

Exam1_A2-1: Check Phone Format and Get Phone Personality

Objective: Basic String & List

Write a program that reads a phone number string and determines the person's Personality from its score.

Phone Format Rules

The program input is a string in the format: xxx-xxx-xxxx, for example: 089-111-2222 (3 digits, dash, 3 digits, dash, 4 digits). Follow these steps to validate the input:

1. Verify that the input length is exactly 12 characters and that the dashes (-) are in the correct positions. If this condition is not met, print "Error1".
2. Remove all dashes (-) to obtain the cleaned input.
3. Check that the cleaned input consists only of digits and is exactly 10 digits long. If this condition is not met, print "Error2".

Hints:

- Hint1: "123".isdigit() = True, "A11".isdigit() = False
- Hint2: "123,45,678".replace(",","|") = "123|45|678"

Phone Personality Check

1. Remove the dashes to obtain a 10-digit number. Then, calculate the score using the formula below, where the digit positions are numbered from 1 (leftmost) to 10 (rightmost).

$$\text{Score} = (digit_1 \times 1 + digit_3 \times 3 + digit_5 \times 5 + digit_7 \times 7 + digit_9 \times 9) \bmod 100$$

2. Map the score to a one-word personality:

- 0–19 → Calm
- 20–39 → Creative
- 40–59 → Energetic
- 60–79 → Practical
- 80–99 → Lucky

Example

- Input: 081-234-5678 --> Only numbers: 0812345678
- score = $(0 \times 1 + 1 \times 3 + 3 \times 5 + 5 \times 7 + 7 \times 9) \% 100 = 116 \% 100 = 16$
- Since the score (16) is between 0 and 19, the personality is "Calm".

INPUT

A phone number string in the format xxx-xxx-xxxx.

OUTPUT

If the phone number is valid, output the cleaned 10-digit number followed by "=" and its personality, e.g., "0812345678=Calm". If the input is invalid, output the corresponding error message ("Error1" or "Error2").

EXAMPLES

Input (from keyboard)	Output (on screen)	Explanation
0891112222	Error1	Incorrect length (length must be 12)
088-9111-2222	Error1	Incorrect length (length must be 12)
08-9111-2222	Error1	Incorrect dash position (xxx-xxx-xxxx)
089+111+2222	Error1	Incorrect symbol, must be "-".
0AA-111-2222	Error2	The first part is not number.
081-234-5678	0812345678=Calm	Score = $(0*1+1*3+3*5+5*7+7*9) \% 100$ = $116 \% 100 = 16$ 16 is between 0 - 19, so the personality = "Calm"
999-999-9999	9999999999=Creative	Score = $(9*1+9*3+9*5+9*7+9*9) \% 100$ = $225 \% 100 = 25$ 25 is between 20 - 39, so the personality = "Creative"

TESTCASES in Grader

Testcases will be grouped. Each group has the following criteria:

Testcases quantity	Test case characteristics
40%	Check phone format
60%	Get correct personality