

Contentsquare Platform test

Subject: IaC

At Contentsquare, we use Terraform extensively, and we also to a lot of data manipulation / preparation in order to best fit our needs.

In this test, consider that the input will a json data file representing users in this format:

```
{
  "users": [
    {"name": "john", "age": 23, "city": "barcelona"},
    {"name": "bob", "age": 29, "city": "london"}
  ]
}
```

1. Your **first assignment** will be to generate a password for all the users within the json input. Next, you will have to output this as yaml encoded data in the output test1 in the following format:

```
users:
  - "key": "user[0].name"
    "value": "john"
  - "key": "user[0].age"
    "value": "23"
  - "key": "user[0].city"
    "value": "barcelona"
  - "key": "user[0].password"
    "value": "5]L+J7rA*<7+:P06"
  - "key": "user[1].name"
    "value": "bob"
  - "key": "user[1].age"
    "value": "29"
  - "key": "user[1].city"
    "value": "london"
  - "key": "user[1].password"
    "value": "P=x&385YGMI0?!Is"
```

The goal behind is to be able to reuse this **data structure** as a data source for another component, and to expose a new output test2, that output is a json data structure of users by city, sorted by age

```
{
  "barcelona": [
    {"name": "john", "age": 23, "password": "5]L+J7rA*<7+:P06"}
  ]
}
```

```

],
"london": [
  {"name": "bob", "age": 29, "password": "P=x&385YGMI0?!Is"}
]
}

```

2. Your **second assignment** will be to generate a markdown file containing the users in a table as follows:

Name	Age	City	Password safe
John	23	Barcelona	true
Bob	29	London	true

A password is considered safe when:

- it contains at least 10 chars
- it contains at least one lowercase letter
- it contains at least two digits
- it contains at least one of the following specials !@#\$%&*()
- it does not contain the following specials -_+=[]{}<>:?

Note: Passwords in step1 should not be generated with the above constraints

Grading scale

Grading will be assessed according to:

- The respect of the rules
- Code Clarity: is it easy for one to understand the code
- Reproducibility: is it easy for one to run and update the code
- Packaging
- Documentation
- Extra Points: Unit testing