

NU ITCS Volunteering Hub
Software Engineering Project – Fall 2025

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1. Project Overview

NU ITCS Volunteering Hub is a web platform designed to connect ITCS students, TAs, faculty, and clubs for academic peer support and departmental volunteering. It encourages students to volunteer help in subjects they excel at while building trust through structured profiles, endorsements, and moderation.

2. Problem Solved

Many students struggle academically but hesitate to ask for help. At the same time, strong students want to contribute but lack a recognized platform. Current solutions are scattered (WhatsApp groups, random posts) with no credibility or tracking.

3. Our Solution – Key Features

- Secure registration with role-based access
- Profile system with CGPA, strengths, and skills
- Tagged posts (#DSA, EventVolunteer, etc.)
- Recommendation from TAs/Dr
- Admin moderation and report system
- Notification system for matching volunteers

4. Technical Implementation

- Frontend: HTML & CSS
- Backend: FastAPI (Python)

- Database: MySQL
- Authentication: JWT + bcrypt
- Deployment: not determined
- Agile workflow with GitHub Projects, feature branches, and daily standups

5. Agile Development Process

- 4 Sprints (2 weeks each)
- Current: Sprint 1 – Authentication + Profile Setup (100% complete)
- Daily updates and clear task assignment via GitHub Issues

6. Branding & Vision

Official colors: Green, Blue, Amber Yellow

Tagline: “ITCS Safe Space Hub.”

7. Conclusion

This project not only solves a real problem in our department but promotes a culture of knowledge sharing, community, and recognized contributions aligning perfectly with university values.

We are confident this platform can be adopted department wide.