Grace Hopper 2 points

Introduction

Grace Hopper (1906-1992) was a computer pioneer and naval officer. She was a pioneer in the world of computer science and one of the first programmers of the Harvard Mark I computer. She popularized the idea of machine-independent programming languages, which led to the development of COBOL, an early high-level programming language still in use today.

Hopper tried to enlist in the US Navy during World War II but had to join the army's reserve because she was already 34 years old.



The simplest program in any programming language is the popular printing of "Hello word!" message. Here you have the version for COBOL language:

IDENTIFICATION DIVISION.

PROGRAM-ID. HELLO-WORLD.

* simple hello world program

PROCEDURE DIVISION.

DISPLAY 'Hello world!'.

STOP RUN.

HINT: be careful, indentations should be printed as four whitespace characters.

We would like you to program a simple program that outputs the COBOL program to printout of a given string.

Input

The input will be a single line containing the message to print.

Output

The output is the COBOL program needed to print the message received in the input.

Example

Input

Hi Grace!

Output

```
IDENTIFICATION DIVISION.

PROGRAM-ID. HELLO-WORLD.

* simple hello world program

PROCEDURE DIVISION.

DISPLAY 'Hi Grace!'.

STOP RUN.
```