```c
//
// A (naive) administration system (only for 🇨🇳)
//
// Created by hengxin on 10/7/21.
//

#include <stdio.h>
#include <math.h>
#include <ctype.h>

int main() {
  /**
   * Name and gender
   */
  char first_name[] = "Tayu";
  char last_name[] = "Lo";
  char gender = 'm';

  /**
   * Birthday
   */
  int birth_year = 1954;
  int birth_month = 7;
  int birth_day = 20;
  char weekday[] = "Tuesday";

  /**
   * Scores
   */
  int c_score = 40;
  int music_score = 100;
  int medicine_score = 80;

  /**
   * Statistics
   * mean = (c_score + music_score + medicine_score) / 3
   * sd = the square root of (c_score - mean)^2
```

```
37   + (music_score - mean)^2 + (medicine_score -
   mean)^2
38     */
39    double mean = (c_score + music_score +
   medicine_score) / 3.0;
40    double standard_deviation = sqrt((pow(c_score
    - mean, 2) + pow(music_score - mean, 2) + pow(
   medicine_score - mean, 2)) / 3.0);
41    int rank = 10;
42
43    /**
44     * Basic output
45     * Tayu Lo     M
46     * 7-20-1954, Tuesday.
47     * C = 40      Music = 100     Medicine = 80
48     * Mean = 73.333333    SD = 24.944383      Top
    = 10
49     */
50    printf("%s %s \t %c \n"
51           "%d-%d-%d, %s.\n"
52           "C = %d \t Music = %d \t Medicine = %d\n
   "
53           "Mean = %f \t SD = %f \t Top = %d\n",
54           first_name, last_name, gender,
55           birth_month, birth_day, birth_year,
   weekday,
56           c_score, music_score, medicine_score,
57           mean, standard_deviation, rank);
58
59    /**
60     * Expected output
61     * Tayu Lo     M
62     * 07-20-1954, Tue.
63     * C = 40      Music = 100     Medicine = 80
64     * Mean = 73.3     SD = 24.94      Top = 10%
65     */
66    printf("%s %s \t %c \n"
67           "%.2d-%d-%d, %.3s.\n"
```

```
68            "C = %d \t Music = %d \t Medicine = %d\
   n"
69            "Mean = %.1f \t SD = %.2f \t Top = %d%%
   \n",
70            first_name, last_name, toupper(gender),
71            birth_month, birth_day, birth_year,
   weekday,
72            c_score, music_score, medicine_score,
73            mean, standard_deviation, rank);
74
75    return 0;
76 }
```