer details, should track and modify the amount in the customer account.
4. The customer should be able to do the following: Login/Register to the online banking service, deposit or transfer his funds, should be able to view the transaction details.

Tables

1. Customer Information.
2. Administrator Information.
3. Account Information.
4. Transaction details.
5. Registration details.

Output

1. Admin view – customer wise, account details
2. Customer detail's view – his/her funds, transaction details

#3 Players Management System

This project is related to a player management system. This system provides details of players of a particular game (say cricket) across countries, participating in an event (say IPL) to the franchises that are participating in the auction of these players. The details of players include their nature (batsmen/bowler/wicket keeper), statistics, strengths, country of origin, initial fixed price and etc. Each franchise should be able to login into the platform provided by the event manager. They should be able to choose the players according to their wish following the rules of budget allocation by the event manager. The other rule that any franchise should follow is they can have only three foreign players in their team. After the team selection, the event manager should be able to check whether the rules are being followed by the franchise or not. Initially, each franchise should be able to view all the players and their details and as selection progresses, they should be able to view only those that are available. The selection of players should be made based on their strengths in their respective field. Here, strengths are represented in numerical value (say a player's strength in each field could be batting: 7, bowling: 3, fielding: 5). At the end of selection process, each team should have selected players in such a way that its player's aggregate strength score should be same.

Business Rules

1. An event home will have a registration link for new franchise as well as a login link for existing franchise.
2. There are two types of users in the system – Event Manager, Franchise.
3. Event manager should be able to do the following: Create a pool of players by providing their details, approve the choice of the franchise and update the changes in the pool. Manager should also be able to verify whether the rules are being followed by franchises or not.
4. The franchise should be able to do the following: Login/Register to the event, select the players from the pool following all the rules specified by the event manager.

Tables

1. Franchise Information.
2. Players details
3. Administrator Information.
4. Rules
5. Registration details.

Output

1. Admin view – Franchise wise, players wise
2. Franchise detail's view – players, schemes, target (rules)
3. Player's detail's view – strengths wise, country wise, etc.

#4 Patient Management System

This project is related to patients in a hospital. The system provides details of patients that are being treated as well as previously treated patients of a hospital. The admin of the hospital has all the details of the patients ever treated. The details include patient's name, address, age, gender, disease, current status, medication, etc. At any given point of time the admin should be able to view the patients present at the hospital, their medical status, bills, etc. Admin should also be able to check the number of patients being treated for a particular disease, doctor's details that are attending these patients. Admin should also be able report the deaths in the hospital with their causes. Apart from these, an online consultation is also provided for patients. Where, a patient can login to his account and get the medication to be followed for his/her problem. Customer can also update their status that can be verified by the assigned doctor and further changes in the prescription shall be made.

Business Rules

1. Home page for a hospital have a registration link for new patients as well as a login link for existing patients.
2. There are two types of users in the system – Administrator, Patient.
3. The administrator should be able to do the following: Create a patient's pool by providing the patients details, assign doctors to the patients, update the changes at the patients end. Admin should also be able to keep track of the prescriptions and change them as needed.
4. The customer should be able to do the following: Login/Register to the hospital's site, consult the doctor, get the prescription, update the status.

Tables

1. Patient Information.
2. Administrator Information.
3. Doctor details
4. Registration details.
5. Prescriptions.

Output

1. Admin view – patient wise, doctor wise, disease wise
2. Patient detail's view – doctor details, prescription

#5 Online Ticket Reservation System

This project is related to online train reservation system. This system provides a platform to the customers to book a ticket in a train. The admin of the system (here IRCTC) provides the details of all trains that are running between stations across the country. The details include the type of the train (Express, Shatabdi, Super-Fast, etc.), its source and destination, its route, its timings, in between stopping stations, classes present in the train etc. The fare from one station to another in a specified train is also provided by the admin. A customer can login to his/her account and can select the source and destination stations for a specified date. The trains that travel through the selected stations are listed along with the availability of seats. From these, the customer can select a train, class that he intends to travel in. If the seats are fully booked for a selected train and class, no availability status should be conveyed to the customer. Announcements can be made by the admin on the any changes in the status of trains (delay, cancelled, etc.).

Business Rules

1. Home page for the platform have a registration link for new customers as well as a login link for existing customers.
2. There are two types of users in the system – Administrator, Customers.
3. The administrator should be able to do the following: Create a train's pool by providing the details of all trains, assign seats to customers, update the changes in the seat availability. Admin should also be able to make announcements on the status of trains.
4. The customer should be able to do the following: Login/Register to the site, submit the journey details, select the train and class and book the seat.

Tables

1. Customer Information.
2. Administrator Information.
3. Train details
4. Registration details.
5. Announcements.

Output

1. Admin view – Customer wise, train wise, route wise
2. Customer detail's view – train details, announcements

#6 Electricity Bill Payment System

This project is related to bill payment system. The system provides details of electricity consumed by the customers. The admin of the electricity board generated bill every month based on the electricity consumed by customers in terms of number of UNITS. The bill is generated by calculating the units of electricity as the difference from current total number of units to the previous month's total units. The resultant units are multiplied by the cost of each unit that is fixed by the board. The admin of the electricity board has details of customers in its operating range (like customer number, address, previous reading, current reading, charge per unit, etc.). The customer can login to the board's site with his number and be able to view all the past transaction details, current amount to be paid, number of units utilized, arrears, last date to pay the bill, etc. The admin can verify the bill status of customers. If the bill is not paid over a specified period an alert will be sent to customer beyond which the connection will be discontinued. The status of customer's bill can be verified by the admin and be updated.

Business Rules

1. Home page for a electricity board have a registration link for new customers as well as a login link for existing patients.
2. There are two types of users in the system – Administrator, Customers
3. The administrator should be able to do the following: Create a customer's pool by providing the details, assign bills to the customers based on the readings, update the status of bill payment. Admin should also be able to keep track of the payments and alert the customers on the last date of nonpayment beyond which discontinue the service.
4. The customer should be able to do the following: Login/Register to the board's site, check bill generated for the current month, should be able to verify the readings, pay the bill.

Tables

1. Customer Information.
2. Administrator Information.
3. Bill details
4. Registration details.
5. Announcements.

Output

1. Admin view – Customer wise, bill wise
2. Customer detail's view – bill details, announcements.

#7 Water Refilling Management System

This project aims at overcoming difficulties in manual operation in refilling station. This system stores the information of the customer and the details of their purchase. This system coordinates the arrangement on the delivery of products. It consists all the records about the location of the clients, date of transaction, schedule of delivery, contact number and the person assigned to deliver and the payment of customer to the quantity of product that is about to be delivered. The system also views the information about the availability of the products as well as the containers.

This system also manages the information of the employees that a refilling station must have just like a front liner, cashier, technical assistant, and delivery person. It stores the information so that it easy for the owner to access the detail of his/her employee. Upon having this system, it will provide the capacity to the owner and clients to transact without spending time and effort.

Business Rules:

1. The system provides an alarm when the available containers go below a threshold to provide stocks again.
2. There would be three types of users-Owner, Employee and Customer
3. The owner should be able to add, delete and update the details of employees and also manage stocks and amount turn over for every month.
4. Employee should be able to manage orders and payments placed by the customer and also keep track of the stock. Depending on the employee type the functionalities should differ.
5. Customers/Clients should be able to order for water containers and also should proceed for payment online.

Tables:

1. Owner
2. Employee
3. Customer
4. Payment
5. Transaction
6. Delivery
7. Container
8. Product

Output:

1. Customers order placement for water refilling option
2. Payment option and Transaction report
3. Delivery details report
4. Container details report
5. Seperate UI for employees and owner.

#8 Property Management System

Property management system has powerful search and match facility to match property with buyer by the selection parameter. This system keeps track of all the properties. Every person wants their house to be best in a location with all facilities. Offices should be near to market and product unit near to raw material and marketplace. This property management system is a software where property details such as available house details, schedules, address, and others are been setup by an administrator. Authenticity of the property needs to be ensured by the administrator. Admin can manage the addition or updation of properties. Buyers and sellers are to contact the admin for any property deals. Admin can add brokers to company system and the system would generate verification of employee.

Business Rules:

1. There should be a check for validating the property details uploaded by the seller and also the brokers details
2. There are four types of users-Admin, Seller, Buyer and Brokers
3. Admin shall approve all the sale and buy of properties. Admin also takes care of the payment processing
4. Sellers should be providing a proof for possession of the property which would be vetted by the admin.
5. Buyers should be provided with search based on different filters.
6. Brokers can also enroll and update the details of properties which needs approval of admin

Tables:

1. Admin
2. Buyer
3. Seller
4. Broker
5. Property
6. Payment
7. Registrations

Output:

1. Buyers to be provided with search options
2. Sellers with option to upload the property details with proof which would be verified by admin.
3. Brokers request page
4. Property details report
5. Registrations report
6. Payment reports

#9 Online Tax Management System

The main aim of this project is to prepare a Tax summary or Tax Returns of a client. In Tax Information system, a client registers themselves and enters all the details and uploads various documents that are necessary for preparation of Tax Summary and Schedules for an interview after successful submission of all the documents. After all the procedures are completed Tax Returns or Tax summary is prepared for all the clients by the admin who calls the clients and arranges an interview for discussing various issues regarding Tax summary. Once the client pays the amount for preparation of Tax Summary they can download the PDF format of their Tax Summary.

Business Rules

1. There are two types of users- Admin and Client
2. The Admin schedules the meeting after confirming with the client
3. Client pays the amount for the processing of tax payment
4. All the tax summary should be prepared and filed for tax return by admin
5. Refund status should be tracked by the admin

Tables

1. Admin
2. Client profile
3. Schedule Interview
4. Refund status
5. E-File acknowledgement
6. Tax summary

Output

1. Registration form
2. Profile report
3. Scheduled interview report
4. Tax Summary report
5. Payment report
6. Admin and Client report

#10 Article search engine database management system

These days everyone who utilizes Internet needs to search for anything and everything. This project is a simple search engine, which searches through the web. Search can be in form of multimedia like Videos, Images, text or audios. Registered users can upload the contents which will be approved by admin. To be a registered user, fee payment based on the scheme chosen should be done. On expiry of the scheme registered users should renew it for further upload of videos. Users can be provided with the search option based on the contents of a particular registered user or using some keywords. The users can search based on a particular type of multimedia which matches the keywords too.

Business rules

1. Only approved contents can be uploaded and the comment by admin has to be provided in case it's not approved.
2. There are three types of users- Registered users, Admin and user of the search engine
3. Registered user can upload new contents and also search for contents already in the database
4. Admin can approve the new content and also add/update/delete the details of the registered user.
5. Admin can keep track of the search history of the users.
6. Admin shall keep track of payment and renewal history of registered users.

Tables

1. Admin
2. Registered users
3. Users
4. Multimedia repository
5. Payment
6. Schemes for registered users
7. Renewal

Output:

1. Users with search option
2. Payment report
3. Search report
4. Scheme based registered users report.

#11 Epidemic Management System

The 21st century has proved to be a wake-up call for public health authorities globally. The continuous emergence of infectious diseases, often without sufficient warning, from the natural environment poses a constant threat to travel, trade, and livelihoods. In spite of advancements in technological innovations (such as vaccination), there's a lot of uncertainty around the timing and behavior of diseases.

Epidemic Management Suite is a one stop solution for enabling concerned authorities (public health administration, disaster management agencies or multi-lateral agencies supporting epidemic response) to capture and use data to effectively tackle the epidemic. This system provides registration and contact tracking of the patients, Sample collection and testing details, Critical case history and real time dash board on the current statistics of the epidemic. This system also provides information about assets availability and migrant details.

Business rules

1. There are four types of users-Admin, Patients, doctor/lab staff, Visitors
2. Lab staff/doctor would upload the test reports and sample collection details which would be verified by the admin
3. Visitors can get to know the current statistics as well as the availability of assets (hospitals, quarantine centers, testing facilities)
4. Patients can get to know the general guidelines to be followed based on symptoms.

Tables

1. Sample collected
2. Patients
3. Asset availability
4. Guidelines
5. Lab staff/Doctor
6. Admin
7. Migrant details
8. Critical case

Output

1. Patients report
2. Guidelines report
3. Asset availability report
4. Migrants report
5. Critical case report

#12 Art Gallery Management System

The main purpose of this system is to help the art gallery business market their arts online using their own website. This system includes upcoming events advertisement of an artist that rented the gallery and this feature of the system may also be used by the art gallery business to announce their own events. The system will store the information of each painting or sculpture including the artist who created and editable content. For each art that is stored in the system, the management can upload multiple views of a certain artwork depending to the views they wanted to publish to their website. This system includes also simple sale management in which the art gallery admin may publish the artworks that are for sale and the customer may request for an order of the artwork and the management will contact the customer to confirm the transaction and scheduling the delivery.

Business Rules

1. There are three types of users buyer, admin and users who views the art gallery
2. Users can search details of payment, arts stock and order artworks
3. The system manages art stock details, customer details and order update details
4. Admin can track all information of arts stock, payment, customer, etc
5. Admin can edit, add, delete the records of order update, order , arts

Tables

1. Art stock
2. Artist profile
3. Customer
4. Order
5. Order update
6. Admin
7. Payment

Output

1. Artists list report
2. Events report
3. Sale report
4. Payment report
5. Viewer’s history report

#13 Training and placement cell for college.

This project aims at creating a Courses portal for a campus/organization. The training and placement cell contains all the information about the students. The system stores all the personal information of the students, like their personal details, their aggregate marks, their skill set and their technical skills that are required. The system is an online application that can be accessed throughout the organization and outside as well with proper login provided. This application should have the details of company visiting for placement such as (date of placement, eligibility criteria etc.). There should be facility for generating the report (based on requirement of client) . The details of the students who got the placement should be available (internship details, company name etc.)

Business Rules

(1) There will be a Portal home page where there will be a registration link as well as a login screen is available.
(2) There are three types of users in the system – Administrator, Faculty and students.
(3) The administrator should be able to do the following – Add, Delete, and Update the details of company as well as students registered.
(4) Students should be able to enter their details (Add, Delete, Update) .
(5) Faculty should be able to access the details of students attended the placement, students and their company details, internships details.

Tables

(1) Company details
(2) Placement table
(3) students
(4) Announcements.
(5) Feedbacks.

Output

(1) Company details - eligibility, date, venue
(2) Placement table - students got selected, branch etc
(3) Students – student details
(4) Report generation
(5) Approval status of registration

#14 Car Service and Inventory Store Project

The outline of this project is to create an online car service and car parts store that has listings of various parts along with their features. The project also allows users to book car service and car inventory online. It allows users to check various car parts and accessories. Online booking for car service with specific requirements should be allowed. Credit card payment facility should be available for purchase and the service. This application helps those customers to book the car service facility on their convenient timing, and also helps the admin to manage their bookings. Regular customers can be given discount.

Business Rules

(1) Visitor Registration/ Login module.
(2) The administrator should be able to add, delete and update the details.
(3) User may check various car parts and accessories.
(4) User may book for car service.
(5) User may select and add products to shopping cart.
(6) Credit card payment option for car parts shopping.
(7) Feedback
(8) Discount option if any for the customers can be included.

Tables

(1) Visitor details
(2) Car parts and accessories
(3) Car service details
(4) Invoice
(5) Feedback rating

Output

(1) Invoice report generation
(2) Display of car parts
(3) Payment option
(4) Option for car service booking

#15 Exam Cell Automation System

Generally, Exam cell activity includes manual effort and paper work. The project aims to bring in a centralized system that will ensure the activities in the context of an examination that can be effectively managed. This system allows students to enroll themselves into the system by registering their names or by sharing details to admin. This is done by providing their details like name, register no, semester etc. Admin should be able to generate hall ticket for the students based on the details provided. After creating the hall ticket, the system mails the link of soft copy to every student who has registered. Students containing link in the mail can view and print the hall ticket. Admin is also responsible for generation of mark sheets for every registered student. Admin can enter the marks of every student into their respective mark sheet using the system's GUI.

Business Rules

(1) Separate login for different users.
(2) The administrator should be able to add, delete and update the details.
(3) Administrator can generate mark sheet and hall ticket.
(4) Once the hall ticket is generated the students should receive their hall ticket to their id.
(5) Students should be able to download the file as pdf.
(6) Students should have the option for add, delete and update option for the student detail entries.

Tables

(1) Student details
(2) Semester wise mark details
(3) Arrear details

Output

(1) Hall ticket should be displayed
(2) Details of mark sheet of particular student to be searched and displayed based on semester wise
(3) Arrear details of student to be displayed
(4) Hall ticket link should be viewed when clicked.

#16 Boutique Management System

The idea of boutique management system is to provide stylish clothes affordable for the customers. The system consists of the clothes, inventory and sales. Within their stores, boutique sales associates are exports. Each of these stores works to appeal to a specific customer through marketing. This application should be able to manage boutique, manage customer details, boutique inventory, monitoring the in and out of boutique. The product details should be available for the client. Bills should be generated once the product is purchased. Discount details can be provided if applicable. Feedback system helps the owner to review their sales and customer satisfaction.

Business Rules

(1) Separate login for different users.
(2) Admin should be able to manage customer details, product details.
(3) Clients should be able to view the catalog with the details, price and discount.
(4) Different methods of online payment to be made available for the client.
(5) Bill generation will help the customer to return any product by entering the bill number and reason. The request will not be valid if return request is not done within the 2 days after receiving the product.
(6) Admin should be able to view the details of the vendors and stock availability.

Tables

(1) Product details
(2) Customer details
(3) Feed back
(4) Sales table
(5) Stock table

Output

(1) Catalog should be displayed
(2) Bill should be generated for clients
(3) Payment method should be displayed
(4) Stock and sales details accessible for the admin.
(5) Sales report can be generated.
(6) Feedback option for the customer

#17 Employee Timesheet Management

This application will help the organization to record and track the amount of work done by an employee. Timesheet can report total hours worked on a specific task. This sheet is mainly used for payroll. However, time sheets are no longer used just for payroll. Employee time sheets are used to record the start and end time of tasks or duration of the task. Employee time sheets may contain a detailed breakdown of tasks accomplished by the employee. The information can be used for project costing, job estimation, tracking, management, client billing and payroll.

Business Rules

(1) Separate login for different users.
(2) Employee should be able to enter the work done and hours spend on each day
(3) Admin should be able to access the project details with necessary privilages. Admin should be able to generate payroll report.
(4) Monthly based employee payslip to be generated with necessary details.
(5) Admin should be able to track the progress of the project assigned.

Tables

(1) Project details
(2) Employee details
(3) Client billing
(4) Employee timesheet details

Output

(1) Project details should be displayed for the admin
(2) Admin should be able generate the payroll
(3) Employee should be able to enter their work details
(4) Employee can view monthly pay slip report

#18 Unused Medicine Donation System

The Medicine Donation system proposed here aims at providing an online platform for donating medicines or unused medicines to needy people. Users can register themselves on this system by submitting their necessary details. The user has to register for donating the medicines. The registered users can donate the medicines by providing accurate details of medicine. The system should have authority to block users who donate improper and expired medicines. The record of donated medicines and available medicines should be maintained. The users can request to donate or avail the medicines. The medicine donation system is a portal for the collection of unused medicine which can used by the needy person. The charity trust or needy people can also register their details and requirement to avail the medicine.

Business Rules

(1) Separate login for different users.
(2) Registration must be done for donating the medicines as well as for availing the medicine.
(3) Medicine details should be maintained.
(4) Announcement can be provided for any urgent cases if any.
(5) The history of donors who provide improper details and expired medicines should be maintained.

Tables

(1) User details
(2) Donor details
(3) Medicine details
(4) History of blocked donors

Output

(1) UI for registration and login for different users to be displayed.
(2) Admin should be able to view available medicines.
(3) Admin should be able to generate report.

#19 Library Management System

Department of Computer Science and Engineering, Amrita School of Engineering, Coimbatore campus runs a library at department level. This library has around 1500 books related to Mathematics, Computer Science, Digital Electronics and Economics etc. The library management system is to automate the administrative process of this library. The automation process includes master data maintenance, transaction processes and report generations. The master data of this systems is to gather, store and maintain book details, faculty detail and administrative staff details. The administrative staff to be given permission to add, remove, modify and view the details of books and faculty. The transactions involved in this system are issue of books, return of books and checking the availability of books. The issue of books to be added with a search facility, to search the required book by book title or author name or publisher name. This system also generates various reports based on the master data and the transaction processes. The reports required are master list of books, master list of faculty, master list of staff, faculty wise book list, due date wise faculty list, books in issue, books in stock, missing books and book availability.

Business Rules

1. To use separate login credentials for staff, faculty and administrator.
2. Faculty can use maximum 10 books at a time.
3. Faculty can use the book max of 1 year.
4. Alert to be sent in mail and message about the due date.
5. Alert to be sent to administrator about the books crossing the due dates.
6. The user to be able search for the required book – by book title, book category, author name and publisher.

Tables

1. Book details
2. Faculty details
3. Staff details
4. Book_Issued
5. Book_Returned

Output

1. Master list of books.
2. Master list of faculty.
3. Master list of staff,
4. Faculty wise book list.
5. Due date wise faculty list.
6. Books in issue.
7. Books in stock.
8. Missing books.

#20 Online Course Portal

This project aims at creating a Courses portal for a campus/organization. This allows registered users of the system to join a course available in the site and access the materials published for the course. People can register themselves as students of a course or Faculty for a course. When a person registers himself as a Faculty, an approval mechanism should be triggered which sends an email to the Administrator for approving the person as a Faculty. There will be an admin approval page where admin can approve the faculty members for the course. The course home page should contain the title of the course and a brief description. There will be a discussion board for each course where students can interact, an announcement section, which contains the latest announcements, and a course content section which gives the links for the material available for the course. For faculty members there will be an extra link for uploading the course content in a zip file format. The course content should be html pages, which should be uploaded in the zip file format. There should be a mechanism for the faculty members to create a test for the course specifying the test title and a set of multiple-choice questions and duration of time of the test.

Business Rules

(1) There will be a Course Portal home page where there will be a registration link as well as a login screen is available.
(2) There are three types of users in the system – Administrator, Faculty dent (for a course).
(3) The administrator should be able to do the following - Create a Course, by providing the course title and description, Approve Faculty members for a Course, Delete the members of a Course and Publish announcements.
(4) A page to view all the feedbacks received.

Tables

(1) Course Information.
(2) Faculty Information.
(3) Student Information.
(4) Registration details.
(5) Administrator detail.
(6) Test and score.
(7) Announcements.
(8) Feedbacks.

Output

(1) Course details view, faculty details view, student details view.
(2) Registration details view – course wise, student wise, faculty wise.
(3) Discussion forum details.
(4) Material list.
(5) Test report.