

Uzabase USA: Technical examination

Notes on taking the exam:

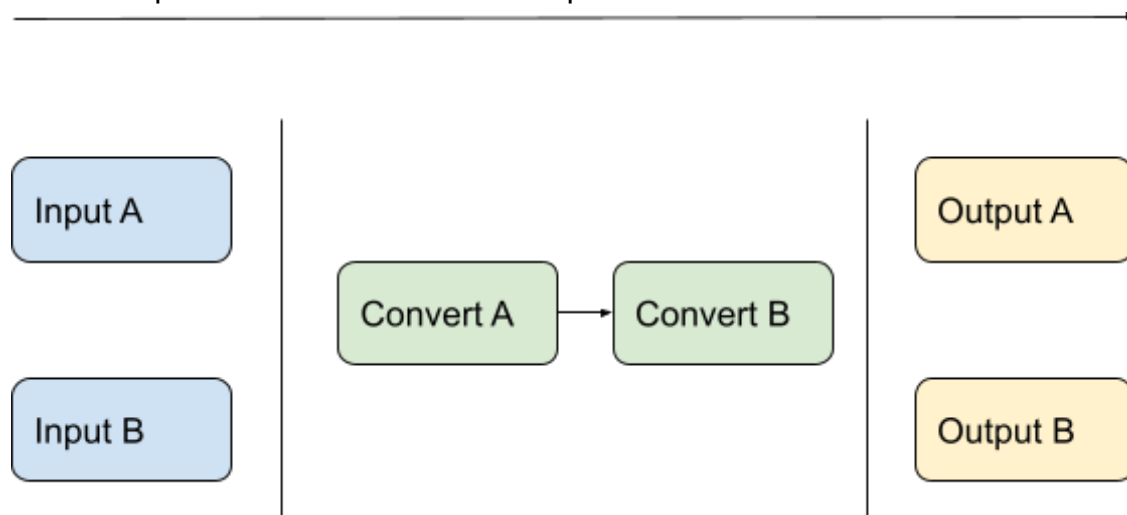
- Do not disclose any information about the exam.
- Any programming languages are available.
- You can use any answer format you prefer.
- You may suppose constraints if the problem statements are ambiguous.

Implement a program that meets the following specification, and create the class diagram. We want to see how far you are familiar with the principles of object oriented programming. Please create a program that is extensible (use interface to handle multiple input/output, converter components, etc).

Also, we want to see your class/component design ability so please avoid using frameworks (e.g. React, SpringBoot, Django, etc). You can use any library to parse the RSS and command line options.

The program takes a URL or file, transforms the text of them, then writes it to a file or the standard output. You are free to choose how parameters are passed to your solution.

- Input A: A URL of RSS
- Input B: A CSV file
- Convert A: Trim each title and body if the length exceeds 10 characters.
- Convert B: Replace the specified words. e.g: from=uzabase, to=Uzabase, Inc.
- Output A: Print the result to the standard output
- Output B: Print the result to the specified file



Examples:

(The examples below are merely suggestions on how to pass parameters to your solution. We do not require you to have the same parameters)

1. Read <https://tech.uzabase.com/rss>, apply Convert A to the text, then write the result to result.txt.

```
$ java Solution --input=https://tech.uzabase.com/rss  
--convert=cut --output=result.txt
```

2. Read <https://tech.uzabase.com/feed>, then write the result to the standard output.

```
$ java Solution --input=https://tech.uzabase.com/feed
```

3. Read article.txt, apply Convert A and Convert B to the text, and write the result to result.txt.

```
$ java Solution -i articles.txt -c cut,convert
```

4. Read articles.txt, apply Convert B, then write the result to the standard output.

```
$ java Solution --input=articles.txt  
--convert=replace(/abc/def/)
```