



Department of Computer Science and Engineering

22CS303 Web Technologies Module-1 Questions

Question-1:

Railway Reservation System

Railway Reservation System: Railway reservation system is to manage the details of Fare, seats, passengers, stations, booking. It manages all the information about fare, trains, booking. Design a website with the following modules

Admin Module- This module will allow Admin to log in to the system and manage the system and its functions. Admin can View/Confirm/Cancel bookings, manage events, can check payments, etc.

User Module– In this module, a user can register themselves first using their name, contact number, and address and also, can manage their profile. The user module will allow users to log in to the system using their names & contact number. Users can view/track their booked tickets, payment status, history, etc.

Booking Module- In this module, Users can book the tickets for the events. Users can see the details of the current and upcoming events.

Category- In this module, Admin can categorize events accordingly.

Availability- In this module, Admin can check whether the tickets for a particular event are available or not.

Details of User: Details of a User like a Name, Contact Number, event details, and booking history can be managed by Admin with this module.

Users Roles

Two users can interact with this application 1) Admin 2) User

Admin:

- Can Log in/Log out of the system.
- Admin can manage categories in the system.
- Admin can View/Confirm/Cancel booking orders placed by the User.
- Can manage and check the availability of tickets for the events.
- Can manage “My Profiles”.

User:

- Can log in/log out of the system.
- Can Manage “My profile”.
- Can search for events in categories.
- Users can book/cancel tickets.
- Can change password.

railway reservation system website links for your reference:
www.irctc.co.in

Design a website using JSP, JDBC, JavaScript, CSS & HTML, that includes at least 8- 10 pages and a navigation menu.

Question-2:

E-commerce Website

E-commerce Website: Develop an online store using JSP for dynamic product listings, shopping cart functionality, user authentication and registration, order processing, and payment integration.

1. Home page

- Your home page should include:
 - Logo/Heading
 - Navigation links to other pages
 - A short introduction/description of your business
 - Appropriate images
 - Some recent news about your business (optional)

Product (or Services) page(s)

- Your Product Pages should include:
 - Pictures, descriptions, order and price information for your products and/or services.
 - Navigation links to other pages, especially home, about us, order and other product pages.
 - Links to a shopping cart, if appropriate.

About Us page

- Your About Us page should include:
 - Tag line or slogan: A few words or a brief sentence summarizing what the organization does. This could be a mission statement or something similar.

- Tell your story: 1-3 paragraphs that offer a more detail about the organization's history, goals and main accomplishments.
- These items are recommended for About Us pages, but not required for this class:
 - Fact sheet: A section following the summary that elaborates on its key points and other essential facts about the organization.
 - Detailed information: Subsidiary pages with more depth for people who want to learn more about the organization.

Web form or shopping cart

- Your Web Form/Shopping Cart:
 - If you choose to E-commerce Builder a shopping cart is included, but you don't need to activate it using a merchant account or credit card
 - If you create an HTML site it needs to have a Web form or a shopping cart, but it does not need to be connected to a merchant account.
 - Web forms are pages that have text fields and other clickable buttons, etc. that can be used to order products. When you submit the information, it will be sent via email or some other Common Gateway Interface (CGI) to you, the business owner/manager.
 - if you choose to have a shopping cart and are using Shopify, an easy option is [Shopify Payments](#). You can even test without charging a card using test mode. Shopify provides easy to follow instructions to set up and test [Shopify Payments](#).
 - [PayPal](#).
 - Many of you are already using PayPal. Their account and shopping cart are free, until you have a transaction. It's also very easy to set up.
[PayPal Payment Button Instructions](#)
 - A good alternative free shopping cart [Mal's Ecommerce](#)
 - Check out these other [alternatives to PayPal](#)
 - If you have a service provider, they can usually provide a shopping cart service

Contact Us Page

- Your Contact Us page should include:
 - Address
 - Phone#(s)
 - Fax#
 - Contact form (preferred method) or email

- Note: this information can be fictitious

Privacy Policy/Legal Page

- Your Privacy Policy page should include:
 - Privacy Policy: you can visit any of the sites that your textbook refers to that has one and adapt it for your own use. Change any appropriate information. Here are a couple excellent models for a privacy policy: [double-click](#) [truste](#)
 - Other important resources:
 - Better Business Bureau's sample [privacy policy](#)
 - [Shopify privacy policy generator](#) (includes a refund and terms of service templates)
 - [Free privacy policy generator](#)
- Optional: Return Policy - if you sell items you will also need a return policy for legal protection

Sample E-Commerce Website links for your reference:

- <https://www.amazon.in/>
- <https://www.flipkart.com/>

Design a website using JSP, JDBC, JavaScript, CSS & HTML, that includes at least 8- 10 pages and a navigation menu.

Question-3

Design a Portfolio Website for yourself.

A Student portfolio website! This is your platform to showcase your academic achievements, projects, and experiences. Below are some suggested content sections for your portfolio:

- Home/Introduction:
 1. A brief introduction about yourself, highlighting your name, Your Photo , current educational institution, and major or field of study.
 2. A short statement about your passion for learning and your career aspirations.
- About Me:
 1. A more detailed bio that includes your academic background, interests, and any relevant extracurricular activities or hobbies.
 2. Mention any awards, scholarships, or notable accomplishments you've received during your academic journey.

- Education:
 1. List the educational institutions you've attended, along with the degrees earned and dates of graduation.
 2. Mention any special academic programs, honors, or research opportunities you've been a part of.
- Projects:
 1. Showcase your academic and personal projects. Include a brief description of each project, the technologies used, and any significant outcomes or results.
 2. If possible, provide links to GitHub repositories or live demos to allow visitors to explore your projects further.
- Resume/CV:
 1. Provide a downloadable PDF version of your resume or curriculum vitae (CV). Ensure it is up to date and includes relevant academic and work experiences.
- Work Experience (if applicable):
 1. Detail any internships, part-time jobs, or volunteer experiences related to your field of study.
 2. Describe the skills you developed and the contributions you made during each position.
- Courses and Certifications:
 1. List the courses you've taken, both within your major and any relevant elective courses.
 2. Mention any online certifications you've completed that demonstrate your expertise in specific areas.
- Skills:
 1. Enumerate your technical and soft skills, emphasizing those that are relevant to your field of study or future career.
- Blog/Articles (optional):
 1. If you enjoy writing, consider adding a blog section where you can share your thoughts on topics related to your field or experiences as a student.
- Contact:
 1. Provide a way for visitors to get in touch with you, such as an email address or a contact form.

Sample Portfolio Website links for your reference:

<https://kaylapadilla.org/>

Design a website using JSP, JDBC, JavaScript, CSS & HTML, that includes at least 8- 10 pages and a navigation menu.

Question-4

Design an Alumni Website

Alumni website provide the long-term value to an educational institution by giving alumni the chance to stay in contact and continue to learn from each other long after they have left college/university. The Alumni website is the portal where you can showcase important institutional announcements, various activities planned, reunions planned, etc.

- Home/Welcome Page:
 1. A warm welcome message to all alumni, expressing appreciation for their contribution to the institution and their role as brand ambassadors.
 2. Highlight the website's purpose, such as fostering connections, sharing updates, and providing opportunities for involvement.
- About Us:
 1. Provide a brief history of the educational institution and its achievements since its inception.
 2. Explain the significance of the alumni community and the role they play in the growth and success of the institution.
- Alumni Directory:
 1. Include a searchable database where alumni can find and connect with their former classmates and friends.
 2. Allow alumni to update their contact information and provide preferences for connecting with others.
- Alumni Spotlight:
 1. Feature inspiring stories and interviews of successful alumni who have made significant contributions in their respective fields.
 2. Showcase their career journeys, achievements, and how their education impacted their lives.
- News and Events:
 1. Share updates on alumni gatherings, reunions, and networking events.
 2. Promote any events or initiatives involving alumni, such as mentoring programs, workshops, or guest speaker series.
- Class Notes:
 1. Allow alumni to share updates about their personal and professional accomplishments, such as new jobs, promotions, marriages, or new additions to the family.
- Alumni Giving:
 1. Provide information about donation opportunities and fundraising campaigns to support the institution and current students.
 2. Highlight the impact of alumni donations on improving facilities, scholarships, and other programs.
- Alumni Services and Benefits:
 1. Outline the exclusive benefits and services available to alumni, such as career counseling, access to the library, or discounts on campus facilities.
- Alumni Chapters:
 1. If there are regional or industry-specific alumni chapters, provide information

on how to get involved and participate in their activities.

- Contact Us:
 1. Provide contact information for the alumni relations office or the website administrators.
 2. Include a contact form for inquiries, suggestions, or assistance with the website.
- Social Media Integration:
 1. Incorporate links to official alumni social media pages to encourage interaction and updates through various platforms.
- Photo and Video Gallery:
 1. Display a collection of pictures and videos from past events, gatherings, and memories on campus.

Sample College/University Alumni Website links for your reference:

<https://vignan.ac.in/alumni/>

<https://alumni.stanford.edu/>

Design a website using JSP, JDBC, JavaScript, CSS & HTML, that includes at least 8- 10 pages and a navigation menu.

Question-5:

Social Networking Site

Designing a social networking website requires careful planning to create a platform that fosters connections and interactions among users. Below is a suggested content structure for your social networking website:

- Home/Welcome Page:
 1. A visually engaging landing page that introduces the purpose of the social networking website.
 2. A clear call-to-action to sign up or log in to the platform.
- User Registration and Login:
 1. Provide a user-friendly registration process that allows users to create a new account using their email or social media profiles.
 2. Offer an option for users to log in using existing credentials.
- User Profiles:
 1. Allow users to create and customize their profiles with a profile picture, cover photo, bio, and personal information.
 2. Include privacy settings to let users control who can view their profiles and specific information.
- News Feed:

1. Implement a dynamic news feed that displays posts, updates, and content from users' connections.
 2. Include options to filter the feed based on different criteria, such as recent activity, popular posts, or specific content types.
- Friend/Follow System:
 1. Allow users to send and receive friend or follow requests to connect with others on the platform.
 2. Implement a notification system to alert users of friend requests, new followers, and other important interactions.
 - Posting and Sharing:
 1. Enable users to create and share various types of content, such as text posts, photos, videos, links, and articles.
 2. Include options for users to tag friends, add locations, and apply privacy settings to their posts.
 - Likes, Comments, and Sharing:
 1. Enable users to like and comment on posts, fostering engagement and interactions.
 2. Implement sharing options, allowing users to repost or share content from their connections.
 - Messaging and Chat:
 1. Provide a messaging system for private one-on-one conversations between users.
 2. Consider integrating a real-time chat feature for instant communication.
 - Groups and Communities:
 1. Allow users to create and join interest-based groups or communities.
 2. Enable group discussions, event planning, and sharing within these communities.
 - Notifications:
 1. Implement a comprehensive notification system that alerts users about new friend requests, mentions, likes, comments, and other relevant activities.
 - Search and Discovery:
 1. Incorporate a robust search feature that enables users to find friends, groups, and content based on various criteria, such as keywords, location, or interests.
 - Help and Support:

1. Offer a comprehensive help and support section that addresses common issues and provides guidelines for using the platform effectively.

Sample Social Networking Website links for your reference:

- <https://www.facebook.com/>
- <https://twitter.com/>

Design a website using JSP, JDBC, JavaScript, CSS & HTML, that includes at least 8- 10 pages and a navigation menu.

Question-6:

Online Learning Platform

Designing an online learning platform website requires a well-structured and informative approach to attract and engage learners. Here's a suggested content structure for your online learning platform:

- Home/Welcome Page:
 1. A visually appealing landing page with a clear value proposition, emphasizing the benefits of the platform.
 2. A brief introduction to the platform, highlighting its mission and vision for online education.
- Courses Catalog:
 1. Provide a comprehensive catalog of courses available on the platform, organized by categories and topics.
 2. Include a search and filtering feature to help users find courses based on their interests and needs.
- Course Pages:
 1. Dedicated pages for each course, offering detailed information about the course content, objectives, prerequisites, and outcomes.
 2. Mention the instructors' credentials and expertise to establish credibility.
- Instructor Profiles:
 1. Feature profiles of the instructors with their background, experience, and areas of expertise.
 2. Include ratings and reviews from past learners to build trust in the instructors.
- Student Reviews and Testimonials:
 1. Showcase reviews and testimonials from previous learners who have taken courses on the platform.
 2. Positive feedback can encourage potential learners to enroll in courses.

- Pricing and Enrollment:
 1. Clearly display the pricing structure for courses or any subscription plans if applicable.
 2. Include a user-friendly enrollment process with a secure payment gateway.
- Learning Resources:
 1. Provide additional learning resources such as downloadable study materials, e-books, videos, and interactive quizzes.
 2. Offer resources that complement the courses and enhance the learning experience.
- Progress Tracking and Certificates:
 1. Explain how learners can track their progress throughout the courses.
 2. Highlight the certificate of completion that learners can earn after successfully finishing a course.
- Blog or Resource Center:
 1. Include a blog section where you can share informative articles, tips, and industry-related updates.
 2. Utilize this section to demonstrate the expertise of the platform and its instructors.
- About Us:
 1. Provide a detailed overview of the platform, its founding story, and the team behind it.
 2. Emphasize the platform's commitment to quality education and learner success.
- Contact and Support:
 1. Display contact information and a form to allow users to reach out with inquiries or support requests.
 2. Include a frequently asked questions (FAQ) section to address common queries.
- Privacy Policy and Terms of Service:
 1. Clearly state the platform's privacy policy and terms of service to build trust and ensure user data protection.

Sample Online Learning Website links for your reference:

- <https://nptel.ac.in/>
- <https://www.coursera.org/>

Design a website using JSP, JDBC, JavaScript, CSS & HTML, that includes at least 8- 10 pages and a navigation menu.

Question-7:

Design an Event Management system

Develop a web-based platform for organizing and managing events. Include features like event creation, registration, ticketing, payment processing, and event analytics.

An Event Management System (EMS) is a software application or platform that helps streamline and automate the process of planning, organizing, and managing events. It provides event planners, organizers, and attendees with a centralized system to handle various aspects of event management, including registration, scheduling, promotion, communication, logistics, and reporting.

Event management systems offer a range of functionalities to facilitate the planning, organization, and execution of events. Here are some common functionalities of an event management system:

- **Event Registration and Ticketing:** An event management system allows event organizers to create online registration forms where attendees can sign up for the event and purchase tickets. It handles the collection of attendee information, ticket sales, and payment processing.
- **Event Website Creation:** The system provides tools to create event websites or landing pages with essential event details, such as event description, schedule, speakers, sponsors, and venue information. These websites serve as a central hub for attendees to access event-related information.
- **Attendee Management:** The system enables organizers to manage attendee data, including registration details, ticket types, and contact information. It allows organizers to view, edit, and export attendee lists and track attendance status.
- **Email Communication:** Event management systems often include email communication features to send automated confirmations, event updates, reminders, and important announcements to registered attendees. These features streamline communication between organizers and attendees.
- **Agenda and Schedule Management:** The system allows organizers to create event agendas and schedules, including session details, speaker information, and time slots. Attendees can access the agenda to plan their participation and view session descriptions.
- **Speaker and Sponsor Management:** Event management systems provide functionalities to manage speakers and sponsors associated with the event. Organizers can store speaker bios, session details, and sponsor information. It simplifies communication and coordination with speakers and sponsors.
- **Ticket Scanning and Check-in:** Many event management systems offer mobile apps or tools for on-site check-in and ticket scanning. Organizers can validate tickets and track attendance using QR codes or barcodes, enhancing the check-in process and improving efficiency.
- **Surveys and Feedback:** The system allows organizers to collect feedback from attendees through post-event surveys or feedback forms. This functionality helps organizers assess attendee satisfaction, gather insights, and make improvements for future events.

- **Analytics and Reporting:** Event management systems often provide analytics and reporting features to track event performance. Organizers can access data such as registration numbers, ticket sales, attendance rates, and attendee demographics. This data helps evaluate the success of the event and inform decision-making for future events.
- **Integration with Third-Party Tools:** Event management systems may offer integration capabilities with other tools and platforms. For example, integration with marketing automation systems, CRM software, or payment gateways allows organizers to streamline workflows and leverage existing systems.

Sample Event Management system websites for reference

<https://www.eventbrite.com/>

<https://www.bizzabo.com/>

<https://www.eventzilla.net/us/home>

Design a website using JSP, JDBC, JavaScript, CSS & HTML, that includes at least 8- 10 pages and a navigation menu.

Question-8:

Design a Recipe Sharing Website

Design a website where users can share and discover recipes. Include features like user profiles, recipe submissions, search functionality, ratings and reviews, and the ability to save favorite recipes.

A recipe sharing website is an online platform where users can discover, share, and discuss recipes. It provides a space for individuals to showcase their culinary creations, find inspiration from others, and engage with a community of food enthusiasts. Recipe sharing websites typically offer features and functionalities that facilitate the sharing, organization, and exploration of recipes.

Recipe sharing websites typically offer a range of features to allow users to discover, share, and explore recipes. Here are some key features commonly found on recipe sharing websites:

- **Recipe Upload and Sharing:** Users can create an account and upload their own recipes to share with the community. They can provide detailed instructions, ingredients, cooking times, and any additional notes or tips.
- **Recipe Search and Filtering:** Users can search for recipes based on various criteria such as dish type, cuisine, dietary restrictions, ingredients, or difficulty level. Filtering options help users find specific recipes that suit their preferences or dietary needs.
- **Recipe Rating and Reviews:** Users can rate and review recipes based on their experience of trying them. This feature provides feedback to recipe creators and helps other users make informed decisions about which recipes to try.
- **Recipe Collections and Favorites:** Users can create collections or folders to organize and save their favorite recipes for easy access. This feature allows users to curate their own recipe collections based on themes, occasions, or personal preferences.

- **User Profiles and Followers:** Recipe sharing websites often include user profiles where users can showcase their recipes, provide information about themselves, and interact with other users. Users can follow each other to receive updates on new recipes or activity.
- **Nutritional Information:** Many recipe sharing websites provide nutritional information for recipes, including calorie counts, macronutrients, and allergen information. This feature helps users make informed decisions about the nutritional content of the recipes they choose.
- **Recipe Scaling and Conversion:** Some recipe sharing websites offer tools to scale or convert recipe measurements to accommodate different serving sizes or unit preferences. This feature allows users to adjust ingredient quantities accordingly.
- **Meal Planning and Shopping Lists:** Certain recipe sharing platforms include meal planning features, where users can plan their meals for the week and generate shopping lists based on the selected recipes. This streamlines the meal planning and grocery shopping process.
- **Social Interaction and Sharing:** Users can engage with other users by commenting on recipes, sharing their cooking experiences, or asking questions. Social sharing options allow users to share recipes on various social media platforms.
- **Video and Multimedia Integration:** Recipe sharing websites may support the integration of multimedia content, including recipe videos, step-by-step photo galleries, or instructional videos. This enhances the user experience and provides visual guidance for cooking techniques.

[Sample Recipe Sharing Website for reference](#)

<https://www.allrecipes.com/>

<https://www.foodnetwork.com/>

<https://www.yummly.com/>

Design a website using JSP, JDBC, JavaScript, CSS & HTML, that includes at least 8- 10 pages and a navigation menu.

Question 9:

Design an Online Job Portal website

Discover Your Dream Job:

At [Job Portal Name], we understand the significance of finding the perfect job that aligns with your skills, aspirations, and career goals. Our user-friendly platform is designed to help you explore a diverse range of job opportunities from leading companies across various industries. Whether you are a seasoned professional or a fresh graduate, we've got something for everyone!

How It Works:

- **Create Your Profile:** Begin your journey by registering on our platform and building a comprehensive profile that showcases your qualifications, work experience, and accomplishments. The more detailed your profile, the better your chances of being noticed by employers.
- **Search and Apply:** Utilize our advanced search filters to narrow down your job preferences based on location, industry, experience level, and more. Browse through an extensive database of job listings, and when you find the one that excites you,

submit your application effortlessly with just a few clicks.

- **Get Notified:** Stay ahead of the competition with our personalized job alerts. Receive notifications about the latest job openings that match your criteria, ensuring you never miss out on the perfect opportunity.
- **Employer Insights:** Make informed decisions by accessing company profiles, reviews, and ratings from other employees. Learn about the workplace culture, benefits, and growth opportunities before applying, helping you find the ideal employer that fits your values.
- **Resume Building:** Create a standout resume with our built-in resume builder. Highlight your strengths, skills, and accomplishments effectively to catch the eye of potential employers.

For Employers:

Are you seeking top talent for your organization? Look no further! [Job Portal Name] provides a robust platform for employers to connect with a pool of skilled and motivated individuals. Our employer features include:

- **Post Job Openings:** Advertise your job openings to thousands of job seekers and receive applications from qualified candidates.
- **Search Resumes:** Access a vast database of profiles and proactively search for candidates that fit your requirements.
- **Company Branding:** Showcase your company's culture and values to attract potential candidates who align with your organization.
- **Applicant Tracking System:** Streamline your hiring process with our intuitive applicant tracking system. Manage applications, schedule interviews, and communicate with candidates effortlessly.
- **Recruitment Analytics:** Gain valuable insights into your recruitment process with data-driven analytics to optimize your hiring strategies.
- **Career Resources:**
 - At [Job Portal Name], we believe in empowering our users with knowledge and skills to excel in their careers. Our website offers a range of valuable resources, including:
 - **Career Advice:** Expert tips and guidance on resume writing, interview preparation, and career development to help you stand out from the crowd.
 - **Blog Articles:** Engaging articles on industry trends, job market updates, and professional growth strategies to keep you informed and motivated.
 - **Skill Development:** Access to online courses and training programs to enhance your skill set and increase your employability.

Sample Online Job Portal Website for reference

<https://in.linkedin.com/>

<https://in.indeed.com/>

<https://www.glassdoor.co.in/>

Design a website using JSP, JDBC, JavaScript, CSS & HTML, that includes at least 8- 10 pages and a navigation menu.

Question10:

Design a Food/Restaurant website

A successful Food/Restaurant website should offer a range of features that enhance user

experience, facilitate online orders, and showcase the restaurant's offerings effectively. Here are some essential features to consider:

- **Menu Display:** Display the restaurant's menu with clear descriptions, images, and prices. Organize it into categories for easy navigation, such as appetizers, main courses, desserts, etc.
- **Online Ordering and Reservations:** Allow customers to place orders and make reservations directly through the website. Implement an easy-to-use system that enables users to select their desired items and specify pick-up/delivery times or booking dates.
- **Table Booking Management:** Provide a table management system for the restaurant staff to efficiently handle reservations, avoid overbooking, and optimize seating arrangements.
- **Customer Reviews and Ratings:** Incorporate a section for customer reviews and ratings, as positive testimonials can influence potential customers. Responding to reviews shows your commitment to customer satisfaction.
- **Photo Gallery:** Showcase high-quality images of the restaurant's ambiance, dishes, and happy customers. Visuals play a crucial role in enticing visitors and making them eager to dine.
- **Special Offers and Promotions:** Highlight special deals, seasonal menus, and promotional offers prominently on the website to attract more customers.
- **Contact Information and Location:** Clearly display the restaurant's address, contact details, and a map for easy navigation. Include operating hours and any special event schedules.
- **About Us Page:** Introduce the restaurant's story, its founders, and the culinary philosophy to establish a personal connection with customers.
- **Events and Catering Services:** If applicable, feature information about private events, catering services, and venue booking options.
- **Newsletter Signup:** Allow users to subscribe to the restaurant's newsletter to receive updates on new menu items, events, and exclusive offers.
- **Google Maps Integration:** Integrate Google Maps to enable users to find the restaurant easily and get directions.
 - Sample Restaurant/Food Website links for your reference:
<https://www.discoveredfoods.com/>
 - <https://www.greenrebel.ca/>

Design a website using JSP, JDBC, JavaScript, CSS & HTML, that includes at least 8- 10 pages and a navigation menu.