

## Description

Congratulations on passing the initial screening and moving to the next phase of your application process. We are thrilled that you are interested in joining HCS and are looking forward to seeing what you can accomplish. The following challenge will help us understand your overall experience level and ability to complete tasks that will be similar to your daily job.

## Challenge details

Your goal is to build an integration tool that loads data from a CSV file, schedules some email communications, and then executes automated tests to ensure all data and logic was executed correctly.

Here is the sample data file:

```
Program Identifier|Data Source|Card Number|Member ID|First Name|Last
Name|Date of Birth|Address 1|Address 2|City|State|Zip code|Telephone
number|Email Address|CONSENT|Mobile Phone
50777445|WEB 3RD PARTY|342121211|43233|LOAD|TEST 0|04/29/2000|3100 S
Ashley Drive||Chandler|AZ|85286||test0@humancaresystems.com|Y|1234567912
50777445|WEB 3RD PARTY|564232340|12045|LOAD|TEST 1|03/20/1969|3100 S
Ashley Drive||Chandler|AZ|85286||test1@humancaresystems.com|Y|1234567890
50777445|WEB 3RD PARTY|564232341|12145|LOAD|TEST 2|03/01/1969|3100 S
Ashley Drive||Chandler|AZ|85286||test2@humancaresystems.com|Y|6177504302
50777445|WEB 3RD PARTY|564232342|12245|LOAD|TEST 3|03/02/1969|3100 S
Ashley Drive||Chandler|AZ|85286||test3@humancaresystems.com|Y|6177504303
50777445|WEB 3RD PARTY|564232343|12445|LOAD|TEST 4|03/03/1969|3100 S
Ashley Drive||Chandler|AZ|85286||test4@humancaresystems.com|N|6177504384
50777445|WEB 3RD PARTY|564232344|13245|LOAD|TEST 5|03/04/1969|3100 S
Ashley Drive||Chandler|AZ|85286||test5@humancaresystems.com|N|6177504305
50777445|WEB 3RD PARTY|564232345|14545|LOAD|TEST 6|03/05/1969|3100 S
Ashley Drive||Chandler|AZ|85286||test6@humancaresystems.com|N|6177504306
50777445|WEB 3RD PARTY|564232346|15245||TEST 7|03/06/1969|3100 S Ashley
Drive||Chandler|AZ|85286||test7@humancaresystems.com|Y|6177504307
50777445|WEB 3RD PARTY|564232347|15545|LOAD|TEST 8|03/07/1969|3100 S
Ashley Drive||Chandler|AZ|85286||test8@humancaresystems.com|N|6177504308
50777445|WEB 3RD PARTY|564232348|16445|LOAD|TEST 9|03/08/1969|3100 S
Ashley Drive||Chandler|AZ|85286||test9@humancaresystems.com|N|6177504309
50777445|WEB 3RD PARTY|564232349|16345||TEST 10|03/09/1969|3100 S Ashley
Drive||Chandler|AZ|85286||test10@humancaresystems.com|N|6177504310
50777445|WEB 3RD PARTY|564232350|16245|LOAD|TEST 11|03/10/1969|3100 S
Ashley Drive||Chandler|AZ|85286||Y|6177504311
50777445|WEB 3RD PARTY|564232365|17445|LOAD|TEST 12|03/11/1969|3100 S
Ashley Drive||Chandler|AZ|85286||test12@humancaresystems.com|N|6177504312
50777445|WEB 3RD PARTY|564232363|17345|LOAD|TEST 13|03/12/1969|3100 S
Ashley Drive||Chandler|AZ|85286||test13@humancaresystems.com|Y|6177504313
50777445|WEB 3RD PARTY|564232360|19845|LOAD|TEST 14|03/13/1969|3100 S
Ashley Drive||Chandler|AZ|85286||test14@humancaresystems.com|N|6177504314
```

```
50777445|WEB 3RD PARTY|564232423|4542323|LOAD|TEST 15|04/29/2000|3100 S
Ashley Drive||Chandler|AZ|85286||test15@humancaresystems.com|N|132342323
50777445|BENCHMARKS|56221312|32323|LOAD|TEST 16|04/20/2001|3100 S Ashley
Drive||Chandler|AZ|85286||test16@humancaresystems.com|Y|1234567890
50777445|WEB 3RD PARTY|53434323|12345|LOAD|TEST 17|04/29/19871|3100 S
Ashley Drive||Chandler|AZ|85286||test17@humancaresystems.com|N|1234567890
```

## Project Notes:

- Create a node.js project to loads the above data into a **Patients** collection in MongoDB. The collection will include all the data stored in the input data file.
- Create logic that schedules emails for every patient that has **CONSET=Yes**.
  - o All emails should be stored in an **Emails** collection
  - o Each email should have an id, name, and scheduled\_date
  - o Create multiple emails with the following information:
    - Name: "Day 1", scheduled\_date: NOW+1 day
    - Name: "Day 2", scheduled\_date: NOW+2 days
    - Name: "Day 3", scheduled\_date: NOW+3 days
    - Name: "Day 4", scheduled\_date: NOW+4 days
- Create an Automation script\Unit tests that test the following conditions:
  - o Verify the data in flat file matches the data in Patients collection
  - o Print out all Patient IDs where the first name is missing
  - o Print out all Patient IDs where the email address is missing, but consent is Y
  - o Verify Emails were created in Emails Collection for patients who have CONSENT as Y
  - o Verify emails for each patient are scheduled correctly.

## Guidance:

Feel free to use any automation framework you prefer.

## Deliverables

1. A working solution that can be cloned, installed (using the instructions in README.md), ran, tested, and reviewed.

2. A document highlighting the steps you took to implement the solution (adding screenshots is encouraged).

### Important notes

1. The challenge should not take you more than 5 hours to complete.
2. You should not incur any expenses.
3. If you have any questions, please contact us – this will not negatively impact your overall evaluation.

**Good Luck!**

HCS Dev Team