Code Monkeys – Monkey Calendar

Interface

## Interface:

This software should be able to interact with the user on the command line. However, as part of your additional features, you may add additional ways to interact with the system. For example, you may add a windowing interface, or a browser interface. These should be in addition to the command line interface (if you add a windowing interface, then you should have both a command line and windowing interface).

Menus should behave as follows:

* Top Menu
  + (T) Test the program for errors
  + (R) Run the program
  + (Q) Quit
* Test the Program
  + Run a series of tests, and report any errors or report that all tests passed.
* Run the Program
  + (C) Calendar
  + (M) Memo
  + (B) Today’s bio rhythm/Today’s luck
  + (L) Lock/unlock the calendar
  + (P) Change password
  + (Q) Quit
* Calendar
  + (C) Print the calendar for a given week/month/year
  + (A) Add an appointment
  + (M) Modify an appointment
  + (P) Print all appointments for a given day/week/month/year
  + (S) Save all appointments to a file
  + (L) Load all appointments from a file
  + (D) Delete all appointments
  + (Q) Quit
* Memo
  + (P) Print all memos
  + (A) Add a new memo
  + (M) Modify an memo
  + (D) Delete an memo
  + (Q) Quit
* Today’s Bio Rhythm/Today’s Luck
  + (R) Resister the date of birth
  + (B) See today’s bio rhythm
  + (L) See today’s luck
  + (Q) Quit
* Lock/unlock the Calendar
* Change Password

**-Calendar**

(C) Print the calendar for a given week/month/year

(A) Add an appointment

(M) Modify an appointment

(S) Save all appointments to a file

(L) Load all appointments from a file

(D) Delete all appointments

(U) Lunar calendar

(Q) Quit

* Print the calendar for a given week/month/year
  + (R) Range of days
  + (W) Week
  + (M) Month
  + (Y) Year
  + (L) Calculate lunar calendar
    - Range of days
      * Ask for the start and finish day, month, and year. Print a calendar for this range of dates. Report an error if either date is invalid. Report an error if the finish day is previous than the start day.
      * Ask for the start day and the period. Same action as above. If a user typed both period and finish day, then the finish day has higher priority. Report an error if the period number is invalid.
    - Week
      * Ask for a date, and print the calendar for the week containing this date. A week starts from Monday to Sunday. A week print can contain previous/post Month. Report an error if the date is invalid
    - Month
      * Ask for the month and year. Print the calendar for this month. Report an error if the month is invalid.
    - Year
      * Ask for the year. Print the calendar for this year.
    - Calculate Lunar calendar
      * Ask for the day, month, and year. Calculate and print the day, month, and year in lunar calendar.
    - Holidays
      * If the range include any holiday, then mark it as red and tag the specific name of the day below date.
    - Show appointments
      * In the text application, the number of appointments at certain date must be shown below the date. If there’s no appointment, then nothing will be shown.
* Add an appointment
  + Enter the year :
    - Report an error if date is invalid.
* Enter the month :
* Report an error if date is invalid.
* Enter the day :
* Report an error if date is invalid.
* Enter the start time :
* Report an error if time is invalid.
* Enter the finish time :
* Report an error if time is invalid.
* Enter the Subject :
* Enter the Description :
* Ask lock : Y/N
* Modify an appointment
* Enter the year :
* Report an error if date is invalid.
* Enter the month :
* Report an error if date is invalid.
* Enter the day :
* Report an error if date is invalid.
* Select the appointment. These appointments are available:

1. 14:00-16:45 – Computer Software Class
2. 19:00-21:00 – Dinner with the my family

* Report an error if select number is not valid. (e.g.) select 3
* Report an error if selected appointment is locked. That cannot be modified.
* Modify Menu

(Y) Year

* Current Year : 2xxx
* Enter the new Year :
* Report an error if date is invalid.

(M) Month

* Current Month : xx
* Enter the new Month :
* Report an error if date is invalid.

(D) Day

* Current Day : xx
* Enter the new Day :
* Report an error if date is invalid.

(B) Beginning time

* Current Beginning time : xx:xx
* Enter the new Beginning time :
* Report an error if time is invalid.

(F) Finish time

* + - * + Current Finish time : xx:xx
        + Enter the new Finish time :
* Report an error if time is invalid.

(S) Subject

* + - * + Current Subject : Something
        + Enter the new Subject :

(E) Description

* Current Description : blah blah blah
* Enter the new Description :

(L) Lock

* Current : Lock
* Ask lock : Y/N
* Print all appointments
  + (D) Day
  + (R) Range of days
  + (W) Week
  + (M) Month
  + (Y) Year
    - Day
      * Ask for the day, month, and year. Print all appointments for this day. Report an error if the date is invalid.
    - Range of days
      * Ask for the start and finish day, month, and year. Print all appointments in this range of dates. Report an error if either date is invalid. Report an error if the finish day is previous than the start day.
      * Ask for the start day and the period. Same action as above. If a user typed both period and finish day, then the finish day has higher priority. Report an error if the period number is invalid.
    - Week
      * Ask for a date, and print all appointments for the week containing this date. A week starts from Monday to Sunday. A week print can contain previous/post Month. Report an error if the date is invalid.
    - Month
      * Ask for the month and year. Print all appointments for this month. Report an error if the month is invalid.
    - Year
      * Ask for the year. Print all appointments for this year.
    - An appointment which spans multiple days
      * Print it if a part of the appointment is included in the range of print.
    - Locked appointments
      * If the appointment is locked, then users can only see the title of the appointment and letters ‘locked’ unless the program is unlocked.
* Save all appointments to a file
* Enter the filename :
* Ask overwrite if the file exists already. If the file is protected, report an error.
* Load all appointments to a file
* Enter the filename
* Report an error if the file does not exist or if the file is in the wrong format.
* Delete all appointments
* Ask the user for confirmation before deleting all appointments.

-**Memo**

* Print all memos
  + Print all memos with index numbers.
* Add a new memo
  + Ask for a content of new memo. Press Enter key when you finish your memo. Ask Y/N for saving new memo. If the memory for memos are full, then report an error.
* Modify an memo
  + Ask for the index number of memo the user want to modify. In the text application, print existing memo data and rewrite the new data. Press Enter key after the user is done. Ask Y/N for saving changes.
    - Memo#1: xxxxxxxx
    - Modify: (rewrite new data here)

Report an error if type nothing but Enter key.

* Delete an memo
  + Ask for the index number of memo you want to delete. (every memo has its own index number) Ask Y/N to make sure the user want to delete it. Report an error if the index is invalid.

**-Today’s Bio Rhythm /Today’s Luck**

(R) Resister the date of birth

(B) See today’s bio rhythm

(L) See today’s luck

(Q) Quit

* Resister the date of birth
* (E) Enter the date of birth
* Enter the year :
* Enter the month :
* Enter the day :
  + Report an error if the date is invalid

(e.g.) today > 2011.05.31, date of birth > 2011.06.01

Month : 13, day : 32 ( check as month )

* (S) Save the date of birth to a file
* Ask for a file name. Save stored a birthday to that file. If the file exists already, ask if you want to overwrite the file. If the file is write protected, report an error.
* (Q) Quit
* -See today’s bio rhythm
* (L) Load the date of birth from a file
* Ask for a file name. Load the birthday from that file. Report an error if data is invalid

(e.g.) there is not a saved information

* (S) See a today’s bio rhythm (Link)
* Go to the internet page of today’s bio rhythm, and input loaded birthday.
* Report an error if load is failed
* (Q) Quit
* See today’s luck
* (L) Load the date of birth from a file
* Ask for a file name. Load the birthday from that file. Report an error if data is invalid

(e.g.) there is not a saved information

* (S) See a today’s luck (Link)
* Go to the internet page of today’s luck, and input loaded birthday.
* Report an error if load is failed
* (Q) Quit

**- Lock/unlock the Calendar**

* Lock the calendar : Lock the total appointment which is checked “lock” box.
* Unlock the calendar : Ask the password. Report an error if entered input is wrong.

**- Change Password**

* Enter the current password :
* Enter the new password :
* Enter the new password ( confirm ) :
* Report an error if current password is wrong or new password and confirm are not same.