# Problem 3 – Survey Parser

Write a JavaScript program that parses a given document that may contain the results of a rating survey and outputs a summary of the votes. You will receive a string that contains XML-formatted data. From this data, you must extract a valid label and average rating (sum of ratings, divided by their count). Input, containing valid survey data will follow these rules:

- The document may contain any symbol before and after the survey data
- The survey data always begins with <svg> and ends with </svg>:

- Each valid survey will contain exactly two sections beginning with <cat> and ending with </cat>
- There may be whitespace between the sections

The contents of the first cat section must begin with <text> and end with </text>; it may contain any text, but needs to have a valid label, inside brackets []

- The second cat section contains all of the ratings with each vote beginning with <g> and ending with </g>
- A valid rating contains a value and count, with the value surrounded by <val> and </val> and the count right after the value
- There may be any number of valid and invalid ratings inside the second cat; you should only process the valid ones, and ignore the invalid ratings

- <val>1</val>0 Valid rating:
- o Invalid rating (ignore and continue): <g><val>Seafood</val>1</g>
- The value must be a number between 1 and 10
- The **count** must be a number **0** or larger

If the document does not contain survey data (no opening and closing svg tags), print on the console "No survey found". If there is survey data, but the rest of the rules aren't followed, print on the console "Invalid format".

At the end of the program, print on the console the label of the survey and the average rating, rounded to two decimal places.

# Input

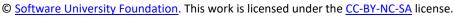
You will receive a single **string**, containing a document to be parsed.

# Output

Depending on outcome, print on the **console** a single line:

- No survey found
- **Invalid format**
- {label}: {average rating}



















## **Constraints**

- There will never be more than one valid survey
- Rating value will be in range [1...10]
- Rating count will be in range [1...1 000 000]

# **Examples**

#### Input

Some random text<svg><cat><text>How do you rate our food? [Food - General]</text></cat><cat><g><val>1</val>0</g><g><<mark>val>2</val>1</mark></g><g><<mark>val>3</val>3</</mark>g></g>

#### Output

Food - General: 4.1

#### **Explanation**

The survey data is surrounded by **<svg>** and **</svg>**, the remaing data is discarded. The first cat contains our label, surrounded by brackets: Food – General.

The second cat contains five ratings, all surrounded with  $\langle g \rangle$  and  $\langle g \rangle$ , and when parsed we get the following:

0 votes with value 1 = 0

1 votes with value 2 = 2

3 votes with value 3 = 9

10 votes with value 4 = 40

7 votes with value 5 = 35

The sum of all ratings is 86, divided by their count 21 gives us the average rating **4.095...**, which we round to the second decimal – **4.1**.

#### Input

<svg><cat><text>How do you rate the special menu? [Food - Special]</text></cat>
<cat><g><val>1<cat><(g><val>10

## Output

Food - Special: 7.25

## Input

How do you suggest we improve our service?More tacos.It's great, don't mess with it!I'd like to have the option for delivery

## Output

No survey found

#### Input

<svg><cat><text>Which is your favourite meal from our
selection?</text></cat><cat><g><val>Fish</val>15</g><g><val>Prawns</val>31</g><g><val
location content from our
selection?</text></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cat></cater>A content of the conten

#### **Output**

Invalid format



















