

NOSTALGIC BOX

Abstract

This project aims to develop a secure and collaborative digital time-capsule application called Nostalgic Box, built using the Python Django framework. Nostalgic Box allows a group of users to store cherished memories—such as photos, text notes, audio clips, and short videos—inside a digital box that remains inaccessible until a predetermined future date.

A distinctive feature of this system is its group-based unlocking mechanism. On the selected unlock date, the host initiates a one-hour unlocking window during which a unique QR code is generated. All group members must scan the QR code within this one-hour timeframe, after which each member is required to enter their own individual password. The memory box unlocks only when every member successfully completes this verification process. This ensures that the memories are opened together at the same place, and at the same time, preserving the emotional value of the experience.

Django handles user authentication, group coordination, time-window validation, QR code generation, and secure access control. Django REST Framework can be used to manage APIs, while the backend ensures encrypted storage of memory content. This project combines nostalgic emotion with strong technical implementation, resulting in a meaningful, interactive, and secure group memory-sharing platform.

FEATURES

- User registration and login with Django authentication.
- Create a group-based Nostalgic Box and invite multiple members.
- Upload photos, text notes, audio clips, and video memories.
- Set a future unlock date for each memory box.
- Memory box stays fully locked until the unlock procedure begins.
- Host generates a QR code on the unlock date valid for 1 hour.
- All group members must scan the QR code within the 1-hour window.
- Each member enters their own unique password after scanning.
- Box unlocks only when every member completes QR + password verification.
- Real-time status showing which members have verified and who are pending.
- Automatic unlocking when all members authenticate successfully.
- View all memories together once unlocked.
- Dashboard showing locked boxes, unlock dates, and group members.
- Notification alerts for the 1-hour unlock window and pending member participation.
- Secure storage of uploaded files using Django's file handling system or cloud storage.
- Admin panel for managing users and groups.

Name: Muhammed Jishan KT
Course: Python Django
Batch: July 2025