Final Project Report

Course: COMP 1112 – Python Programming

Project Title: Automated Attendance Report Generator

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Group: Solo

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# 1. What This Project Is

For this project, I built a small Python tool that reads a student attendance CSV file and then gives me a neat summary of how many days each person was present or absent. It’s simple but super helpful if you have to keep checking attendance records manually. This way, the program just does it for you.

# 2. Why I Made This

Manually checking and counting who came to class each day takes time and it's easy to make mistakes. So I made a basic script that goes through the attendance list for me and gives me the final count automatically.

# 3. What Data I Used

I used a CSV file named attendance.csv which has three columns: Student Name, Date, and Status (either Present or Absent). The data is made-up just to show how the program works.

# 4. Tools I Used

- Python 3 (basic stuff)  
- csv module (already part of Python)  
- Loops, dictionaries, and if statements

# 5. Screenshot Notes

After running the script, it prints the summary in the terminal and also creates a new CSV file. You can take screenshots of both and paste them here if needed.

# 6. How It Works (In My Words)

So first I opened the file and read all the rows using csv.DictReader. Then I used a dictionary to store each student's name and how many times they were marked Present or Absent. At the end, I wrote that summary into a new file using DictWriter, and also printed it out so I could see it quickly.

# 7. What Was Hard

At first I thought about using pandas, but then I realized we didn’t use it in class so I went with plain Python using the csv module. I also had to figure out how to group the data right and make sure the counts didn’t mess up, but once I figured out how to use dictionaries properly it worked fine.

# 8. Who Did What

This was a solo project so I did everything myself.

# 9. Final Thoughts

This project was honestly a good way to put together everything we learned in class. It showed me how real automation can help save time with even small tasks like checking attendance.