14 Sorting photos

10 points

Introduction

Enrique loves travelling with his friends. He enjoys discovering new places and taking photos all the time. However, when coming back home, he has to classify and archive all the pictures taken by him and his friends, and that's a very long and boring task. There are always two types of photo files, the ones taken by the smartphones and the ones taken by Enrique's reflex camera. The files have a different naming structure, which is as follows:

- Smartphone cameras use the format "IMG_YYYYMMDD_HHMMSS.jpg", where YYYY is the year, MM is the month, and DD is the day of the month. For example: IMG_20171203_213455.jpg corresponds to a photo taken in Dec 3rd, 2017, at 21:34:55.

- Reflex camera files are stored in the format "PDDMMYY_HHMMSS.jpg", where DD is the day of the month, MM is the month, and YY is the two last digits of a year (assuming it is a 21st century year). For example: P031217_213455.jpg corresponds to a photo taken in Dec 3rd, 2017, at 21:34:55.

In both cases, HHMMSS is the timestamp, with HH for the hour (0 to 23), MM for the minute (0 to 59) and SS for the seconds (0 to 59).

Given these two different formats, it is impossible to sort the files automatically by name, since all the "IMG_" ones would be placed before the "P_" ones. Enrique would like to have a Linux script to rename all the files in a way that they include the name of the place that they visited, followed by a three-digit counter, which starts from 000 for the earliest picture and grows one unit for each next photo, sorted by the date and time they were taken. The Linux command "mv" is good enough for renaming the files in this way.

Note: "mv" command syntax is:

mv <source> <destination>

Note: there will be less than 1000 photos in every collection.

Input

The input will consist of 3 lines:

- The name of the place visited on the trip. It will be always one word.

- A list of the photo files coming from the smartphone cameras, separated by a space

- A list of the photo files coming from the reflex camera, separated by a space

Output

The output will be the list of "mv" commands to execute in order to rename all the files. Enrique also wants the list to be ordered by the new file name, so the first command must be the one that converts the oldest photo.

Example 1

Input

```
Japan
IMG_20210613_104512.jpg IMG_20210612_225814.jpg
P130621_083827.jpg
```

Output

```
mv IMG_20210612_225814.jpg Japan_000.jpg
mv P130621_083827.jpg Japan_001.jpg
mv IMG_20210613_104512.jpg Japan_002.jpg
```

Example 2

Input

```
Paris
IMG_20170103_124522.jpg IMG_20170104_113321.jpg IMG_20170107_223749.jpg
P020117_203138.jpg P030117_052636.jpg
```

Output

```
mv P020117_203138.jpg Paris_000.jpg
mv P030117_052636.jpg Paris_001.jpg
mv IMG_20170103_124522.jpg Paris_002.jpg
mv IMG_20170104_113321.jpg Paris_003.jpg
mv IMG_20170107_223749.jpg Paris_004.jpg
```