



HENNGE

CHALLENGE DETAILS

Introduction

Thank you for your application to HENNGE.

This challenge is intended for **backend position or global internship** applicants.

Mission 1: Write a program which fulfills the requirements below

Description

- We want you to calculate the sum of squares of given integers, excluding any negatives.
- The first line of the input will be an integer N ($1 \leq N \leq 100$), indicating the number of test cases to follow.
- Each of the test cases will consist of a line with an integer X ($0 < X \leq 100$), followed by another line consisting of X number of space-separated integers Y_n ($-100 \leq Y_n \leq 100$).
- For each test case, calculate the sum of squares of the integers, excluding any negatives, and print the calculated sum in the output.
- **Note:** There should be no output until all the input has been received.
- **Note 2:** Do not put blank lines between test cases solutions.
- **Note 3:** Take input from standard input, and output to standard output.

Rules

- Write your solution using [Go Programming Language](#)
- Your source code must be a single file (`package main`)
- Do not use any `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 are not familiar with *secret gists*, follow the instructions [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.

Note: Make sure to upload only a single go lang file with your solution and no additional files.

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 have double-checked your email address; we will contact you by email.

Then, make an HTTP POST request to the following URL with the JSON string as the body part.

`https://api.challenge.henнге.com/challenges/003`

Content type

The Content-Type: of the request must be `application/json`.

Authorization

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 a 10-digit time-based one time password conforming to RFC6238 TOTP.

Authorization password

For generating the TOTP password, you will need to use the following setup:

- 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. T_0 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 `" HENNGECHALLENGE003 "` (not including double quotations).

Shared secret examples

- For example, if the `userid` is `"ninja@example.com"`, the token shared secret is `"ninja@example.comHENNGECHALLENGE003"`.
- For example, if the `userid` is `"nijasamuraisumotorishogun@example.com"`, the token shared secret is `"nijasamuraisumotorishogun@example.comHENNGECHALLENGE003"`

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

Rules

- You do not have to disclose how you achieved this mission at this time. Do not hesitate to use source codes or tools on the net, but do the exploring process by yourself of course, do not ask your friend to help you. The only thing that matters is that it works!
- No bruteforce attacks, please!

Sample Request

`POST /challenges/003 HTTP/1.1`

`Authorization: Basic bmluamFAZXhhbXBsZS5jb206MTU5NTk0MjU2MA==`

```
Host: api.challenge.henнге.com
Accept: */*
Content-Type: application/json
Content-Length: 104
```

```
{"contact_email":"ninja@example.com", "github_url":"https://gist.github.com/henнге/b8
```

Sample Response

```
HTTP/1.1 200 OK
Content-Type: application/json
Date: Wed, 26 Jun 2019 02:15:16 GMT
Transfer-Encoding: chunked
```

```
{"message":"Congratulations! You have achieved mission 3"}
```

Thank you for your challenge!

After successful completion of Mission 3, you will receive an email with a link to submit your CV and a Cover Letter. Once we receive them, our engineers will review your work and we will contact you via email with the result.

Any question? Found a bug?

Quick reminder: no deadline. Please note that our team will not answer to anything related to the challenge. If you have any (other) questions, please reach us through gip@henнге.com.

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