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## ☆ Platform balance

Stripe Connect allows marketplaces and platforms, like the KickStarters, Shopifys, and Postmates of the world, to accept money and pay out to third parties. Let's say TaxiCo, an on demand ride-sharing service, wants to pay out its drivers for each ride they complete. They could simply use Stripe's Connect API to make that happen. Each driver could have their own Stripe account, and TaxiCo could then send the funds to that driver's account (less the Stripe fee and the cut TaxiCo takes).

Stripe's standard fees in the US are 2.9% + \$0.30 on each transaction. If a ride costs \$10, Stripe takes \$0.59 ( $\$0.59 = \$10 * 2.9\% + \$0.30$ ). TaxiCo would be left with \$9.41 to split between itself and the driver. TaxiCo can then specify to Stripe how much to transfer to the driver. For example, TaxiCo could tell Stripe to send the driver \$8.77. Once the driver has been paid, Stripe transfers the remaining \$0.64 into TaxiCo's Stripe account.

For this problem, we'd like you to build a system that tracks the balances for TaxiCo and its drivers. We're going to communicate on `stdin` and `stdout` rather than using HTTP, to simplify things.

### Your program should:

1. Take an array of lines as input and return an array equal in size to the number of lines that begin with 'BAL:' (see examples below).
2. If an input line begins with `API:`, calculate the balance for the platform (in this case, TaxiCo), and if present, the destination account (i.e. the driver's account). TaxiCo and each driver account will have a unique merchant ID.
3. If an input line begins with `BAL:`, return an integer array with the current balance in USD cents for the account in question.
4. Assume that we are using the U.S. standard Stripe fee of 2.9% + \$0.30.

Here's the previous case as an example:

### Example of TaxiCo payout to the driver's account (i.e. the destination account)

Input:

```
amount=1000&merchant=123456789&destination[account]=111111&destination[amount]=877
```

```
BAL: merchant=123456789
```

```
BAL: merchant=111111
```

Output:

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64
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877
```

### Some more details:

- Amounts are in USD cents as integers (e.g. amount=1000 => \$10.00).
- The first line of the sample input will be the number of lines that follow. Your sample code should already deal with this for you.
- Lines on `stdin` will always begin with `API:` or `BAL:` followed by a space and a URL-encoded string.
- We will not test your solution with malformed input, and you may handle it however you see fit.
- The `merchant` field of `BAL:` requests can correspond to either a driver or TaxiCo's account ID. These account IDs are globally unique.
- You should preserve the original ordering of the `BAL:` requests, when outputting balances.
- Track balance amounts to the nearest hundredth of a cent throughout the calculation. The final answer of a `BAL:` request should be an integer; round to the nearest cent (0.00 -> 0.49 round down, 0.50-0.99 round up).
- The program should track the current balance for TaxiCo and its drivers. In other words, you may want to consider using a data structure to store each account and its corresponding total balance.
- We recommend the following libraries for parsing url params. You may look up these libraries or use resources to find out how to parse urls in your language:
  - Python: `urllib.parse`
  - Ruby: `CGI`
  - Java: `org.apache.http.client5.http.util.URLEncodedUtils`

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API: amount=2000&merchant=10101010

BAL: merchant=10101010

Output:

1912

Example of TaxiCo collecting fees for multiple rides:

Input:

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API:  
amount=1000&merchant=123456789&destination[account]=111111&destination[amount]=877

API:  
amount=800&merchant=123456789&destination[account]=112211&destination[amount]=622

BAL: merchant=123456789

BAL: merchant=112211

Output:

189

622

**YOUR ANSWER**

Original code

Haskell



```
1  {-# LANGUAGE FlexibleInstances, UndecidableInstances,
2  OverlappingInstances #-}
3
4  import Data.Set
5  import Data.List
6  import Data.List.Split
7  import System.Environment
8  import System.IO
9
10 getlist n = if n == 0 then return [] else do i <- getLine; is <-
11 getlist(n-1); return (i:is)
12 displayList lst out = sequence_ [hPutStrLn out a | a <- lst]
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15 -- Complete the function below.
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17 balance lines = do
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Line: 8 Col: 1

 Test against custom input

Run Code

Submit code &amp; Continue

(You can submit any number of times)

[Download sample test cases](#)  
edit them on windows.*The input/output files have Unix line endings. Do not use Notepad to*