CS1400: Class Schedule Planner

Many students like to plan their class schedules to allow for the best situation to balance their school, work, and personal activities.

It’s useful to build a sample class schedule to see how it fits together with other aspects of your time commitments.

Assignment

Write a program that asks the user for a list of courses and the time when the student wants to take those courses. This should repeat as long as the student wants to add more courses.

Show the student the list of time slots with courses so that they can see them. See the sample sessions below for ideas on how you may display the information. As long as your program allows the functionality listed here, the output can be yours.

Assume the user will give a value number for a time slot.

If the user gives a new course for a time slot already used, then schedule the new course in that slot, and forget the previous course for that slot.

If the user gives an empty string for the course name, then forget the previous course for the time slot, if one existed.

Be sure to only display time slots with classes scheduled.

Hints

You are not required to use this hint. It’s your code.

You may want to use a list of strings to represent the schedule. In this list, the index numbers will be the time slot numbers, and the list values will be the course names.

Potential Sessions

Sample 1

==================================================================
Welcome to the class schedule planner.
This application will help you schedule the times for your classes next semester. Enter the class name and time slot for your desired classes.
The resulting list of courses will be displayed.
At Dixie State, there are 13 normal class start times. We will number them as follows:
1- 8:00am MWF
2- 9:00am MWF
3- 10:00am MWF
4- 11:00am MWF
5- 12:00pm MWF
6- 1:00pm MWF
7- 2:00pm MWF
8- 3:00pm MWF
9- 7:30am TR
10- 9:00am TR
11- 10:30am TR
12- 1:00pm TR
13- 2:30pm TR
Add a class:
Time slot? 13
Course Name? ART1010
Your current course list is:
13 ART1010

Add another course? (yes to continue) yes

Add a class:
Time slot? 1
Course Name? CS1410

Your current course list is:
1 CS1410
13 ART1010

Add another course? (yes to continue) yes

Add a class:
Time slot? 7
Course Name? MATH1065

Your current course list is:
1 CS1410
7 MATH1065
13 ART1010

Add another course? (yes to continue) no

Have a great semester!

Sample 2

====================================================================================================
... output cut ...
Add a class:
Time slot? 4
Course Name? ART1010

Your current course list is:
4 ART1010

Add another course? (yes to continue) yes

Add a class:
Time slot? 4
Course Name? ENGL1010

Your current course list is:
4 ENGL1010
... output cut ...
====================================================================================================

Sample 3

====================================================================================================
... output cut ...
Add a class:
Time slot? 4
Course Name? ART1010

Your current course list is:
4 ART1010

Add another course? (yes to continue) yes

Add a class:
Time slot? 4
Course Name?

Your current course list is:
Add another course? (yes to continue)

Extra Challenges

These challenges are ideas for extra features you could add to your game. They are not required for credit, but recommended for fun.

- If the user gives a time slot number that is out of range, give them a warning, don’t use that entry, and continue with the program.
- Let the user tell your program how many time slots there are.

Show Off Your Work

To receive credit for this assignment, you must show your source code and demonstrate your running program.

Ask your instructor who they would like you to show the assignment to.