

Note:

- Along with every project a reference site is provided; students have to go through the reference site and make the clone along with add-on functionalities; students are allowed to clone similar kinds of websites also
- The total number of project groups will be 17-19 per class group; we have 22 projects for better distribution among students

1. Task Management System

Website Reference: Todoist (<https://todoist.com>)

Project Overview:

Clone the Todoist website to build a task management application that manages tasks by status (To-Do, In Progress, Completed), priority, and deadlines. Student teams are encouraged to enhance the clone by adding extra functionalities according to project requirements.

Core Features (Flask Implementation):

- User authentication (login/signup/logout)
- Create, edit, and delete tasks
- Categorize tasks by status and priority
- Filtering, sorting, and searching tasks
- Dashboard view for task progress

Bonus Features:

- Pagination for task lists
- Infinite scrolling on the dashboard

UI/UX Considerations:

- Responsive design with Bootstrap
- Clear visual indicators for task status
- Dark/light mode toggle

Technologies: Flask, SQLite, HTML, CSS, Bootstrap, Jinja Templating, VS Code

2. Blog Platform

Website Reference: Medium (<https://medium.com>)

Project Overview:

Clone the Medium website to create a multi-user blogging platform where users can create, edit, and delete posts, and readers can comment and like posts. Student teams are encouraged to add extra functionalities as per their project requirements.

Core Features (Flask Implementation):

- User authentication and profile management
- Create, edit, and delete blog posts
- Commenting and liking system
- Filtering and searching posts by categories or tags

Bonus Features:

- Pagination for post listings

- Infinite scrolling for comment threads

UI/UX Considerations:

- Clean, modern layout with intuitive navigation
- SEO-friendly structure
- Simple text editor for post-creation

Technologies: Flask, SQLite, Bootstrap, VS Code

3. E-commerce Website

Website Reference: Amazon (<https://www.amazon.com>)

Project Overview:

Clone the Amazon website to build an online store where users browse products, manage a shopping cart, and simulate a checkout process. Student teams are encouraged to incorporate additional functionalities as per their project requirements.

Core Features (Flask Implementation):

- User authentication (customer and admin roles)
- Product catalogue with categories
- Shopping cart management and simulated checkout
- Filtering, sorting, and searching products

Bonus Features:

- Pagination for product listings
- Infinite scrolling for product feeds
- Basic cart and payment simulation

UI/UX Considerations:

- User-friendly product display with high-quality images
- Secure, clear checkout process
- Responsive design for all devices

Technologies: Flask, SQLite, Bootstrap, VS Code

4. Job Portal

Website Reference: Indeed (<https://www.indeed.com>)

Project Overview:

Clone the Indeed website to build a job portal where employers post jobs and job seekers apply, including features like resume upload. Student teams are encouraged to extend the system with additional functionalities as required.

Core Features (Flask Implementation):

- Dual authentication for employers and job seekers
- CRUD for job postings and applications
- Filtering, sorting, and searching jobs by category or location
- Email notifications for applications

Bonus Features:

- Pagination for job listings
- Infinite scrolling for application history

UI/UX Considerations:

- Clear job search and application forms
- Intuitive employer dashboard
- Responsive design

Technologies: Flask, SQLite, Bootstrap, VS Code

5. Inventory Management System

Website Reference: Zoho Inventory (<https://www.zoho.com/inventory/>)

Project Overview:

Clone the Zoho Inventory website to build a system that tracks stock, suppliers, and orders in a warehouse or business setting. Student teams are encouraged to add extra functionalities based on their project requirements.

Core Features (Flask Implementation):

- User authentication with role-based access (Admin, Staff)
- CRUD for inventory items and supplier data
- Stock management with low-stock alerts
- Filtering, sorting, and searching inventory

Bonus Features:

- Pagination for inventory lists
- Infinite scrolling for dynamic stock updates

UI/UX Considerations:

- Clear, colour-coded dashboard
- Intuitive forms for product management
- Responsive design

Technologies: Flask, SQLite, Bootstrap, VS Code

6. Online Course Platform

Website Reference: Udemy (<https://www.udemy.com>)

Project Overview:

Clone the Udemy website to develop a learning management system where instructors create courses and students enrol to access lessons and quizzes. Student teams are encouraged to add further functionalities as needed.

Core Features (Flask Implementation):

- Separate authentication for instructors and students
- CRUD for courses, lessons, and quizzes
- Filtering and searching courses by category or instructor
- Dashboard to track course progress

Bonus Features:

- Pagination for course listings
 - Infinite scrolling for course content feeds
- UI/UX Considerations:**
- Organised, clean layout with easy navigation
 - Accessible design for content consumption
 - Responsive design
- Technologies:** Flask, SQLite, Bootstrap, VS Code
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7. Event Management System

Website Reference: Eventbrite (<https://www.eventbrite.com>)

Project Overview:

Clone the Eventbrite website to create a web platform for event organizers to create events and for users to register or purchase tickets. Student teams are encouraged to extend the application with additional functionalities as per requirements.

Core Features (Flask Implementation):

- User authentication for organizers and attendees
- CRUD for event creation and management
- Filtering, sorting, and searching events by date or category
- Registration and ticket booking process

Bonus Features:

- Pagination for event listings
- Infinite scrolling for event feeds

UI/UX Considerations:

- Visually appealing event cards
- Simple, secure registration process
- Responsive design

Technologies: Flask, SQLite, Bootstrap, VS Code

8. Hotel Booking System

Website Reference: Booking.com (<https://www.booking.com>)

Project Overview:

Clone the Booking.com website to build a reservation system for hotels where customers search for rooms and manage bookings. Student teams can enhance the system with additional features as per requirements.

Core Features (Flask Implementation):

- User authentication for customers and hotel admins
- CRUD for room listings and bookings
- Filtering, sorting, and searching for hotels/rooms
- Booking history and cancellation management

Bonus Features:

- Pagination for room listings
- Infinite scrolling for hotel search results

UI/UX Considerations:

- Elegant, user-friendly search interface
- Clear room details and pricing
- Responsive design

Technologies: Flask, SQLite, Bootstrap, VS Code

9. Personal Finance Tracker

Website Reference: Mint (<https://www.mint.com>)

Project Overview:

Clone the Mint website to build an application that logs and monitors income, expenses, and budgets. Student teams are encouraged to include additional functionalities as needed.

Core Features (Flask Implementation):

- User authentication
- CRUD for financial transactions
- Filtering and searching by date, category, or amount
- Dashboard with spending trends and visualizations

Bonus Features:

- Pagination for transaction history
- Infinite scrolling for logs

UI/UX Considerations:

- Clear, intuitive charts and forms
- Responsive design for desktop and mobile
- Simple data entry

Technologies: Flask, SQLite, Bootstrap, VS Code

10. Recipe Sharing Platform

Website Reference: Allrecipes (<https://www.allrecipes.com>)

Project Overview:

Clone the Allrecipes website to develop a community website for sharing, rating, and commenting on recipes. Student teams may extend the functionality according to their project requirements.

Core Features (Flask Implementation):

- User authentication and profile management
- CRUD for recipes with images, ingredients, and instructions
- Filtering, sorting, and searching by cuisine or ingredient
- Commenting and rating system

Bonus Features:

- Pagination for recipe lists

- Infinite scrolling for comment sections

UI/UX Considerations:

- Visually appealing recipe cards
- Intuitive recipe submission forms
- Responsive layout

Technologies: Flask, SQLite, Bootstrap, VS Code

11. Quiz Application

Website Reference: Kahoot (<https://kahoot.com>)

Project Overview:

Clone the Kahoot website to develop a quiz application where admins can create quizzes and users can attempt them to test their knowledge. Student teams may add further functionalities as per project requirements.

Core Features (Flask Implementation):

- User authentication for quiz takers and admins
- CRUD for quizzes, questions, and answers
- Filtering and searching quizzes by category or difficulty
- Timer-based quiz functionality

Bonus Features:

- Pagination for quiz lists
- Infinite scrolling for question banks

UI/UX Considerations:

- Distraction-free quiz interface
- Clear feedback on quiz results
- Mobile-friendly design

Technologies: Flask, SQLite, Bootstrap, VS Code

12. Movie Database

Website Reference: IMDb (<https://www.imdb.com>)

Project Overview:

Clone the IMDb website to build a searchable database of movies where users can view details, rate, and review films. Student teams are encouraged to add additional features as needed.

Core Features (Flask Implementation):

- User authentication for reviewers and admins
- CRUD for movies, reviews, and ratings
- Filtering, sorting, and searching by genre, release date, etc.
- Detailed movie information display

Bonus Features:

- Pagination for movie listings

- Infinite scrolling for review sections

UI/UX Considerations:

- Visually appealing movie cards
- Clear forms for reviews
- Responsive design

Technologies: Flask, SQLite, Bootstrap, VS Code

13. Pet Adoption System

Website Reference: Petfinder (<https://www.petfinder.com>)

Project Overview:

Clone the Petfinder website to build a system for animal shelters to list pets available for adoption and for users to submit adoption requests. Student teams may add extra functionalities based on requirements.

Core Features (Flask Implementation):

- User authentication (Shelter Admin and Adopter roles)
- CRUD for pet profiles with images and details
- Filtering, sorting, and searching pets by type, age, breed
- Adoption request submission

Bonus Features:

- Pagination for pet listings
- Infinite scrolling for pet feeds

UI/UX Considerations:

- Visually appealing pet cards
- Clear and intuitive request forms
- Responsive design

Technologies: Flask, SQLite, Bootstrap, VS Code

14. Healthcare Appointment Booking System

Website Reference: ZocDoc (<https://www.zocdoc.com>)

Project Overview:

Clone the ZocDoc website to build a healthcare appointment booking system where patients can search for doctors, view available appointment slots, and book appointments, while doctors manage their profiles and schedules. Student teams may enhance the clone with additional features according to requirements.

Core Features (Flask Implementation):

- User Authentication: Separate login/signup processes for patients, doctors, and administrators
- Appointment Management: Patients can book, cancel, or reschedule appointments; doctors can manage their availability and appointment slots
- CRUD Operations: Create, edit, and delete doctor profiles and appointment details

- Filtering, Sorting, and Searching: Users can filter and search for doctors by specialty, location, or available times, with sorting options for appointment dates and doctor ratings

Bonus Features:

- Pagination for doctor listings and appointment histories
- Infinite scrolling on doctor search results or appointment lists

UI/UX Considerations:

- Responsive design with Bootstrap
- Professional layout with clear forms and dashboards
- Intuitive navigation for patients and doctors

Technologies: Flask, SQLite, HTML, CSS, Bootstrap, Jinja Templating, VS Code

15. Grocery Delivery System

Website Reference: Instacart (<https://www.instacart.com>)

Project Overview:

Clone the Instacart website to create an online platform for ordering groceries with product browsing, cart management, and simulated order processing. Student teams are encouraged to extend the system with extra functionalities per their requirements.

Core Features (Flask Implementation):

- User authentication (Customer and Admin roles)
- CRUD for grocery products and order management
- Filtering, sorting, and searching products
- Shopping cart and checkout simulation

Bonus Features:

- Pagination for product listings
- Infinite scrolling in product views

UI/UX Considerations:

- Clear product images and descriptions
- Secure, intuitive checkout process
- Responsive design

Technologies: Flask, SQLite, Bootstrap, VS Code

16. Employee Leave Management System

Website Reference: BambooHR (<https://www.bamboohr.com>)

Project Overview:

Clone the BambooHR website to build a system where employees can apply for leave and managers can review and process these requests. Student teams are encouraged to add extra features according to their project requirements.

Core Features (Flask Implementation):

- Role-based authentication (Employee, Manager)

- CRUD for leave requests with status tracking
- Filtering, sorting, and searching leave applications
- Manager dashboard for approval/rejection

Bonus Features:

- Pagination for leave listings
- Infinite scrolling for leave history

UI/UX Considerations:

- Clear and accessible forms
- Visual indicators for leave status
- Responsive layout

Technologies: Flask, SQLite, Bootstrap, VS Code

17. Online Food Ordering System

Website Reference: UberEats (<https://www.ubereats.com>)

Project Overview:

Clone the UberEats website to create a web-based food ordering system for a college canteen, where users can browse the menu, place orders, and track their order status. Student teams are encouraged to include extra functionalities based on requirements.

Core Features (Flask Implementation):

- User authentication (Students, Canteen Staff, Admin)
- CRUD operations for menu items and orders
- Order tracking (e.g., Pending, Preparing, Ready, Delivered)
- Payment integration (Cash on Delivery/Online Payment)

Bonus Features:

- Order history for students
- Real-time notifications for order updates
- Discounts and coupon management

UI/UX Considerations:

- Easy-to-navigate menu display
- Clear order summary before checkout
- Mobile-friendly and responsive design

Technologies: Flask, SQLAlchemy (SQLite/PostgreSQL), Jinja2, Bootstrap, VS Code

18. Lost and Found System

Website Reference: LostAndFound.com (<https://lostandfound.com>)

Project Overview:

Clone the LostAndFound.com website to develop a system for reporting and finding lost items on campus. Student teams are encouraged to incorporate additional functionalities as per their requirements.

Core Features (Flask Implementation):

- User authentication (Students, Faculty, Admin)
- CRUD operations for lost and found item listings
- Search and filter functionality (by category, date, location)
- Contact system for claim verification

Bonus Features:

- Image upload for lost and found items
- Status tracking (Lost, Found, Returned)
- Email notifications for matched items

UI/UX Considerations:

- Simple reporting forms
- Visual gallery view for found items
- Mobile-responsive design

Technologies: Flask, SQLAlchemy (SQLite/PostgreSQL), Jinja2, Bootstrap, VS Code

19. Online Bookstore

Website Reference: Barnes & Noble (<https://www.barnesandnoble.com>)

Project Overview:

Clone the Barnes & Noble website to build an online bookstore where users can browse books by category, add them to their cart, and place orders. Student teams are encouraged to enhance the clone with extra features as needed.

Core Features (Flask Implementation):

- User authentication (Customers, Admin)
- CRUD operations for books and orders
- Shopping cart and checkout system
- Order tracking (e.g., Pending, Shipped, Delivered)

Bonus Features:

- Search and filter books by category, author, or price
- Payment integration
- Book rating and review system

UI/UX Considerations:

- Organised book displays with images and descriptions
- User-friendly checkout process
- Mobile-responsive design

Technologies: Flask, SQLAlchemy (SQLite/PostgreSQL), Jinja2, Bootstrap, VS Code

20. Hostel Management System

Website Reference: Hostelworld (<https://www.hostelworld.com>)

Project Overview:

Clone the Hostelworld website to build a system for managing hostel accommodations,

where students can book rooms, check availability, and manage their stay. Student teams are encouraged to add further functionalities as per requirements.

Core Features (Flask Implementation):

- User authentication (Students, Admin, Staff)
- CRUD operations for hostel rooms, bookings, and student details
- Room availability checking and booking system
- Rent payment tracking and status updates

Bonus Features:

- Notification system for rent due dates and booking confirmations
- Search and filter for available rooms

UI/UX Considerations:

- Intuitive booking interface with room selection feature
- Visual indicators for room occupancy status
- Mobile-responsive design

Technologies: Flask, SQLAlchemy (SQLite/PostgreSQL), Jinja2, Bootstrap, VS Code

21. Blood Donation Management System

Website Reference: American Red Cross Blood (<https://www.redcrossblood.org>)

Project Overview:

Clone the American Red Cross Blood website to build a system that connects blood donors with those in need. Student teams are encouraged to further enhance the system with additional features as per requirements.

Core Features (Flask Implementation):

- User authentication (Donors, Recipients, Admin)
- CRUD operations for donor registration and blood requests
- Blood type tracking and availability management
- Notification system for matching blood donors

Bonus Features:

- Location-based donor search
- Emergency request prioritization
- Donation history tracking

UI/UX Considerations:

- Simple registration and request forms
- Clear indicators of available blood types
- Mobile-friendly design

Technologies: Flask, SQLAlchemy (SQLite/PostgreSQL), Jinja2, Bootstrap, VS Code

22. E-commerce Website (Nykaa Clone)

Website Reference: [Nykaa](#)

Project Overview:

Clone the **Nykaa** website to build a full-fledged **e-commerce application** where users can browse, search, and purchase products. Student teams are encouraged to extend the clone with additional functionalities as per their requirements.

Core Features (Flask Implementation):

- **User Authentication:** Sign up, login, logout, and password management
- **Product Management:** CRUD operations for adding, editing, and deleting products
- **Shopping Cart & Checkout:** Add/remove items, update quantity, and process checkout
- **Filtering & Searching:** Products can be searched and filtered by category, brand, or price
- **Order Management:** Users can view past orders and track delivery status
- **Dashboard:** Admin panel for managing users, products, and orders

Bonus Features:

- **Wishlist & Favorites:** Users can save items for later
- **Ratings & Reviews:** Customers can leave feedback and rate products
- **Discounts & Offers:** Apply promo codes or special discounts
- **Pagination & Infinite Scrolling:** Browse products smoothly
- **Recommendation System:** Suggest products based on user preferences

UI/UX Considerations:

- **Elegant & Modern UI:** Aesthetic, user-friendly design inspired by **Nykaa**
- **Mobile Responsiveness:** Optimized for both desktop and mobile users
- **Smooth Navigation:** Intuitive product browsing and easy checkout process

Technologies:

- **Backend:** Flask, SQLite (Django will be used as the syllabus will progress)
- **Frontend:** Bootstrap, JavaScript, HTML, CSS
- **Development Tools:** VS Code