

Guidelines and Requirements

The QR code attendance system is designed for the purpose of entering participant details in the database, creating QR codes containing the details of each participant, and marking attendance of said participant when the QR code is scanned at the reception. The code is designed to mark times of both entry and exit of the participants.

The Tables for Participant and Attendance can be queried using the program to some degree to get details about the following information

- Viewing the full attendance table
- Viewing the full participant table

Any specific information about participants can not be accessed through this program and will have to be queried separately.

How the program works

The program is in a .py format, meaning it is a python file and not an executable file. Thus you will have to use the command prompt to access the program. Follow the steps below to start marking Participants' attendance with ease.

- Open Command Prompt or Windows Powershell in administrator mode
- Open the correct directory where the file is present
 - To do this, just open File explorer, find the file in your disk and copy the location (Path) of the file
 - Type "cd" in CMD or Windows Powershell, give one space and paste the file Path you just copied and hit enter

- Type “python Automated_attendance.py” in CMD or windows powershell and hit enter
- Once the program is running you will be given a choice between “1. Mark Attendance” and “2. Admin Login”.
- Type “1” and enter to mark attendance
- A camera will open after you enter “1” on your desktop that will be pointed towards the participant in front of the desk.
- Prompt them to put their QR code closer to the camera, (Make sure that the full QR code is visible in the camera, use the camera screen on your desktop to direct the participants to do so)
- Once the program identifies the QR code and scans it, it will open an image of the participant that is stored in our database (This step is just for verification)
- Compare the picture on your desktop and the participant in front of the desk to make sure that the participant card belongs to them or not.
- If they match, just hit Enter again in CMD or windows powershell and the attendance will be marked.
- If they do not match hit “CTRL+C” to delete the entry and call either Sir Humayun or any other admin member.

Requirements

There will be 3 laptops in the reception area, thus each laptop needs to have the following installed.

- Folder containing the images of all participants
- Automated_attendance.py needs to be installed (Both need to be in same directory)
- Python latest version
- PIP latest version
- Getpass library
- Tqdm library
- Pyzbar library
- Pyqrcode library
- Opencv-python library
- Datetime library
- Mysql.connector library
- Numpy library
- Pillow library
- Mysql.connector
- Colorama library
- Webcam or barcode scanning device

To install all the libraries, we first need to install python and pip. Once these two are installed we can just enter `pip install "library Name"`.