

HENNGE Challenge 003

Mission 1: Write a program which fulfills the requirements below

Description

- We want to calculate a sum of squares of some integers, excepting negatives
- The first line of the input will be an integer N ($1 \leq N \leq 100$)
- Each of the following N test cases consists of one line containing an integer X ($0 < X \leq 100$), followed by X integers (Y_n , $-100 \leq Y_n \leq 100$) space-separated on the next line
- For each test case, calculate the sum of squares of the integers excepting negatives, and print the calculated sum to the output. No blank line between test cases
- (Take input from standard input, and output to standard output)

Rules

- Write it in [Go Programming Language](#)
- Your source code must be a single file (`package main`)
- Do not use `for` statement
- You may only use standard library packages

Sample Input

```
2
4
3 -1 1 14
5
9 6 -53 32 16
```

Sample Output

```
206
1397
```

Mission 2: Publish your source code as a secret gist

Description

Publish your source code as a secret gist. You will need a GitHub account to create a secret gist. If you're not familiar with "secret gist"s, follow the instruction [here](#).

Please make sure not to publish it as a public gist.

We will take a look at your source code later, after you achieve Mission 3.

Your program will be auto-tested, so please be strict about the input/output.

Mission 3: Send us the URL of your work

Description

First, construct a JSON string like below:

```
{
  "github_url": "https://gist.github.com/YOUR_ACCOUNT/GIST_ID",
  "contact_email": "EMAIL"
}
```

(Fill in your email address for "EMAIL", and the path to your secret gist for "YOUR_ACCOUNT/GIST_ID". Be sure you've double-checked your email address; we will contact you by email.)

Then, make an HTTP POST request to the URL

`https://hdechallenge-solve.appspot.com/challenge/003/endpoint` which contains the JSON string as a body part.

- `Content-Type:` of the request must be "application/json".
- The URL is protected by HTTP Basic Authentication, which is explained on Chapter 2 of RFC2617, so you have to provide an `Authorization:` header field in your POST request
- For the "userid" of HTTP Basic Authentication, use the same email address you put in the JSON string.
- For the "password", provide an 10-digit time-based one time password conforming to RFC6238 TOTP.
 - You have to read RFC6238 (and the errata too!) and get a correct one time password by yourself.

- TOTP's "Time Step X" is 30 seconds. "T0" is 0.
- Use HMAC-SHA-512 for the hash function, instead of the default HMAC-SHA-1.
- Token shared secret is the userid followed by ASCII string value "HDECHALLENGE003" (not including double quotations).
 - For example, if the userid is "ninja@example.com", the token shared secret is "ninja@example.comHDECHALLENGE003".
 - For example, if the userid is "ninjasamuraisumotorishogun@example.com", the token shared secret is "ninjasamuraisumotorishogun@example.comHDECHALLENGE003"

If your POST request succeeds, the server returns HTTP status code 200.

Rules

- You don't have to disclose how you achieved this mission at this time. Don't hesitate to use source codes or tools on the net (but do the exploring process by yourself of course, don't ask your friend to help you). Go ahead with your nasty hacks!
- No bruteforce attacks, please!

Sample Request

```
POST /challenge/003/endpoint HTTP/1.1
Authorization: Basic bmluamFAZXhhbXBsZS5jb206MTc3MzEzMzI1MA==
Host: admissionchallenge.example.com
Accept: */*
Content-Type: application/json
Content-Length: 104

{"contact_email":"ninja@example.com", "github_url":"https://gist.github.com/henng
```

Sample Response

```
HTTP/1.1 200 OK
Content-Type: text/html; charset=utf-8
Date: Mon, 17 Mar 2014 15:20:51 GMT
Transfer-Encoding: chunked

Congratulations! You have achieved mission 3. (TicketID:390c1a5b7507c227)
```

Thank you for your challenge!

Our engineers will review your work, and we will contact you later.

Found a bug?

We carefully implemented the server-side, but if you believe there are any bugs, please report it to `gip<at>hennge.com` .