ITSC202 - Project 12-01

ncurses Calendar

Part A, weight 0.7

The program shall be named **`cursescal.c`**
The calendar will print a calendar for the current month on the screen. The week will start with on monday. We will mimic the emacs M-x calendar command.
The date functions will be introduced in the lecture.
https://en.wikipedia.org/wiki/C_date_and_time_functions
The program will check if it has sufficient screen size to draw the whole calendar. If the screen size is too small (e.g., not enough rows), the program will display error message in the centre of the screen and wait for key hit to exit.
The program will draw the month and the year on the top (first) row of the scrren.
The program will draw the names of the days of the week, starting with Monday on the 2nd or 3rd row.
Each date will be centered inside rectangular border, see example below.
When the program is started, it will initially display the calendar for the current month.
The calendar program will process 3 keys - “n” to display next month, “p” to display previous month, and “q” to exit.
The following macros must be defined:

```
#define DAY_WIDTH 11 // width of the day box
#define DAY_HEIGHT 4 // height of the day box
#define COL0 1       // left edge of Monday boxes
#define ROW0 3       // top edge of the first drawn week boxes
```

The general algorithm shall be:
determine current month
determine the day of the week the current month starts on
determine the starting coordinates (row,column) where to draw the first day of the month
successively calculate next starting coordinates and draw the complete box and day number for each day

Part B, weight 0.5

Days which do not belong into the given month will not be drawn at all.
Keys N, P will draw next/previous month.

NOTES:

To change the date, set your time in the current day to noon, and take advantage of the fact that day has about 24*60*60 seconds – convert back and forth between the **`struct tm`** date format and seconds since epoch. Keep in mind that the mktime() function uses local time, not UTC time.

Example screen output for October 2017: