

ASSIGNMENT – 3

DEADLINE:- 07/02/2026

Project 1: Twitter (X) Clone – Frontend Web App

Overview

This project is a **frontend clone of Twitter (X)** built using **HTML, CSS, and JavaScript**.

It replicates core social media functionalities and UI interactions to demonstrate strong **DOM manipulation, state handling, and responsive design** skills—without using any backend.

Project Objectives

- Practice real-world UI/UX cloning
 - Strengthen JavaScript logic and DOM handling
 - Implement dynamic content updates
 - Build a responsive social-media-style interface
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Core Features

User Interface (Static Auth Simulation)

- Login / Profile UI (frontend-only simulation)
 - User avatar and username display
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Tweet Functionality

- Create tweets (text-based)
 - Character limit enforcement (280 characters)
 - Live character counter
 - Tweets appear instantly in the feed
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Tweet Interactions

- Like / Unlike tweets
- Retweet (UI-level duplication)
- Reply UI (basic comment structure)

Feed System

- Dynamic tweet feed rendering
 - New tweets appear at the top
 - Tweets stored temporarily using browser memory
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User Profile Section

- Profile banner & avatar
 - Bio and username section
 - User's own tweets listed
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UI Features

- Dark mode / Light mode toggle
 - Responsive layout (mobile, tablet, desktop)
 - Hover effects and animations
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Data Handling (Frontend Only)

- Tweets stored using:
 - JavaScript objects
 - Arrays
 - localStorage for persistence
- Likes, tweets, and theme preference persist on page reload

Project 2: All-in-One Student Utility Web App

Overview

This project is a **full-stack web application** that combines multiple daily-use student utilities into a **single authenticated dashboard**.

Users can log in, access various tools, and the system tracks usage, saves states, and provides analytics—delivering a **real SaaS-like experience** 😊

Core Features

- User Authentication
 - Login
 - Signup
 - Logout
 - Protected Routes
 - Personalized User Dashboard
 - User-wise Data Storage
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Tools Included

1 Weather App

- Search weather by city
- Saves last searched city per user

2 Password Generator

- Generate secure passwords
- Tracks usage frequency

3 To-Do List (Persistent)

- Add, update, delete tasks
- Tasks saved per user in the database

4 Unit Converter

- Convert:
 - Length
 - Weight
 - Temperature
- Remembers frequently used units

5 Notes App (User-wise)

- Create, edit, delete notes
- Auto-save and restore last opened note

6 URL Shortener

- Shorten long URLs
 - Track click count per link
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Backend-Heavy Global Features (Key Highlights)

1 User Activity History

Tracks every action performed by the user, including:

- Tool name
- Action performed
- Timestamp

Example:

User → Used Weather App → 12 Jan, 10:30 PM

2 Recently Used Tools

- Automatically displayed on dashboard
- Sorted based on usage frequency

3 Saved States (Per Tool)

Each tool remembers the user's last state:

- Weather: Last searched city
- Notes: Last opened note
- To-Do: Pending tasks

4 Usage Analytics Dashboard (User Side)

- Most used tool
- Time spent on each tool
- Weekly usage graph

5 Preferences & Settings

- Dark / Light mode
- Default city for weather
- Preferred units for conversion

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