ChatGPT

Exam Scheduler and Study Tracker

A Python desktop application to help students organize exams and monitor study sessions efficiently.

Table of Contents

Overview

Exam Scheduler and Study Tracker is a Python desktop application designed to help students manage exam schedules and track study sessions. It provides a graphical interface (built with Python's standard `tkinter` library [1]) for entering exam details (subject, date, difficulty) and computes a priority for each exam. The app can save exam data to a CSV file, ensuring persistence between sessions. In addition, the suite includes tools for real-time clock display and study session timing, both with a GUI interface. These features support better time management and planning—important for exam preparation [2]. This application aims to support those needs.

Key features:

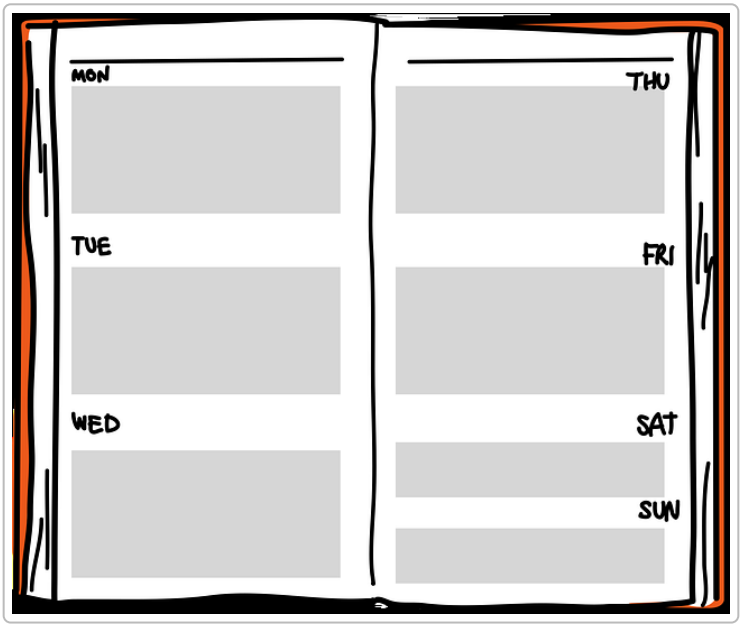
- **Exam Scheduler** – Add, view, and sort upcoming exams by subject, date, and difficulty. Exams are saved to a CSV file, and a priority score (based on deadline and difficulty) is calculated automatically.
- **Time Zone Clock & Study Timer (`clockapp.py`)** – Displays the current date/time (user-selectable timezone) and lets you start/stop study sessions, recording the duration.
- **Study Session Summary (`studytime.py`)** – Shows a log of past study sessions (dates and durations) from the persisted `studytime.csv` file.
- **Subject Selection (`Subject_selection.py`)** – GUI tool to choose up to 6 subjects of interest, which are saved to `selected_subjects.csv`. The main scheduler uses this file to populate its subject dropdown.

Setup and Requirements

This application requires **Python 3.8 or newer**. (Python 3.13 is the latest feature release of Python as of 2024 [3].) It uses only the Python standard library, including `tkinter` for the GUI [1] and the built-in `csv` module for data storage [4] [5]. No external packages are needed by default (though installing `pytz` or using `zoneinfo` can enhance timezone support). Ensure that Python (with Tk support) is installed on your system. The app is cross-platform and should work on Windows, macOS, or Linux.

Usage

Exam Scheduler



The **Exam Scheduler** (`main_app.py`) is the primary interface. To run it, use the command line:

```
python main_app.py
```

In the GUI, select a subject (loaded from `selected_subjects.csv`), pick the exam date, and set a difficulty level. When you add an exam, it appears in the list and is saved to `exams.csv`. Exams are automatically sorted by priority (soonest and hardest first). You can also edit or remove entries as needed.

Clock App

The **Clock App** (`clockapp.py`) shows the current date and time and lets you track study sessions. Launch it with:

```
python clockapp.py
```

In the interface, choose a timezone if needed. Use the **Start/Stop** buttons to record a study session. Each time you end a session, its start time, end time, and duration (in minutes) are appended to `studytime.csv` for later review.

Study Time

The **Study Time** script (`studytime.py`) reads the `studytime.csv` file and displays a summary of all recorded study sessions. Run it with:

```
python studytime.py
```

It will list dates and total study time, helping you reflect on your study habits over time.

Subject Selection

The **Subject Selection** tool (`Subject_selection.py`) lets you define which subjects to track. Run it with:

```
python "Subject Selection.py"
```

Pick up to 6 subjects from the provided lists and click **Save**. The chosen subjects are written to `selected_subjects.csv`. The Exam Scheduler will then use this file to populate its subject dropdown list.

File Structure

The project files are organized as follows:

- `main_app.py` – Main exam scheduling GUI application.
- `clockapp.py` – Date/time display and study session timer app.
- `studytime.py` – Tool to view a summary of past study sessions.
- `Subject_selection.py` – GUI for selecting subjects to track.
- `selected_subjects.csv` – Stores the list of chosen subjects (one per line).
- `studytime.csv` – Logs each study session's date, start/end time, and duration.
- `exams.csv` – (Generated) file storing the exams you've added (subject, date, difficulty, priority).
- `README.md` – This file.

CSV Format

The application uses CSV files to store data. The formats are:

- **`selected_subjects.csv`:** Each line contains one subject name (no header). Example: `Mathematics`.
- **`exams.csv`:** Each row has `subject,date,difficulty,priority`. For example: `Biology,2024-05-20,2,1`.
- **`studytime.csv`:** Each row has `date,start_time,end_time,duration_minutes`. For example: `2024-03-15,14:00,15:30,90`.

License

This project is distributed under the **MIT License** [6]. See the LICENSE file for details.

Credits

Developed by the project author as a student productivity tool. It uses Python's standard libraries (Tkinter for the GUI [1] and the CSV module for data handling [4]). Contributions and improvements are welcome!

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[1] **tkinter — Python interface to Tcl/Tk — Python 3.13.3 documentation**
https://docs.python.org/3/library/tkinter.html

[2] **Guidelines for Creating a Study Schedule – Learning Strategies Center**
https://lsc.cornell.edu/how-to-study/studying-for-and-taking-exams/guidelines-for-creating-a-study-schedule/

[3] **Python Release Python 3.11.11 | Python.org**
https://www.python.org/downloads/release/python-31111/

[4] [5] **csv — CSV File Reading and Writing — Python 3.13.3 documentation**
https://docs.python.org/3/library/csv.html

[6] **MIT License**
https://mit-license.org/