Students:

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11.8 "Save" menu option

We hope that by now you realize the importance of storing and retrieving data. It will help you resume your work from where you left without hardcoding those values. We will now add options that will let you store your tasks into a file and read them back into your task manager.

You need to complete the function save_tasks_to_csv() as defined below. You may refer to your save_temperature_statistics() function from LA 10.9. Both of these functions perform similar activity. The major change is in the data written in each line of the csv file.

To implement this function, we need to use import csv in our tasks_functions.py file. The function then uses the csv writer object to write this list as a line into the filename file.

```
def save tasks to csv(tasks list, filename):
    param: tasks list - The list of the tasks stored as
dictionaries
    param: filename (str) - A string that ends with '.csv' which
represents
               the name of the file to which to save the tasks.
This file will
               be created if it is not present, otherwise, it
will be overwritten.
    The function ensures that the last 4 characters of the
filename are '.csv'.
    The function requires the `import csv`.
    The function will use the `with` statement to open the file
`filename`.
    After creating a csv writer object, the function uses a `for`
    to loop over every task in the list and creates a new list
    containing only strings - this list is saved into the file by
the csv writer
    object. The order of the elements in the list is:
    * `name` field of the task dictionary
    * `info` field of the task dictionary
```

```
* `priority` field of the task as a string
(i.e, "5" or "3", NOT "Lowest" or "Medium")

* `duedate` field of the task as written as string
(i.e, "06/06/2022", NOT "June 6, 2022")

* `done` field of the task dictionary

returns:
-1 if the last 4 characters in `filename` are not '.csv'
None if we are able to successfully write into `filename`
"""
```

The portion of the **main program** code is provided below. Complete the missing parts and add them in the correct place to your task manager.

```
elif opt == 'S':
        continue action = ...
        while continue action == 'y':
            print("::: Enter the filename ending with '.csv'.")
            filename = input("> ")
            \dots = save tasks to csv(\dots, \dots) # TODO: Call the
function with appropriate inputs and capture the output
            if \dots == -1: # TODO
                print(f"WARNING: |{...}| is an invalid file
name!") # TODO
                print("::: Would you like to try again?", end="
")
                continue action = input("::: Enter 'y' to try
again.\n> ")
            else:
                print(f"Successfully stored all the tasks to |
{ . . . } | ")
  ______
```

Below are the sample interactions with the user to store tasks into a csv file. The ellipsis is **NOT** a part of the output.

```
You selected option S to > Save the data to file.

::: Enter the filename ending with '.csv'.

> my-tasks

WARNING: |my-tasks| is an invalid file name!

::: Would you like to try again? Enter 'y' to try again.

> y

::: Enter the filename ending with '.csv'.

> my-tasks.csv

Successfully stored all tasks to |my-tasks.csv|

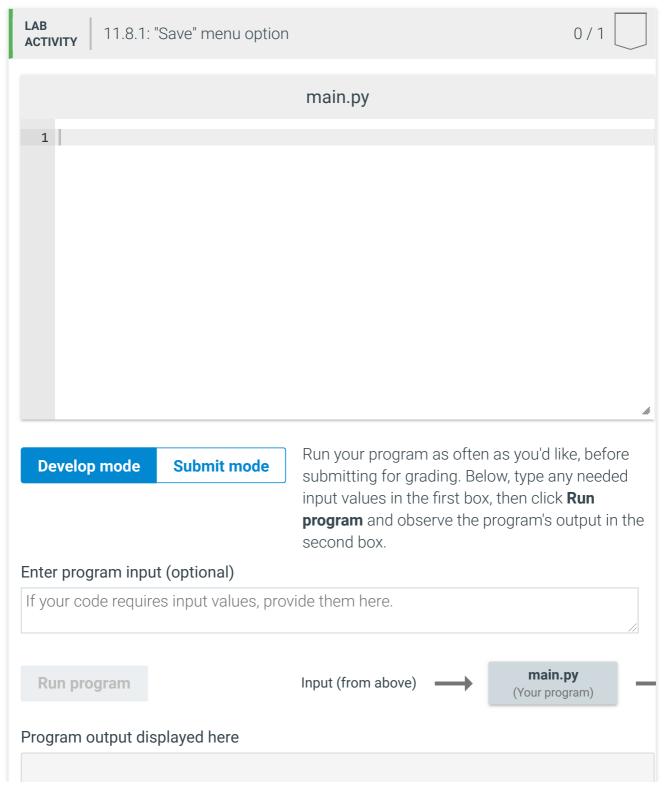
::: Press Enter to continue
```

What would you like to do?

In he first attempt, the input does not end with . csv which is why the program asked the user to try again. The second input ends with . csv, so the program writes our tasks to the provided file and shows the success message.

NOTE: This option and the next option should be compatible with each other: i.e., whatever you write to a csv file using this option, you should be able to read back using the next option and vice-versa.

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Coding trail of your work What is this?

History of your effort will appear here once you begin working on this zyLab.

Trouble with lab?