

Thank you for your interest in joining the Gymshark Software Engineering team! We’re really thrilled to have you join us for an Assessment Day at GSHQ.

This is a really exciting opportunity to meet some of our Engineers and Senior Leadership team that you will be working with if successful. Please see an outline of what to expect on the day, below:

* Introduction to Gymshark and overview of the Tech function
* Individual interview – Technical skills related
* Individual interview – Team skills related
* Group task (in a group of 3 or 4)
* Mini Q&A panel talk and office tour

You’ll be with us for approximately 3hours, don’t worry, we will provide comfort breaks between sessions. You’ll also have plenty of drinks and snacks available too to keep you in the zone and hydrated!

During your technical 121 interview, you will be discussing your technical skills and experiences to date and how you will be applying them to the role with us if you are selected. We will also be asking questions around your approach to the below technical challenge. Please note, that most people do not have GoLang experience, we’re reviewing your approach and how you learn new skills. (If you are successful, you will receive coaching, mentoring to learn Go).

Below is a brief exercise for you to complete to test your problem-solving skills and basic engineering abilities.

Completion of this test does not guarantee a role here, but it will give us a good indication of one of the key aspects of the role – your ability to take a problem and solve it to the best of your abilities.

**Software Engineering Challenge**

Imagine for a moment that one of our product lines ships in various pack sizes:

* 250 Items
* 500 Items
* 1000 Items
* 2000 Items
* 5000 Items

Our customers can order any number of these items through our website, but they will always only be given complete packs.

1. Only whole packs can be sent. Packs cannot be broken open.
2. Within the constraints of Rule 1 above, send out no more items than necessary to fulfil the order.
3. Within the constraints of Rules 1 & 2 above, send out as few packs as possible to fulfil each order.

So, for example:

|  |  |  |
| --- | --- | --- |
| Items ordered | Correct number of packs | Incorrect number of packs |
| 1 | 1 x 250 | 1 x 500 – more items than necessary |
| 250 | 1 x 250 | 1 x 500 – more items than necessary |
| 251 | 1 x 500 | 2 x 250 – more packs than necessary |
| 501 | 1 x 500 1 x 250 | 1 x 1000 – more items than necessary 3 x 250 – more packs than necessary |
| 12001 | 2 x 5000 1 x 2000 1 x 250 | 3 x 5000 – more items than necessary |

Write an application that can calculate the number of packs we need to ship to the customer.

The API must be written in Golang & be usable by a HTTP API (by whichever method you choose).

***Optional***:

* Keep your application flexible so that pack sizes can be changed and added and removed without having to change the code.
* Create a UI to interact with your API

Please also send us your code via a publicly accessible git repository, GitHub or similar is fine, and deploy your application to an online environment so that we can access it and test your application out.

We look forward to receiving your application! **Please return your completed solution to** [**talent@gymshark.com**](mailto:talent@gymshark.com) **by 1pm on Monday 29th July 2024.** From here, we look forward to welcoming you into the office on Monday 5th August!