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STUDENT ATTEDENCE SYSTEM

BASED ON QR CODE SCANNER

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CONTENT

INTRODUCTION

The most common difficulty that every teacher faces in the classroom is taking attendance of the students one by one in each and every class.

For the time being many automated systems have been proposed for taking student attendance

So here we had made a

Student Attendance System that is based on QR Code Scanner

Advantages

- Time-Saving For Your Workforce.
- Increased Efficiency and Capability.
- Cost Cutting And Saves Money.
- Automated Time Tracking.
- Easy To Manage Records.

PROBLEM STATEMENT

Student attendance is taken manually through the use of attendance sheets issued by department heads as part of the legislation in most learning institutions.

This approach is slow, time-consuming, and inconsistent as some students often sign up for their missing colleagues.
It also makes it difficult to track the attendance of individual students in a large classroom setting.

Objective:

In our work, we propose the design and implementation of a QR detection and detect students attending a lecture in the classroom and recognize their attendance by recognizing their Collage IDs.

LITERATURE SURVEY

	Publisher	Author	Methodology	Advantage
1.	Research Gate	Fadi Almasalha	The Server Module generates an encrypted QR code with specific information to scan and record the attendence of the User	Easy to use and user friendly, saves time and security is high

LITERATURE SURVEY

2.

Publisher	Author	Methodology	Advantage
IPCET-17 (2017)	Visar Sheha	Using HAAR classifier & computer vision algorithm to implement Face Recognition	Achieve the goal of analyzing each method has overall system capacity throughput as well as accuracy

Problem	The Recognization rate is only 56%, having a problem to recognize student in year 3 or 4

LITERATURE SURVEY

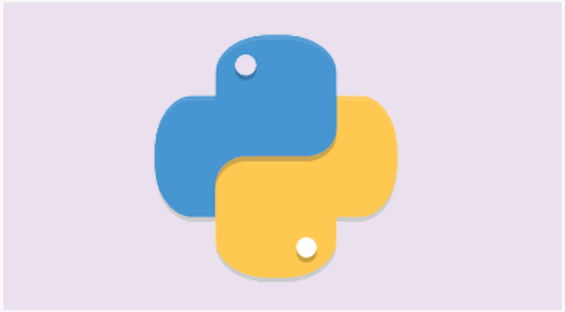
	Publisher	Author	Methodology	Advantage
3.	SSRN	Arpankumar Patel	used API to generate QR codes in our project. All the data is stored in the MYSQL database	The system would be maintainable to a reasonable extent since there are not many hardware devices. The system is solely based on internet connectivity, and the database has to be maintained

LITERATURE SURVEY

	Publisher	Author	Methodology	Advantage
4.	Researchgate (2020)	Partha Chakraborty	Used PCA algorithm for face recognition, EmguCV Library to process images	Replaces the manual system with a simple, reliable, a cost-effective, time-saving automated system as it eliminates the stationary material and paperwork.

PROPOSED METHODOLOGY

Python Tkinter for GUI



Open CV for Camera

CSV to store data

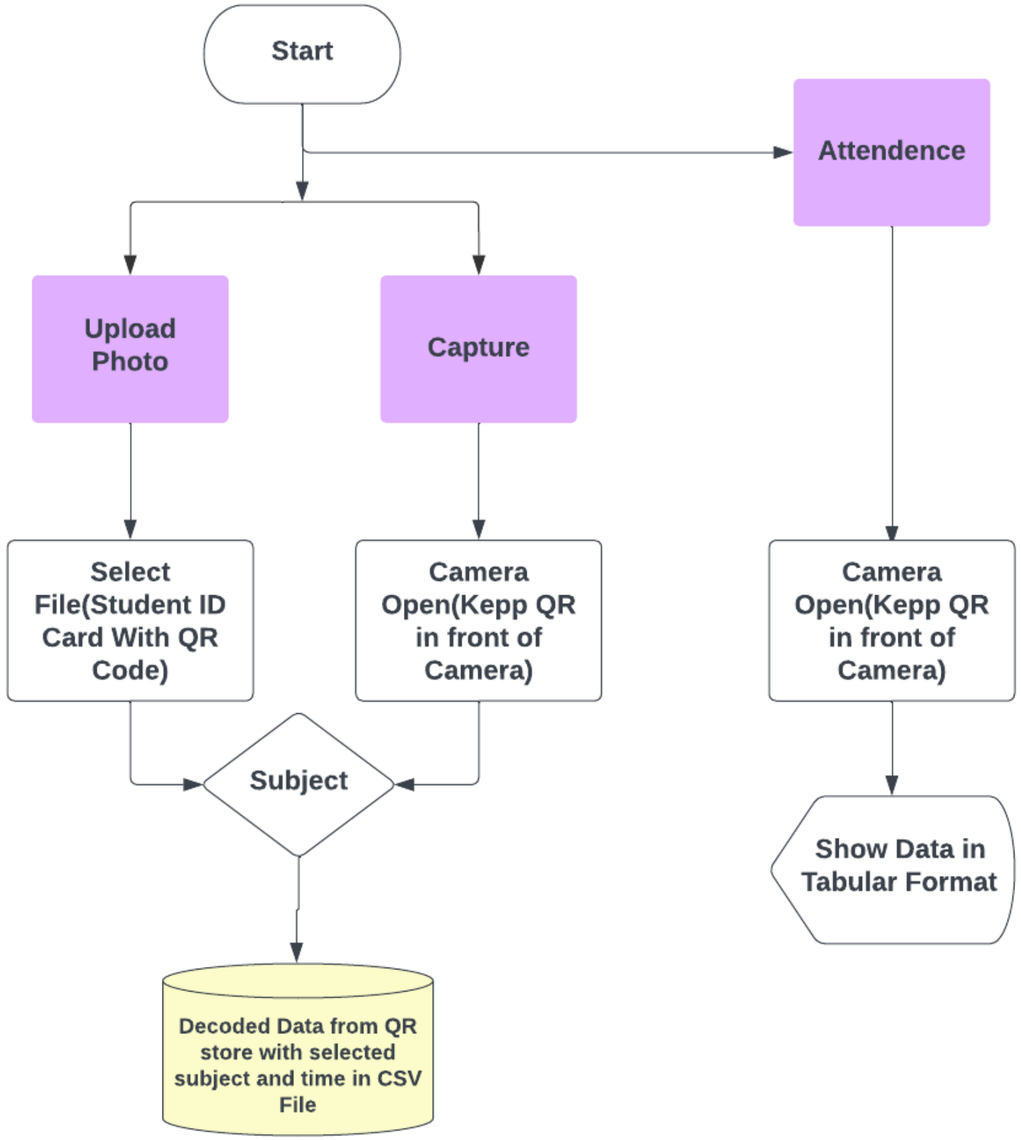
PyZbar for QR Scan

DESIGN AND IMPLEMENTATION

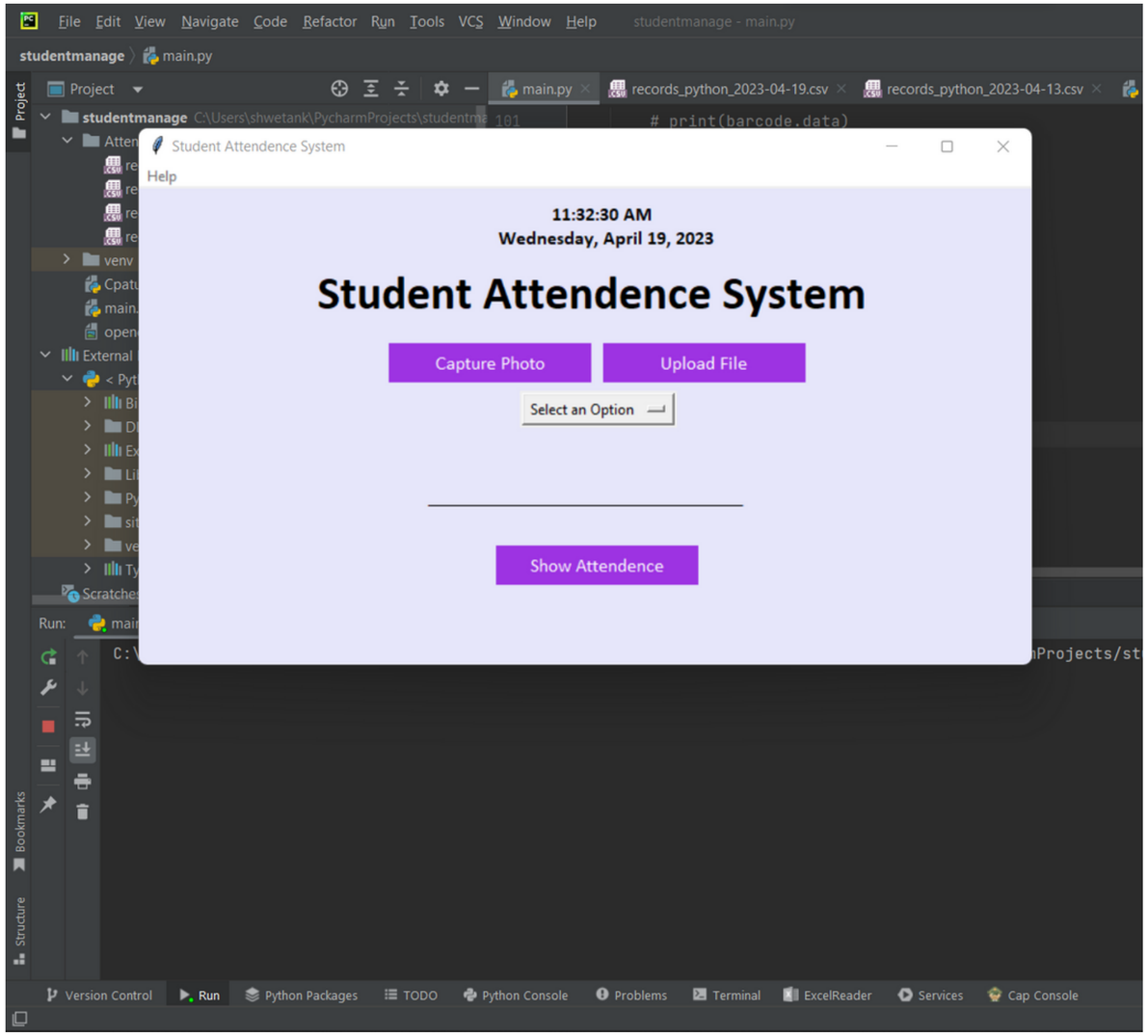
Hardware:

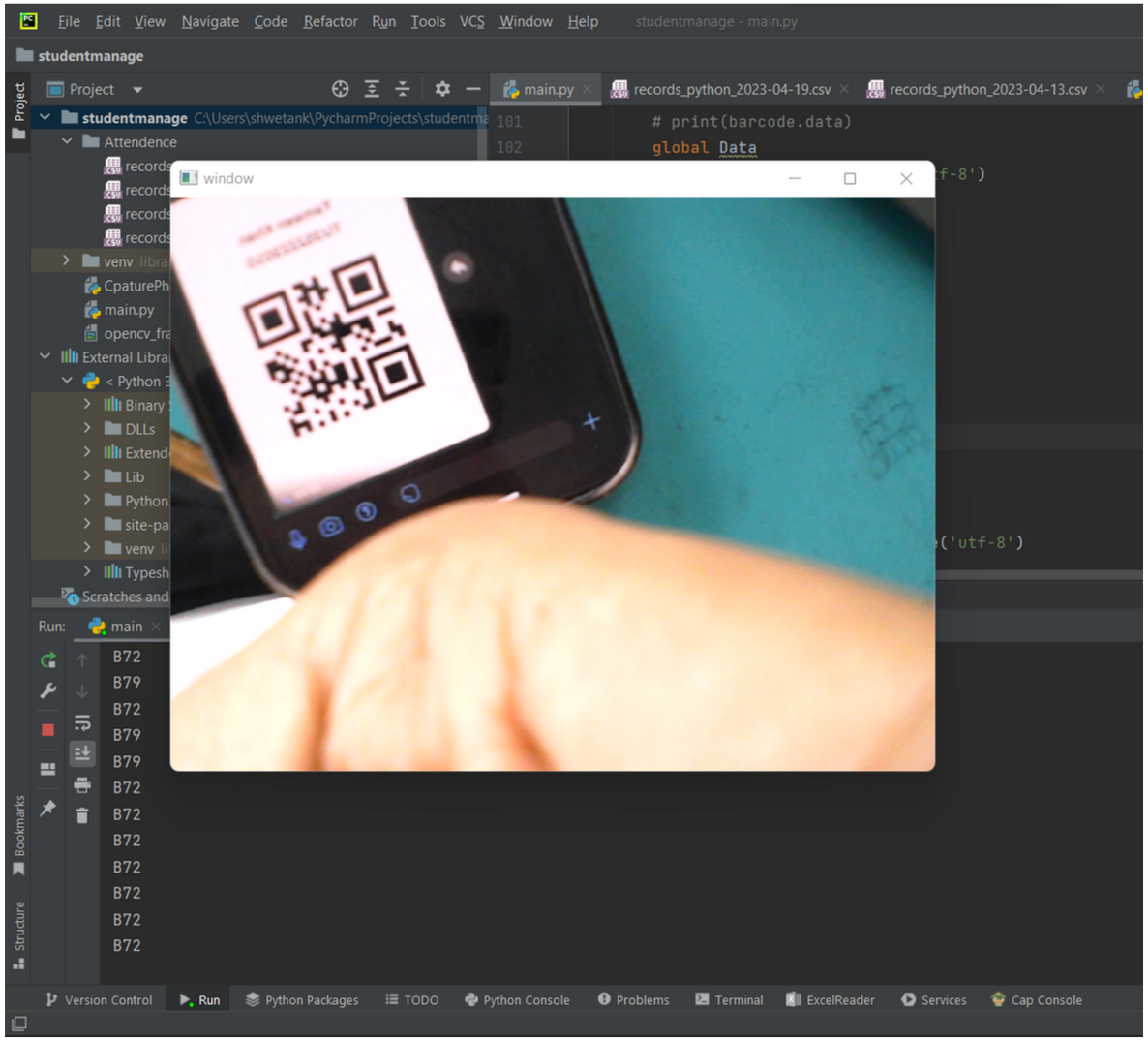
- PC or Laptop Windows 7 or Higher
- 13 Processor or Higher
- Web Cam or High Quality Inbuild Camera

FLOWCHART

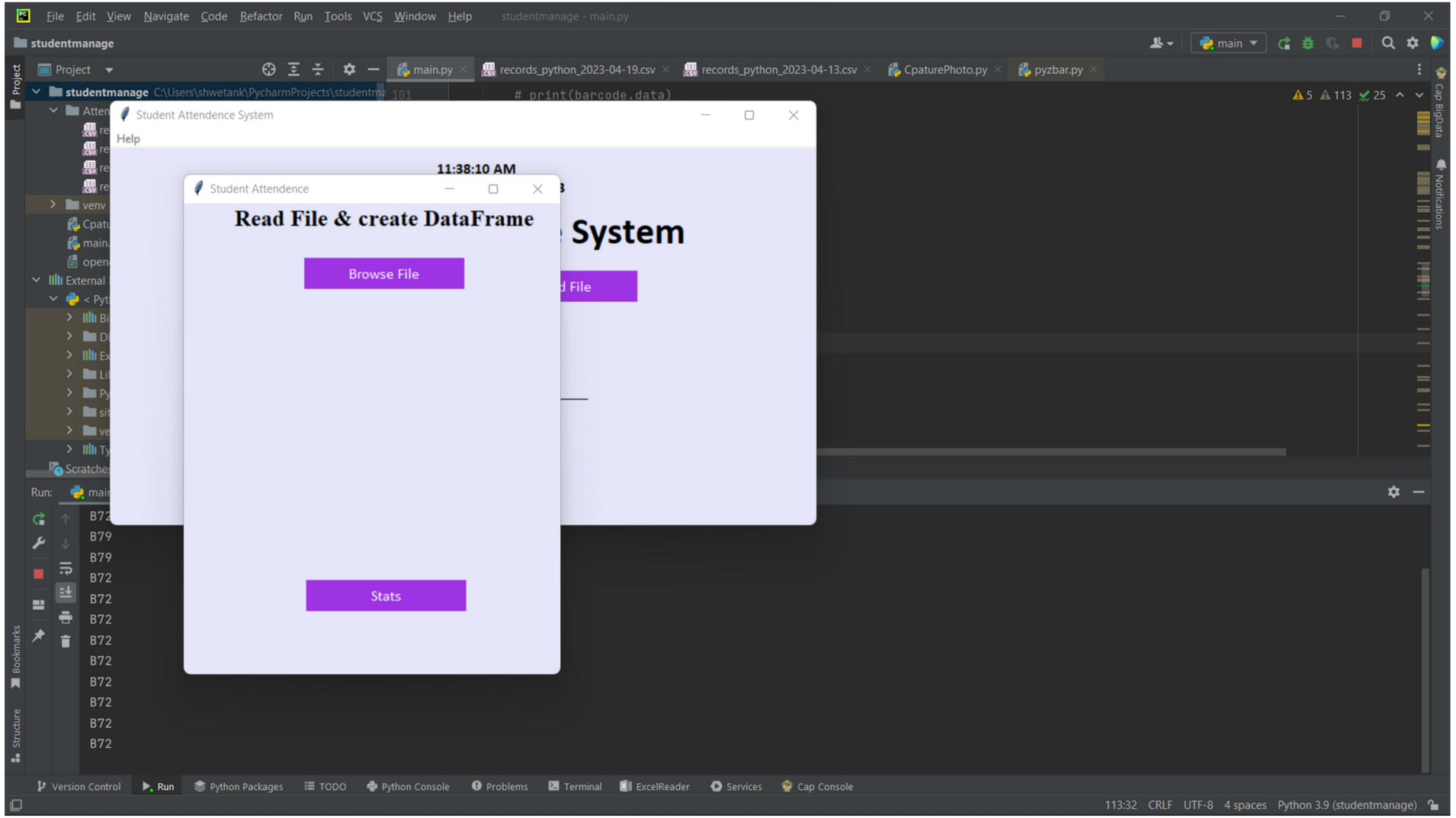

Start
Attendence
Upload Photo
Capture
Select File(Student ID Card With QR Code)
Camera Open(Kepp QR in front of Camera)
Camera Open(Kepp QR in front of Camera)
Subject
Show Data in Tabular Format
Decoded Data from QR store with selected subject and time in CSV File

RESULT

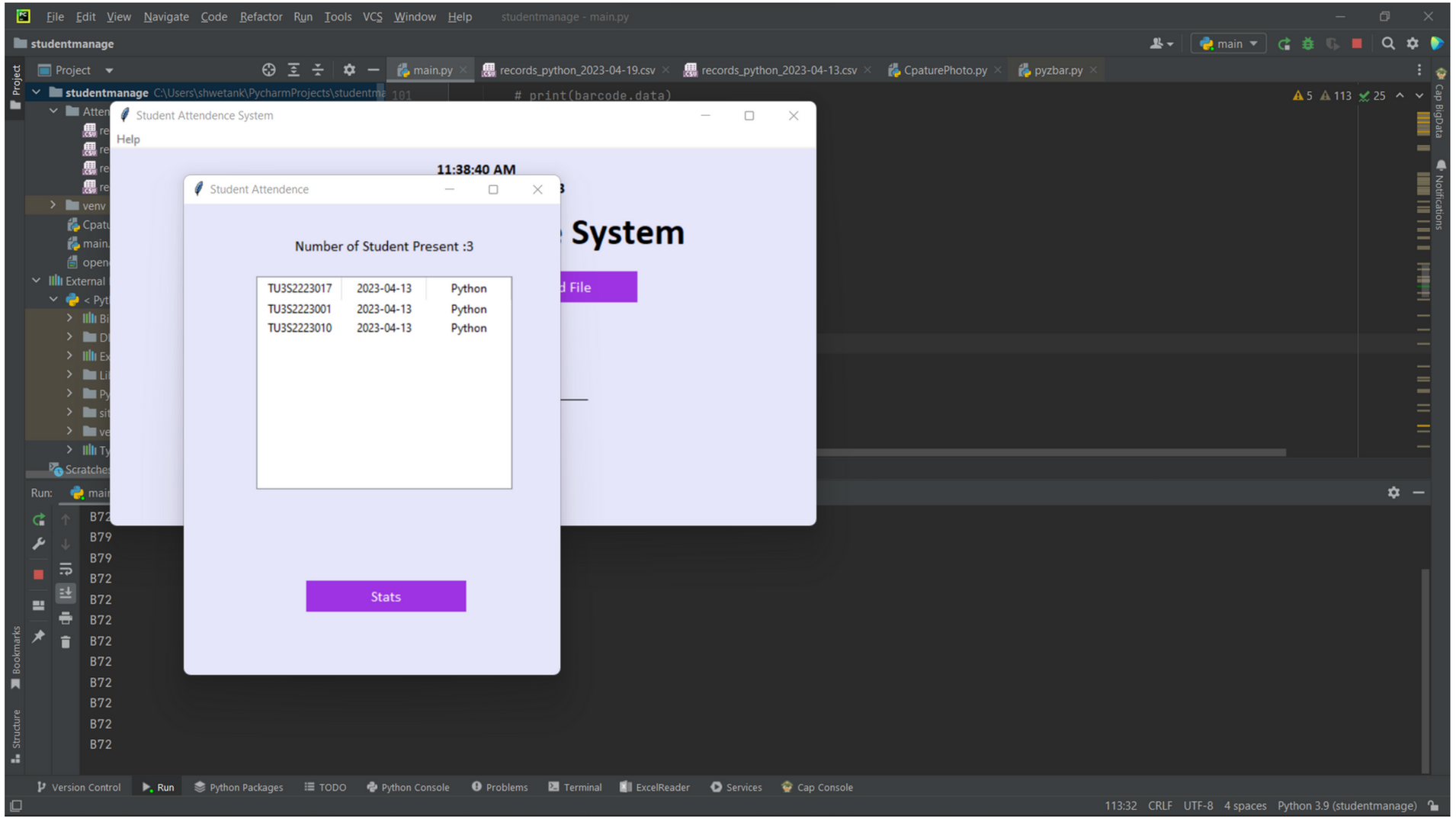

Student Attendence System
Help
11:32:30 AM
Wednesday, April 19, 2023
Student Attendence System
Capture Photo
Upload File
Select an Option
Show Attendence


window

RESULT


Student Attendence System
Help
11:38:10 AM
System
File
Student Attendence
Read File & create DataFrame
Browse File
Stats

RESULT


Student Attendence System
Help
11:38:40 AM
System
File
Student Attendence
Number of Student Present :3
TU3S2223017 2023-04-13 Python
TU3S2223001 2023-04-13 Python
TU3S2223010 2023-04-13 Python
Stats

CONCLUSION

A program has been suggested to ensure attendance. This replaces the manual system with a simple, reliable, cost-effective, time-saving automated system as it eliminates the stationary material and paper work

FUTURE WORK

- Data will be stored Online using Server to make it easy to handle data more efficiently
- This system is manual, in the future, we will try to make it automatic
- We will add the function to calculate the Defaulter list of the student

REFERENCE

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THANK YOU!