

Instructions for Round 2:

· Round 2 is an application building challenge followed by a review of the code written by you for the same. The objective of this round is to check your problem solving, coding ability and ability to learn & adapt to new technologies quickly.

· You are free to choose any one of the problem statements (either front end or backend) mentioned below. You can also choose 1 of the 2 backend problem statements mentioned below

We have provided broad guidelines for both the backend and frontend problem statements but we expect you to use your creativity and make the project your own. Extra credit will be awarded for your creativity.

For EXTRA CREDIT ONLY - Not Mandatory

You could also choose to build the frontend (UI) for any of the backend problems you choose or build the backend and business logic if you choose to work on the frontend problem statement

· You have till **Tuesday (18 April) 2:00 pm to submit the task. Having said that, you are free to submit your tasks before the specified deadline if you complete the task. Submit the task by filling the following form <https://forms.gle/zV5UrhSTZq8CJSdC6>**

. You are free to use any programming language and framework that you are familiar with to complete the task. You are free to explore YouTube tutorials and take inspiration from any existing websites for designing the frontend and conceptualising the workflows. **However, any form of plagiarism will not be entertained. If you are found to be guilty of any form of malpractice, your candidature will be terminated. We will also be able to deduct if you have taken help from your friends, batchmates or other developers.**

We will be able to find out if you even change the names of functions, variables, etc in the code obtained from other resources.

. Try to finish the entire task within the given deadline but if you are unable to complete it then please share the code you've written. You won't be selected or rejected just on the basis of completing this task. Even candidates who complete just

50% of the task may be selected if they perform well in the subsequent task review or code review.

. You can choose to either:

1. Build the front end for the website using HTML, CSS, and JavaScript/ any JavaScript based library. You could also choose to use other frontend libraries or frameworks, such as React Router or Redux, to manage the state of the application.

(or)

2. Build the backend & business logic using open source APIs & any technology/language you are comfortable with or build a console based CRUD application following the guidelines mentioned in any of the problem statements mentioned below.

You can choose to use a backend API to handle functionalities or build features such as user authentication, message storage, and notifications. You can also use any backend API of your choice, such as Firebase or Node.js with any database of your choice like MongoDB, SQL or PostgreSQL.

Note: Candidates who build the entire full stack application will be given extra credit.

· You are free to use any existing open source APIs or backend frameworks to make the website's backend functional but extra credit will be given to candidates who build the project end to end from scratch.

· Throughout the development process, you should follow industry best practices and coding standards to ensure that the application is maintainable, extensible, and secure. You should also document your code and provide instructions for setting up and running the application on local and production environments.

· All frontend projects or full stack projects will be evaluated ONLY if they are hosted

You can read through this document to understand how to host your project:

https://docs.google.com/document/d/1Q_307RihBGzNskpAGjcVMzreBQvaR13h0vBld2RImEI/edit?usp=sharing

Note: Any questions about hosting will not be entertained. We expect candidates to be able to figure out hosting on their own using the above document. While we recommend hosting using Vercel, you could alternatively choose to host your project using any other FREE hosting service

Please ensure that you commit your code to your GitHub repository and add appropriate documentation for the same. We also expect you to host the completed project. We will evaluate your task submission based on the GitHub Repo and the hosted project link

Share the link to your GitHub Repo and hosted project by filling the following form

<https://forms.gle/zV5UrhSTZq8CJSdC6>

Front End:

Frontend Projects will ONLY be evaluated if they are hosted properly

Build a simple library management page where

- Users should be able to see the list of books.
 - Instead of loading all the results on the page, perform paging on the list of books – either implement 10 results per page or load on scroll will be a bonus.
- Users should be able to filter the list of books based on Title, Author, Subject and Publish - date
 - User should be able to see the count of books in based on each criteria [Title, Author, Subject and publish-date]

Don't stop using your creativity to improve this page.

Back End:

Choose any one of the following problem statements

Problem Statement #1: Flight Ticket Booking

Create a web application for flight ticket booking. Use any tech stack for the backend and db. A console based application would work. Submissions with a very basic UI will be given extra marks

Type of Users

- a. User
- b. Admin

User Use Cases

- Login
- Sign up
- Searching for flights based on date and time
- Booking tickets on a flight based on availability (assuming the default seat count is 60)
- My Booking -> to list out all the bookings made by that user
- Logout

Admin Use Cases

- Login (Seperate login for Admin)
- Add Flights
- Remove flights
- View all the booking based on flight number and time

Problem Statement #2. Covid Vaccination Booking

Create a web application for covid vaccination booking. Use any tech stack for the backend and db. A console based application would work. Submissions with a very basic UI will be given extra marks

Type of Users

- c. User
- d. Admin

User Use Cases

- Login
- Sign up
- Searching for Vaccination centre and working hours
- Apply for a vaccination slot (only 10 candidates allowed per day)
- Logout

Admin Use Cases

- Login (Seperate login for Admin)
- Add Vaccination Centres
- Get dosage details (group by centres)
- Remove vaccination centres

Share the link to your GitHub Repo and hosted project by filling the following form

<https://forms.gle/zV5UrhSTZq8CJSdC6>

Submission Deadline: Tuesday (18 April) 2:00 pm to submit the task.