

Mandatory assignment 2

ACIT4420

Mayen E Wernersen

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Chapter 1

Introduction

In this assignment, we were tasked with making a Python package named `study_reminders`. The assignment provides some ready-made snippets of code that can be used as is or modified, and then implemented these in a `main.py` file to develop the automated process. Task requirements are creating modular components to manage student information, generate reminders, simulate delivery, log operations, and schedule automated reminders. (Bhandari, 2025)

To start I copied and pasted all the provided code into VS-code, then creating a main file.

Chapter 2

Methods

I started by copying and pasting the provided python code into Visual Studio Code cleaning up, and then creating a main file to integrate all the modules for the automation process.

To start, I knew I wanted all the functions, including adding and removing new students.

I have mostly worked in main.py for this project. The main part which is the automatic study reminders runs in the background of the program while it presents you with a menu of choices you can execute. The menu as shown bellow in 2.1 gives you 5 different choices, closing the program, listing student, adding student, removing student and pushing all reminders regardless of their preferred timing. Te different options as you cansee bellow points to functions that are placed higher in the code. there each execute the even as described in their labeling.

```

# Menu options
options = {
    0: exit_option,
    1: list_students_option,
    2: add_student_option,
    3: remove_student_option,
    4: send_reminders_option
}

while True:

    # Print menu
    print("\nMenu:")
    print("0. Exit")
    print("1. List all students")
    print("2. Add a student")
    print("3. Remove a student")
    print("4. Send all reminders now")

```

Figure 2.1: Code of menu

Folder setup

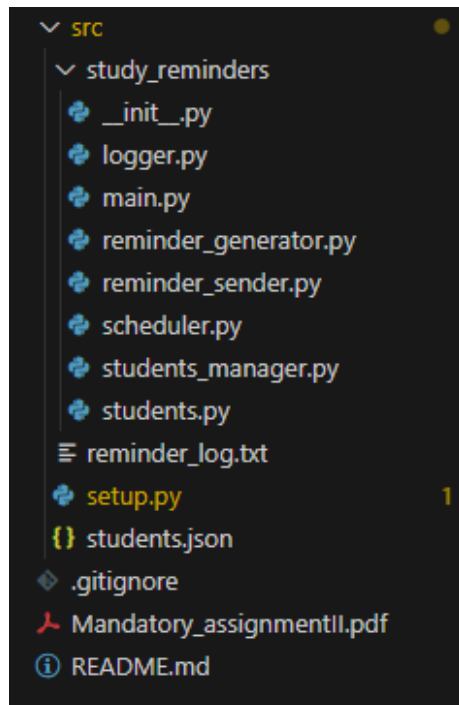


Figure 2.2: File managment

Setup was created by the help of one of the examples shown in one of the labs in our course.

```
from setuptools import setup, find_packages

# Used example provided in lab ModulesANDpackages.ipynb
setup(
    name="study_reminders",
    version="0.1",
    packages=find_packages(include=["study_reminders", "study_reminders.*"]),
    include_package_data=True,
    description="A package managing student study reminders",
    author="Mayen E",
    author_email="maywer2001@gmail.com",
    install_requires=['schedule'],
    entry_points={
        "console_scripts": [
            "study-reminder=study_reminders.main:main"
        ]
    }
)
```

Figure 2.3: Setup

Chapter 3

Results

The menu is the first thing the user see, as well as an informational note above it that informs about the automated scheduler running in the background.

```
Menu:
0. Exit
1. List all students
2. Add a student
3. Remove a student
4. Send all reminders now
Choose an option (0-4): █
```

Figure 3.1: Interface Menu in Terminal

When one is chosen, a list of the students will be presented. And bellow it, the menu will show once more with its options.

```
=== Student Information List ===
Total students: 13
-----
Name: Alice Johnson
Email: alijoh@student.oslomet.no
Course: ACIT4420 - Problem Solving and Scripting
Preferred Time: 08:00

Name: Bob Smith
Email: bobsmi@student.oslomet.no
Course: ACIT4420 - Problem Solving and Scripting
Preferred Time: 10:00

Name: Carol Williams
Email: carwill@student.oslomet.no
Course: ACIT4420 - Problem Solving and Scripting
Preferred Time: 14:00
```

Figure 3.2: Snippit of listed students

When two is pressed, you will be presented with one input at a time, where info is inputted before the next input is presented

```
Adding a new student...
Enter student's name: name
Enter student's email: name@name.no
Enter student's course: programing python 101
Enter preferred reminder time: 08:00
Student name added successfully.
```

Figure 3.3: Added new student

Option three, remove student, starts by presenting a list of students

```
Choose an option (0-4): 3

=== Remove a Student ===
Current students:
1. Alice Johnson (alijoh@student.oslomet.no)
2. Bob Smith (bobsmi@student.oslomet.no)
3. Carol Williams (carwill@student.oslomet.no)
4. David Brown (davbro@student.oslomet.no)
5. Emma Davis (emmviz@student.oslomet.no)
6. Erlend Myrli (erlmyr@sample.no)
7. jorgen Matsen (jormat@sample.no)
8. Witney justine (witjus@samle.no)
9. hauk Monsen (haumon@sample.no)
10. karl konrd (karkon@gmail.com)
11. hakon (hakon@hakon.no)
12. gan (gan@gan.no)
13. Mika Liam (liam@liam.no)
14. name (name@name.no)

Enter student's name to remove: Alice Johnson
=== Remove Student Complete ===
```

Figure 3.4: Removed student Alice

Option four pushes a reminder to all students immediately, regardless of when their preferred time is and confirmations of their sending are shown in the terminal.

```
Sending reminder to bobsmi@student.oslomet.no: Hi Bob Smith, remember to review ACIT4420 - Problem Solving and Scripting materials before the deadline!
Sending reminder to carwill@student.oslomet.no: Hi Carol Williams, remember to review ACIT4420 - Problem Solving and Scripting materials before the deadline!
Sending reminder to davbro@student.oslomet.no: Hi David Brown, remember to review ACIT4420 - Problem Solving and Scripting materials before the deadline!
Sending reminder to emmviz@student.oslomet.no: Hi Emma Davis, remember to review ACIT4420 - Problem Solving and Scripting materials before the deadline!
Sending reminder to erlmyr@sample.no: Hi Erlend Myrli, remember to review Tysk materials before the deadline!
Sending reminder to jormat@sample.no: Hi jorgen Matsen, remember to review History of kamras materials before the deadline!
Sending reminder to witjus@samle.no: Hi Witney justine, remember to review Political sciences materials before the deadline!
Sending reminder to haumon@sample.no: Hi hauk Monsen, remember to review logistics materials before the deadline!
Sending reminder to karkon@gmail.com: Hi karl konrd, remember to review Kongelig Historie materials before the deadline!
Sending reminder to hakon@hakon.no: Hi hakon, remember to review statistics materials before the deadline!
Sending reminder to gan@gan.no: Hi gan, remember to review tec101 materials before the deadline!
Sending reminder to liam@liam.no: Hi Mika Liam, remember to review biology materials before the deadline!
Sending reminder to name@name.no: Hi name, remember to review programing python 101 materials before the deadline!
All reminders sent.
```

Figure 3.5: Confirmation of all reminders sent to students

Chapter 4

Discussion

I did have a little bit of trouble with the automatic reminder. It does not register newly added students while the program is running, and you would have to restart the program for the automatic reminder of a new student to be sent.

I also do not have a lot of experience using Python, and I have used AI in this assignment. Where and how it has been used is disclosed in chapter 5 disclosure at the bottom.

I also had quite a bitt of trouble running the package as a package, but I figured out it wasn't registering scedual and it had to be run in a virtual environment.

Chapter 5

AI Usage Disclosure

Initial content in Students.JSON was generated using Copilot AI

os.path

In students_manager The path wasn't working so I asked Copilot for suggestions

```
"""Class to manage student data with JSON storage."""
# Path to the JSON file wasn't working Copilot AI suggested the use of os.path to fix it
def __init__(self, file_path="students.json"):
    base_dir = os.path.dirname(os.path.dirname(__file__)) # goes up to src/
    self.file_path = os.path.join(base_dir, "students.json")
    self.students = self.load_students()
```

Figure 5.1: os.path fix for locating JSON file

Same problem occurred in logger, and I asked Copilot for a solution

```
# original path wasn't working so used os.path to fix it - suggested by Copilot
current_dir = os.path.dirname(os.path.dirname(os.path.abspath(__file__)))
log_file_path = os.path.join(current_dir, "reminder_log.txt")
```

Figure 5.2: os.path fix to find reminder_log.txt file

main

At the start of the project, I asked ChatGPT for a suggested outline of the project and potential ways to make main

I asked Copilot how to make global components in Python, and from there, using that knowledge to create a global manager for loading students

```
# Load students
global manager
manager = StudentsManager()
```

Figure 5.3: Global Manager

Bibliography

Bhandari, S. (2025, September 26). Assignment II: Files i/o, modules, and packages. Retrieved October 16, 2025, from <https://oslomet.instructure.com/courses/31966/assignments/108793>