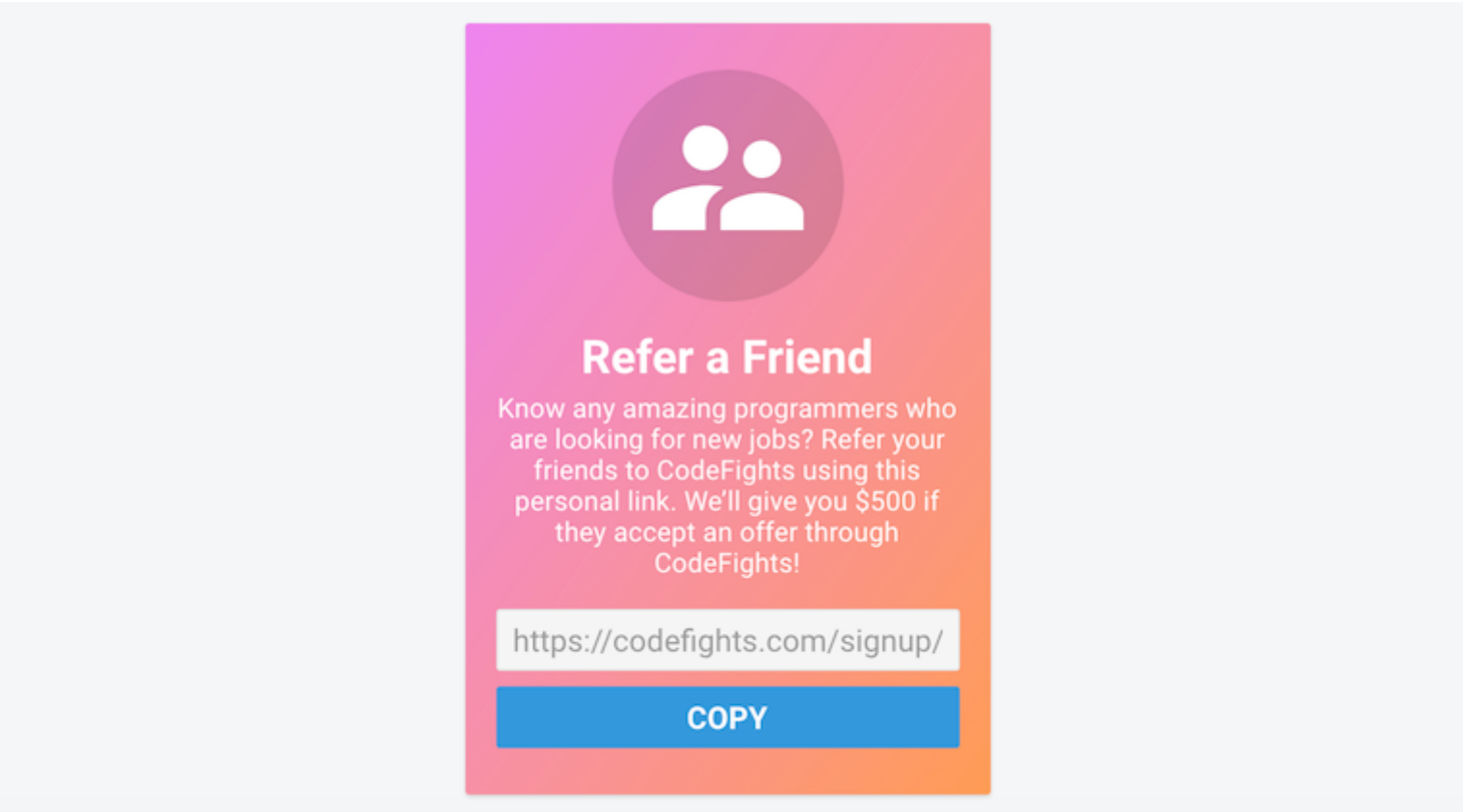


This week the theme of CODs is the Jobs Platform. If you are in the US and would like to learn more about it or try it out for real go to the [Jobs Tab](#).

Once you complete your own job application you can refer your friends and make some cash once they get hired! Your unique referral URL is located on the right sidebar (you can also find the same URL [here](#)).



In order to track all referrals we save `referrerId` s in JSON user objects in our databse. A simplified user object has the following fields.

```
{
  "_id": "glwer6kn7767spok",
  "username": "JohnSmith",
  "country": "US",
  "referrerId": "wsa2fsf43hfsfdsddd"
}
```

Note that `referrerId` can be `null` or missing from the object, which means that no other user has referred them.

Since we pay `$500` per hired referral, we want to track how much we would potentially owe to each user in case all of their referrals get hired by our partner companies.

More specifically, you are given an array of user objects (stringified JSONs) and you need to return an array of strings in the following form `username $x` which means that `username` can earn at most `$x` in referral bonuses. Output must be sorted by lexicographical order of usernames.

Example

- For

```
userInfo = "[{"_id": "glwer6kn7767spok", "username": "JohnSmith", "country": "US", "referrerId": "wsa2fsf43hfsfdsddd"}, {"_id": "wsa2fsf43hfsfdsddd", "username": "Michael", "country": "US"}, {"_id": "tt222hbakq23asddd", "username": "Frank01", "country": "UK", "referrerId": "wsa2fsf43hfsfdsddd"}]"
```

, the output should be

```
referFriends(userInfo) = ["Frank01 $0", "JohnSmith $0", "Michael $1000"]
```

 ;

Input/Output

- [execution time limit] 4 seconds (js)
- [input] string `userInfo`
String that represents information about users in stringified JSON format. It is guaranteed that different users has different user ids.
Guaranteed constraints: