



Dear candidate,

Thank you for your application for the *Software Engineer Intern* position at Kargo. We hope that you are thrilled as we are to move forward into the next step of your application process.

Before we proceed, we would like to take the opportunity to fully disclose that, by attempting this assessment, you **fully acknowledge and accept** that you will be able to commit up to a **40 hour** work week from **June 15th, 2020 to August 21st, 2020** at Kargo HQ, located at **826 Broadway, New York, NY 10003**. If you are unable to commit to the timeframe and location mentioned above, we highly advise that you do not attempt this assessment and disregard this letter. We thank you for your cooperation.

Now that we got the legal bit out of the way, we will like you to complete the following to allow us to assess your hard and soft skills. Without further ado:

Question:

Determine whether a one-to-one character mapping exists from one string, *s1*, to another string, *s2*.

For example, given *s1 = abc* and *s2 = bcd*, print *"true"* into *stdout* since we can map each character in *"abc"* to a character in *"bcd"*.

Given *s1 = foo* and *s2 = bar*, print *"false"* since the character 'o' cannot map to two characters.

But given *s1 = bar* and *s2 = foo*, print *"true"* since each character in *"bar"* can be mapped to a character in *"foo"*.

Criteria:

1. Preferred Languages: JavaScript, Golang, Python (Java is also acceptable)
2. Upload your solution to GitHub, using the naming convention: **"kg_<github_username>_<year_of_graduation>"** as the name of your repository.
 - a. i.e: **github.com/user123/kg_user123_2021**
3. Have at least **2 commits** into your branch.
 - a. Please make sure that you have a *"main"* file (**main.go/main.js/main.py**) in the root directory of your project, and that when you run the file with the test input as arguments, it should print the result in the standard output (***please be sure to remove your debugging print statements before you submit, otherwise it could affect how your submission is graded***)
 - b. We will run your code in the following manner:

```
(master ✓) js_code_submission node main.js 123 321
true

(master ✓) go_code_submission go run main.go 123 321
true

(master ✓) py_code_submission python3 main.py 123 321
true
```

4. Commit messages should be descriptive to reflect the changes as accurately as possible.
5. The final version of your solution must be on the **master** branch

This assessment is valid for **7 days**, and will expire by the end of day **(EOD) at 6pm** from when you received the email. Once you have completed the above assessment, please submit your GitHub URL via the link provided in the email. Regardless of the result of this assessment, you will be contacted by Kargo, and we ask that you be patient as we do our best to assess all applications in a timely manner.

Finally, we want to wish you all the best in this assessment, and we look forward to seeing you on-site and working with you this Summer.

Cheers,
Kargo Engineering