# Problem 3 – Raincast

The Raindear Forecast Agency has hired you again, astonished by your previous works. This time you are hired to write a software which receives Telegram Raincasts, and validates them. The messages are quite scrambled so you only have to find the valid ones.

You will begin **receiving input lines** which may contain **any ASCII character**. Your task is to find the **Raincasts**.

The **Valid Raincast** consists of **3 lines**:

* Type: {type}
* Source: {source}
* Forecast: {forecast}

The type should either be “Normal”, “Warning” or “Danger”.  
The source should consist of **alphanumeric characters**.  
The forecast should **not contain** any of the following characters: ‘!’, ‘.’, ‘,’, ‘?’.

* When you **find** a type, you must **search** for a source.
* When you **find** a source you must **search** for a forecast.
* When you **find** a forecast, you have **completed** a **single Valid Raincast**. You must **start** **searching** for a type again, for the **next Raincast**.

There might be **invalid lines** **between** the **valid ones**. You should **keep** the **order** of **searching**.

**NOTE**: The **valid input lines** must be **exactly** in the format specified above. **Any difference** makes them **invalid**.

When you receive the command “Davai Emo”, the **input ends**. You must print **all valid raincasts** you’ve found, each in a **specific format**, each on a **new line**.

## Input

* The input will come in several input lines which may contain any ASCII character.
* The input ends when you receive the command “Davai Emo”.

## Output

* As output you must **print all** of the **valid raincasts** you’ve found, **each** on a **new line**.
* The **format** is: ({type}) {forecast} ~ {source}

## Constraints

* The input lines may contain **any ASCII character**.
* There will be **no more** than **100 input lines**.
* Allowed working **time** / **memory**: **100ms** / **16MB**.

## Examples

|  |  |
| --- | --- |
| **Input** | **Output** |
| Type: Normal  Source: JohnKutchur9  Forecast: A full rain program no sun  Type: Danger  Forecast: Invalid Input Line  Source: IvoAndreev  Type: Invalid Input Line  Forecast: Shte vali qko  Davai Emo | (Normal) A full rain program no sun ~ JohnKutchur9  (Danger) Shte vali qko ~ IvoAndreev |
| Forecast: Bau  Source: Myau  Type: Strong  Source: Good  Forecast: Valid  Type: Warning  Type: Danger  Source: Emo  Forecast: Nqma da se kefim mn na praznici  Davai Emo | (Warning) Nqma da se kefim mn na praznici ~ Emo |