Can you process and automate simple tasks?

Some parts of this task were new to me, such as reading a CSV file in C++, extracting data from it, and filtering overdue tasks based on dates. Since I had no prior experience with these, I took help from ChatGPT to understand the correct approach.Through this, I became familiar with character-based parsing, which allowed me to extract and process data efficiently without using additional libraries.

Similarly, in Google Apps Script, I learned how to access and manipulate Google Sheets data programmatically. With AI assistance, I was able to implement automation for both CSV-based and Google Sheets-based task management.

Did you choose an easy-to-maintain method?

I tried to use only the essential libraries to keep the code simple and easy to maintain. Some libraries, such as `ctime`, were new to me, and ChatGPT guided me on how to convert a string date into a format that allows comparison, which helped in identifying overdue tasks. It also helped me ensure that my approach was structured and easy to modify if needed. ChatGPT suggested a manual approach for splitting CSV fields and handling dates, which made the code more portable and reduces dependencies on further libraries.

In Google Apps Script, I ensured flexibility by dynamically detecting column headers rather than hardcoding indices. This approach ensures that if columns move or new ones are added, the script remains functional. ChatGPT helped me refine my approach by suggesting ways to avoid hardcoded values and improve maintainability.

Is the solution clean and structured?

I have tried to make the code as clean as possible by creating separate functions for each subtask, making it more readable and understandable. Functions like `parseDate()` and `isOverdue()` help in handling date parsing and overdue task checks separately, improving code structure.

In Google Apps Script, meaningful variable names are used, structured error handling with try-catch, and logged errors to help with debugging. ChatGPT guided me on best practices, such as checking for missing sheets before accessing them and ensuring correct date formatting. This made the code more reliable and easier to maintain.

Does it manage missing data and simple failures?

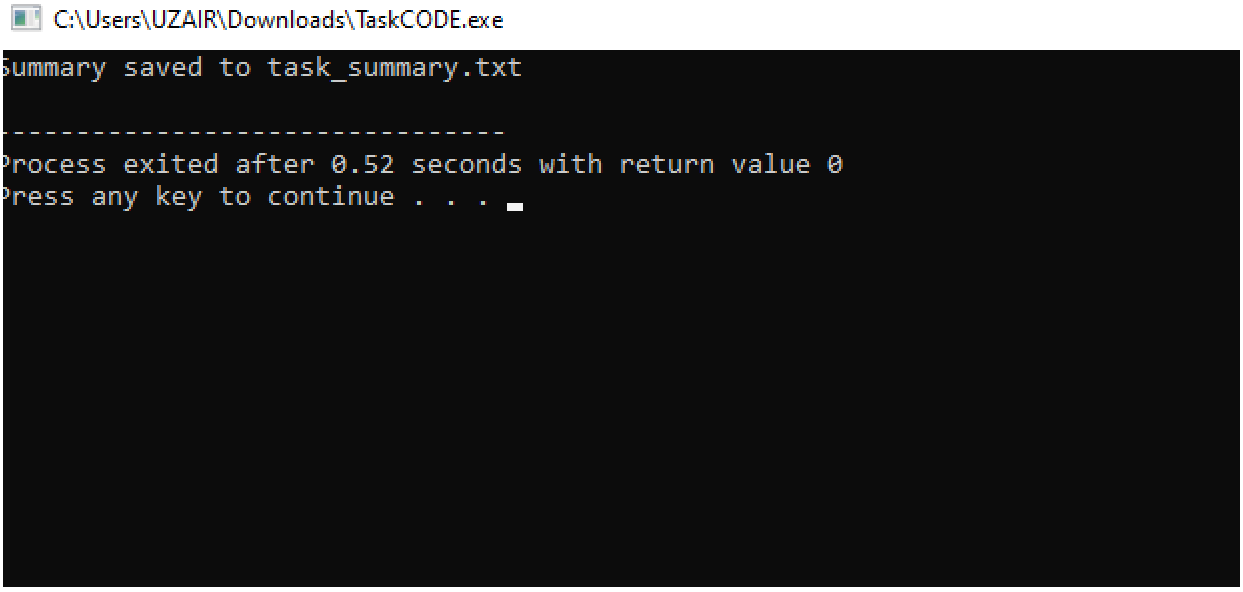
Yes, the program includes error-handling mechanisms to ensure smooth execution. It checks if the CSV file exists before attempting to read it and verifies that the output file is successfully created. Additionally, it validates the date format and skips malformed entries where fields are missing or incorrectly formatted, preventing crashes due to incomplete data. Initially, I overlooked some error-handling cases ChatGPT helped me identify these gaps and suggested adding error messages to make debugging easier. It also guided me in structuring checks for missing data to ensure the program runs reliably even with incomplete or incorrect inputs.

In Google Apps Script, there’s a check if required sheets exist before accessing them, it log errors if columns are missing, and ensure the script does not attempt to write empty data if no pending tasks are found. Additionally, a try-catch block ensures that any unexpected errors are logged instead of causing the script to fail silently.

Is there a README explaining your approach?

Yes, the README provides a detailed explanation of my approach. It explains how I handled two key tasks.

Screenshot of the task summary file getting saved in desktop



```
Summary saved to task_summary.txt

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Process exited after 0.52 seconds with return value 0
Press any key to continue . . .
```
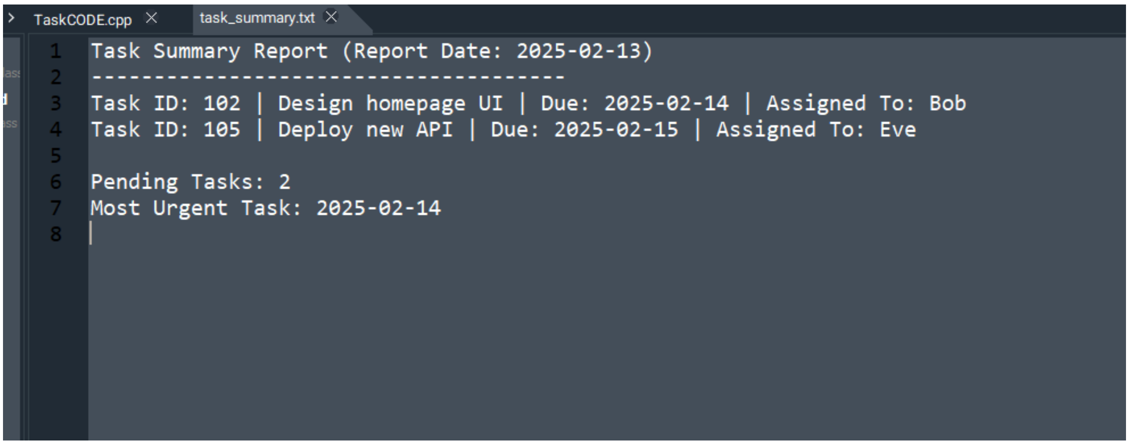
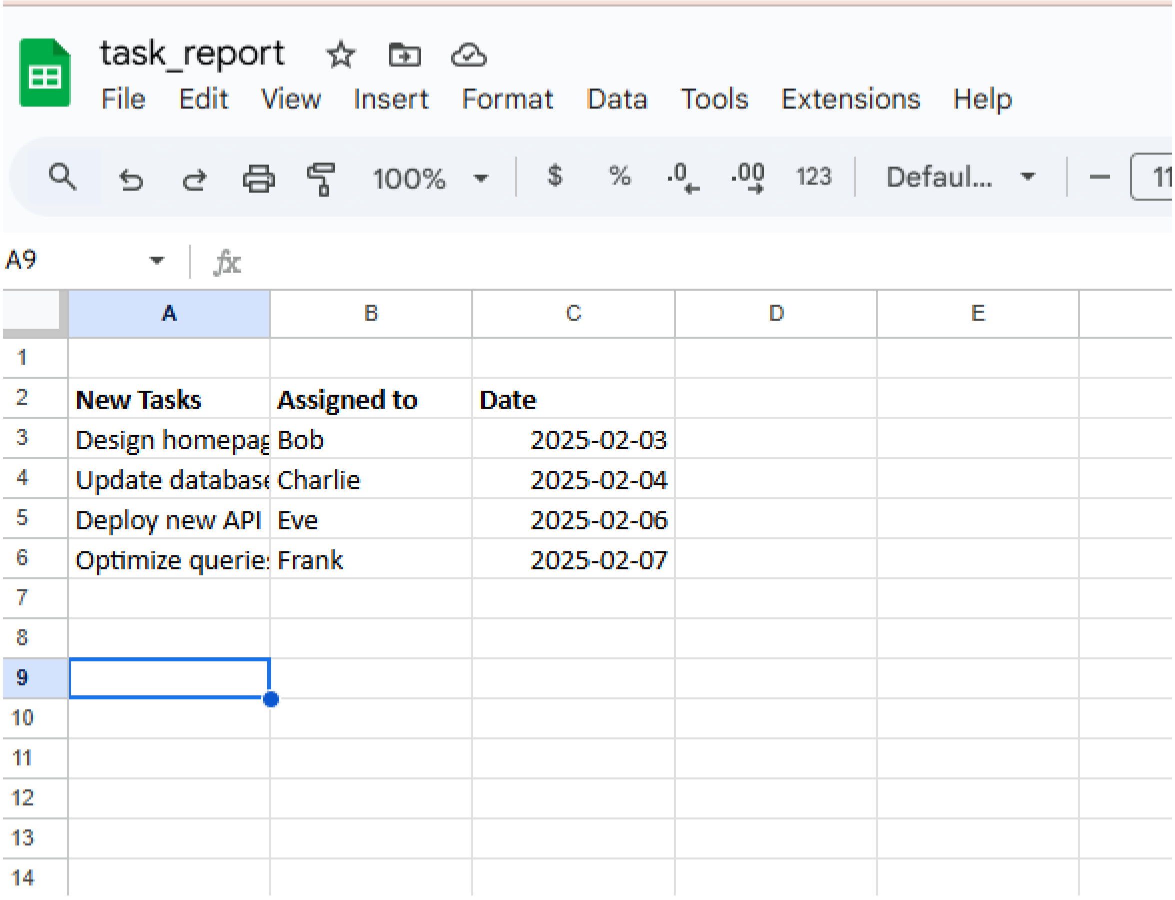
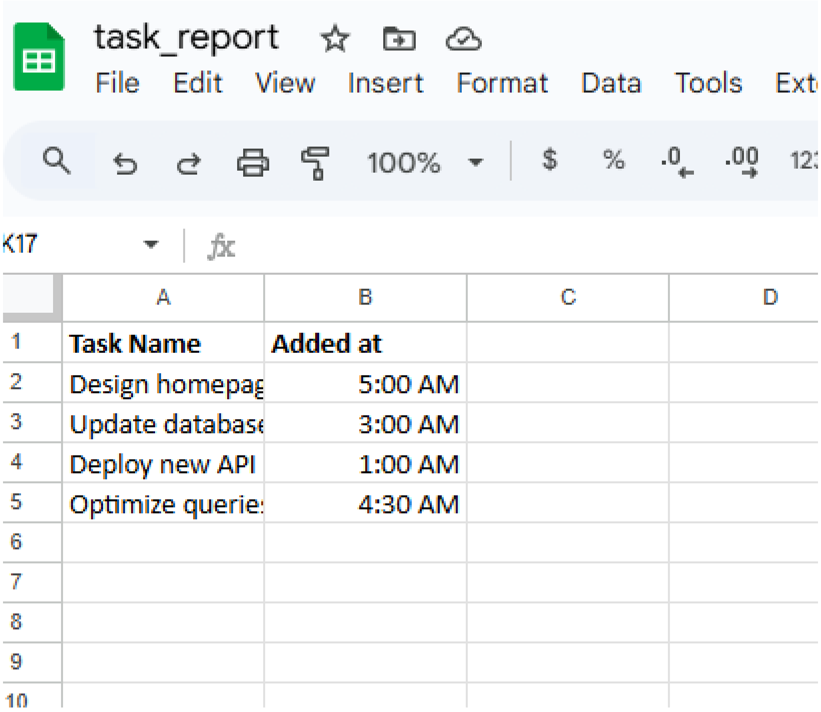



```
Task Summary Report (Report Date: 2025-02-13)
--------------------------------------
Task ID: 102 | Design homepage UI | Due: 2025-02-14 | Assigned To: Bob
Task ID: 105 | Deploy new API | Due: 2025-02-15 | Assigned To: Eve

Pending Tasks: 2
Most Urgent Task: 2025-02-14

```

Screenshot of the Task Board sheet and the logs sheet



New Tasks	Assigned to	Date
Design homepag	Bob	2025-02-03
Update databas	Charlie	2025-02-04
Deploy new API	Eve	2025-02-06
Optimize querie	Frank	2025-02-07



Task Name	Added at
Design homepag	5:00 AM
Update databas	3:00 AM
Deploy new API	1:00 AM
Optimize querie	4:30 AM