# Tickets Scan

*Your next task is to extract information about a flight. You will have to extract 4 types of information (passenger name, airport, flight number, company).*

You will be given **2 parameters**. The **first** one will be the **text** you need to extract the information about the flight from. The **second** one will be the **information you need to print**.

The information to extract is as follows:

- **Passenger name** – Constrains:  
 - Starts with a **space** (' ')  
 - Consists from **2 or 3 names** (**upper and lower-case letters**)  
 - The names should be **separated by a single dash ('-')**  
 - Each name should **start with upper-case letter** - If there are **3 names**, the **second one should end with a dot ('.')**  
 - If there are **2 names**, **the second should not contain any dots** - Ends with a **space (' ')** - **Valid** examples with **2 names**: **' Test-Testov ', ' V-N '**  
 - **Valid** examples with **3 names**: **' T-T.-Testov ', ' Valid-V.-Name '**  
- **Airport** – Constrains:  
 - Starts with a **space** (' ')  
 - Should consist of **3 upper-case letters**, the symbol '**/**' and **3 more upper-case letters** - Ends with a **space (' ')**  
 - **Valid** airports are: **' SOF/VAR ', ' VIE/AIR '**- **Flight number** – Constrains:  
 - Starts with a **space (' ')**  
 - Followed up by **from 1 to** **3 upper-case letters** - Followed up by **from 1 to 5 digits**  
 - Ends with a **space (' ')** - **Valid** flight numbers are: **' DWF24 ', ' S43159 ', ' OE314 '**  
- **Company** – Constrains:

- Starts with **'- '** - Followed by **letters** (**starting with upper-case**)  
 - Followed by a **'\*'** - Followed by **letters** again (**starting with an upper-case letter**)  
 - Ends with a space **(' ')** - **Valid** companies: **'- Wizz\*Air ', '- X\*Y'**

**Notes: If there is some missing information from the text that you need to print, print 'INVALID'! If there is invalid information, but it is not required, print the info anyway**

Possible **second** parameter (for the output):

- **'name'** – print the following message: **'Mr/Ms, {name}, have a nice flight!'** - '**flight'** – print the following message: **'Your flight number {flight number} is from {from airport} to {to airport}.'** - **'company'** – print the following message: **'Have a nice flight with {company name}.'** - '**all'** – print the following message: **'Mr/Ms, {name}, your flight number {flight number} is from {from airport} to {to airport}. Have a nice flight with {company}.'**

**NOTES**: **each piece of information** should be trimmed; the name should be **without the '-'** (if any) and **with spaces instead**. Examples:   
**' STEF-T.-Stefanov ' -> 'STEF T. Stefanov'**; the **company** should be printed **without the '- '** and the **'\*'**. Examples: **' - Wizz\*Air ' -> 'Wizz Air';** the **flight number** should be printed **without the spaces in the front and back.** Examples: ' OS806 ' -> 'OS806'

### Input

* **Two parameters**: the string you have to extract the information from and the command for the output

### Output

* **4 different type of outputs** depending on the command
* **You will print 'INVALID' only if some/all information you need to print is invalid**

### Examples

|  |  |
| --- | --- |
| **Input** | **Output** |
| 'ahah Second-Testov )\*))&&ba SOF/VAR ela\*\* FB973 - Bulgaria\*Air -opFB900 pa-SOF/VAr//\_- T12G12 STD08:45 STA09:35 ', 'all' | Mr/Ms, Second Testov, your flight number FB973 is from SOF to VAR. Have a nice flight with Bulgaria Air. |
| ' TEST-T.-TESTOV SOF/VIE OS806 - Austrian\*Airlines T24G55 STD11:15 STA11:50 ', 'flight' | Your flight number OS806 is from SOF to VIE. |
| ' P-Pes.ov travvels from FED/RFE - Bg\*Airline E32R F78C72 from STD12:34 arriving at STA10:23 ', 'all' | INVALID |