UCCD Registration System For The First Career fair At Suez University

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Introduction

The **UCCD Registration System** is designed for the first career fair at Suez University. This system aims to assist staff in registering students and graduates efficiently, ensuring effective handling of registrations and attendance tracking for up to 2,000 participants.

Problem Statement

Manual registration processes are often inefficient, leading to long queues, data entry errors, and difficulties in tracking attendance. The challenge is to create a digital solution that simplifies the registration process while maintaining data accuracy and security.

Solution Overview

The registration system provides:

- A user-friendly interface for staff to register students and graduates.
- The ability to add up to 2,000 participants into a MongoDB database.
- Automated QR code generation for each registered participant.
- Secure email communication to send QR codes to each student and graduate.
- Attendance tracking via QR code scanning on the day of the career fair.

This solution improves the overall experience for both staff and attendees during the event.

Technologies Used

- Frontend: HTML, CSS, JavaScript (for the user interface)
- **Backend**: Python with Flask (to handle server-side logic)
- Database: MongoDB (for storing student and graduate information and attendance records)
- **QR Code Generation**: qrcode library in Python (to generate QR codes)
- Email Sending: smtplib in Python (for sending emails with QR codes).

Usage

- 1. **Register Participants**: Staff can register students and graduates by uploading a CSV file or entering details manually through the interface.
- 2. **Add Participants**: The system allows adding up to 2,000 participants into the MongoDB database.
- 3. **Generate QR Codes**: After registration, QR codes are generated and sent to each participant via email.
- 4. **Scan Attendance**: On the day of the career fair, staff can scan the QR codes to mark attendance, which will automatically update the database with timestamps.

Attendance Tracking

In addition to scanning QR codes, the system provides an alternative method for recording attendance using the **National ID**. Here's how it functions:

- Manual Check-In: Staff can enter a student or graduate's National ID into the system.
- The system will check the database for the corresponding participant.
- If found, the staff can mark the participant as "attended," even if they did not receive their QR code. This provides flexibility in attendance tracking and ensures that all participants can be accounted for on the day of the career fair.

Author

Maya Lotfy
Logistic Volunteer, UCCD Suez University