



Take-Home Assignment

Background

It's the Christmas season and you've been given the honorable task of distributing gifts to the teams in your department. Each team can send any representative to redeem their teams' gift. At the redemption counter, the representative has to show their staff pass as proof of their identity. Assume that each staff pass is a unique ID.

You're given a file mapping staff pass ID to their corresponding team names. For every staff in the file, they can only belong to one and only one team. This is a CSV file with the headers `staff_pass_id`, `team_name` and `created_at`. `created_at` is the timestamp when the mapping record was added. The timestamp is in epoch milliseconds.

staff_pass_id	team_name	created_at
STAFF_H123804820G	BASS	1623772799000
MANAGER_T999888420B	RUST	1623772799000
BOSS_T000000001P	RUST	1623872111000

Task

Given this information, you are to build a system using **Node.js** and **Typescript** that supports 3 functions:

1. Perform look up of the representative's staff pass ID against the mapping file
2. Verify if the team can redeem their gift by comparing the team name against past redemption in the redemption data
3. Add new redemption to the redemption data if this team is still eligible for redemption, otherwise, do nothing and send the representative away

The redemption data should at least contain the following information: `team_name` and `redeemed_at`. The latter refers to the timestamp the redemption occurred in epoch milliseconds.

You should include unit tests for your solution.

Please commit your code to a GIT repository. Do send to us the URL to it once you're done.

Good luck and enjoy!

Tips:

- It's your choice to decide how you wish to store redemption data
- Other than the usage of Node.js and Typescript, feel free to introduce any other tools/libraries/framework which you feel useful for your implementation
- Do consider your design before implementing; we'll ask this when we meet (virtually)
- A README to your code repository will put a smile on our faces. *This is also a good place to indicate any assumptions you've made about the tasks as well.*
- If you have any queries in relation to the tech assessment, can reach out to
 - auron_siow@tech.gov.sg
 - dalson_tan@tech.gov.sg
 - Satoshi_hayashi@tech.gov.sg

Deadline

Please complete the assessment **within 5 calendar days** upon receiving this email. Thereafter, you might be invited for a chat with our tech assessors to discuss your submission

Remember to

- include link to your code repository when you have completed the assignment and submit the link to your repository when you complete your assessment to Xue Ling (xue_ling_ang_from.tp@tech.gov.sg).
- title the subject of your email as **SupplyAlly_GovWallet Software Engineer Internship Tech Test Submission - Your Name** (Eg: SupplyAlly_GovWallet Software Engineer Internship Tech Test Submission – Tommy Lee).

Input files

- As attached