Intermediate	Exam	Python	Time limit 2.5 hours

Calendar(exam)

The aim of this assignment

Through small application development, learn class designing for “Input/Output”, “Process”, “Save” layers.

Required results

Submit following results.

1. Python Project

Preparation

a. Use Python for this assignment, and the version should be 3.7.
b. Use datetime API of standard Python library.
c. Use PyCharm or Visual Studio Code as development environment.

1 Specification for Calendar application

1.1 Overview of Function

Develop following function for Calendar application.

No	Function Name	Overview
1	Show Schedule	In command-line, operator can show all schedule list. The contents are Date, Title, Detail
2	Edit Schedule.	In command-line, operator inputs date and schedule after that we can store the schedule and also user can modify it. If a same date schedule does not exist and user input the date, it will be added. If a same date schedule exists and user input new schedule with the date, the schedule will be updated. If user inputs “\delete” user can delete a schedule. * should not use file. You need to use just memory in the program.
3	Schedule Export	Program can export a text file for schedule list as “Schedule Export” function. This can extract schedule data as csv file. The file name can be fixed as “export.csv”. * should use a file.
4	Quit	Quit the program with input “Q” or “q”. It does not matter whether operator will input a capital or small letter.

1.2 Error Handling

If following error cases happen, please handle according following table contents.

No	Error case	Output error message	Error handling
1	User input invalid value ● Not exist value (6, 10, -1, 0.1 like that) ● Character except “q” or “Q”.	Please input exist number or “q” or “Q”.	User needs to input number or character again.

1.3 Sample of console output

Following output sample is a sample output for calendar application console (Italic red color character shows user inputting.)

```
Start Calendar Application.

================================
 1: Show Schedule
 2: Edit Schedule
 3: Schedule Export
 q: quit
================================
Select menu: 1

Show Schedule.

  ------------------------------
   [Date] 2013-04-20
   [Title] MA for 2013-04
   [Detail] Time schedule is from 10:00 to 14:00.
  ------------------------------
   [Date] 2013-04-21
   [Title] Football
   [Detail] Plays football at Shin-Yokohama park.
  ------------------------------
   [Date] 2013-04-22
   [Title] Shopping
   [Detail] Shopping with friends at Yokohama Station.
  ------------------------------

================================
 1: Show Schedule
 2: Edit Schedule
 3: Schedule Export
 q: quit
================================
Select menu: 2

Edit Schedule.
Input date for registration: 2013-04-24
Input title: Mobile phone repair
Input detail: Go mobile phone shop at 9:00 AM.

  ------------------------------
   [Date] 2013-04-24
   [Title] Mobile phone repair
   [Detail] Go mobile phone shop at 9:00 AM.
  ------------------------------
```

Enter key pressing means finishing of input scheduling.

```
================================
 1: Show Schedule
 2: Edit Schedule
 3: Schedule Export
 q: quit
================================
Select menu: 2

Edit Schedule.
Input date for registration: 2013-04-24
Input title: \delete

Selected Schedule is deleted successfully.

================================
 1: Show Schedule
 2: Edit Schedule
 3: Schedule Export
 q: quit
================================
Select menu: 2

Edit Schedule.
Input date for registration: 2013-04-28
Input title: \delete

There is no schedule to be deleted.

================================
 1: Show Schedule
 2: Edit Schedule
 3: Schedule Export
 q: quit
================================
Select menu: 2

Export all schedules successfully.

================================
 1: Show Schedule
 2: Edit Schedule
 3: Schedule Export
 q: quit
================================
Select menu: a

Please input exist number or “q” or “Q”.

================================
 1: Show Schedule
 2: Edit Schedule
```

```
 3: Schedule Export
 q: quit
================================
Select menu: q

(Terminate Calendar Application.)
```

1.4 Sample of export.csv

Operator can export all schedule data as a csv file. The example of csv contents are below.

export.csv

```
Date, Title, Detail
2013-04-20, MA for 2013-04, Time schedule is from 10:00 to 14:00
2013-04-21, Football, Plays football at Shin-Yokohama park.
2013-04-22, Shopping, Shopping with friends at Yokohama Station.
```